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PUBLICATIONS OF THE JOINT EXPEDITION OF THE BRITISH MUSEUM AND OF THE MUSEUM OF THE UNIVERSITY OF PENNSYLVANIA TO MESOPOTAMIA

UR EXCAVATIONS

VOLUME II

THE ROYAL CEMETERY

BY

C. L. WOOLLEY

TEXT

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BY THE AID OF A GRANT FROM THE CARNEGIE CORPORATION OF NEW YORK
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UR EXCAVATIONS

VOLUME II

THE ROYAL CEMETERY

A REPORT ON THE PREDYNASTIC AND SARGONID GRAVES EXCAVATED BETWEEN 1926 AND 1931

By

C. LEONARD WOOLLEY, M.A., D.LITT.

With Chapters by the REV. E. R. BURROWS, S.J.
PROFESSOR SIR ARTHUR KEITH, M.D., F.R.S.
DR. L. LEGRAIN and DR. H. J. PLENDERLEITH

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PREFACE

THE publication of this volume offers an occasion for the expression of the thanks of the Trustees of the British Museum and of the Museum of the University of Pennsylvania to the Board of the Carnegie Corporation of New York. In 1931 that Board made through the University Museum a donation sufficient to cover the cost of this and ensuing volumes dealing with the archaeological results of the Joint Expedition, the only condition being that the volumes should be produced in a form not unworthy of the importance of the discoveries made at Ur and at a price within the reach of students. For this generous solution of a problem that often weighs heavily on those institutions which finance excavation in the field the gratitude not only of the Trustees but of the scientific world is due.

Secondly, the warmest acknowledgements are due to all those, both in America and in England, who by their financial support have supplemented the grants made by the two Museums out of their own funds and so have enabled the Joint Expedition to carry on its work at Ur.

To the Director of the Joint Expedition, Mr. C. Leonard Woolley, all who are interested in the archaeology of Mesopotamia are deeply indebted for the efficiency with which he has carried out this most important excavation. He has not been without helpers, but on this point, as on others connected with the work of report and reproduction, he may be allowed to speak for himself.

GEORGE HILL

October 1933

AUTHOR'S NOTE

THIS volume is in no sense a final work of history; it aims only at giving as complete a record as possible of the Royal Cemetery. The large number of illustrations has enabled me to reduce verbal descriptions of objects to a minimum, and throughout less emphasis is laid on objects than on the circumstances which give them historic value. Theories have been put forward only where the evidence could not be fairly presented without reference to the conclusions to which it led, and some of that evidence is necessarily of an intangible sort; but the material facts whereby my own views can be checked or others evolved are here adduced in full detail.

Preliminary reports of the work done at Ur in successive seasons have been published in the *Antiquaries Journal* of London and in the *Museum Journal* of the University Museum in Philadelphia.[1] The definitive publication has been in hand for four years. Naturally it has been the work of many hands. As regards the illustrations, my wife has been responsible for all drawings of metal and other objects, types, &c.; pottery types are by various members of the Staff; tomb drawings have been taken, generally by direct tracing, from the field notes. Most of the field photographs and many of those of objects are the work of Yahia ibn Mohammed of Jerablus and have been reproduced in collotype by the Oxford University Press. The colour plates, made by Messrs. Henry Stone & Son, Ltd., of Banbury, are in some cases direct photographs but more often from the paintings made in the different Museums by Miss M. Louise Baker of Philadelphia; the majority of the latter are pure drawings, but where minute accuracy of detail was essential, as in the 'Standard', Miss Baker painted over a photographic base.

[1] For the Cemetery work *v. A.J.*, vol. viii, No. 1, p. 1; No. 4, p. 415; vol. ix, No. 4, p. 305; vol. x, No. 4, p. 324; vol. xii, No. 4, p. 357. *Museum Journal*, vol. xviii, 1927, pp. 121–57; xix, 1928, pp. 5–34; xx, 1929, pp. 7–35; xxi, 1930, pp. 81–107; xxiii, 1933, pp. 193–248.

In preparing the tabular analyses on which the chronological results of this work are largely built up I had for two summers the assistance of Mr. Mallowan and later that of Miss J. Joshua, who has also shared with me the task of proof-reading and the checking of references: to them my thanks are due, as also to the Oxford University Press for the care and help which they have never failed to give in the production of this book.

The objects found in the course of the excavations have been divided between Baghdad, London, and Philadelphia. In accordance with the Antiquities Law of Iraq the Government of the country has the right of first choice, and actually rather more than half the entire collection is now in the Baghdad Museum. To the past and present Directors of Antiquities in Iraq I give my thanks for their impartial administration of the law and their unfailing encouragement of scientific research.

For work at Ur my gratitude is due to Mr. Mallowan who for three out of five seasons helped to record the graves. Most of all am I indebted to my wife, who alone has assisted me in the field work throughout the whole of the excavations; with her I have discussed every problem that has arisen, and by her criticism and suggestion I have invariably profited.

Lastly I would express my thanks to the past and present Directors of the two Museums for having entrusted to me a work of such absorbing interest as the excavation of Ur and for the support which throughout it they have extended to me.

C. LEONARD WOOLLEY

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CHAPTER I

INTRODUCTION

THE ruins of Ur lie some two hundred and twenty miles south of Baghdad and a hundred and sixty miles from the head-waters of the Persian Gulf: about twenty-five miles to the west of them runs the low escarpment of the upper desert, a rolling expanse of gravel with limestone outcrops which sometimes rise to the height of hills; but from the top of the Ziggurat of Ur, the great brick tower which has dominated it for four thousand years, one sees nothing but the alluvial plain of the Euphrates Valley. It is a melancholy prospect. To the south the flat horizon is broken by a long ridge of wind-blown sand which emphasizes but does not relieve the desolation and by a pinnacle of mud brick rising sharply from a low and rounded base, all that is left of the Ziggurat and walls of Eridu, held by the Sumerians to have been the most ancient of their cities; westwards the dead level of sand and mud-flat stretches as far as the eye can see, only to give place to the not less barren steppe of the North Arabian desert: to the north and north-west a few low mounds hidden in the heat-haze or lifted by the mirage to an unreal eminence, Sakheri, al-'Ubaid, Rajibeh, tell of other ancient settlements of man now shrouded in dust and sand. Only to the east is there any sign of life. There, beyond the single line of the railway which joins Basra to Baghdad, the soil takes on a darker tint and there are plots of cultivated land, sparse and isolated close at hand but in the distance more thickly set, and five or six miles off begin the tiny huddled villages of the Ghazzi Arabs, a sheikh's house built of mud whose loop-holed walls with their inward-battered face and shallow buttresses are strangely reminiscent of an old Sumerian temple, and about it the huts of his clan, low mud hovels or, more often, mere tunnels of matting tied over arches of bent reed not high enough for a man to stand upright under them: far off on the horizon a straggling line of palms marks the course of the Euphrates, and from a more solid clump of dark foliage rise the minarets of Nasiriyah, the market-town and administrative capital of this poor province.

It was a very different outlook in old days. Instead of the single house built for the Expedition out of bricks collected from the ruins there was a great town. About 2000 B.C., when the present Ziggurat was a comparatively new building, the population of Ur, if we judge by the extent of the ruins, which including walled town and suburb cover an area of some four square miles of closely packed houses, must have numbered well over half a million souls; what it was more than a thousand years earlier, in the days of the Royal Cemetery, we have no means of knowing, for our excavations have as yet scarcely touched the buildings of that age; it must have been much smaller, but even so it was no mean city which, crowned by an older ziggurat, rose above its fields. In those days the river which now runs twelve miles away to the east flowed under the western walls of Ur, where seen from the air a change in the colour of the sand marks clearly the course of a bed now level

with its banks, and from it canals led out its waters to irrigate the land: clay tablets of the twentieth century B.C. speak of vegetable-gardens and palm-groves close to the city's gates, and probably the whole plain, north, south, east, and west, was fertile soil laboriously tilled and rich in those crops whose abundance was to astonish the traveller Herodotos many centuries later; traffic was busy on the roads, and from the wharves of Ur ships passed by river and canal down to the open waters of the Persian Gulf and returned with cargoes of merchandise from oversea.

All is absolute desert now, a featureless expanse of grey mud and yellow sand, the once rich soil desiccated by drought and sun, over which an unusually wet spring may throw in patches a gossamer mantle of thin dwarfed herbage, though most of it is too bitter with salt for even that ephemeral life; but generally from year's end to year's end all alike stretches blank and sterile. On the mounds, wind-denuded on their north-western flanks and with sand-drifts heaped against their lee, the litter of potsherds and broken bricks from the ruins buried below speak even more eloquently than do the barren fields of the undoing of man's works.

And with the drying up of the soil has come another change more hard to estimate. During the short winter season, the 'blue month' of late December and early January, the wind blowing from the north-west desert brings so piercing a cold that the water in the clay drinking-jars set up near our work is frozen solid; in the middle of summer the shade temperature has registered 137 degrees Fahrenheit and the dust-storms are so dense and so constant that in a bad year men cannot see the sun for six weeks on end. Had that always been the case Ur could never have been a great city; that it was great is proof that the conditions of the climate were not then the same. To-day the difference of temperature between Ur and Nasiriyah, only eleven miles away, may be of ten degrees and more, and that because round Nasiriyah there is a cultivated belt and the Euphrates flows beside it: round Ur the sand reflects the sun's rays so that a burning heat strikes up from underfoot, but cannot hold it when once the sun has gone and quickly grows cold to the touch; when all was fertile soil irrigated by innumerable channels there were no such extremes of heat and cold, it was only the dust of the distant desert that the summer winds could lift and drive across the fields, and this intolerable waste was a land in which man could live.

It was probably the changing of the Euphrates' course that brought disaster. Then as now the river bed would have been higher than the surrounding country,[1] raised by the silt which always, and especially in flood-time, the stream brings down from its northern reaches and drops where its current slackens in the flat delta, and its waters, pent in between banks which every year need to be patched and heightened, had only to find one weak spot to make a breach through which they could burst and form a new channel across the plain. That meant the ruin of the whole system of canals with which the prosperity of the countryside was bound up, and it must have come at a time when men were too poor to build up the vast organization afresh:

[1] The plain of Ur lies about two metres below the level of the bed of the river.

the parched land ceased to repay the labour of planting, and though perhaps for a time the religious associations of Ur kept the city artificially alive the population dwindled and finally the last of its inhabitants turned his back upon its silent streets and empty temples. There is nothing in written history to show when it was that the disaster occurred. Cyrus king of Persia was the last monarch to restore the city's monuments, at the end of the sixth century B.C., and he would hardly have been at pains to do so if it was already becoming uninhabitable, but the end cannot have been very far off; the latest date recorded on any tablet found by us is the twelfth year of Alexander the Great, and after that there is no mention of Ur at all; later in the Greek period the site seems to have lain deserted and its buildings were crumbling into heaps.

In 1850 Mr. W. K. Loftus, a member of a Turkish Boundary Commission, visited and was interested by a mound which the Arabs called al Muqayyar, 'the mound of pitch', because of the bitumen used as mortar between the bricks of which it was built, and on his recommendation the British Museum decided to excavate the site. Mr. J. E. Taylor, H.B.M.'s Consul at Basra, was entrusted with the task and in 1853 and 1854 carried on work there. Such small antiquities as a southern Babylonian site would normally produce seemed a poor reward for labour compared with the colossal bulls and stone reliefs which Layard was unearthing at the same time in Assyria, and the expedition was closed down; but not before Taylor had recovered from the corners of the great ruin which was the Ziggurat the foundation-cylinders of King Nabonidus whose inscriptions proved that the Mound of Pitch was none other than the site of Ur.

Then for more than half a century there was a respite and Ur was left again to the jackals which have their earths in the top of the Ziggurat and the wild pigeons which nest in the vent-holes of its brickwork. But in the meantime the outlook of the scientific world had changed and the early history of the Sumerians was judged to be not less interesting than Assyrian sculpture: when in the Great War British troops occupied Mesopotamia the British Museum seized the opportunity to resume the work so long interrupted, and the late Dr. H. R. Hall was sent out to take charge of the excavations. Hall's most important success was at al-'Ubaid, which he discovered,[1] and at Ur also his results were encouraging enough to convince the authorities of the Museum that the work ought to be continued, but reasons, chiefly of finance, prevented anything further being done. Then, in the spring of 1922, the late Dr. G. B. Gordon, Director of the Museum of the University of Pennsylvania, approached Sir Frederic Kenyon with offers of collaboration and the Joint Expedition of the two Museums was constituted and in the following autumn took the field and built its quarters on the site.

To-day, after eleven successive seasons of excavation, Ur presents a very different spectacle to what it did. Great spoil-heaps fill the hollows and run out far across the level, trenches and cross-cuts mark the line of the town wall, and in the centre where was the Temenos or Sacred Area the old mounds have given place to a maze of walls and well-laid pavements of burnt brick.

[1] See the first volume of this series, *al-'Ubaid*, by H. R. Hall and C. L. Woolley, 1927.

The Ziggurat stands out not as the shapeless heap it was but as a four-square tower whose brickwork might be that of yesterday and its triple staircase still mounts as high as the lowest platform, 15 metres above ground; at its foot are walls decorated with half-columns and pilasters, here an arched doorway still intact, there the altar and laver in the paved courtyard of a temple, the high statue-base in the sanctuary niche, the temple kitchen with its cooking-range complete, and elsewhere long flights of brick steps lead down to the great vaulted tombs of the historic kings of the Third Dynasty of Ur. These are buildings whose plan and meaning any one can see; we know their date, the names of the rulers who built them and of the gods to whose service they were consecrated, and though they lie in ruins and though the wind-blown sand begins again to deface their outlines, yet there is plenty surviving to strike the imagination and to evoke the past, and the visitor here may feel that for everything he may be told there is concrete evidence before his eyes.

But with the cemetery it is otherwise. Seen from the air (Pl. 2) its site is a patch of black shadow from which radiate the spoil-heaps where the trucks have dumped their contents along the ever-lengthening lines of light railway: from the ground, as one walks across the ruins of the Temenos one comes suddenly upon a precipice edge and looks down (Pls. 3, 4, 8 *b*) over a vast clearing some 70 metres by 55 in extent, dug down to a depth of 10 metres and more, a pit with sheer walls of earth and, leading into it from the spoil-heap heads, the earth-cut steps up and down which the basket-men used to pass (Pl. 7 *a*). Because the graves were not all at the same level the bottom of the pit is irregular; here and there a block of earth has been left upstanding, elsewhere a steep slope follows the contour of the ancient rubbish-mound, and in places where we have dug through the cemetery in search of older remains there are shafts that go down 20 metres below the modern ground surface: conspicuous against the background of grey earth are three or four great piles of unhewn blocks of white limestone and beside them can be made out walls of the same limestone, very roughly laid, and a sharply curved shadow draws the eye to what is indubitably a builded arch. What there is is important enough, the cement-faced walls and broken vaults of the great chamber tombs, the blocked doorway with its intact arch whose discovery changed the history of architecture, the low squat dome of what must be the oldest of man's buildings still roofed and complete, but such things are few and they are all that is left of the Royal Cemetery. Sometimes in the face of the earth cliff (Pl. 8 *a*) there can be seen a clay pot or the broken end of a coffin which belonged to a burial lying on the cemetery's verge and has been noted and preserved *in situ*, but apart from such there does not remain a trace of all the eighteen hundred private graves which were found within the limits of the pit's area; each of those in its turn was cleared and recorded and the objects lifted and carried off, and then it was dug through in order that the next below it might be brought to light; it had never been more than a hole in the ground and there was nothing about it of a nature to survive, and now the earth in which it had been sunk had to be cut away. Hamoudi's pious gratitude did indeed preserve the grave of Mes-kalam-dug, a mere rectangular

depression in the top of an earth column (Pls. 5, 6), and one can still trace the outlines of the Great Death-pit (PG/1237; cf. Pl. 4) though the mud plaster is crumbling and the sunken floor is hidden by sand-drifts, but the only tangible memorials to which one can point are the few stone- or brick-built chambers of the Royal Tombs. It is difficult to believe that out of this sorry-looking quarry came such treasure.

Grave-digging is necessarily destruction, and because that is so the grave-digger incurs a heavy responsibility. The buildings which we unearth remain as a visible record or, if need were, could be dug out a second time to furnish evidence overlooked or misinterpreted, but with a cemetery when once the work is done it is impossible to check or amplify the observations made at the time; consequently the record must be full, and if others are to have fair grounds for forming their own conclusions as to the meaning of things it must be fully published. Should this book seem to some to be over-burdened with detail, that is its justification.

The Royal Cemetery at Ur was discovered in the autumn of 1922, in the first week of the Joint Expedition's work at Ur. In 1919 Hall had cleared part of the Ur-Nammu palace situated towards the south-east end of the (late) Temenos enclosure, and pushing his excavation up to the boundary or terrace wall which enclosed the palace had found, loose in the soil, a clay dedication-cone recording the building of a temple of Nin-Maḫ, from which he concluded that the temple should be found a little farther to the south-east. When the Joint Expedition started two sites were selected and a trial trench was dug across each; one of them ran south-east from the terrace wall of the palace and was intended to settle the question of the Nin-Maḫ temple, the other tapped a low mound north-east of the Ziggurat. The latter gave us the temple E-Nun-Maḫ. The first trench encountered no walls of any sort, but produced at varying depths groups of clay and stone vessels, bronze tools or weapons, beads and ornaments of carnelian, lapis lazuli, and gold; though no bones were noted we obviously had to do with graves, and graves of a rich sort.

Having established this fact I stopped the work and transferred all the men to the E-Nun-Maḫ site. In the first place our diggers were raw and clumsy, and for the clearing of a cemetery skilled labour is essential; again, we were ourselves new to the country and had not had time to secure proper influence over the men, for whom the temptation of small gold objects was irresistible —a large number of the gold beads actually found were promptly stolen and only recovered some days later when rather extravagant baksheesh had convinced the thieves that our camp was the best market. But the decisive argument for postponing work on the graves was this; very little indeed was known of Mesopotamian archaeology, so little that the objects from these graves were vaguely dated by such authorities as I could consult to the Neo-Babylonian or, as more probable, to the Persian period,[1] and though I could form no alternative theory I felt that this was doubtful in the extreme. Our initial programme had been to excavate the Sacred Area and work out its topography at different periods; that ought to give us, what with the

[1] As such they were published in *A.J.* iii, Pl. xxix.

buildings and the small objects which they were bound to contain, at least a skeleton of archaeology, some kind of sequence which would enable us better to fix the dates of such things as the contents of graves which might in themselves afford very little evidence. The more rich the cemetery promised to be the more necessary was it to leave it alone until external evidence had given us a more or less definite chronology.

The excavation of al-'Ubaid, concluded in the winter of 1923–4 (*Ur Excavations*, vol. i), laid the foundation of our knowledge of the earlier period; the clearing of many buildings at Ur during the course of the next few years taught us a good deal about the minor arts of the historic ages. It was with much more confidence that we resumed in the season 1926–7 the work which we had abandoned in 1922. By that time we had also a body of well-trained diggers, and the position of the Expedition was such that the richest site could be left throughout the summer with the assurance that it would be undisturbed by plunderers during our absence, a most important factor, as events proved, for the clearing of the cemetery kept us busy during five seasons.

In the season 1926–7 rather more than two months' work was done on the cemetery area, about 100 men being employed. My wife was responsible for type drawings, &c., and helped in the field work; my general archaeological assistant was Mr. M. E. L. Mallowan; such inscriptional material as was found was dealt with by Father E. Burrows, S.J. Work started with trenches run out from the original trench which in 1922 had led to the discovery of the graveyard, and an area was cleared which extended from the royal tomb PG/580 to a point against the south-east wall of the Temenos of Nebuchadnezzar not far from the south-east gate. Here on the outskirts of the cemetery the graves were for the most part comparatively poor; owing to the denudation of the soil at the south-west the more high-lying graves had come to the surface and had been plundered or destroyed and there was no great depth between the modern surface and the bottom of the grave stratum. Graves of all types, including 'burnt burials', were found, and it was already possible to distinguish the three main periods of the cemetery, though I was led by the discovery of the cylinder seal of Nin-Tur-Nin the wife of king Mes-anni-padda to a wrong dating of the second period, but of royal graves only one, PG/580, was found, and even so its excavation was left unfinished, for the grave was discovered at the very end of the season and the gold dagger, its most important object, only came to light on the very last day; the stonework of PG/777 was found, but its clearing was postponed till the following season. Other objects dating from that year were the fragmentary limestone plaque U. 8557, the shell inlays U. 7900 and 9112, the very fine gaming-board U. 9000, the gold diadem U. 8173, the cylinder seals of Sargon's daughter, the silver spouted bowl U. 9364, and the dagger and toilet-set from PG/580.

In the season 1927–8 the first nine weeks were spent on the cemetery, 130 men being employed. The staff was the same as in the previous year and the duties of the members were also the same except that my wife took on the complicated task of plotting in the graves on the general cemetery

plan. The richness of the discoveries entailed very heavy work, and several times we were obliged to turn our workmen on to the clearing of surface soil in another part of the site so as to give us time to catch up with the results already obtained. Only some three hundred graves were dug as against six hundred in the previous year, but these included the royal tombs PG/777, PG/779, PG/789, and PG/800 (Shub-ad's tomb), as well as the grave of Mes-kalam-dug, the contents of which both by their number and by the difficulties involved by the removal of many of them kept the entire staff busy. It was therefore in 1927–8 that there were found many of the outstanding objects of ancient Sumerian art, such as the 'Standard', the golden helmet, the gold vases of Shub-ad and her head-dress; not less interesting in another way were the proofs obtained for the practice of human sacrifice on the occasion of a king's death and the evidence of advanced architectural knowledge in the fourth millennium B.C.

In the season 1928–9 work on the cemetery began in October and was carried on until nearly the end of January. Owing to illness Mr. Mallowan did not join us until early in December, and in his absence my wife, in addition to doing all the drawings, was my sole field assistant, and as Mr. Mallowan on his arrival was set to other work she and I shared the whole of the cemetery work of the year. The number of workmen employed was about 140, and four hundred and fifty graves were recorded, amongst them the royal tombs PG/1050, PG/1054, PG/1236, and PG/1237, 'the Great Death-pit', while PG/1422 gave us our first example of those 'intermediate' graves which we were subsequently able to assign to the period of the Second Dynasty of Ur. In their richness and variety the objects found vied with those from the previous season.

In 1929–30 the greater part of the cemetery work was entrusted to Mr. Mallowan; I supervised generally and took charge of the excavation of such royal tombs as were found, and my wife continued the plan of the graves, but the majority of the 350 graves were recorded by Mr. Mallowan. The royal tombs PG/1618, PG/1631, and PG/1648 were small and not of great interest, and the bulk of the graves here on what was evidently the outskirts of the old cemetery were poor; far the most important discovery was that of the stratification above and below the grave belt which enabled us to fix the First Dynasty of Ur as the *terminus ante quem* for the early cemetery and to define more closely its relation to the older Jemdet Nasr culture; at the same time the excavation of the 'Flood Pit' gave us a pre-cemetery stratification which confirmed and added to the conclusions obtained from work in the cemetery area.

The work of four seasons seemed to have exhausted the cemetery site, or at least to have left nothing that would scientifically repay further labour; that there were more Sargonid graves lying to the south-east of the excavated ground was certain, but their interest was limited and in that direction, as in the north-west and south-west, the boundary of the older cemetery had been reached. Consequently in 1930–1 the site was abandoned.

In the summer of 1931 while working over the material for the present

publication I realized that certain impressions formed during the progress of the excavation were confirmed by internal evidence; at the north-east end of the cemetery area there was a small group of homogeneous graves which belonged to a period intermediate between the two main cemeteries and was probably to be assigned to the Second Dynasty of Ur; it was possible that there might be found amongst them royal graves of that unknown period. Accordingly in the winter of 1931–2 work was resumed on the old cemetery site. On this occasion I had a new staff with me, and while my wife as usual helped in the field work and the drawings, Mr. R. P. Ross-Williamson as general assistant did part of the recording and Mr. J. C. Rose, the architect of the Expedition, worked out the plans and sections of the grave-shafts. The graves did not contain any such treasures as had made famous the royal tombs of the older period, although the discovery of an Indus Valley seal in a dated setting was a precious document for the relative chronology of the Euphrates and the Indus civilizations; but the work was of very great importance as confirming the sequence and supporting the chronology of the long period of Mesopotamian history between the earliest of the royal tombs and the reign of Sargon of Akkad.

Seeing that for all five seasons my wife was working with me on the graves and Mr. Mallowan for three, while the whole of the epigraphic work was done by Father Burrows, uniformity of method was obtained throughout and there was every chance of checking former deductions in the light of new discoveries. During the whole time, too, Hamoudi—more formally known as Mohammed ibn Sheikh Ibrahim, my foreman at Carchemish in pre-War days, was foreman in charge of the cemetery work; of his skill in excavation, his energy, and his tact in managing men too much could not be said. He was assisted by his sons Yahia, Ibrahim, and later Alawi, all of them admirable foremen; Yahia also acted as photographer, and nearly all the field photographs reproduced in this volume were taken by him.

Questions are often asked as to the quality of the Arab diggers and whether they take an intelligent interest in the work they have to do, and this touches on a matter of great importance for the successful conduct of the excavations. As a mere labourer the Iraqi is excellent material but requires a great deal of supervision and encouragement, in fact the quality of the workman is in direct proportion to that of his foreman: given a man like Hamoudi, who combines tremendous driving power with a very real sympathy and a sense of humour, the amount of work that can be got out of the Arab is remarkable. When as sometimes happens it is merely an affair of navvy-work, shifting dirt which has to be excavated and carried by trucks to a distance of, say, a hundred and fifty metres, the daily output should average rather more than a cubic metre of hard soil, something above three-quarters of a ton, for every man employed; i.e. the basket-man will carry between a ton and a quarter and a ton and a half in the course of his eight and a half hours' day. This is much more than would be expected of European labourers. More often the demand is for careful and therefore slower work, and when graves are being dug the amount of earth moved may be very small indeed, and skill and in-

telligence, not energy, are the requisite qualities. It would be absurd to ask for a scientific interest in the work from men so ignorant as the Arabs of southern Iraq; they have no historic background, not even a tradition that goes back for more than two or three generations, and neither names nor dates can mean much to them; if they are pleased to recognize amongst the antiquities unearthed anything that seems familiar, that reminds them of what they do know to-day, it is because they are dealing with a world which is for the most part so impossible to understand. Of course their main incentive is money, but they can be taught to take a more or less disinterested pride in doing a job well—that is for them a totally new experience, but they appreciate it, and a word of praise or a small reward for good work irrespective of finds has a great effect: they know that our object is not treasure-hunting but a search for some mysterious knowledge, and a workman digging in a barren spot where the chances of baksheesh are nil may be heard to comfort himself with the muttered phrase 'this is in the interests of science', not knowing what science is. The best of them acquire a very great manual dexterity in the use of the entrenching-tool and the knife and will seldom do damage to the most delicate object (there is no reward for an object broken by the digger); they will call the neighbouring pick-men in to discuss the meaning of a change of soil and will be ready with theories based for the most part on an extraordinary visual memory of what has been found in past seasons—some will even identify the name on an inscribed brick or by the style of brickwork date a building.

But this is the result of years of training; the raw material with which we had to deal when excavations started was far from promising. At the beginning of our first season Hamoudi had been instructing a man in a trench where a building was just coming to light, and handing back to him the entrenching-tool with which he had cleared part of its face told him to work along following the wall; quite blankly the man asked what a wall was, and on being told that it was the side of a house built of bricks inquired with equal innocence, 'What is a brick?' It was difficult to realize how ignorant were these dwellers in reed huts, but the incident was typical. Obviously with such men as these there could be no question of excavating graves; they had to be trained, and the training was a long and for the foremen a heart-breaking task: but by the time we started work on the great cemetery we had a thoroughly skilled and capable nucleus of men to whom, under Hamoudi and his sons, success was due.

Owing to the need of very careful supervision and detailed recording, the number of men employed at any time on the cemetery site had to be limited and the maximum at work was a hundred and fifty. These were divided into gangs of five or six men, the most experienced being the pick-man working with an Army entrenching-tool (the ideal tool for the purpose) and having under him a spade-man and three or four basket-men to carry the earth to the wagons of the light railway. To each gang was assigned a rectangular plot measuring some three metres by two—this might be increased where the site was not very promising—and everything found within that area was put to its credit; however deep they might dig, the limits of their 'pitch' had to be

observed or else friction with their neighbours would ensue. Work went down vertically from the surface and care was taken, if necessary by the temporary shifting of gangs, to ensure a fairly uniform level at all times over the whole area under excavation; this made it easy to obtain the right relation between adjacent objects and facilitated the recording of depths. Strict orders were given that nothing was to be moved; as soon as a pick-man saw signs of any object other than broken pottery, and especially of any metal, he had to stop work and report to the foremen; anything such as a hole in the earth or a change in the colour or texture of the soil had also to be reported at once. Throughout Hamoudi was foreman in charge, with one or two of his sons to assist him; on receiving a report from a pick-man one of them would go to the spot, take the entrenching-tool, and do enough work to enable him to see what the object might be; if he considered it of any importance he reported to myself or one of my staff and we would make the requisite notes and either give instructions or, if necessary, take over the work. Of all the more valuable objects recovered from the cemetery there is scarcely one that was not finally cleared and lifted either by one of ourselves or by the foremen acting under our immediate orders. On a site where so much gold was being found, and that generally in the shape of small objects easily removed and concealed, every precaution had to be taken against pilfering on the part of the workmen. For every object important enough to be brought to the house for registration a reward was paid to the finders, and although in the case of gold it was impossible to follow a common rule whereby the sum given is equivalent to the intrinsic value of the metal—our funds would not have run to such an outlay—the reward for gold was always on a scale which the men would regard as generous. For everything found within the area allotted to a gang the baksheesh was divided between the workers in the gang, the pick-man, who normally was the actual discoverer, getting the lion's share, the second share going to the spade-man, and to each of the basket-men a smaller proportion; should one of the latter discover in his basket after leaving the pitch an object which both pick-man and spade-man had overlooked, the whole of the reward went to him. The latter rule ensured constant alertness on the part of the basket-men, whose mechanical task would otherwise have dulled their attention, and so prevented the loss of small antiquities; the normal reward divided amongst the men was a double insurance against theft: not only did it make it worth the finder's while to produce anything that he brought to light, but if he stole he would be stealing not only from the Expedition but from his fellow members in the gang who ought to have shared in the proceeds. No Arab trusts another, and we were careful to see that the members of a gang were never relatives but, if possible, enemies of each other, and therefore every workman was surrounded all day long by eyes suspicious of his every movement. In order to get the best labour and to secure the return season after season of our trained men we were paying a wage well above the local rate, from fifty to a hundred per cent. more than what an agricultural labourer could earn; a position 'on the book' was eagerly sought and to lose it was a disaster. Taking it all in all theft was too

risky a game to be really worth while; the foremen's supervision was very thorough, and the workmen believed it to be even more omniscient than it was, and the popularity and respect which the foremen had earned removed one incentive to dishonesty which is often paramount, the desire to satisfy a grudge: and it would be doing the workmen an injustice not to recognize that many of them at least did develop a sense of loyalty and goodwill which was our best safeguard. After the first week of the first season, when pilfering was rife, there have been in ten years only three known cases of actual stealing in the field, and in one of them the thief was only trying to cheat his fellow workmen and brought me the stolen object, pretending that it had been discovered by him accidentally in another part of the site, while in both the other cases information was given by the other workmen and the objects were recovered. It would be idle to assert that nothing has ever been stolen from Ur, but we have never heard of anything being stolen and certainly can say that theft has been reduced to a minimum. For the immunity of the site credit is largely due to Sheikh Munshid ibn Hubaiyib, within whose tribal area Ur lies. By an arrangement made in 1922 and approved by the Iraq Government he assumed responsibility for the safety of the Expedition when it was in the field and for the safeguarding of the house and site during the summer months; in return for a fixed payment made to him he supplies such guards as he may consider necessary and backs them with the moral authority of himself as tribal chief. How real is the responsibility which he assumes and how efficacious the authority he wields was proved in 1927. At the very end of the season we were excavating the royal grave PG/580 and small gold objects were turning up freely every day; on the last day of all the gold dagger (Pl. 151) was found. The Sheikh was sent for and shown the spot—a sheer face of earth about seven metres high at the foot of which the dagger had lain—and was warned that that earth was full of gold and only needed to be scratched with the fingers for treasure to appear; in confirmation of this the earth face was scratched and there duly fell out two or three gold beads. He was told that for the next six months, during which we should be absent, no one was to touch the place, and he confidently assured us that no one would. No extra guards were put on duty, but he kept his word; when we returned the face of the cutting was, as our secret marks proved, intact, and within half an inch of its surface the gold began again. That the treasures from the tomb of Shub-ad, from the 'King's Grave', from the grave of Mes-kalam-dug, and from many others of lesser note could be kept in the Expedition house in the desert without the protection of a steel safe or even of a locked door, while the whole country-side was agog with the scarcely exaggerated report that our rooms were piled high with gold, is another testimonial to Sheikh Munshid's integrity and to the hold he has over his people. The Arabs of southern Iraq enjoy a bad reputation for dishonesty, but we at least have little cause to complain of them.

The Site of the Cemetery

The Royal Cemetery lies towards the south-east corner of the Neo-Babylonian Temenos, mostly inside but partly beneath and outside the double wall of mud brick built by Nebuchadnezzar round the Sacred Enclosure of his time. To the south-west its natural limits have been found; along the north-west it has been cut through by the foundations of the terrace wall which upholds the E-Ḫursag palace built by Ur-Nammu and Dungi in the twenty-third century B.C.; on the north-east its boundaries are set by another Third Dynasty building, the great tomb of Dungi and Bur-Sin, by the construction of which such graves as had once occupied its site were destroyed and those neighbouring on it were plundered; on the south-east, just beyond the Neo-Babylonian wall, the cemetery seems to have come to an end with the slope of the old ground-surface down to a canal.[1]

Before excavations began the ground-surface, falling away sharply from the high ridge which covered the range of Third Dynasty and Larsa buildings running parallel with the south-west wall of the Temenos, sloped gently and uniformly to the north-east with a less-marked declination to the south-east—a general low-lying level scarcely interrupted by the slight mound of E-Ḫursag. The foundations of the Neo-Babylonian Temenos wall implied that much the same slope characterized the terrain in the sixth century B.C., but the entire absence of building-remains of that date inside this part of the Temenos can only be due to the fact that the wall served as the retaining-wall of a terrace on which those buildings stood and whose denudation was responsible for their disappearance: the filling-in of such a terrace accounted for the partial preservation of E-Ḫursag where, by exception, we did find Neo-Babylonian walls, their foundations going down to and often below the pavements of the Third Dynasty structure. Underneath and immediately outside Nebuchadnezzar's wall, from the east corner of the Temenos for a distance of sixty metres and more along its north-east side, there are house remains of the Kassite and Larsa periods; beyond the corner on the south-east side these thin out and fail altogether. The slope of the ground from south-west to north-east was therefore more pronounced in Kassite and Larsa times than in the sixth century B.C. This is still more the case for the Third Dynasty. The palace of E-Ḫursag stood on an artificial terrace whose buttressed retaining-wall, running south-west by north-east, has outside it a brick conduit which gives an approximate level for the area to the south-east, a level *c.* 1·50 m. below that of the E-Ḫursag pavements. On the south-west the high level of Dungi's Nimin-Tabba temple is continued by a range of chambers which though stepped down towards the south-east stand none the less four metres above the modern surface at the east angle of the Temenos, and the Third Dynasty level at the latter point is accurately given by the court-yard floor of Bur-Sin's tomb which is three metres lower: we have then to assume for that period a slope, presumably terraced, from south-west to

[1] This is true of the Earlier Cemetery, which stopped well within the limits of our excavation; the later graves at a higher level did continue somewhat farther to the south-east.

north-east with a total vertical interval of seven metres. The foundations of a very heavy mud-brick wall of Bur-Sin running parallel to Ur-Nammu's terrace wall and itself obviously the enclosure-wall of a public building shows that the area was then occupied by buildings which had nothing to do with the cemetery (*v.* ground-plan, Pl. 274).

The present ground-contours, therefore, have very little relation to those of early historic times; the whole history of the site witnesses to an alternation of artificial raising and natural denudation which together have resulted in modern conditions. The Third Dynasty builders and the Larsa builders after them dumped vast quantities of rubbish—broken brick and pottery—over the low ground to the north-east to level it up for their foundations; rain and weather have scooped out the high ground which once extended north-east from the Nimin-Tabba range, until at the foot of an exaggerated slope the wall-foundations even of the First Dynasty of Ur dwindle to nothing and the exposed soil represents a surface-level of a period earlier than 3000 B.C. (see section, Pl. 272). At the limits of the cemetery in this direction the old graves lay almost at the modern surface, the earth in which they were dug having been denuded away: even the deep-laid foundations of Nebuchadnezzar's wall, cut right down into the cemetery level, had here suffered so severely that the plan of the south-east gate could be only approximately traced.

Before going farther I should perhaps sound a note of warning. The relation of the cemetery to the Temenos as it might appear from the ground-plan is deceptive, and no theories can be based on it. The Neo-Babylonian Temenos is of course ruled out of consideration both by its date and by the fact that it runs across the cemetery with an obvious disregard for it. The Third Dynasty comes closer to the cemetery in point of time, but we do not know what the limits of the Third Dynasty Temenos were: it might be thought that the terrace wall of E-Ḫursag marked its south-east end, and in that case the cemetery would indeed lie just outside and as close as might be to the Temenos wall: but that this is purely fortuitous is proved first by the wall itself being cut ruthlessly through the graves, secondly by the fact that the building of the tombs of Dungi and Bur-Sin was accompanied by yet more wholesale destruction and robbery, and lastly by the existence of a Third Dynasty building (represented by Bur-Sin's wall and by a few terra-cotta drains) immediately over the cemetery: and both this building and the Dungi and Bur-Sin tombs may, for all we can say, have been inside the Third Dynasty Temenos. A religious connexion between the Temenos and the cemetery could only be argued if we knew something definite about the Temenos buildings contemporary with or older than the graves: unfortunately we know virtually nothing. Ziggurats, one as old as the First Dynasty of Ur and one older than our Royal Tombs, stood in the position later occupied by the Ziggurat of Ur-Nammu; scanty remains of First Dynasty buildings underlie the Gig-par-ku of Bur-Sin and are found just inside the 'Cyrus' gate of the Temenos; and houses of the prehistoric town, with something in the nature of an enclosing wall, are found immediately to the south-west of the

cemetery limits: we can assert, as will appear presently, that the cemetery lay outside the contemporary town, but whether or not it bore any relation to the sacred buildings of that town we cannot say at all.

Returning to the physical peculiarities of the cemetery area, the explanation of the irregular contours described above was established early in the course of our digging. The graves were made in the heaps of rubbish thrown out from the prehistoric town.

The character of the soil was of course clear from the outset. In 1926–7 we found that the graves of the main (early) cemetery were dug into a rather dark grey earth full of pottery, &c., and containing in its lower levels many crudely modelled clay figurines of men and animals; below this came a stratum of a deep-red colour resulting from decomposed brick and pottery into which the graves scarcely penetrated, so that by following it we could exhaust the cemetery; the red stratum, which represented the surface of the dump at one period, rose almost to modern ground-level at the south-west limits of the cemetery and thence ran steeply down to the north-east, its surface being humpy and irregular. It was peculiarly distinct because it lay below the graves. Above it the graves had been dug so close together and the soil in most places had been turned over so many times that its original stratification had been obliterated; but towards the end of our work we came upon more satisfactory evidence. In excavating the royal tomb PG/777 we exposed the face of the original pit dug to receive the stone tomb-chamber, and on this face the strata stood out with astonishing clearness (see Pl. 23 *a*); even in a photograph there can be seen the successive layers of rubbish which composed the mound and the sloped lines of its fall. A sectional drawing of this part of the cemetery area is given on Pl. 271; on Pls. 270 and 9 *a* are given another section and a photograph of the stratification farther to the south-west; the detailed study of these must be reserved for another place, but their bearing on the topographical contours of the site can be summarized here.

The prehistoric town lay on an island in the original marsh just to the south-west of what was later the cemetery site, and from the beginning the townspeople brought their rubbish and tipped it here beyond the limits of the houses first into the water and then, as that dried up, in a great heap which ran out promontory-fashion from the town into the marsh. When the Flood came it threw up against the side of the town mound and against this breakwater of heaped rubbish a huge bed of silt: the silt is shown on the section on Pl. 272; the section on Pl. 270 is taken along and through the rubbish-mound, which had already attained the height that the silt was to assume and therefore contains no such diluvial stratum. After the waters had subsided and Ur began to recover from the disaster the old habit was resumed and more rubbish was dumped on the top of the old piles and on the silt bed which now enlarged their area; once, for a short period, the town itself outgrowing its boundaries pushed out in this direction, and house remains are found extending over the Flood deposit; but very soon these buildings were abandoned and the town fell back within its old limits, and thereafter fresh

mounds of rubbish were piled over the waste ground. A relative date for the period of expansion is given by the numerous written tablets and seal-impressions found in the ruins of the houses; these take their place on grounds of style between the tablets of Jemdet Nasr and those of Fara, and Father Burrows suggested for them a maximum date of about 3750 B.C. In the course of time the new rubbish-mounds attained a considerable height, in some places of more than twelve metres, and covered an area much larger than that of the promontory of refuse from the earlier town which formed their nucleus; but throughout they retained their character as mounds, and the general slope from the town's outskirts to the canal which ran roughly parallel to the line of the north-east and south-east walls of the later Temenos had its surface all broken up into hillocks and hollows.

The section on Pl. 270 is divided into two by a vertical line which corresponds to the corner of the trench dug by us, and the part of the section to the right of that line is at right angles to the part on the left; from this point the strata slope down in two directions, more violently (on the left) towards the canal on the south-east, more gently (on the right) with the general fall of the mounds in a north-easterly direction: the strata are those of the oldest rubbish-promontory, but the upper part of the section on the left shows that at a later date the same general configuration held good. The section on Pl. 271 illustrates the south-easterly slope of all periods from the wall of the prehistoric town: digging behind the wall we found no more slanting rubbish-strata but horizontal levels with successive house-remains; the distinction between the town site and the mounds could not be more clear than it is.

At a certain period, therefore, we have to imagine the town standing on an elevation made up by the ruins of many generations of buildings, its limits well defined in this direction either by a town wall or by the continuous outer walls of its extreme houses, and outside it an expanse of waste hummocky ground sloping north-east and south-east to the canal. This waste ground was used for the cemetery.

Early in the course of our excavations we were able to recognize a fact which the ground-plan of the cemetery (Pl. 274) alone makes fairly obvious; the confirmation of it depended on detailed work which could only be done later and is discussed in another chapter (p. 24), but the fact should be noted here. The nucleus of the cemetery is the royal tombs. The earliest of these was the first grave to be dug into the old rubbish-mounds. This set a precedent which was followed for other members of the royal house or houses, and in time there was a double row of such tombs, all more or less similarly orientated, running across the waste land from south-west to north-east: but from the outset the graves of private individuals began to encroach on the royal burying-ground. A familiar sight in modern Moslem countries is the little domed brick building which piety has set over the tomb of some local saint or holy man, and clustered round it the headstones and mounds of lesser men who have been buried under the saint's protection and as near as may be to his tomb. The ground-plan of the ancient cemetery at Ur shows that there a similar piety had led to the same grouping of graves round the

royal tombs: at first they seem to have formed a ring centred on the funerary chapel which marked the burial-place of the king; gradually, perhaps as supervision relaxed, the graves invade the royal shaft, closing in on the centre, and the later graves of the old series are dug straight down into the filling of the shaft as if the desire to be in holy ground had overcome all regard for him who made it holy.

Of course the making of so many graves was not without effect on the ground contours. The completion of a royal tomb would result in a patch of flat ground round the chapel; the constant disturbance of the soil meant a rise in level, and it is likely that a certain amount of rubbish continued to be thrown out on the cemetery's outskirts; the fact that there is a rise in the level of the individual graves which roughly corresponds to their date makes the rise in general ground-level certain; but all this tended not so much to flatten the surface as to make it even more irregular.

Private burials went on for very many years after the last of the royal tombs had been occupied. In an area so limited they could not all be put side by side, but one grave was dug in ground already containing others. Where the interval of time between two such burials was long enough to allow of a fair rise in the ground-level, or where the new grave happened to be more shallow than the old, the old was undisturbed and the two graves are found superimposed; more often the diggers of the new grave cut down into the old and stole or scattered its contents. The soil which we excavated was full of the relics of graves so plundered and destroyed—fragments of reed matting, a few scattered bones, broken pots, &c.—and it was impossible even to record more than half of the graves which had once existed; the original number must have been twice if not three times that of which the evidence was sufficient to be noted. Yet in spite of all this destruction graves recognizable as such were found lying five and ten and even twenty deep. In time there was no room for any more burials and the cemetery fell into disuse.

When this happened—shortly before 3000 B.C., as will appear later—something else seems to have occurred which broke the thread of tradition and destroyed the sentiment attaching to the site, for the old habit was resumed and rubbish was once more thrown out over the dishonoured graveyard. For three centuries or more the area lay waste, and if in the early days any burials still took place here they were probably those of foreigners or slaves whose mortal remains deserved small respect. In one respect, however, the new conditions did not reproduce the old. The rubbish of the original mounds was, as has been said above, the mixed refuse thrown out from the private houses and streets of the town; the rubbish which directly overlies the graveyard is different: in places it is the grey mud which results from decomposed mud brick, a mud containing few objects other than small fragments of pottery, in one place it is white lime and ashes, builders' rubbish, and in part it consists of masses of broken pottery and clay jar-stoppers bearing seal-impressions which are curiously uniform throughout. The actual stratification will have to be discussed later (p. 218); the immediate point of interest is that the pottery and seal-impressions must all have come from a single

royal building which presumably stood close by on the edge of the town, a building of Mes-anni-padda, the first king of the First Dynasty of Ur; either the use or the destruction of the building set the example for the renewed dumping of rubbish on the cemetery site. Wherever we can distinguish this stratum we have the ground-surface of the old cemetery in its latest stage. The dumping continued and the ground-level rose again, but the accretion was far less rapid than before, and at the end of three hundred years the maximum depth of the new deposit was three metres only and over much of the area no more than a metre. Dug into and through this deposit we find graves of a new series. Where it was shallow they have gone down into the old levels and have destroyed old graves, confusing the stratification; where it was deep they have not pierced it and we find between the older and the later cemetery the 'barren stratum' which was recorded in the first season of our work on the graveyard. The 'barren stratum' gave us our first proof that we had to deal with two cemeteries instead of one; the examination of the graves so distinguished set up a criterion which could be applied to other graves for which stratification supplied no dating evidence; for the two series showed a marked difference in their grave furniture. This criterion of style was the more welcome because levels were in many cases absolutely misleading: since the graves were dug into the sides of the mounds in which the older graves lay buried, a new grave set near the foot of a mound would be positively lower than a grave of the old series lying quite close by but dug from a point higher up on the mound's slope; unless some idea of the original contours could be recovered confusion was only too likely to result, for positive measurements taken either from the modern surface or from some arbitrary base-line such as sea-level would if used as evidence for date very often reverse the facts. This was particularly true of the ground towards the north-east limits of the cemetery area. Here at a depth below the modern surface unusual in the whole cemetery, deeper than most of the royal tombs, there lay graves of which we can safely say that they are later in date than any graves of the earlier series and not far removed in time from the Sargonid (*v.* Ch. VII for graves PG/1422, PG/1845, &c.); the explanation is that they were deeply dug in any case, but they were dug at the very bottom of the long slope which the present lie of the land entirely conceals.

From the time of the Third Dynasty of Ur onwards, i.e. from the twenty-fourth or twenty-third century B.C., the dead were buried under the floors of the houses in which they had lived and there were no cemeteries in the proper sense of the term; this has been proved by excavations on many sites, and at Ur wherever we have excavated houses of the later periods we have never failed to find graves beneath them; even in the case of the mausolea of the Third Dynasty kings where the underground tomb was the primary consideration the funerary temple erected over it was modelled on the private house of the living man; and from this one can conclude that the prevailing custom was based not on any wish to economize space but on a religious belief. It was therefore a surprise to discover that in earlier ages people buried their dead in regular graveyards lying outside the town. But of this there can be no

doubt. Had the graves of our great cemeteries been under house-floors some remains of the house walls would inevitably have survived, and there is no trace of anything of the sort; and where in the strata below the cemetery house ruins are found there are no graves in connexion with them. If further proof were needed it would be given by the cemetery plan; on an area encumbered by buildings, graves could not have been dug so close together and covering the ground so uniformly, nor would it have been possible for the superimposed graves to have been dug to such very different depths if the shafts had been sunk through the floors of rooms. Very likely there were a certain number of funerary chapels marking the positions of graves, but the cemetery as such was open ground. This would help to explain the plundering of the site.

For the construction of the Third Dynasty buildings and later on those of the Larsa dynasty much levelling work had to be done. Masses of rubbish—mostly pottery and broken brick, material which we can date with tolerable accuracy—were used to fill in the hollows and the lower ground, there was some cutting-down of high ground for terraces, and wall-foundations were sunk deep into the soil of the graveyard. Not only the wholesale clearing made for the Dungi tomb building but the more superficial work over the whole area must have resulted in the destruction of very many graves and brought to light much treasure such as would tempt the workmen to more systematic search: a great deal of the plundering of the cemeteries dates from the building age of the Third Dynasty. This was most clearly proved in the case of the great shaft-graves PG/1845–6: they had been dug out to the bottom and in the disturbed filling half-way up was a sloped *talus* consisting of lumps of bitumen and bricks stamped with the name of Bur-Sin, evidently the refuse thrown down by the builders of the Bur-Sin tomb whose outer wall ran along the lip of the shaft. At the east corner of the royal tomb PG/1236 we could trace a round tunnel which had been driven down from the surface to where the stone roof of the outer chamber had been pulled up, and in the shaft were broken bricks of Third Dynasty type; a similar shaft containing Larsa bricks could be traced over PG/1232; here a perpendicular pit had been dug and a tunnel run out from it presumably in what the robbers believed to be the direction of a royal tomb, but it had missed its mark and had been abandoned. Close to the great 'death-pit' PG/1237 there was a deep hole filled with late rubbish and at the bottom of it a few limestone blocks, the sole evidence except for scattered beads of lapis lazuli and gold of a royal tomb chamber the very stones of whose walls had been carried off. It is possible that some of these robbers' shafts, betraying as they often do an exact knowledge of the whereabouts of the richest tombs such as rather implies that there were still surface indications to guide them, may date from a period considerably earlier than that of the rubbish which subsequently filled them; but there can be no doubt that during and immediately after the Third Dynasty a vast amount of plundering was done. This must be borne in mind in estimating the wealth and character of the civilization which the graves represent. Not only was there a great deal of destruction

done by the grave-diggers of the cemetery period itself, but there was in later ages a more or less systematic search for loot. Not only have far more than half of the graves disappeared leaving little trace, but of the large and presumably wealthy graves relatively few were found by us intact: and of the royal tombs only two stone-built chambers had escaped the plunderers, one, that of Queen Shub-ad, because the roof had fallen in, the other, PG/1054, probably because it lay very deep and was not rich enough to repay the labour and risk of excavation. The bulk of the treasure recovered by us from the royal tombs came not from the tomb chambers but from the 'death-pits', and the reason for this is manifest: if a robber could tunnel to a walled and roofed chamber he only had to force an entry and could remove its contents with perfect ease; the 'death-pits' had been filled in solidly with earth and to get at their contents the whole pit had to be cleared out, which was in any case a very elaborate undertaking and certainly could not be attempted while any sanctity attached to the spot or any supervision over it was exercised by the authorities. The tombs of Shub-ad and PG/1054 prove, as was to be expected, that the best objects were placed in and not outside the chambers; the amount and richness in these two small tombs may give an inkling of what was once in the much larger stone buildings PG/779 and PG/1236 or in that which belonged to the 'death-pit' PG/1237.

CHAPTER II

THE DIFFERENT CEMETERIES. CLASSIFICATION AND SEQUENCE

IN the provisional reports issued annually in the *Journal of the Society of Antiquaries of London* I have given my own ideas of the chronology of the cemetery. From the outset I distinguished a Sargonid cemetery, dated by the seal already mentioned and characterized by types of vases and weapons absolutely different from those found in earlier graves; in the first season I remarked that this cemetery was separated from the earlier by a 'barren stratum' in which was found the seal of Nin-Tur-Nin. I concluded that the earlier cemetery was anterior to the First Dynasty of Ur and assigned to it a date between 3200 and 3500 B.C. In the next two seasons the same phenomena were observed, but I was inclined to think that a certain number of graves might belong to the First Dynasty while still holding to my view as to the date of the greater number. In the fourth season the discovery that the 'barren stratum' was really a rubbish stratum dated by seal-impressions to the First Dynasty and implying by its presence that during this period the cemetery was not in use, at least over a great part of its area, confirmed my first views; while the discovery in the lower soil in which the tombs were sunk of tablets with writing of a very early type approaching in style to that of Jemdet Nasr, and the finding below this of actual graves of Jemdet Nasr type succeeded by others containing the hand-made painted pottery of al-'Ubaid, finally confirmed my sequence-dating though it could not solve the question of absolute chronology: none the less, if Professor Langdon's suggested date of *c.* 4000 B.C. for the pictographic script of Jemdet Nasr could be accepted it would agree well with my suggested date of *c.* 3500 B.C. for the beginning of the Royal Cemetery period.

My chronological theories have not won the assent of all scholars, nor was it to be expected that they should, for they were admittedly theories supported perhaps by a certain amount of tangible evidence but not proved. They were the impressions such as an excavator is bound to acquire in the course of his work, and it was worth putting them on record because these impressions should at least approximate to the truth and even if they are wrong illustrate certain aspects of the work which will require explanation. The Arab workmen would on their own initiative report that they had reached an older level when a grave produced a socketed bronze axe or adze, though they would have been hard put to it to give a logical reason for the definition; we knew that they were right, and yet it needed months of detailed study to prove even this elementary fact—study which could only be undertaken after the excavation of the cemetery was finished. While the work was in progress I could quote some facts and indicate some lines of argument which had led me to take up my position, but it was impossible to cite the evidence as a

whole, and therefore unreasonable to expect that it should necessarily convince. The disadvantage of preliminary publication is that some scholars, disagreeing with the conclusions suggested, are not content to leave the question in suspense but must needs put forward views of their own; to do this they use as final the quoted evidence which the excavator has stated to be partial only, and they must disregard all the impressions which the excavator has garnered from experience in the field in favour of *a priori* impressions having no relation to his ascertained facts. Long before our work on the cemetery was done I found that not only were my tentative views on chronology quite fairly held to be non-proven, but rival theories had been promulgated which were wholly at variance with mine and with the facts as I saw them; one at least was based on the hypothesis that every observation I had recorded on the character of the cemetery and the construction of the graves was wrong.

In all these theories, my own included, two questions were involved: the sequence of graves in the cemetery, and the position of the cemetery in the historical sequence, i.e. its approximate date; obviously the second problem depends very largely on the solution of the first, since not only should we get from it some idea as to how long is the period which we have to fit into our date-sequence, but only when the material provided by the graves is in order can we safely argue from analogies with objects otherwise known to something like positive dating. A detailed examination of the cemetery must, therefore, precede the more general historical inquiry. It seemed to me essential that this examination should be absolutely independent of any views that I had previously put forward; all ideas and impressions that we might entertain regarding the relative dates of graves and objects, based on observations made during four years of excavation, were to be disregarded, if only because it was precisely these ideas and impressions that we now had to test; the only admissible evidence was that of the objects themselves and the records made of each grave while it was being excavated. A method was to be employed which should be impersonal and should if possible give results of a mathematical certainty.

Method. While the work of excavation was in progress type-sheets had been drawn up of the pottery vessels, stone vessels, metal vessels, and metal tools and weapons; the types had been numbered according to the order of discovery without any reference to possible date, and these numbers had been entered on the tomb-cards against the scale drawing of the individual example found in that tomb; beads, ornaments in metal or shell, mosaics, cylinder seals, and varia were not typed.

The basis of the chronological method was the tabular analysis of the graves printed in Appendix A. The table gives all graves containing more than one object and all such as contained one object if that was of a sort likely to serve as a criterion for date. In parallel columns are shown the number of the grave, its character and direction (where known), its depth from the surface, and its contents, these being designated by type numbers in the case of tools,

weapons, and vessels and by catalogue numbers in the case of untyped objects.

The clay vessels being the most widely distributed it was clear that they would give the best results if any grounds could be discovered for arranging the types in a chronological sequence, and that therefore it would be best to begin with the pottery: the other classes of objects which had been reduced to types could to some extent be dealt with *pari passu*, and in any case results obtained from them could be used later to check those given by the pottery. Objects of a more individual character such as the cylinder seals could not be called in as evidence because any attempt at a chronological arrangement of them would necessarily be based on *a priori* judgements of style, precisely the kind of argument which our method was designed to eliminate; they would have to be dated by the evidence of the objects with which they were associated.

Since it had been decided to waive any views we might have as to the dating of types, it was necessary to begin by determining as large a number as possible of graves to which could be assigned a relatively late or a relatively early position in the assumed time-sequence so that their contents might serve as criteria for dating graves to which no position in that sequence could be assigned independently. If we could establish the types of pottery, &c., which characterized respectively the beginning and the end of the cemetery period we should certainly have the most clear-cut distinctions and should be able to work from the ends of the series towards its middle with comparative assurance.

In every case the positive depth of the grave, that is, its depth measured from the present surface, had been put on record, but as evidence for date this was clearly fallacious. In the first place our field notes showed that the original ground-surface of the cemetery had been very irregular and quite different from that of to-day; hollows had been artificially filled in, high places had been denuded, and though in a few instances the original depth of a grave could be ascertained that was seldom possible, and all we could say was that the present depth bore little relation to the depth to which the grave-shaft had been dug. Further, even if the original depth were known it might well be deceptive; there is no reason why two contemporary graves should necessarily be dug to the same depth—indeed it would rather seem natural that a rich grave should be deeper than that of a poor man buried with small ceremony and the minimum of cost; and we had definite proof of this in the fact that very many graves had been reached or cut through by the shafts of later graves. Depth was indeed our only criterion, but it had to be used with caution; it was not positive but relative depth that mattered. If two graves are found at different depths and one lies immediately above the other, the lower grave must be earlier than the upper; if they are not directly superimposed but overlap so far that the lower grave could not have been dug without disturbing the upper, supposing that that had been already there, but the upper grave has not been so disturbed, then again the lower grave must be the earlier in date. Depth *plus* position does in these cases afford a relative chronology.

The Group System. The ground-plan of the cemetery shows that over the whole area the graves lie close together, but in a number of places the outlines of the graves are superimposed many deep. Such groups were isolated and of each a vertical section was drawn out, the separate graves being put in at the depth from the modern ground-surface recorded in the field notes, and against each grave-number was entered a list of the typed objects, pottery, stone, and metal, found in it. No group was admitted that did not contain at least five graves vertically superimposed; some of the groups contained as many as twenty graves. Thirty-four groups in all were drawn up, but not all were of the same value. In some the total number of graves might be small and all these lie close together and close to the surface; obviously they formed a time-sequence, but not necessarily a long one, and while the topmost graves were sure to be late it could not be said that the lowest were very early. In other groups the mere number of superimposed graves would imply a considerable lapse of time, but besides this the vertical interval separating them might be great, implying that between the first and the last interment the level of the ground had risen proportionately, and also there might be a pronounced belt of empty soil dividing an upper from a lower series of graves; in such cases the group could be taken to represent more or less the whole period during which the cemetery was in use, and the lowest graves could for purposes of argument be considered early. Sometimes of course it would happen that the graves, either the upper or the lower, had been plundered of their contents and so were useful only as giving the length of the series in the group (in this connexion it had to be remembered that for every grave recorded by us there was at least one too plundered to note, so that the series were really longer than appeared and by so much the more valuable for comparative purposes): only the topmost grave or in certain circumstances the two uppermost could be admitted as evidence, since our object was to isolate the latest types, and similarly only the lowest graves of groups which seemed to go back to the beginning of the cemetery era; it was better to reduce our results to a minimum than to risk confusion. Taking then the graves in each group which fulfilled these conditions, every type of tool, weapon, or vessel which appeared exclusively in the graves *ex hypothesi* late was underlined with red chalk, every one that appeared exclusively in graves *ex hypothesi* early was underlined with blue, and types appearing indifferently in late and early graves were underlined with yellow. Of the 34 groups 29 produced objects in their top graves, 18 produced objects from graves early by position; these gave us the following results:

Pottery types marked red as being late	44
marked blue as being early	13
marked yellow as continuing throughout the cemetery period	12
Stone vessels: types marked red as being late	7
marked blue as being early	11
marked yellow	0

Metal vessels: types marked red as being late	3
marked blue as being early	8
marked yellow	1
Metal tools and weapons: types marked red as being late	8
marked blue as being early	10
marked yellow	6

but to one of the 'blue' axe types there was an exception which will be described later, and the six 'yellow' types of tools and weapons included several forms of pins closely resembling one another which should probably be reckoned as variants of one type rather than distinct types.[1]

Further the groups tended to show, though the examples were not numerous enough to constitute proof, that the elaborate gold head-dresses, consisting of a hair-ribbon, leaf pendants, and great lunate ear-rings for women, and for men of two lengths of gold or silver chain with three big beads strung between them, were of early date, while for the late period the woman's head-ornament consisted of a gold ribbon twisted spirally round a tress of hair fastened across the forehead. And already it became apparent that only small ear-rings were to be expected in late graves and that in the late graves the range of materials employed for beads was much greater.

Estimating the value of these results we could say that the 'yellow' list was necessarily correct; nothing could alter the fact that these types had been found to occur in both the late and the early graves of the groups which were the basis of our whole argument: thus far then we were on safe ground. As regards the others there was no such security. We had been dealing with a very small number of graves, and what was true of them did not necessarily hold good for the rest; at any time in the course of our further investigations a type which hitherto had been confined to the 'red' graves of the groups might occur in different associations and have to be relegated to the 'yellow' series, and the same was even more true of the 'blue' types because here we were arguing from a still smaller number of graves and some of those graves might not be so early as we had assumed. It was most desirable to enlarge as soon as possible the basis of judgement.

We had always believed that the royal tombs were of early date and in fact formed the nucleus of the cemetery as a whole, though naturally they were not in any sense contemporary but formed a time-sequence to which the lesser graves round them conformed (see p. 15). This, however, was but a theory and would have to be proved before the royal graves and their contents could be employed as evidence for chronology. Accordingly vertical sections were now drawn out of each of the royal tombs showing all the graves which lay above it and within the area of the tomb shaft and were therefore later than the tomb itself; these were put in at their measured depth from the modern surface and against each were listed the types of pottery, &c., found in it and the types provisionally dated by the 'Group' system were underlined in red, blue, and yellow. It was at once obvious that here too the 'red' types were

[1] Most of these are now given as variants of Type 1.

confined to the upper levels, so that our 'Group' data received a measure of support. What was more important for our present purpose was that below the graves containing red types there came a number of superimposed graves containing only yellow and blue types; while we could not claim that the evidence for the age of the blue types was in all cases conclusive they were at least relatively old on the whole, and seeing that here they occurred in each of a number of superimposed graves the lowest of these must be definitely early; but since the royal tombs were lower and therefore older than they, the royal tombs must themselves necessarily be old in relation to the cemetery. This being so, the contents of the royal tombs could be classed as early[1] and used as criteria for dating; they added to the list of early clay vessels 27 types, and to the stone vessels 30 types[2]; all these of course were subject to revision, for while their occurrence in the early part of the cemetery period might be considered certain, it still remained to be seen whether they were peculiar to that part or continued in vogue up to or beyond the point at which 'red' styles began to be introduced.

The groups—the original groups and those containing the royal tombs—between them included no less than 470 graves, of which only a very few had hitherto been considered as affording evidence. The next step was to underline in red, blue, or yellow all the types provisionally dated wherever they occurred on the sectional group sheets; this at once brought a certain number of types into fresh associations and enabled us to check our results to date. Against each type was recorded the total number of its occurrences in the groups, the relative depth of the graves in which it was found, and the types (pottery, stone, &c.) with which it was now seen to be associated directly in a grave or indirectly, as for instance when a 'red' pot was found in a grave which lay below a grave containing a 'blue' type. This line of inquiry introduced a few, but not many, modifications into the previous colour-scheme.

It was now possible to deal with associated types. We started with those which were found, in the groups, in the graves immediately below the topmost graves which had given us our first 'red' pots; by means of the tabular analysis every occurrence of the type throughout the whole cemetery was noted and its associations in each case examined: if it was found only with 'red' and 'yellow' objects it was marked red, if it was found with 'blue' also it was marked yellow; but since there were bound to be with it objects of which the colour was not yet known these markings were noted as subject to correction later. By the time this work had been done the number of 'red' pottery types had increased considerably and on the sectional drawings of the groups the red tint sometimes went down deeper below the ground-surface than had been the case before, but for the most part the additions only resulted

[1] Types found in the royal tombs were marked with green, simply to indicate the grounds on which their early date was assumed; in practice the blue and green markings are reckoned as equivalent, for the royal tombs *as a group* have no priority over the other graves; thus the latest of the royal tombs would probably be considerably later in date than some of the graves immediately associated with the earliest royal tomb.

[2] The total number of types of stone vessels found in the royal tombs was 42; of these 5 had been dated late by 'Group' and marked red, now becoming yellow; 7 were already dated early by 'Group'.

in a more solid massing of the colour in the levels which our initial markings had already designated as late. The number of 'yellow' types had also increased a good deal.

A fresh subdivision was now made. On each group-section sheet, or on each which lent itself to such a scheme, the graves coming immediately below the lowest grave containing 'red' objects were bracketed, the brackets consisting of a stratum of soil averaging a metre and a half in thickness and containing from one to eight graves. The supposition was that the graves lying thus close to one another would all fall within a comparatively limited space of time and would represent the close of the period characterized by 'blue' objects. All objects hitherto marked blue which occurred between the brackets now received in addition a yellow stripe, while those which came only below the brackets remained plain blue. The sectional sheets now showed in the lowest graves objects predominantly blue with some blue-and-yellow and some yellow; higher up the sheet the blue-and-yellow became more numerous and finally replaced the blue altogether, and the yellow also became more marked; then came a clean break and above it only yellow and red appeared. The colour-scheme proved that we had to deal with two distinct cemeteries, the 'blue' and the 'red': the presence of the same yellow types in both meant that the cemeteries belonged to different stages of the same civilization, but the abruptness and completeness of the change from blue to red made it clear that these stages were not continuous but separated by a considerable interval of time. In the case of the 'blue' cemetery it was possible to see how while certain types persisted throughout and even into the later period there was yet a steady development; a good many of the oldest types dropped out altogether, new types were introduced, and the types which were to survive into the 'red' cemetery either appeared now for the first time in the higher graves or became more common in them.

The group-sections did not, of course, account for all the types of object found in the cemeteries: those not represented in them had to be dated by association with known objects, other points, such as the relative (and in some cases necessarily the positive) depth of the grave being taken into consideration. Card-catalogues of all typed objects were made, giving an exhaustive list of all the occurrences of each and of the objects associated with it on each occasion, these being marked with their ascertained colours: where these were uniformly red and yellow the object was reckoned to be red, where they were blue and yellow a more searching examination of every grave and object concerned was required to settle whether the new type was to be yellow-and-blue or plain blue; where both red and blue occurred amongst the associated objects the new type became yellow, though in some cases careful revision might turn the scale in favour of one or the other more definite colour. That the method, apparently so arbitrary, was really sound was shown by a few instances of seeming contradiction. For instance, a type was recorded from eight different graves of which seven contained only blue and blue-and-yellow objects, the former predominating, and the eighth contained two red types, both well established as to colour; the difficulty in classing our type as yellow

lay in the fact that the 'blue' graves tended to belong to the early stage of that cemetery; there was little to show that it had survived into the later stages, and it was the more surprising to find it reappearing in a 'red' cemetery grave. The tomb-cards were looked up and there was no doubt about the identity of the two red pots, while the drawing of the pot in question was also true to type; then a note was found on the card stating that the pot was in fragments and that the drawing was an attempt at reconstruction (on the lines of a type already known) which could not be considered as certain. It was obvious that the drawing had to be rejected as incorrect, the evidence for any 'red' association disappeared, and the type could properly be classed as blue. The fact that our system should have indicated the possibility of error in what purported to be a plain record of facts, and that the error was admittedly there, goes very far to prove the system's accuracy. There were of course cases which could not be solved so satisfactorily. The socketed axe Type A 3 is found commonly in the early graves and is one of the most characteristic forms of that cemetery; the sole exception to the rule is almost ironical in its complete contradiction, for it occurs in the grave of a servant of the daughter of Sargon of Akkad, the one grave to which we can assign a definite and a late date. I can only hazard the theory that the Sargonid grave-diggers having disturbed an earlier grave (as they undoubtedly did) found in or by it the old axe, which they laid in the new grave as an offering. That it was actually in the grave is certain; that there are plenty of such axes loose in the cemetery soil, coming from plundered graves, is also true; the theory, though it invokes the long arm of coincidence, is not impossible; but whatever be the explanation, this one anomaly cannot upset a classification which agrees with the data of more than eighteen hundred other graves.

I have spoken of 'red' and 'blue' graves, but it must be remembered that the date of these depends on the totality of their contents and could only be arrived at when all of these had been considered; all the objects had to be distinguished by colours before the colour could be applied to the grave-number.

We had dealt first with the clay vessels because they were the most numerous and the most widely distributed. Then there were taken in hand the stone vases, the metal vessels, and lastly the tools and weapons, each of these categories being studied independently on the same system as had been employed for the clay pots. By the time the colours of the pottery had been entered on the tabular analysis of the graves each grave had naturally assumed one colour or another, and it was satisfactory to find that when the other categories were similarly entered those colours were only emphasized; in other words, the results obtained from the independent study of the four classes of objects were in general agreement. As in the case of the pottery when taken by itself, so in this combined result the original data derived from our groups had to be modified in a few details as the range of examples was extended over the whole cemetery, yellow or blue-and-yellow being substituted for some of the reds and plain blues of our first tentative classification;

but in no case was the evidence contradictory. A further proof of the soundness of the method was given by the cylinder seals. The principle with which I had started precluded any attempt to deal with these on grounds of style; all that I could do was to assign them to period-groups according to the objects with which they were associated in the graves. Meanwhile Dr. Legrain had been making an exhaustive study of all the seals on the basis of subject and style (*v.* Ch. XVII) and had also arrived at a chronological arrangement whereby the seals fell into four main groups; when we compared our results we found that the groups were identical.

I think that it is not an exaggeration to say that the classification of types and therefore the sequence-dating of the graves has by the method adopted attained a mathematical certainty so far as it goes. There is of course a possibility of error where a type is of unique or rare occurrence, for here we have to judge upon insufficient evidence and a wider range of material might modify though it could not reverse our conclusions, i.e. a red or a blue type might have to be changed to yellow, though a red type could not be altered to blue nor vice versa; but even against this risk we are in a great degree safeguarded by the combined results of the different categories of objects. In the case of the graves again there is a possible source of error where the contents are very few and are all yellow; such a grave has been assigned to one group or the other in virtue of its relative depth and position, but the error, if there has been one, is of no real importance because the objects are already known to be common to all periods.

The graves, then, with few exceptions, could be coloured according to their contents blue, blue-yellow, or red; the red is the late group to which belongs the grave of a servant of the daughter of Sargon of Akkad, and it will hereafter be called 'The Sargonid Cemetery'; the blue and the blue-yellow are two phases of what will hereafter be called 'The Early' or 'The Predynastic Cemetery'. The graves marked blue are known to come early in that cemetery period, those marked blue-yellow come presumably (though not always necessarily) late in it.

The Distinction between the two main Cemeteries. It is perfectly clear that the graves do fall into two main series, an earlier and a later, but that is not enough. Supposing that we were dealing with a single cemetery which continued in use uninterruptedly for a long period of time we certainly ought to find such evidence of change and progress as would enable us to distinguish between the earlier and the later graves of it: in the present case does the evidence imply no more than that normal progress, or are we justified in asserting that there were here two cemeteries of different dates which happen to occupy the same site?

Of 250 pottery types found actually in the graves of the two main groups 40 are common to both; of 101 types of stone vases 6 are common; of 95 types of metal vessels 6, and of 90 types of tools and weapons 16 are common. These are sufficient to show that there is a real connexion between the groups, that they represent different stages in the development of one and the same

civilization. The question is, are these stages consecutive or are they separated by a gap in time?

Of the pottery, 84 types are peculiar to the Early Cemetery, 90 are found exclusively in the Sargonid graves: the divergence, therefore, is considerable, but it does not by itself supply an answer. The potter's craft, more than the rest, tends to be conservative, many of the types which are common to the whole cemetery period are of the simple and obvious shapes which are almost bound to occur at all stages of development, and some of them are actually found in strata much older than the cemetery while others continue in use well down into the historic age; but even so some changes are inevitable and at the beginning and end of a long period should be fairly marked: it could therefore be argued that in this case the divergent types do not necessarily prove more than that the total period represented was a long one, sufficiently so to allow of radical changes in fashion and perhaps in the manner of life of the people. But if the mere contrast between the two groups as such does not take us beyond this point, a closer examination of the pottery in each group does supply further evidence. In the pottery of the early group, subdivided into 'blue' and 'blue-yellow', a distinct advance can be traced; old types fall out of use, new types come into vogue, and though the material is too partial for any diagrammatic scheme of pottery evolution to be worked out it is quite easy to recognize that the evolution is there. In the later ('red') series there is much more uniformity of type, suggesting that the period of time represented by the graves is much shorter, and what is new does not seem to be a natural or at least a direct development of the types in the old series: the change is not merely one of form, but some of the new shapes are associated with a new technique (new in the sense that it had not been employed in the old cemetery period) such as the use of a haematite wash applied to the body clay and sometimes of a finely burnished slip. In all this there is a very definite break in continuity which must mean either a gap in time or some new influence suddenly making itself felt.

The presumption thus established becomes a certainty when we find that the change in pottery types coincides absolutely with changes even more obvious in all the other classes of grave furniture. Here, in the objects of stone, metal, &c.,[1] we might expect to find, as in the pottery, signs of development and the introduction of new fashions, but it is inconceivable that in a continuous process all should be affected simultaneously: when, therefore, we can state that in no single instance[2] is a 'late' object of one category associated with an 'early' object of any other category but that the line of division

[1] The total result of the analysis is as follows:

	Early graves.	*2nd Dynasty.*	*Sargonid.*	*Early and 2nd Dynasty.*	*Sargonid and 2nd Dynasty.*	*Common.*
Pottery . . .	84	13	90	4	17	40
Stone vases . .	81	—	9	3	—	6
Metal vessels . .	61	8	9	9	2	6
Tools and weapons .	39	10	15	5	4	16

[2] I am speaking here of the two main cemeteries and am purposely leaving out of consideration the 'Second Dynasty' graves which will be described shortly as occupying an intermediate place in the time-sequence.

is absolute, then we can be sure that the division is a very real one. Again it is not only a question of form. The beads even in the poorer graves of the late series include materials which in the older cemetery are seldom or never found—amethyst, agate, jasper, chalcedony, haematite, sard, moulded and glazed frit and occasionally glass; and instead of beads of solid gold or of gold filled with bitumen there are gilt beads of copper plated with the thinnest of gold leaf. The cylinder seals show a new range of subjects and a new style of cutting, and most noticeable is the difference in the drawing of the human figure, for the bird-like heads characteristic of the earlier graves have disappeared in favour of something much more naturalistic; even the animals represented have changed (*v.* p. 335). There has been a complete revolution in personal attire. Throughout the whole of the Early Cemetery period the men wear on their heads the ring composed of gold or silver chains and large beads which kept the head-cloth in place; the women have the elaborate head-dress of the type favoured by Queen Shub-ad, with its gold hair-ribbons, wreaths of gold and lapis beads with pendant leaves and flowers, huge gold lunate ear-rings, hair-rings of coiled gold wire and upstanding combs of gold or silver with floral tips: in the later graves the men wear a small oval frontlet of gold or silver leaf, the women a similar frontlet (set across the forehead, not on the hair), and a lock of hair starting from just above either ear was plaited and spirally bound with a narrow strip of gold ribbon and pinned in position across the top of the forehead; the ear-rings were still generally lunate in form but were very small. But of all the changes the most remarkable are in the tools and weapons. In the older cemetery these are made of bronze and the characteristic (and the commonest) shapes are the socketed axes and adzes all of which are cast and are admirable examples of the bronze-caster's skill. In the later cemetery copper is substituted for bronze and the weapons are not cast but hammered. The change in technique is a natural result of the change in material, for bronze is a good ductile alloy whereas copper is extremely difficult to cast but is essentially malleable and gains in hardness by being hammered, and the introduction of new types follows as naturally from the change in technique—at first the craftsman made rather feeble attempts to imitate the old socketed shapes, but soon abandoned these for simpler forms better suited to his process (*v.* p. 307). The change in material, technique, and form is not foreshadowed in any way in the older series of graves and is complete by the time that the first late object in clay, metal, or stone appears.[1] We have seen that there is in the grave furniture sufficient continuity of form, &c., to prove that the two series of graves represent two stages in a homogeneous civilization and to disallow the theory of foreign intervention; the gap which we must posit between them is one of time, and the evidence now adduced proves that the time-gap must have been of considerable length.

The 'Second Dynasty' Graves. We have indeed proof that the changes in fashion which I have described were not suddenly introduced but were the

[1] The one apparent exception, in grave PG/503, is discussed on p. 27.

result of a steady development which must have taken a long while. In the season 1928–9 we found one grave, PG/1422, which in my preliminary report I signalized as anomalous and intermediate in date between the early and the Sargonid cemeteries though approximating more nearly to the latter; it combined characteristics of both periods. In 1929–30 there were found in the immediate vicinity of this grave two peculiar shafts which had been plundered in the time of the Third Dynasty of Ur but retained undisturbed some subsidiary burials in which the same mixture of types occurred. When in the summer of 1931 the work on the analysis of the grave contents was drawing to an end it became clear that on the north-east edge of the cemetery site there had been a number of graves of a sort quite different from all those in other parts of the area, and although most of them must have been destroyed by the great mausolea of Dungi and of Bur-Sin, whose vaults were driven down far below the level of the earlier graveyards, yet there remained a little space in which a few might survive: in view of their chronological importance work on the cemetery was renewed, and in the season 1931–2 three more shaft-graves were discovered (PG/1847, PG/1849, PG/1850).

There are in all fifteen graves in the group. Ten of them are normal in type and distinguished only by their contents, PG/1422 being further unusually rich, richer indeed than any Sargonid grave; five are shaft graves with multiple burials, rich but not remarkably so, recalling in their arrangement the royal tomb PG/1054 in the Early Cemetery. A full description of them is given in Ch. VII, and their character is discussed on p. 212; what concerns us here is their position in the general sequence. Of the 48 types of pottery vessels found in the 15 graves, 17 occur elsewhere only in Sargonid graves, 4 only in the graves of the Early Cemetery, 17 are common to all periods, and 13 are peculiar to this particular group. Of the metal vessels, 9 types are common to the Second Dynasty and the Early Cemetery, 2 are common to the Second Dynasty and the Sargonid, 8 are peculiar to the Second Dynasty. Only 2 graves (PG/735 and PG/1420) contained any stone vessels, of 3 types all found in the Early Cemetery. Tools and weapons are mostly of wrought copper, but examples of the old bronze castings do occur: 10 types are peculiar. The head-dresses of both sexes are of the Sargonid fashion; the cylinder seals approach closely to the Sargonid, though as a matter of fact Dr. Legrain put some in a class apart before he knew anything about the archaeological evidence. Clearly the fifteen graves come much nearer in time to the Sargonid graves than to the Early Cemetery and, as clearly, they illustrate an intermediate phase in the development from one to the other.

In the south and south-east part of the cemetery site there were found a certain number of poor graves the bodies in which showed signs of burning (*v.* p. 142); they were clearly allied to the Early rather than to the Sargonid Cemetery, but their contents were so few and so commonplace that it would have been impossible to date them but for the position of some found just where our excavations ended on the south-east limits of the cemetery. Here better than anywhere else could be observed the stratum of First Dynasty rubbish which had been flung out over the disused site of the Early Cemetery

and so gave a *terminus ante quem* for the burials in it, *v.* p. 220. Some of the graves showing partial cremation lay underneath this stratum and were covered by it, some had been dug through it, one or two were actually above it; they were therefore more or less contemporary with the First Dynasty of Ur.

The total of 1,850 graves can then be classified in the following time-sequence:

I. The Early or Predynastic Cemetery, which can be subdivided into two phases, A and B, representing two stages arbitrarily defined of one continuous period. The first phase includes all the royal tombs and 389 of the rest, the second phase is represented by 271 graves.

II. The graves with bodies partially cremated, belonging to the time of the First Dynasty of Ur. That these are later in date than I. B must for the moment be assumed, the evidence being reserved for Chapter V.

III. The group of fifteen graves. The date of these will be discussed in Chapter XI, but from now onwards they will be referred to as the 'Second Dynasty Graves'.

IV. The Sargonid Cemetery represented by 408 graves.

751 graves contain no datable evidence.

CHAPTER III

GENERAL DESCRIPTION OF THE ROYAL TOMBS

AMONGST the 1,850 graves unearthed in the cemetery there are sixteen which stand out from all the rest not simply because of their richness—indeed, most of them have been plundered and their wealth must be taken on credit, and few have produced such treasures as marked the grave of Mes-kalam-dug, itself not one of the sixteen—but for peculiarities of structure and ritual. All these graves belong to the Early Cemetery, and of most of them at least it can safely be affirmed that they belong to the earlier part of the period which that cemetery represents. In the majority of cases they underlie and are necessarily earlier than graves whose contents assign them to Cemetery A; where this is not the case the contents of the graves themselves are characteristically of the Cemetery A type; it is not a question of positive depth reckoned from the modern surface, though as a matter of fact most of them do lie at much more than the average depth, it is a relation which admits of no dispute. To the connexion between the sixteen graves and the rest I shall return later; it is necessary first to explain in what way they form a class apart.

The normal manner of burial, with its variants of wooden, wickerwork, or clay coffin or matting roll, will be described in Chapter V. In contrast to those interments which, whether rich or poor, were essentially simple, the so-called 'Royal Tombs' include a building of one or more chambers constructed in stone or brick, and the burial was marked by long-drawn ceremonies in which a great part was played by human sacrifices. In the details of arrangements, &c., we find almost as many variants as there are tombs, but in all those which are well preserved the outstanding features of a built chamber and of a number of human victims are present; where, as in three instances, there is no chamber, the lack can be explained by the disturbance of the soil by later diggers and the consequent destruction of the masonry.[1]

The principal body is always laid inside the tomb chamber, accompanied as a rule by a few attendants; then a place had to be provided for the bodies of the other victims, and this problem is solved in various ways. Sometimes the bodies were placed in separate chambers of the stone buildings, but more often they were in a 'death-pit', a sunken court open to the sky which might be part of the pit in which the chamber was constructed or might be contiguous to it, or again they might be buried in the filling of the tomb shaft. The number of people sacrificed in a single tomb might vary from a mere half-dozen to between seventy and eighty.

The character of the tombs will best be understood from a description of the making of them.

To begin with, a shaft, generally rectangular, was dug down into the mixed

[1] In PG/1237 the chamber has gone, but enough of the stone-work survives to show that it was originally there; in PG/580, PG/1232, and PG/1332 no signs of a chamber were found, but the disturbance of the soil almost down to pit bottom was evident.

soil of the old town rubbish-mounds to a depth of ten metres or more. It might measure as much as thirteen metres by nine; the walls were cut necessarily on a slope but as steeply as the nature of the soil allowed, and on one side an entrance was made by a sloping or stepped passage leading down from ground-level; the bottom of the pit was carefully levelled. At the bottom of this pit, as a general rule, the tomb was built. Sometimes (as in PG/777, PG/779, PG/1236) the entire area of the pit was taken up by a building containing two or four rooms; there was a door facing the *dromos* passage and the rooms opened off each other; the walls were built of rough limestone faced with mud plaster or cement, the roofs, also of stone, were vaulted or domed; here the inner chamber served for the principal body, the outer chamber or chambers for victims of lesser standing. Sometimes the tomb, consisting of a single chamber built like the first of stone with a brick roof, occupies only part of the pit's area, lying in a corner or at one end of it (PG/789, PG/800, PG/1618), or it may even be outside the pit proper, as in PG/1237, where it stood in a sort of annexe at a higher level; in that case the pit itself, its sides lined and its floor covered with matting, was the place for human sacrifice. In one instance (PG/1050) the sacrifice took place before ever the tomb was prepared for the great dead; the mat-lined pit was made ready and the victims were killed and the chamber was built over the earth that covered them, and it is likely that the same was true of PG/1332; but such was not the normal custom. As a rule the stone chamber was completed and the body of the dead king was brought down the sloping passage and laid in it; sometimes, perhaps generally, the body was enclosed in a wooden coffin, but the two queens whose bones we found undisturbed lay uncased, Shub-ad upon a wooden bier, the other (in PG/1054) apparently stretched on the floor of the tomb; in PG/789 there was a shallow depression in the floor clearly meant to take the coffin; in PG/1236 a similar coffin-trench had round it holes which seemed intended for the uprights of some sort of canopy; but here again there is no single pattern to which all the tombs conform.

Three or four of the personal attendants of the dead had their place with him in the chamber; two were crouched by Shub-ad's bier and one lay at a little distance, four shared the tomb with the nameless woman in PG/1054; in the plundered tombs scattered bones betrayed the presence of more than one body: these must have been killed before the door of the chamber was blocked up. The principal occupant of the tomb was decked with a wealth of finery befitting his or her station—in the case of Shub-ad the whole of the upper part of the body was covered with semi-precious stones and gold; the custom was the same as prevailed in the case of commoners, and there is in this nothing to support a theory that the 'royal' burials are anything more than the burials of people distinguished by their riches; the type of objects is uniform and it is only the costliness of the material or the quality of workmanship that sets them at all apart. The same is true for most at least of the other furniture in the chamber; the vessels containing food and drink are far more numerous and may be of gold and silver or of beautifully coloured stone instead of copper and clay, but this is merely the distinction of rank; the only

object which is commonly present in 'royal' tombs and scarcely ever in others is a clay bottle of peculiar shape and unusual ware (Type 105, 106) which is certainly foreign and presumably contained some expensive imported luxury reserved for the use of the court: even the silver boat in PG/789 has its counterpart in the bitumen models of many graves.

When the principal body had been laid in the tomb with the attendants about it—these not themselves laid out as for burial but crouched as for service and unprovided with any grave equipment—and when the offerings had been set on the floor or on the shelves which might line the chamber walls, the doorway was blocked with brick and stone and plastered smoothly over, and the first part of the ceremony was complete.

The next act is best illustrated by the graves PG/789 and PG/800, where the 'death-pit' lies outside the chamber and there is therefore a clearer distinction between the two parts of the ceremony; in the case of the tombs with several chambers these two parts must have been at any rate continuous, for the human sacrifice had to be concluded before the tomb as a whole could be closed. In these graves, that of 'the King' and of Shub-ad—and the same is true of PG/1237, PG/1232, and probably of PG/580—we must imagine the burial in the chamber to be complete and the door sealed; there remains the open pit with its mat-lined walls and mat-covered floor, empty and unfurnished. Now down the sloping passage comes a procession of people, the members of the court, soldiers, men-servants, and women, the latter in all their finery of brightly coloured garments and head-dresses of lapis lazuli and silver and gold, and with them musicians bearing harps or lyres, cymbals, and sistra; they take up their positions in the farther part of the pit and then there are driven or backed down the slope the chariots drawn by oxen or by asses, the drivers in the cars, the grooms holding the heads of the draught animals, and these too are marshalled in the pit. Each man and woman brought a little cup of clay or stone or metal, the only equipment required for the rite that was to follow. Some kind of service there must have been at the bottom of the shaft, at least it is evident that the musicians played up to the last, and then each drank from the cup; either they brought the potion with them or they found it prepared for them on the spot—in PG/1237 there was in the middle of the pit a great copper pot into which they could have dipped—and they composed themselves for death. Then some one came down and killed the animals[1] and perhaps arranged the drugged bodies, and when that was done earth was flung from above on to them, and the filling-in of the grave-shaft was begun.

The evidence for all this has become increasingly clear. From the first one could not but remark the peacefulness of the bodies; all were in order, not only set out in neat rows but individually peaceful; there was no sign of violence, not even such disturbance of the delicate head-dresses of the women as was almost bound to result did the wearer merely fall; they died lying or

[1] The bones of the animals are found *above* those of the grooms and therefore they must have died later; similarly in PG/789 the lyres have been placed leaning against the wall on the top of the bodies of the women, and can only have been put there after those were dead.

sitting. The bones are always so broken and decayed that nothing in them could show the manner of death, but the evidence of the ornaments would seem conclusive. In my first report (*A.J.* viii, p. 424) I suggested that the killing might possibly have been done elsewhere and the corpses brought and laid in their positions, or that they were killed here and the bodies arranged after death, but again there is the difficulty of the intact head-dresses, for it is unlikely that sixty or seventy corpses could be carried down the slope and laid in place without any disarrangement of the elaborate crown of ribbons, wreaths, and combs. The idea, first put forward by my wife, that the victims quietly drank some deadly or soporific drug is borne out not only by those appearances on which we had at the outset to base our conclusions but by the fact that in every royal grave afterwards found a little cup seems the invariable and the sole attribute of every body;[1] the big copper pot in PG/1237 is further confirmation. That a drug should be used is not surprising; *hashish* or opium suggest themselves as more or less local products having the desired effects, and whether immediate death or simply sleep were induced there can be no doubt as to the death of the victims being peaceful; that it was voluntary is another question to which I shall refer later.

The covering with earth of the bodies of the dead retinue was not the last act in the funeral ceremony. When the filling of the shaft had reached a certain height there was laid over it a floor of trodden clay, and on this new rites took place. Drink-offerings were poured to the dead—in PG/1054 there is a regular drain for the purpose, in PG/789 and PG/800 a hole sunk in the floor of the sloped *dromos* seems to have served the same end, and in PG/337 and PG/1237 there is a more elaborate construction with a proper offering-table into which the libation was poured and from it ran down into the filling of the shaft. Fires were lit and some kind of funeral feast was prepared (PG/1054, PG/1237), and there might be (PG/1050, PG/1054) a 'table of god' also; on a piece of matting—the original 'table' of the nomad—were set out little cups and plates containing drink and bakemeats, and over them was inverted a great clay bowl which would keep them undefiled by earth, and then the filling-in of the shaft went on again. Higher up in the pit there was again a pause; the surface of the loose filling was smoothed and plastered with clay, and on it were built the mud-brick walls of a chamber or chambers. The space between the outer walls of the building and the sides of the grave-shaft was filled in promiscuously with soil, but inside the work went by slow degrees and with a careful ritual; a layer of earth was followed by one of clay making a smooth floor, more earth and another clay floor, and so on, and on each floor offerings were placed, vessels of food, animal bones, and now and then a human victim; when this had been done a number of times the final floor of the chamber was made ready and a sacrifice on a larger scale was

[1] Owing to the decay of stone and metal the evidence is sometimes incomplete, and the cup is not always actually with the bones, for it could be dropped and roll away to some distance; but as the detailed accounts of the graves show, one can fairly deduce the cup's invariable presence. It is of course true that the cup is an invariable part of the furniture of every grave: but whereas in the private grave it is *part* of the regular furniture, the bodies in the royal graves have the cups and nothing else—e.g. they never have the water-jar which is the general rule elsewhere, nor any vessel for food.

carried out; against the walls were set the coffins of retainers of a higher grade —and these are not mere chattels, like those below in the death-pit, but individuals provided with all the paraphernalia of death—and the whole floor was crowded with offerings, probably the last tokens of the mourners, for here we find (PG/1054) a box containing gold daggers and a king's signet, and hundreds of clay saucers thrown in one above the other, the gifts of the highest and of the humblest. Then the chamber was roofed with mats spread over rafters and daubed with clay, after the fashion of the ordinary house of that time and of to-day, and more earth was thrown in until the shaft was full. Probably some kind of chapel was built above ground, but of that we have no trace;[1] that there was something above the shaft to preserve the sanctity of the spot is inherently likely, and it would seem that the tomb robbers who drove their shafts and tunnels with such accuracy under ground must have been guided by something on the surface; but denudation and the activity of later diggers and builders have combined to destroy all the upper levels, and not even the foundations of such chapels have survived.

In the foregoing description of the ritual of the burials I have of course been obliged to draw my evidence impartially from different graves, assuming, what cannot always be proved, that what was true of one was also true of the rest. Actually the evidence for the later stages is tolerably complete only in two instances (PG/1050 and PG/1054), but in the other more ruined graves there are often remains which can only be explained on this analogy, and if allowance be made for those differences which I have pointed out, e.g. between the graves with a single chamber and a separate death-pit and those with a two- or four-chambered building occupying the whole shaft, the generalized account will probably hold good. It is clear that we have to deal with a long-drawn ritual which required a number of days and may have been spread over months; the construction of the intermediate building half-way up the shaft marks a stage in the rite quite distinct from the actual burial in the tomb and the killing of the victims in the death-pit, and distinct also from the setting up of the funerary chapel which probably stood above ground. To all this we find no parallel in the common graves; there, so far as the evidence goes, however rich the ordering of the grave, the rite ended with the burial and the filling-in of the shaft, and though a mound—almost inevitably—marked the place of interment, no sacrifice interrupted the simple replacement of the earth.

When we discovered the first of these tombs, so startlingly different from the hundreds of commoners' graves already known to us, I argued with some confidence that they must be royal tombs (*A.J.* viii, No. 4). My reasons were, first, that they were definitely graves and, in view of the presence of a stone-built chamber, as well as of the richness of their contents, graves of people

[1] On the north-west edge of the cemetery there were found close to the modern surface two circular patches of burnt-brick pavement enclosed by mud-brick walls, but to identify them as the remains of tomb-chapels would be very rash, and no tombs were found below them. It was just alongside of one of these buildings that we found the stone relief, U. 8557, Pl. 181, which is probably a piece of wall decoration. See p. 376. A suggestion made by Dr. Frankfort that the 'grey stratum' overlying the cemetery results from the decay of mud-brick superstructures is not supported by the evidence.

pre-eminently important; secondly, that the principal occupant of the stone chamber was provided with just those things which are invariable in the private graves and seem to be the necessary furniture of the dead, whereas the subordinates have nothing of the kind; they are not even in the attitude in which the dead were always laid; he therefore retains his personality but they do not—they are as much his chattels as are the cups and the spears, the oxen and the harps; it is not their funeral, and therefore they do not require the provision which is his right: the principal person is buried; the rest are not buried but sacrificed in his honour. Sacrifice is the prerogative of god-head, and we know that in later times at any rate Sumerian kings were deified after their death and even in their lifetime; we do not know when that custom originated, but it may well have prevailed early; if it did so, the human sacrifice in these tombs becomes perfectly explicable on the assumption that the tombs are those of kings. There was nothing in Sumerian literature to prepare us for human sacrifice on this or on any other occasion, but parallels were easy to find; there is Herodotos' well-known description of the funeral rites of the Scythian kings, lately illustrated by archaeological discoveries in south Russia, there are the First Dynasty royal graves of Egypt and graves of Ethiopian kings or Egyptian nobles in Nubia and the Sudan: the silence of the texts might be explained either by the custom having lapsed and been forgotten or by the reluctance of the historic writers to record a barbarous survival of which they were ashamed. Lastly, although the few inscriptions found in the graves were not conclusive, yet the title NIN given to Shub-ad might well denote 'queen'—'The Lady' *par excellence*—and the names compounded with *Lugal* might also be royal; and it was symptomatic that such names occurred only in connexion with the stone chambers.

An alternative view was put forward by Mr. Sidney Smith,[1] namely that the tombs would be more properly connected with the *gigunus*, mysterious underground structures mentioned in various texts, situated apparently near the gates of the sacred quarter of the city, that the principal occupant of the tomb was not a king but a priest or priestess who took the leading part in a ἱερὸς γάμος, a mystery-play celebrating the marriage of the god, and that the other corpses were those of people sacrificed not to him but with him to promote the fertility of the land. Sidney Smith did not indeed exclude the possibility that the tombs were royal tombs but, partly because of the difficulty involved in the idea of human sacrifice at a king's funeral, and still more at a queen's, considered that even so they might still have a religious significance: the wealth of the tomb furniture would if they were simply royal tombs imply a view of the after-life which he did not believe the Sumerians ever held, whereas of course it is consistent with offerings made to a god; the position of the *gigunus* seemed to agree with that of the tombs in their relation to the Temenos of Ur. On the other hand, Sidney Smith explicitly confined this explanation to the two graves PG/789 and PG/800 and stated that it would be very difficult to explain away in this manner many of the features of the other closely related tombs such as PG/777 and PG/779.

[1] In *J.R.A.S.*, October 1928.

The same theory was put forward but with far greater assurance by Professor F. Böhl[1] a year later, when more evidence was forthcoming; unfortunately so many of the facts which he quotes as evidence are completely misrepresented that his deductions can have little value. It is not necessary here to controvert the misstatements which Professor Böhl himself recognized as such when he later visited the site; but the theory of the ἱερὸς γάμος must be taken seriously.

One of the main arguments for connecting the tombs with the *gigunus* is based on a misunderstanding; the cemetery lies outside a wall which Sidney Smith thought I considered to be the ancient wall of the Temenos contemporary with the tombs; actually I never held any such view. There is a Third Dynasty terrace wall bounding the cemetery on the north-west and to the south-west lies a wall which may have been that of the city in the cemetery period; but as regards the Temenos, we have no evidence of its whereabouts, or even of its existence as such, before the Third Dynasty; the Ziggurat terrace (which does go back to the cemetery age and earlier) is 300 metres away, and the area between it and the graves was in the First Dynasty at least occupied largely by private houses of the poorer sort: no relation between the cemetery and the Temenos or between the cemetery and the Ziggurat terrace can be shown to exist.

Sidney Smith's suggestion that the second diadem of Shub-ad found by her side might have been intended for the partner of her couch, and so supports the sacred marriage theory, is I think met by the virtual certainty that it was on a wig; in PG/1618 such a wig was found and the ornaments on it were those worn by men, and the tomb was that of a man; Shub-ad's diadem seems to me to be simply a spare head-dress, and a woman's head-dress at that.

The silence of the texts regarding any human sacrifice on the occasion of a king's funeral is not surprising considering that we possess no text whatsoever in which a king's funeral is described.[2] There are various texts dealing with the Sacred Marriage and similar festivals, but none of them mention or necessarily imply any killing of the participants; yet if that took place at all it would have been so important a part of the ritual that the failure to speak of it would be inexplicable. The argument *ex silentio* militates far more against the Sacred Marriage theory than against that of Royal Tombs. Further, in a 'sacred marriage' rite the bride of the god may be killed,[3] but the man who impersonates the god is not likely to be similarly treated, and if with Sidney Smith we can fairly infer that in the celebration at Lagash 'Gudea as the city governor played the part of Ningirsu' we can be sure that Sumerian custom made no such demand; Gudea had no intention of dying on that occasion and did not die. Had both bride and bridegroom been sacrificed they would certainly have been buried together, but in no tomb-chamber do we find two

[1] *Zeitschrift für Assyriologie*, N.F., V (xxxix), p. 83.

[2] An inscription of Ashurbanipal is scarcely to the point, being more than 2,000 years later in date and Assyrian, not Sumerian, in character; it does mention a holocaust of victims, but these were not slaughtered at the tomb.

[3] But in later times at any rate in Babylonia she was not killed; Nabonidus's daughter, who by her appointment as High Priestess of Nannar at Ur seems to Sidney Smith to have been 'intended for exactly the purpose described by Herodotos', was not meant for any such fate.

principal bodies. Had the bride been sacrificed we should have found only women as principal occupants of the tombs (which Professor Böhl is driven by his theory to assert was the case), but as a matter of fact we find fewer women than men. Lastly the bride chosen for the god would be a virgin, probably good-looking, certainly young; Shub-ad was a woman of about forty years of age.

The theory of a sacred marriage, interesting as it is, cannot stand against the weight of evidence. The idea of a 'fertility sacrifice' is so largely involved with that of the marriage that it too must, I think, be abandoned as the explanation of the facts, although something of the sort may have been present in the conception of the funeral ritual of a king. One difficulty recognized by Böhl is that a fertility sacrifice ought to be an annual affair, and we have only some sixteen tombs to cover two or three centuries at least; his statement that the tombs with human sacrifice celebrate the rebuildings of the Ziggurat terrace is purely fanciful and based on a mistaken topography of the site; and so far as excavation can show the Ziggurat terrace was not rebuilt once in the whole of the cemetery period.

Discoveries made after the two articles here discussed had been published have gone far towards settling the question of the royal names. In PG/1054 a cylinder seal was found bearing the name Mes-kalam-dug with the title *lugal*, which must mean 'King' and is not part of a compound name; in PG/1050 the complete title 'King of Ur' is given to one A-kalam-dug, probably a member of the same royal house; and other names may reasonably be assumed to be those of kings (*v.* p. 317). With this supporting evidence the royal character of the chamber-tombs may be considered as established. The objection which certain scholars have felt to regarding them as such has in truth been largely a sentimental one; it was due to the unwillingness to acknowledge that human sacrifice could have celebrated a king's obsequies at one period when we have no record of such at any other—and that regardless of the fact that all records were lacking: could a custom so striking have vanished so completely as to leave no traces in practice or in literature? I had myself suggested that the female ornaments in the (non-royal) grave of the prince Mes-kalam-dug (PG/755) might possibly be a substitute for a human victim and denote a change of custom, and the theory, which no longer satisfies me, has been welcomed by some writers; M. Contenau,[1] while accepting the graves as those of kings, finds their isolated occurrence so strange that he would even invoke a Scythian invasion to explain them, and M. S. Reinach[2] adopts the same way out of the difficulty. To me the development of Sumerian civilization seems too uniform to allow of a foreign conquest at this juncture, and no such violent solution is required for a difficulty which may be entirely due to our own ignorance of facts. In the season 1930–1 we excavated the tombs of the Third Dynasty kings Dungi and Bur-Sin; each had more than one chamber all of which had been hopelessly plundered, but in three of the chambers the scattered bones represented two, three, and five bodies

[1] *Manuel d'archéologie orientale*, iii, p. 1556.
[2] *Revue archéologique*, xxviii, 1928, p. 323; xxx, 1929, p. 136; xxxi, 1930, p. 168.

respectively; this looks suspiciously like human sacrifice in a king's tomb as late in history as 2200 B.C. The absence of any written records does not suffice to prove that the old custom had fallen into desuetude, much less that it had never existed.

Human sacrifice, I would repeat, is only found in connexion with the chamber-tombs and with them is invariable. That it was not the prerogative of wealth is shown by the fact that Mes-kalam-dug's simple grave is much richer than, e.g., the domed tomb PG/1054, yet the former has no human victims and the latter has eight: neither was it confined to one sex, as is proved by the same grave PG/1054 and by Shub-ad's grave PG/800, both of which are those of women, whereas PG/789, PG/1618, and PG/1648 are certainly and others probably those of men: it must be an attribute of kingship, and since sacrifice means godhead it implies that for the Sumerians there was in kingship, which, in the words of the King-lists, 'was sent down from on high', an element of divinity: the deification of the rulers of the Third Dynasty of Ur was on the lines of a very ancient tradition. Do the tombs then simply establish this fact, or from their details can we learn anything more about the beliefs of the Sumerians, unattested as they are by any other evidence?

The first thing to notice is the character and to some extent even the position of the men and women sacrificed at the funeral. Quite evidently they have different ranks and functions; they are not merely so many victims gathered together to make up the necessary quota, as might well be the case in a 'fertility sacrifice' or anything of the sort, but they form a hierarchy or, more correctly, a household. Inside the chamber (I take the single-chambered tombs as giving the clearer evidence and as being less plundered) we find the two or three personal servants whose attitude shows them to be in direct attendance on their masters or mistresses; they have little in the way of finery and must rank as mere domestics. The soldiers are on guard at the door, the grooms hold the heads of the animals, and the drivers are in or by the chariots; the musicians are alongside their instruments, the ladies of the *harim*, distinguished by their rich attire, are grouped together and in PG/789 take their place as near as may be to the royal chamber; military officers of higher rank must be represented by those who have weapons of gold and silver; in PG/800 the man wearing a court head-dress who lies along the end of the great chest may well be the Keeper of the Queen's Wardrobe. In short, the king or queen goes to the grave accompanied by the court which attended them in life. It is quite true, as Sidney Smith pointed out, that all this implies a view of the after-life which neither the surviving texts nor the evidence of later burial customs would warrant our attributing to the Sumerians; but if the King is at the same time God that difficulty ceases to exist. God does not die, and the death of a god-king is merely a translation to another sphere. He is to continue his life, and presumably with no diminution of status, rather the reverse, and therefore he takes with him his court, his chariots and animals, and the furniture of his palace which he will go on using as heretofore. Quite possibly the word 'sacrifice' is in this connexion misleading. I have pointed out that there seems to have been no violence done to the men and

women who crowd the death-pit, but that they drank quietly of the drug provided and lay down to sleep. To me it appears more likely that they were not killed in honour of the dead king nor because their term of service must end with his life, but were going with their divine master to continue their service under new conditions, possibly even assuring themselves thereby of a less nebulous and miserable existence in the afterworld than was the lot of men dying in the ordinary way: the degree of faith which would make death the gateway of life has not been unknown in primitive ages.

If it be true that the members of the king's court who went down with music into his grave did so more or less voluntarily, that it was a privilege rather than a doom pronounced on them, then it is a fact most important for our view of early Sumerian religion and culture. The material and artistic splendour of the age as represented by the treasures from the cemetery scarcely seems to harmonize with such brutal and wholesale massacres as the death-pits might be thought to attest; if we adopt the interpretation I have given above, the general picture is more consistent and more likely to be true. But even for the common people who took no followers with them to the next world but who were provided with a wealth of objects which sometimes rivals that of the kings, were the prospects as gloomy as later texts and the material remains of later periods suggest? The argument that they were is not necessarily sound. None of the religious texts on which our knowledge of Sumerian ideas of the other world are based is earlier than the period of the Larsa Dynasty, *c.* 2170–1910 B.C. Under the Third Dynasty of Ur, from 2300 B.C. onwards, the burial customs of the Sumerians have undergone a remarkable change, and amongst other things the grave furniture has been reduced to a minimum; apart from the royal tombs, which must have been very rich but whose plundered state prevents our saying more than that, the graves are beggarly compared with those of the Predynastic Cemetery and very much poorer than the average grave of the Sargonid period. The change in custom must go hand in hand with a change in belief (assuredly in the prosperous times of the Third Dynasty there was no other excuse for such parsimony towards the dead) and the texts, themselves still later in date, must reflect the creed of their own day and would naturally give no accurate picture of what men had thought a thousand years before. Sumerian culture is so conservative, so static, that we are always tempted to argue from the better-known periods back to the unknown past, but the argument can be pressed too far, and where, as in this case, we have definite proof of a change in the outward manifestation we are not justified in assuming identity of spirit. It seems to me probable that those members of the royal court who went with their king were translated to a higher sphere of service and so had an advantage over common men; but that did not exclude the common man from an afterworld so far like this that the individual was well advised to take with him to it all that he habitually required for his use and his amusement. The vision grew more shadowy with the passing centuries and men took less thought for it, but at the end of the fourth millennium B.C. it was still a potent force.

CHAPTER IV

DETAILED DESCRIPTION OF THE ROYAL TOMBS

PG/337. (*Pls. 11–13a*)

This was the first royal tomb found by us, and its character was only recognized later in the light of subsequent discoveries. It had been completely ruined by ancient plunderers; of the tomb chamber, originally built

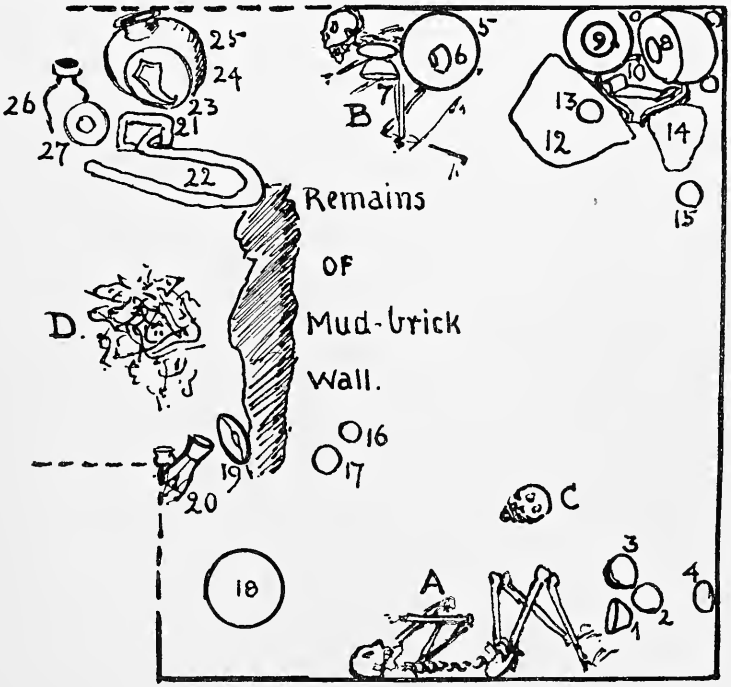


Fig. 1. PG/337. Scale $\frac{1}{50}$.

of mud brick, only scanty traces remained. Since we had at that time no reason to suppose that there would be any building in relation to a grave, the field notes suggest that the ruined north-west wall of what must have been the tomb chamber was older in date than the burials and owed its destruction in part to them; this suggestion is certainly incorrect. At the same time the existence is recorded of the sloped earth sides of the shaft, so far as they could be traced; the position of the objects, arranged round the shaft close to the sides and leaving clear the centre where the wall-remains occur, is absolutely in accordance with the view that there was a mud-brick chamber abutting

on the south-east face of the shaft and that the open space on three sides of it served as the 'death-pit'.

The west corner and south-west side of the shaft had been obliterated (the *dromos* probably lay on this side), but there seemed to be a projection from the west corner which would imply that the shaft was not rectangular; its greatest length from north-east to south-west was 6·00 m., its narrowest width 4·75 m., and its greatest width perhaps 6·00 m. as judged from the position of the objects. The floor of the pit was covered with matting where the objects were found lying, but no matting is recorded in the centre. Three human bodies were found, or remains of three; at *A* was a tolerably well-preserved skeleton, at *B* a second in bad condition, at *C* the skull only of a child; with the personal jewellery lying at the spot *D* no bones could be discerned—the record expressly states that the hair-ribbon 'was not round anything and it is impossible to say what it had been round': there is plenty of precedent for suggesting the complete disappearance of bones through decay, and on the other hand there is an analogy in PG/755 for the placing in the grave of a set of female personal ornaments as an offering and not attached to a body.

The probable existence of a tomb-chamber, now rifled and destroyed, the fact that there were several bodies in the pit, even though they numbered but three, and the richness of the surviving furniture all justify us in regarding PG/337 as a royal tomb, but a small and unimportant example of its kind.

With the body *A* there was a copper pin of Type 7 (U. 8629) and a pair of copper ear-rings of the type made of $2\frac{1}{2}$ spiral coils of wire; they may equally have been worn as hair-rings (U. 8630). Near the feet lay two examples of the clay cup Type 4, one of Type 6, and (4) a clay pot of Type 108. With the body *B* also there were a copper pin (Type 1) and a pair of silver ear-rings of the spiral kind; by it three plain clay cups of Type 5 and a vase, perhaps of Type 244, much broken. Piled together in the north-east corner of the shaft there was a quantity of copper vessels, those lying uppermost generally in bad condition but the lower pieces fairly well preserved. An example of a loop-handled bucket (8 in the plan) (Type 79) was too decayed and smashed to be kept; it had had a diameter across the rim of 0·15 m. and a total height of 0·20 m. Three copper cylinders which seem to have been legs of a tripod may have belonged to the bucket but more probably were part of some tray or table of which the top was of wood and had therefore disappeared. No. 9 was a bowl of Type 27, U. 8626. No. 10 was a curious spouted tray, Type 85, U. 8627, on which rested another curious object, a long piece of plate copper with the ends bent up and curved, Type 106, U. 8627. With these was a large block of stone which had been used as a nether grind-stone, and lying on it a rubbing-stone of dark pebble; a second large stone and a clay cup of Type 7 lay against the side of the shaft (14 and 15). In the middle of the pit were two cups of plain clay, Type 5 (16 and 17), and in the north-west corner the fragments of a very large clay bowl, diam. 0·44 m. (18). No. 19 was an oval copper bowl of Type 7, U. 8625; by it was the remarkable copper vessel U. 8628, Type 114, made in the form of a skin (?) bag and covered with a network of twisted silver wire; it is provided with small lugs for a loop handle and has a stopper also of metal and secured to it by silver wire. Under it was a vase of white calcite, Type 90, U. 8623. The group of objects in the north-west corner included (21) a rectangular copper tray with broad rim and shallow spout, measuring 0·31 m. × 0·21 m.; it was in too poor condition to be preserved; (22) a silver belt 1·50 m. long and 0·05 m. wide, also in very bad condition; it should be compared with the silver belt in PG/580. No. 23 was a copper lamp, Type 115, much decayed, and (24) was a copper bowl apparently of Type 4, decayed also; the clay pot (25) was of Type 101, of drab clay, ht. 0·32 m., its rim broken; (26), of Type 61, made of pinkish drab clay, was in fragments, and so was a pot (27), of red clay, apparently of Type 92. Inside a copper pot was the silver lamp, U. 9364, Pl. 170.

With the child's skull *C* there were no objects. At *D*, perhaps in the mouth of the *dromos*, was a tumbled mass of personal jewellery; as has been stated, no traces of human bones could be

discerned, but the hair-ribbon is in such good order that it is difficult to believe that it was not originally attached to a skull which has decayed completely away; on the other hand, the fact that there were male as well as female ornaments in the collection suggests either a mere mass of offerings or a good deal more confusion than is evidenced by the ribbon. With the ribbon (U. 8612) was a wreath of silver rings suspended from a double strand of carnelian balls, lapis-lazuli cylinders, and silver ball beads (U. 8622); a silver pin with lapis-lazuli ball head capped with gold, U. 8619; a pair of gold ear-rings of the large lunate type usual in the woman's head-dress of the early cemetery period, U. 8616; three gold finger-rings, plain hoops of wire, U. 8618; a triangular-headed silver pin, 0·13 m., of Type 5, also a definitely old type, U. 8617; a string of large carnelian double conoid beads and silver double conoids strung in alternate groups of four, U. 8620; a double string of small lapis-lazuli and silver double conoid beads, U. 8621; a string of three large lapis-lazuli diamonds and three gold squares, U. 8614; a man's head-dress or *brîm* composed of two lengths of gold chain, two big lapis-lazuli date-shaped beads and one of silver, with four carnelian rings as spacers, U. 8613; and a lapis-lazuli cylinder seal, U. 8615, Pl. 194.

Immediately above the grave there were found loose in the soil the group of stone vases U. 8936–U. 8951, and U. 8978 (cf. Pl. 13). It is very probable —although of course it cannot be proved—that they came from the tomb chamber of PG/337 and were dropped by the robbers (the soil was too disturbed for any evidence from stratification to be available) or even that they were offerings placed in the filling of the shaft at the time of the interment; certainly it is the only grave in the neighbourhood with which objects of such good quality were likely to have been associated, and seldom do we find anywhere except in royal graves such fine examples of stone vessels. Moreover, they were not alone, for close by, not indeed immediately against them, but at about the same level and directly above the plundered grave, there was a collection of small objects of jewellery which again was of the sort generally found only in royal tombs. The most conspicuous of them was a gold amulet in the form of a reclining bull, its chin ornamented with an elaborately curled beard; though only 0·015 m. long it is a beautiful piece of goldsmith's work and compares favourably with the amulets from Queen Shub-ad's tomb (*v.* Pl. 142, U. 8269, and fig. 2). The bull had been worn on a chain, for a single gold bead was attached to its body where a hole passed through it for suspension; the string had been broken and the rest of the beads scattered; a number of such, of different sizes, in gold, lapis-lazuli, and carnelian, lay close by (U. 8271, 8274), and a single leaf pendant from a wreath (U. 8270), a gold toilet-set as well as a gold finger-ring and a limestone bowl (U. 8273). These were certainly not objects deliberately placed in the filling of the shaft but stray pieces dropped by robbers and lost in the disturbed soil. I have little doubt that the tomb so robbed was PG/337.

Fig. 2. Scale $\frac{2}{1}$.

The bottom of the grave-shaft was at a depth of 6·40 m. below the modern surface; at 3·10 m. below that surface and resting on the filling of the shaft were the remains of a building which was either a funerary chapel standing above ground-level or, more probably, a building in the shaft itself corresponding to the floors and structures in the shaft of PG/1054 or to the brick

basin over PG/1237 (*q.v.*, p. 114). Against and partly overlying the ruins of a mud-brick wall there was a patch of fine cement paving which sloped down to a limestone-edged hole immediately against the wall face and against the face of the south-east side of the tomb-shaft; the hole only went down a little way into the filling of the shaft and thereafter could not be traced; anything in the way of liquid that ran down the pavement and into the hole would have been dispersed in the subsoil. The present triangular shape of the pavement is accidental; its edges were ragged and it had evidently been cut away by people digging down into the old shaft; its original shape and dimensions there is nothing to show. The surface of the cement was hard, smooth, and almost polished; it was precisely of the kind and quality of the cement floor of the royal tomb-chamber PG/1236. There can be no doubt that the structure, whatever it was, was contemporary with the tomb and connected with it; the fact that it lay only 3·10 m. above the bottom of the shaft is against its having been a surface construction, for the original depth of the royal tombs, where it can be estimated at all, was greater than that; the form of what remains, giving the impression of a place for libations poured into the filling of the grave, has a close analogy with the brick basin over PG/1237 and should be evidence for a prescribed ritual which took place during the prolonged ceremony of the royal interment.

PG/580. (*Pls. 3, 13b*)

This grave, the first to give us an idea of the riches which the predynastic cemetery might yield, was from the point of view of scientific excavation the least satisfactory of all the royal tombs despite the fact that the objects found in it were unsurpassed elsewhere. No tomb-chamber was found; if such had ever existed it must have been in mud brick, had been completely ruined, and escaped our notice; the other alternative is that the tomb-chamber had here, as in the case of PG/1237, been outside the shaft of the 'death-pit' and plunderers had destroyed all trace of it. Of the shaft itself only the west corner with parts of the north-west and south-west sides remained, the rest having been obliterated by the grave-diggers and plunderers of a later date; we approached it from the south and south-east and could not detect the existence of the shaft until its contents came gradually to light; indeed, there was nothing to detect, and it was only by the disposition of the objects that we could estimate the area of the pit. This would seem to have measured approximately 6·50 m.×4·50 m., the greater length being from north-east to south-west; the bottom of the shaft was between 5·00 m. and 5·30 m. below the modern surface, and the north-west side of the shaft was still preserved to a height of 2·70 m. The bottom of the pit was irregular, and showed a fairly definite slope up from south-east to north-west, but even allowing for that it was difficult to explain the very different levels at which objects were found; whereas most of the important offerings were on what was clearly the floor of the pit, at the same time a great many beads and small objects were found at different points higher up in the filling and a few things —beads, and the engraved shell U. 9907—were as much as 1·20 m. below the

main level and may not have belonged to the grave at all. The most probable explanation seems to me that there had been a chamber of mud brick which had been plundered and had subsequently collapsed, its ruins amalgamating so completely with the filling of the shaft as to evade our notice; the fall of the chamber involved the collapse of a temporary floor in the shaft on which offerings had been placed (cf. PG/1054) and these were found by us scattered in the filling; the original floor of the shaft outside the tomb-chamber had, as usual, escaped plundering by reason of the earth above it, and therefore the objects placed on it were found by us undisturbed. It is quite clear that there had been a lot of plundering, and equally certain that the rich objects spread over a large part of the pit's area were untouched; these must have been in the 'death-pit' and the plundering was in all probability confined to the chamber which we failed to find; had there been no such chamber it would be hard to explain the objects scattered at random in the soil.

At a depth of about 5·00 m. below the surface there was found a layer of matting which extended more or less all over the shaft's area—that is, it could not everywhere be traced, but there was enough of it left to show that it must have extended over the whole shaft, and to some extent therefore it served to define the shaft's limits. At a depth below it which varied from 0·30 m. to 0·50 m. there was a second and better-preserved layer of matting; this was the real floor of the pit. Between the two matting layers were found all the objects which could be described as *in situ*. For this we have many analogies; it was quite a normal thing for the grave-shaft to be lined with mats, objects placed on them, and more mats spread over them as a covering before the earth was thrown in again to fill the pit.

Since at this point, where nothing led us to expect very important discoveries, we were employing a method which had served us perfectly well so long as only small graves were being found, namely digging not downwards from the modern surface but horizontally, cutting gradually away the face of standing earth which bounded our deep excavation-pit, the objects were found and removed piecemeal; for some time there was nothing to show that we were dealing with one large tomb-shaft (the side of it having been cut away by other graves) and there was no apparent connexion between the objects as we lighted upon them; it was only when the layers of matting proved to be continuous that the unity of our hitherto disconnected discoveries dawned upon me. By that time a certain amount of progress had been made and probably some evidence had been destroyed which might have helped us to a better understanding of the grave. A further difficulty was caused by the fact that PG/580 was found at the very end of a season; actually the work was only half finished when the year's digging was due to stop. On the Sunday morning after the main force of labourers had been dismissed ten were kept on in the hopes of rounding off the job in hand, and on that Sunday morning they found the gold dagger and toilet-set. It was impossible to guess how much more remained to be done, but there was certainly no time in which to do it, and the site had to be left until the following autumn. Fortunately our arrangements with Sheikh Munshid, the head of the Ghazzi tribe,

were such that no misgivings need be felt as to the safeguarding of the spot, in spite of the temptations which it naturally held out to unauthorized excavators during our absence, and indeed the earth face, which had only to be scratched for more gold objects to appear, was religiously respected throughout the six summer months; but the interruption of the work did make the task of recording more difficult, and in particular the relation between scarcely distinguishable strata was hard to bear in mind after the long interval. The field-notes give an adequate account of what was found; if the general description of the grave is less complete that that of others it is due partly to the circumstances I have noted and partly to the really confused state of the remains.

While we were still working to the south-east of the shaft, before any objects belonging to it had been encountered, we found at a level slightly higher than the bottom of the shaft the skeleton of an ox together with traces of wood which might have represented a wagon or chariot, and a copper rein-ring lying amongst the bones (U. 9324). The skeleton (which was in very bad condition, few of the bones except fragments of the skull and horns being more than powder) lay perhaps two metres from the side of the shaft. At the time I could not see that it had any possible connexion with the grave that was beginning to come to light, but in view of the analogy offered by PG/789 it would seem likely that we have here a chariot forming part of the tomb furniture, but stationed not in the 'death-pit' proper but either in a recess opening out of it or—as the level suggests—on the lower slope of the *dromos*: there was no *dromos* on either the south-west or the north-west side, so that it may well have been here on the south-east, and the chariot may fix its position.

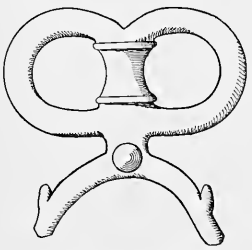


FIG. 3. U. 9324. Scale $\frac{2}{5}$.

In the whole of the 'death-pit' we could distinguish no human remains whatsoever. There were found the skulls of three more oxen: they were badly decayed, and if there had been bodies all signs of them had vanished; but there were no human bones. The survival of bones in the cemetery is curiously capricious, probably because the different components of the ancient rubbish-heaps into which the graves were dug varied greatly in their proportions of acids and organic salts; occasionally a skeleton might be almost intact, in another neighbouring grave the body, though undisturbed, might be reduced to a scarcely distinguishable brown dust with perhaps a splinter or two of quite hard bone; often of a single bone, or of a skull, one half would be solid and intact and the rest would have disappeared completely: in this case, therefore, where logically bodies would be expected and where the objects were for the most part undisturbed, I do not think that the negative evidence is necessarily conclusive, although I admit that the disappearance of all bones would be surprising. At the time I suggested, in view of the absence of bodies, that this was not a grave at all but some kind of offering-pit; the subsequent discovery of royal tombs with 'death-pits'

closely resembling this shaft caused me to abandon the suggestion, but the difficulty remains.

Starting from where the *dromos* probably led into the pit, towards the south end of the south-east side, there came an area quite barren of objects; this is what we should expect in front of the entrance, but it is not unlikely that the space to the left of the door, against the south-west side of the pit, was occupied by a chariot, for two skulls of oxen lay just where they would have been had the animals been attached to a car; but, as has already been remarked, only the heads and not the bodies of the animals were found. The ground-plan, Fig. 4, shows immediately facing the entrance an object (1), which is the cylinder seal U. 9315; the position is only approximate. The seal was discovered before the existence of the shaft had been detected, and its find-spot was fixed by relation to another grave in the neighbourhood to which it was expressly noted that it did not belong; a later note records that the seal came within the limits of PG/580 and must belong to it, but the exact position of a small object apparently lying loose in the soil could no longer be recovered. The cylinder is of lapis-lazuli with two registers of figures in the archaic style of the Royal Cemetery, and bears an inscription 'lady of the god' of Pabilsag; *v.* Ch. XVI, p. 316, and Pl. 200.

Below the skulls of the oxen (2) was a bundle of ten bronze spears of the 'poker' variety (Type 1; U. 9123) grouped as if they had been tied together or placed in a quiver; the wood of the shafts was clear to see on the tangs; by them (3) was the fine electrum javelin-head U. 9122 (*v.* p. 292). Close to these was a set of eight light javelin-heads of bronze (4: U. 9141; Type 5), and at (5) was a set of four copper chisels and two gold chisels, while a fifth copper chisel lay slightly apart and with it a copper tool or hasp with coiled head (U. 9130–6). North-east of these lay a single bronze spear (6) of Type 1 (U. 9123) and two large whetstones (7: U. 9140); at (8) was the unique copper mace-head, U. 9137, Pl. 224, and close by it (9) a copper saw. Here too was a very remarkable object, a tool with flat blade and tang made of iron (U. 9139); it was too badly decayed for its type to be determined, but that it was a hammered blade was clear; on analysis the metal proved to be meteoric (*v.* p. 293), so that the tool or weapon must be regarded as a 'freak' not at all legitimately anticipating the regular working of iron.

More sets of weapons which must have been contained in quivers were strewn over the area to the right of the entrance; (10) was composed of light unbarbed arrow-heads of Type 5 c (U. 9338), (11) of barbed arrow-heads with hollow sockets (Type 1, U. 9342), (12) of harpoon-shaped arrow-heads (Type 4, U. 9336), and (13) of 'poker' spear-heads of a lighter and slenderer sort than in the big group (2); of these there were ten corroded together, of each of the other types the set was composed of four blades. Further to the north-east was another set of the slender barbed arrow-heads (14).

The greater proportion of the objects in the pit lay in the north-west half of it. Behind the group containing the copper mace-head and saw there was a third ox's skull, again with no remaining trace of body bones, and by it two silver jugs with tall necks and long spouts (Type 84, U. 9334) of the form

regularly used for libations; one was in good condition, the second badly decayed. To the north-east of these was an adze-head of electrum, U. 9339, (16) in the plan, the handle of which had been of wood overlaid with red gesso

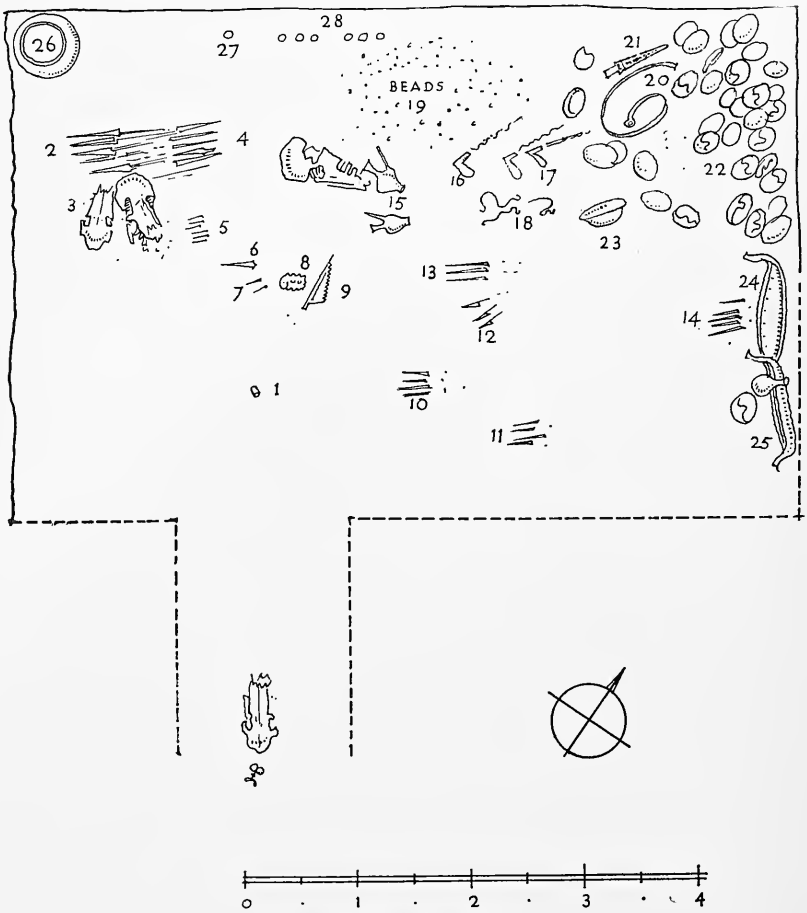


FIG. 4. PG/580. Scale $\frac{1}{50}$.

and bound with broad bands of thin sheet gold (*v.* Pl. 165). By it were two bronze axes which had had similar handles of red gesso and gold, capped in this case with large silver studs; the wood had perished, but traces of the gesso covering remained and the gold bands kept their position, so that a reconstruction was simple; the length of the handles was 0·47 m. and they were very slightly bent, thickened towards the butt and bevelled at the end; one of them had the figure of a bird roughly engraved on the blade (U. 9333, 9335, 9352, 9353). More gold bands of various sizes lay by the axes, and with them some

long twisted and curved copper rods (U. 9913, Pl. 226) which seem to have been the ends of bows; the gold binding presumably came from the bow handles. From here almost to the north-west side of the shaft the earth between the two layers of matting was full of an astonishing assortment of beads (19). They seemed to be in complete disorder, and there were single examples of types which only occur normally in groups, e.g. ring and leaf pendants, and a triangular bead from a 'dog-collar'; many were of gold, others of lapis-lazuli and carnelian (U. 9351); one gold pendant was in the form of a disk containing a twelve-petalled rosette in filigree-work. Towards the north corner was a group of objects which put this grave in a category by itself. Coiled loosely round, there lay what had been a belt or baldric of leather plated with silver (20); it was 1·35 m. long and 0·05 m. wide, and at one end there was a square buckle. Attached to it was a large cylinder seal of shell with lapis-lazuli caps, unfortunately almost completely decayed; only sufficient of the surface remained to show that it had had a design of fighting animals (Cat., U. 9341). Also (21) attached to the belt was the gold and lapis-lazuli dagger (U. 9361, Pl. 151). The hilt is made of a single piece of lapis studded with gold and is pierced with a lanyard-hole lined with gold; the blade is of gold, plain except for a roughly incised sign resembling a bird which is probably an ideogram.[1] The sheath is also of gold; behind it is plain except for two bands of beading and has two holes set horizontally to take the cords which secured the weapon to the belt; in front it is of open-work done in a design derived from the woven grass sheaths (cf. Pl. 224, U. 8246) in which were carried the daggers of the common folk; the workmanship is admirable, and combined with the richness of the material makes the 'Ur dagger' one of the finest objects resulting from the excavations.

Side by side with the dagger there hung from the belt an object only less noteworthy; this was a toilet-set (U. 9340) consisting of the usual ear-scoop, stiletto, and tweezers, but of gold and in a gold case. The three instruments have loops at the top made by thinning out the stem and bending it over and securing it by whipping round the shaft; they hung on a silver ring. The case is grooved and pierced near the top for attachment to the belt; it is of the usual triangular form, but is decorated with horizontal bands of ornament in relief, narrow bands of twist pattern separating wider registers of chevrons or spirals; the ornament is not applied, but the case has been cast in one piece (Pls. 137 and 151).

Round the belt and all over the north corner of the shaft the floor was covered with between forty and fifty examples of a copper object the nature of which I do not understand. They are shaped almost like helmets (*v.* Fig. 5), but are much too small; they might have been the butt ends of quivers, but they seem to be too numerous for that, and no arrows were found in them—and what would fifty empty quivers be doing in a grave? In no other grave in the cemetery were similar objects found, so there is no analogy to help us nor, if they be parts of something larger and more complicated, were there any other such parts found; the copper does seem to have

[1] E. Unger, in *Archiv für Orientforschung*, iv, p. 210 f.; cf. *infra*, p. 317.

been attached to wood, the shape of which could not be ascertained, but apart from that the 'quiver-ends' were isolated and unexplainable.

In contrast to most of the royal graves, PG/580 contained only one stone vase, a large bowl of steatite of the bell-shaped type 50 (U. 9354); it lay with the copper 'quiver-ends' close to the remains of bows (23 in plan). Against the north-east side of the shaft (24 and 25) were the remains of two bitumen model boats, one 0·37 m. long, the second over 1·00 m. long but fragmentary, a hemispherical copper bowl (Type 4), and a broken clay cylindrical vase (Type 16) and another bronze axe-head. This completes the list of objects found lying on the floor between the upper and the lower layers of matting and presumably in position.

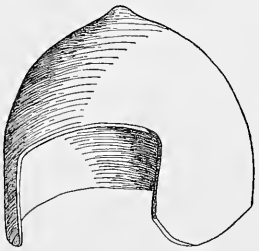


Fig. 5. Scale $\frac{2}{3}$.

But other objects were found both above and below the matting. In the filling of the shaft close to its north-east side and at about 1·20 m. to 1·70 m. above the matting there were numerous fragments of shell inlay, square plaques with animal scenes or rosettes or again with five inlaid dots, and pieces of strip border-inlay; they lay fairly close together but not all at the same level; clearly they came from a gaming-board such as that on Pl. 95 which had been broken either before it was put into the grave or more probably afterwards by tomb robbers or by the collapse of the earth filling due to the falling-in of a tomb-chamber (U. 9776, Pl. 99). With the inlay were a few gold and other beads, and in particular a curious gold bead made of four double conoids soldered together and decorated with applied filigree-work (U. 9657, Pl. 146). Over the north-west corner, at about 0·70 m. above the shaft floor, was a thin stratum containing many gold, lapis-lazuli, and carnelian beads all in disorder; one of the beads was of carnelian with a bleached pattern, some of the gold were double conoids of twisted wire. With them was a copper ring handle from a vase and the copper foot of a vase in the form of a bull's leg; two more feet of the same type were found on the far side of the shaft close to the bitumen boats and almost at their level. It is perhaps worth noting that although the beads were in disorder yet fairly often a number of one sort would come together, and it was evident that they had been put in the grave not as a mixed lot of loose beads but as necklaces which had subsequently been broken. Scattered in the filling were fragments of a tall vase of white calcite (probably Type 6), a plain copper bangle, and an ear-ring formed of two silver and one gold small lunate rings interlaced (U. 9700). High up near the north-east side of the shaft was a single length of gold chain from a *brîm* head-dress.

In the west corner of the shaft was a large pot of red clay, of which the upper part was broken away; it was difficult to say whether it was really below the matting or on the same level as it. In it was a gold hair-ring made of $2\frac{1}{2}$ spiral coils of gold wire (U. 9658), and by it were more beads of gold, lapis-lazuli, and carnelian. Under a stratum of earth 0·40 m. thick came a fresh lot of beads, and a little way off (27) was another copper 'quiver-end' 0·25 m.

below the matting of the floor-level, and at (28) six more lying immediately below the mats. At 0·40 m. below the matting came a long-handled copper pan (Type 95) and many fragments of copper vessels too broken for their types to be recognized. Near the north corner of the shaft and against the north-east side of it there were found at a depth of 1·20 m. below the pit floor two small figures silhouetted in shell for inlay (U. 9905, 9906, Pl. 99) and a much damaged square shell plaque engraved with an animal scene (U. 9909, Pl. 98); it is doubtful whether these can belong to the burial. The same is true of some objects found in the west corner below the second stratum of beads; they were the shapeless remains of a copper bowl and two shell plaques (U. 9306, Pl. 98) engraved with figures of animals together with some strips of shell and lapis-lazuli border-inlay. Also beneath floor-level in the same area there were some more beads of gold, lapis-lazuli, and carnelian and two long spindles of silver with lapis-lazuli spindle-whorls (Cat., U. 9777). Farther along towards the north corner there were found a white calcite vase of Type 88, in poor condition, a gold finger-ring made of plain wire with soldered ends (U. 9699), a finger-ring of gold cloisonné work set with lapis-lazuli, bent and with some of the stones missing (U. 9778, Pl. 138), and a magnificent gold bead, a double conoid 0·033 m. long, elaborately decorated with applied filigree-work (U. 9779, Pl. 138). Some of these small objects may of course have filtered down from grave-level into the loose soil of the rubbish-mounds, and the filigree bead in particular is of a character thoroughly consistent with the grave; it must be remembered also that they were discovered after the floor had been dug away and six months after the greater part of the tomb area had been cleared, so that accurate levels were difficult to establish, but they cannot be assigned to the grave without the *caveat* that the tomb notes record them as coming at a distinctly lower level.

In the process of clearing the tomb we encountered remains of mud-brick walls which at first we supposed to be connected with it, and they were accordingly shown on the plan of the royal tombs published in my provisional report and marked with the number of the grave; later these walls were followed up and found to extend considerably beyond the grave's area to the south-east and to be part of one of the houses which at a period older than the cemetery extended over the rubbish-mounds. The shaft of PG/580 had been cut down through this house ruin after it had been buried out of sight for many generations, and the connexion between them is purely accidental. No signs of any superstructure or of any walls belonging to the tomb were discovered.

PG/777. (*Pls. 3, 5–6, 22–3*)

The grave-shaft, orientated fairly accurately to the cardinal points of the compass, was entirely filled by the stone-built tomb structure. The entrance had been on the south-east side near the east corner, where there was a sloped *dromos* leading to the door, which we found blocked by a mass of stones set in mud mortar projecting into the *dromos* for a distance of 2·50 m. from the outer face of the tomb wall. The tomb had been plundered,

the robbers entering through a hole in the middle of the roof; they had pulled up three or four of the cap-stones, which after their work was done they replaced before throwing back the earth into their hole; this was presumably in order to hide the traces of their sacrilege. That they had been obliged to observe secrecy and haste seems to be shown by the fact that they overlooked a certain amount of the treasure set round the sides of the chamber and only plundered effectively the main burial lying directly under the dome. A second robber's shaft had been sunk almost to chamber level close to the east corner of the south-east wall, but had been abandoned before the masonry was reached; it was given a *terminus post quem* date by a broken dedication-cone of Ur-Nammu found in the bottom of it.

The shaft had been sunk in the undisturbed soil of the old rubbish-mounds and the stratification was unusually clear, the layers of black ashes, burnt earth, mixed rubbish, and pottery fragments sloping down sharply from east to west and visible for 3·00 m. above and for 1·80 m. below the chamber; above the chamber roof they showed on the face of the original shaft, newly exposed by us, and below its floor on the side of a pit which we dug to test the subsoil (*v.* Pls. 23*a* and 271). This is discussed on p. 14 in relation to the character of the cemetery site.

While the tomb occupied the whole of the shaft proper, there was a narrow trench cut against its north-east wall in which were the bones of three men armed with spears; in the *dromos* was a fourth; these are probably the soldiers of the guard, as we find them in PG/789, PG/800, and PG/1236.

The tomb was terribly ruined, the collapse of the roof having entailed the destruction of the upper part of the walls also. As it was the first example of a built chamber found by us, very elaborate notes were made to establish its character and the principle of the roofing, notes which were rendered largely otiose by the subsequent discovery of better-preserved tombs of the same type and therefore need not be given here at length; the substance of them is used in Chapter X on the architecture of the tombs.

Working down from the modern surface we had at the end of the season 1926–7 come upon a flat expanse of rough limestone rubble, large and small blocks, which had the appearance of a floor; we suspected that it might cover an important tomb, but did not imagine that it was the fallen roof of one. At the beginning of the season 1927–8 we went down into the middle of this expanse and found the chamber filled with fallen masonry. That the roof had fallen in at an early date was shown by the fact that the grave PG/513, which contained the inlaid gaming-board U. 9000 of characteristic 'royal tomb' type, had been cut down into the shaft of PG/777 and actually rested on the top of its ruined north-west wall; the robbery of the chamber must have taken place earlier still.

The entrance door led into a passage 4·50 m. long and 0·90 m. wide having on its left side a door giving on the main chamber; this had an area of 4·35 m. by 2·70 m. approximately—in both passage and chamber the wall face was too much ruined for accurate measurements. The outer walls were one metre thick built of unshaped limestone blocks set in mud-mortar; but the stones

had not been laid in regular courses: marks in the mortar on the wall face showed that a wooden caisson had been put up at a metre's distance from the earth face of the shaft's side and stones and mud had been thrown in to the space so left after the fashion of modern construction in concrete. On the

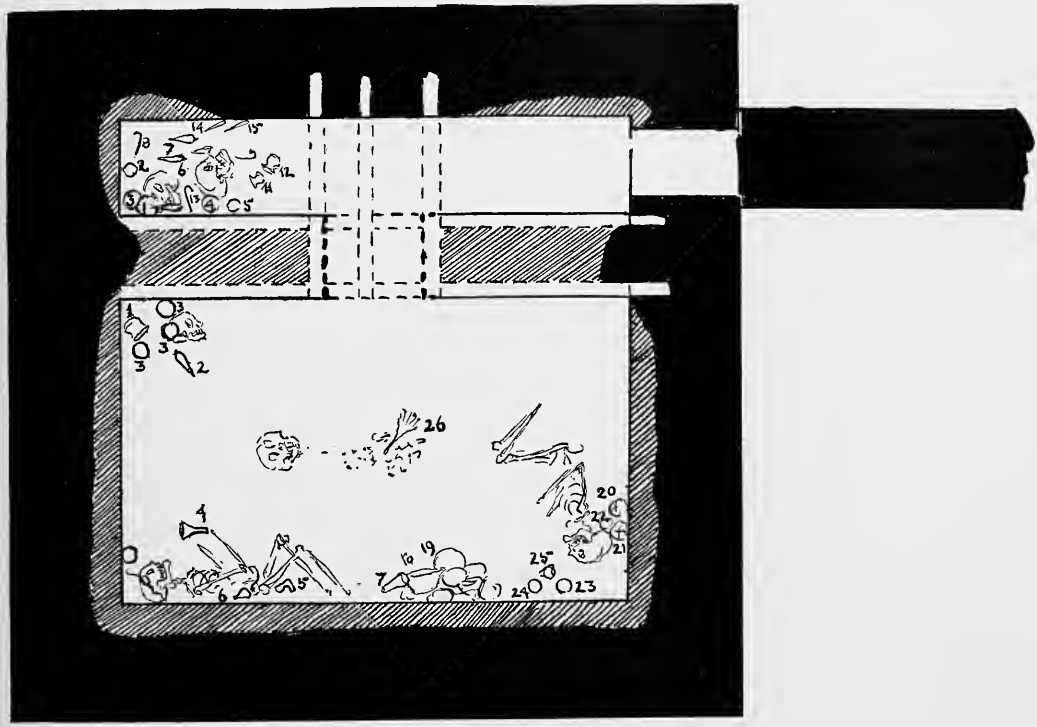


Fig. 6. PG/777. Scale $\frac{1}{50}$.

north-east side, perhaps owing to the looser character of the enclosing earth, the wall was partly built with plano-convex mud bricks. The party wall dividing the passage from the chamber had also been built between caissons. The floor was of clay, but the wall faces had been covered with a mud plaster of which traces remained just above floor-level; for the most part the bulging of the walls under the weight of the superimposed earth, even where the face had not fallen away altogether, had dislodged the plaster and left the masonry far rougher in appearance than it was when first built. The main chamber had been roofed with a dome of corbelled stone-work with rough pendentives reducing the square to a circle; there had been a timber centering to support it in the process of construction, and this timber was not removed afterwards but remained as a ceiling about 1·30 m. above floor-level; it is of course possible that the cross timbers were cut away so as to expose the stone roof,

but we actually found the remains of the bracket beams embedded in the masonry and one (rather slender) pole running right across the room, so that even though no other beams were detected the evidence for a permanent ceiling seems fairly strong. In this respect the tomb differs from, e.g., PG/1236, where the stone roof was exposed; here we may rather regard the chamber as flat roofed and the dome as a relieving-arch intended to resist the pressure of the soil. The passage was stone vaulted, with a barrel vault built also over a wooden centering which was left *in situ* as a ceiling. The outside of both vault and dome were thickly plastered with stiff green clay; the stones were set in a tenacious red clay very much stronger than the mud mortar of the walls.

In the passage there were remains of four human skulls, all broken, and a few scattered bones.

The objects were: (1) a pot of light drab clay, Type 108, and by it two broken clay saucers of Type 5; these lay high up in the filling. Nos. (2) to (5) were copper vessels, two of Type 4, one of Type 7, and the rest too fragmentary for their shapes to be recognizable; (6) and (7) were bronze spear-heads, U. 9963, Pl. 226; (8) was a copper pin, U. 9964, Type 7; by the skull shown in the ground-plan were some lapis-lazuli double conoid beads and some of wood (U. 9965) and a pair of silver ear-rings (U. 9966). Under the copper pot (4) were some human teeth, more lapis-lazuli beads, and some shapeless remains of silver. Nos. (11) and (12) were two very small clay pots both hopelessly decayed; (13) was a copper pin with lapis-lazuli ball head, Type 7, U. 9967, and (14) and (15) were two more bronze spear-heads like (6) and (7). In the west corner with the remains of another skull were a silver ear-ring, U. 9966, a string of lapis-lazuli double conoid beads, U. 9960, a string of double conoid wood beads, U. 9959, a dagger, U. 9961, and a silver pin with lapis-lazuli ball head of Type 7, U. 9962.

Here there are no objects of value. It is of course impossible to argue to any conclusion from evidence so incomplete, for the looting of the chamber may have been very thorough—judging from the fact that all the human remains and virtually all the objects were bundled together at the end of the passage farthest from the entrance the robbers had been through things searchingly, and there is no saying what they may have found and removed. But it is none the less true that what does remain is of poor quality, exactly what one would expect to find on the bodies of servants, and this fact together with the character of the chamber itself, which is at best no more than an ante-room, supports the view that the outer chamber of this stone tomb corresponds to the 'death-pit' of such a grave as PG/789, where the single-roomed structure has the open pit to accommodate the servants and attendants of the dead king.

In the main chamber most of the objects lay against the side walls and in the corners. In the north corner, with fragments of a skull, there was a white calcite vase, U. 9790, of Type 64, a bronze knife-blade, U. 9791, of Type 3, three clay saucers of Type 5, and some cockle-shells containing paint; close by were fragments of an ostrich-shell. In the west corner there was a burial of a man, practically undisturbed. To it may have belonged a copper tumbler (Type 42), fragments of which lay to the north-west of the body (4); on the forehead was a gold diadem engraved with a star rosette, U. 9781, Pl. 219; he wore also a *brîm* head-dress of two lengths of silver chain with three large double conoid beads, two of lapis-lazuli and one of gold (U. 9798, 9782), and had (5) a bronze axe, U. 9788, of rather primitive type (A 4) and (6) a razor, U. 9789. By the body there were fragments of silver plating, very thin, with nail-holes along the edges and remains of wood attached; perhaps it was the casing of a box.

Against the south-west wall of the chamber there was a heap (7) to (19) of crushed and broken copper vessels including two examples of Type 69, two of Type 1, two of 26, and one each of 4, 42, 93, 97, and 86; inside the last there was found a splendidly preserved fluted silver bowl of

Type 89, U. 9797, Pl. 172; the acids in the soil had expended all their strength on the copper, and whereas silver is generally found to be in a lamentable condition the metal in this case was not only strong but actually bright. Two clay pots, both broken, of Types 208 and 154, lay with the metal vessels.

In the south corner was a third burial, the bones partly preserved, and with it a silver ear-ring, U. 9966, two copper pins, U. 9795–6 of Types 1 and 4, and a string of beads including two of gold, the rest of lapis-lazuli and carnelian, U. 9784. By the body were (20–1) two limestone bowls, U. 9793–4, and (22) a clay bowl of Type 18, but with a more pronounced in-turned rim; on the other side of the body were a red clay pot of Type 61, a drab clay pot of Type 63, both in fragments, a copper cup with a small ring for suspension soldered to the rim (Type 41), also in very bad condition, and a copper ear-ring (23–5).

Towards the middle of the grave there were fragments of a fourth skull and a small collection of jewellery. The chief of these (26) was a silver head-ornament or 'comb' (Cat., U. 9785) of the usual broad-palmed type with seven points ending in balls of lapis-lazuli; with it was a wreath of carnelian and lapis-lazuli beads with gold ring pendants (U. 9783; cf. Pl. 220), and a quantity of silver hair-ribbon, and remains of a diadem resembling that of Queen Shub-ad (Pl.140); there were numbers of very small lapis-lazuli cylinder beads, gold and silver flower rosettes mounted on short stems of gold-plated copper to the other end of which were attached a pair of gold leaves, and small palmette pendants of silver wire; all were crushed and decayed, but their use as a diadem was unquestionable (U. 9786–7).

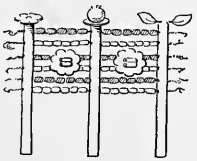


FIG. 7. Scale $\frac{2}{5}$.

The principal burial had of course been thoroughly looted by the tomb-robbers, and it is impossible to say whether the jewellery last described belonged to it or to a female attendant wearing 'court dress'; perhaps in view of the analogy with Queen Shub-ad the former is the more likely, and no attendant was ever found wearing that particular kind of diadem. If that be the case, then, judging from the quality of the surviving objects, the tomb was never so rich as that of Shub-ad, or indeed as any of the stone-built tombs lying to the east and north-east of it, and that conclusion would tally with the fact that its floor and wall-plaster were of mud instead of cement, as in PG/755 and PG/1236. The same reasons might be urged for assigning to the tomb a relatively early date, which would agree with its position, if I am right in suggesting that the general trend was from south-west to north-east, and the axe U. 9788 does look early; but this is a hazardous and in view of the scarcity of objects a not very profitable speculation.

PG/779. (*Pls. 5, 6, 8, 24–8*)

This is one of the two largest tombs found. At 6·20 m. from the modern surface there were found a number of blocks of limestone rubble piled in disorder and covering an area about 2·50 m. by 1·50 m.; below them was fallen mud brick. It is possible that here we have remains of a building half-way up the shaft of the tomb. If such had ever existed it must almost certainly have been destroyed by the diggers of later graves (PG/755, the grave of Mes-kalam-dug, lay partly in the shaft of PG/779 and so is necessarily later than it in date; and there were others more directly above the tomb) and by the tomb-robbers; but there was nothing found here, apart from the stone and brick, which would prove an offering-chamber of the sort. At 1·50 m. below the layer of stones came the roof of the chamber proper (Pl. 26 *b*). The rectangular shaft measured 12·00 m. by 8·50 m. and was approached

from the north-west by an earth-cut *dromos* which began with definite steps and continued below with a ramp having a slope of about one in three, the steps having given a somewhat steeper rise; the *dromos* was 1·50 m. wide and was preserved for a length of just over 4·00 m., the total descent giving 2·30 m. The whole of the shaft was occupied by a stone-built structure containing four chambers arranged exactly like those of PG/1236; the arched door led into a long narrow chamber running the whole width of the building, a door in the far wall of this led into a small square chamber occupying half the building's width, and from this doors led to a second small square chamber alongside and to a long narrow chamber corresponding to the first and taking up the whole back part of the building. The floors, now convex in shape owing to the sinking of the wall foundations, were of fine smooth cement. The face of the stone walls and of the door-jambs had also been carefully plastered with cement, but because of the sagging of the stone under pressure from the soil most of the plaster had fallen away and it was only in the corners and to a short height above the floor that any of it was at all consistently preserved. The two long chambers had been roofed with corbelled vaults of limestone rubble. About sixteen courses of projecting stones reduced the width from 2·25 m. to 0·30 m., and then two or three courses were carried up vertically and covered in with a flat cap-stone, giving a total height of 2·00 m.; it was noticeable that the corbel courses were laid not flat but with a distinct inward slope such that they almost seemed to be voussoirs of a true arch, but the use of the cap-stone instead of a keystone makes the description of the construction as corbelling inevitable. At the same time it may well be that the manner of laying the stones betrays the work of builders to whom the true arch was not unfamiliar. The vault is regular for the greater part of its length, but the ends are apsidal; for this, stones set across the corners of the chamber act as pendentives, reducing the right angles to curves, and on them the end of the vault is built domically. This was the normal practice of the Sumerian builders of the royal tomb period. The photographs on Pls. 26*a*, 28*a* show a very different construction in the roofs of the end chambers and that in the centre. The two small middle rooms were badly ruined; the dividing wall, weakened by having a doorway through it and having to bear the weight of a double roof, had collapsed and in its fall brought down the whole of the roof of Chamber *B* and most of that of Chamber *C*; fortunately enough of the latter was left to prove that it had been a dome constructed after the fashion of the dome found by us intact in PG/1054: it can be seen that it is an instance of ring-dome construction, with each course sloped inwards and projecting beyond the course below it.

The tomb had been plundered from above; the door-blocking had disappeared and the jambs were damaged, and it is likely that the robbers' hole came down just at the entry and that they destroyed that and part of the roof —the fall of the rest was a natural consequence. Over Chamber *A* a fair amount of the roof was found by us intact but in so dangerous a condition that the stones had to be removed before the interior could be cleared (Pl. 26*a*), and over Chamber *D* the south-east half of the vault had sunk

but not fallen, being supported by the soil inside; here, too, most of what remained had to be pulled down by us, *v.* Pl. 28. The *dromos* was undisturbed (Pl. 25*b*). On the slope below the steps there were ten copper spears in a row, all of Type 2 (U. 10841), and below them, but so decayed as to be scarcely recognizable, were the bones of the soldiers of the guard; there seemed to be five bodies, but it was impossible to be sure.

Of the entrance door enough was standing to show that it had been arched with stone, limestone rubble like that of the walls, laid voussoir fashion; the springers can be seen in the views on Pls. 25*a* and 25*b*. The south-west end of the chamber *A* served as a passage to the rooms beyond, but it was at the same time, apparently, a burial chamber and an important one. At the north-east end there were five depressions in the cement floor; the central depression was a rectangle measuring 2·30 m. by 0·60 m. and was 0·25 m. deep; beads and such small objects were found in it, and it is undoubtedly the pit for a coffin. At each corner of this were small rectangular holes each about 0·35 m. wide and varying in length from 0·65 m. to 0·85 m.; that in the north corner was 0·50 m. deep and was neatly covered by a smooth flat stone (though it is possible that this was but an accident), the east and west holes were quite shallow, and so apparently was that at the south corner, though this could not be cleared as the stones over it had to be left to support the roof. It looked as if the smaller holes had been intended to take timber, and one suspects a sort of catafalque above the coffin. Behind it the northern end of the north-east wall showed on its cement plaster a patch about 0·60 m. by 0·40 m. some 0·40 m. above floor-level; it was evanescent and had all the appearance of paint, but of this I could not be sure, and it certainly bore no visible design.

Apart from the mixed beads found in the coffin-trench there were scattered about the floor fragments of an ostrich-shell with coloured encrustation like U. 11782, two shell staff-heads inlaid with rosette patterns in red and blue, U. 10988–9, Pl. 103, two copper razors, U. 10991, and two of silver, U. 10992, five shell roundels, U. 11167, a whetstone, a hair-ring of spirally coiled silver wire, a silver pin of Type 1 with lapis-lazuli head, U. 11168, and two copper pins of the same type, one with a lapis and one with a copper ball head.

In Chamber *B* there were only a few beads. In Chamber *C* there was, at the north-east end, a feature closely resembling that in the first chamber, a depression in the cement floor 2·00 m. long by 0·70 m. wide and 0·40 m. deep, and by each of its corners a hole roughly 0·40 m. across, three of them approximately square and one circular; here again one may suspect a coffin covered by a catafalque. Here too the plundering had been thorough, in fact it was clear that some of the things found in this and in the first chamber really belonged together and had been carried about and flung away by the robbers; but in the east corner and against the north-east wall were a number of objects which might be regarded as being in position. At (1) was a pair of copper razors, U. 10994, (2) a small copper bowl of Type 4, d. *c.* 0·11 m., crushed and broken, (3) a white calcite vase of Type 87, U. 10996, its surface

much decayed, (5) a copper ladle, l. 0·20 m., U. 10997, (6) a silver fluted tumbler of Type 43, U. 10998, (7) a cockle-shell, and (8) another ruined copper bowl of Type 4. That these objects had not been seriously disturbed was shown by the presence amongst them of a human skull (9) which, as it retained its ornaments, cannot have been thrown here by the robbers. By it were two silver pins with ball heads of lapis-lazuli capped with gold, one of Type 1, one of Type 7, U. 10999 and 11000, a third pin of silver with plain silver head, U. 11151, a pair of silver wire spiral hair-rings, U. 11152, and a second similar pair, a necklace of small lapis-lazuli and gold date-shaped and ball beads. This skull, and a few bones, must represent the body of an attendant who lay close to the coffin or bier as did the attendant of Queen Shub-ad.

Inside one of the supposed post-holes was (10) a copper bowl, very much broken, apparently of Type 11; it contained a quantity of animal bones, including some large bones which had been broken so as to extract the marrow. In the coffin-trench, besides numerous lapis-lazuli beads, there were found two small engraved shell plaques and one round black game-counter with five white dots inlaid in it, U. 11162, cf. Pl. 96. At (11) was a gold vase copied from an ostrich-shell, the base and rim decorated with applied mosaic in lapis-lazuli, red limestone, and mother of pearl, U. 11154, Pl. 170; by it was (12) a similar vase but of silver, also decorated; this was in a hopeless condition. A shell cylinder seal, much decayed (U. 11159), and a plain gold ring probably from a belt, a second cylinder seal also of shell and also much decayed, U. 11176, a pair of copper tweezers and a stiletto from a vanity-case, U. 11160, and a gold ear-ring of the lunate type, U. 11158, completed the list of objects found in the chamber.

In Chamber *D* there were the remains of at least four human bodies, but they were represented by very scanty fragments and even the skulls of two were lacking. Beads were as usual scattered over the floor, and with them three silver ear-rings (U. 11166), pieces of gold binding, probably from the handle of a weapon such as the adze (U. 11170), a silver pin with lapis-lazuli head (U. 11171), and a gold ear-ring (U. 11172). Of the more important objects (1) was a bronze adze, U. 11163; (2) was a gaming-board of engraved shell plaques with lapis-lazuli borders, set in silver (U. 11162); it was very badly smashed and the shell was a good deal decayed, but it had been a magnificent piece, *v.* p. 277 and Pl. 97. (3) was a small cup of thin gold, originally not very well made and now much crushed (U. 11161, Pl. 240), which was found resting on the finger-bones of a body the head of which had disappeared (the skull shown on the plan belonged to a different skeleton); the two bodies, if their remains could be trusted, had lain side by side in the middle of the chamber. At the south-west end there were remains of two more bodies, one very fragmentary; the better preserved had its head in the corner of the chamber, close to the south-west wall, and probably to its sheltered position was due the preservation of the finest object in the tomb.

The head of the man was entirely covered with thousands of minute lapis-lazuli ball beads, they lay over and under the broken skull and were

thick in the surrounding soil; it appeared that he had worn a cap which was *parsemé* with beads. There is no analogy in the cemetery for such a head-dress, though for workmanship of the sort we have a parallel in the beaded diadem of Queen Shub-ad; but there seemed no other explanation for the number and position of the beads. Above the man's head and slightly to the right of it, against the stones of the tomb wall, was the so-called 'Standard' of Ur. The whole tomb had been cleared except for this corner, where there seemed small probability of anything being found, for the south corner and the south-east end generally had produced nothing at all. The discovery of the bead 'head-dress' put the workmen on their guard and involved special care; then amongst the beads appeared a few minute squares and triangles of shell and lapis-lazuli mosaic, and after them two or three figures silhouetted in shell: they were the inlay from the smashed-up end of the standard. Then the standard itself began to come to light. This remarkable mosaic (U. 11164, Pls. 90–3) is described and discussed on p. 266 *et seq.*; here only the circumstances of its finding need be given.

It lay right way up, i.e. with the heads of the figures nearest to the wall of the room, with the side representing 'War' uppermost. The wood which had been its core had vanished (traces of its grain could be distinguished on the bitumen afterwards) and the bitumen in which the tesserae were set had gone to powder, so that the tesserae were loose and kept in place only by the soil. With the decay of the wood two things had happened: the two main panels had been telescoped together, with the result that the triangular ends had been pushed out and broken; and the individual tesserae had sunk, thanks to their own weight and to the pressure of the earth, into the powder which now replaced the once solid core, and as they were of different thicknesses had not sunk equally or straight. Moreover, heavy stones falling from the roof had further bent and distorted the panels and had broken away the lower right-hand corner of the 'Peace' scene, including three of the figures, and a smaller piece from the top left-hand corner of 'War', dislodging several bits of the lapis-lazuli background and the bit of shell which bore the heads of the animals drawing the king's chariot; this last fragment must have been struck with such violence as to start it from its setting and throw it to some distance, for it was not found in the neighbourhood of the panel at all; indeed its absence was not remarked until after the 'Standard' had been brought to London. The missing heads were found in the following year in the earth removed from the tomb.

Such was the condition of the mosaic that it was only possible to clear a square inch or so of it at a time, and even then some of the dust had to be left on it, for the minute shell triangles of the border were so light that the most careful brush-work could not help but displace them. As soon as a few tesserae showed, boiling wax was poured over them to hold them in position, and the process was repeated until the whole panel was waxed, by which time what with wax and dirt it was completely invisible. Then muslin was waxed down on to the surface, to bind it, and the panel was lifted in one piece. This disclosed the presence of the second panel, lying face downwards; one

piece of it, caught by the hot wax permeating the soil, had stuck to the upper panel and came away with it, but could easily be detached and replaced. The 'Peace' panel was then waxed from behind, strengthened with muslin, and lifted; afterwards wax and muslin were applied to the other sides also. One of the end triangles which was still in tolerable condition and was attached to one end of the 'War' scene was lifted with it; the other end was completely smashed and only its scattered fragments could be collected. For restoration purposes the cloth and wax were removed from the face of the panel, which was then laid face downwards on celophane over a sheet of plate glass and heated. As the wax got soft the individual tesserae were pressed down from behind against the glass until the whole face was level, and so far as possible sideways pressure was exerted so that gaps between the tesserae due to the distortion of the panel were filled in, the bits of inlay gradually coming together, and a certain amount of the accidental crookedness was corrected. The process was piecemeal and slow and had to be repeated a great many times, and only a very moderate heat could be applied for fear of breaking up the design should the wax that held the inlay become too fluid. When the operation had gone as far as seemed wise the panels, still held together by muslin, were fixed with a hard wax compound (hominit) to a wooden core made to fit as closely as might be the still rather distorted panels; serious gaps, in the border and at the left-hand end of the 'Peace' scene, were filled in with vulcanite, and thin strips of wood took the place of shell missing from the edging. Except, therefore, for the completely broken-up triangular end, the corner from which three figures had been dislodged in the 'Peace' panel, and the replacing of the single tessera with the animals' heads in 'War', there has been no reconstruction of the standard; what modern patching there is in the border is undisguised; apart from that, the separate pieces of inlay have never been taken apart and replaced but remain in the position in which they were set by the original artist. Some of the shell figures have suffered so much from decay as to be almost unrecognizable and two or three are missing, perhaps perished, possibly overlooked by us, though that is improbable unless, like the piece with the asses' heads, they had sprung very far away and were in the soil removed before the existence of the mosaic was known. Taken as a whole, the standard is unusually authentic and, considering how peculiarly liable to destruction it was, wonderfully perfect.

PG/789. (*Pls. 3, 29–35*)

'THE KING'S GRAVE'. The burial pit was a rectangle measuring 10·0 by 5·00 m. and lying north-east by south-west, entered by a slope *dromos* on the north-west side at the west corner. The floor of the pit was 8·30 m. below the modern surface; there were no means of estimating the original depth. In the north corner, against the north-west side, was built the tomb-chamber, a single chamber measuring internally 4·00 m. by 1·80 m., with a door in its south-east wall. The walls of the chamber were of limestone rubble up to a height of 1·50 m., above which came a single course of burnt brick; on these rested beams which supported the centering for the roof. The roof was of

burnt bricks (0·305 m. sq., with half-bricks 0·305 m.×0·16 m., and 0·085 m. thick; they were very nearly flat) and consisted for the most part of a barrel vault formed by contiguous ring arches, but the ends were apsidal, half-domes supported on pendentives. The doorway in the south-east wall was arched with burnt brick. The method of construction was the true arch; the bricks were ordinary bricks but the joints were radial, fragments of brick or broken pottery being often inserted in the outer part of the joint in the mud mortar. The arches did not all consist of the same number of bricks; in the part still standing the rings have fourteen, seventeen, and eighteen bricks respectively, so that the back of the vault must have been humped towards the centre; there is a slight but definite slope away from the vertical in the rings, so that in the course of construction each leant against and received a certain amount of support from its neighbour; this is the rule in primitive ring-vault building, and a natural corollary is the increasing of the size of each new ring so as to utilize to the utmost the support of that already built by getting so to speak above it. The doorway arch consists of twenty-six bricks, giving a span of 1·15 m., and had no tilt. The apsidal ends show a combination of corbel and domical construction. Of the roof, the apse at the north-east end and three of the rings of the vault were found still standing; the rest had fallen; the door was intact, still blocked by a rough walling of brick and stone, and the arch, though distorted by pressure, was unbroken. The walls had been mud-plastered inside and out—but with the sagging of the stonework most of the plaster had fallen and the wall face was rough in the extreme—and the chamber floor was of beaten mud.[1] Outside the chamber the earth sides of the open pit were hidden by a dado of reed matting, and mats were spread over its floor also.

Half-way down the *dromos* there was a circular pit 0·75 m. in diameter and 2·50 m. deep; at the bottom of it there was water-sodden earth, but no objects were found in it; probably it was a hole made for libations. Close to it, on the north, was the lower part of a regular drain made of clay rings fitted one inside the other; only two sections remained, giving a depth of 0·42 m. with diameter 0·22 m.; its connexion with the grave was not at all certain, and it seemed more likely to be the remains of a drain serving one of the buildings which at a much later date occupied the site. It is true that we have an analogy for a proper drain connected with the grave in PG/1054, but here the soil had been disturbed right down to the top of the remaining pipes and it was impossible to say that they had not originally continued upwards.

At the foot of the *dromos* lay the bodies of six soldiers (Nos. 45–50) wearing copper helmets and carrying spears; their skulls formed a rough triangle with three in the bottom row, two in the middle, and one at the apex; the head of the uppermost was only just below the circular libation-pit already mentioned; under the head of one in the second row was a clay bowl of Type 1. The helmets were broken and crushed flat so that it was not easy to see their true shape; the sketches on Pl. 218, together with the photographs on Pls. 148–9, give as detailed a description of them as can be attempted, and it

[1] Further architectural details of the tomb-chamber are recorded in Ch. X, p. 233 *et seq.*

is clear that they closely resemble those worn by the soldiers on the inlaid 'Standard'. On the blade of each spear was engraved a bull's leg, apparently the badge of the king's bodyguard (U. 10825–8; Types 3 and 6; Pl. 189). In the shaft immediately in front of the entrance were the remains of two chariots or wagons each drawn by three oxen; they had been backed down the slope and had taken up their position with the animals abreast facing the *dromos* and had been killed there: by the animal heads was the body of a groom (No. 44), and by the side of one chariot and behind the second lay the skulls of their drivers (Nos. 43, 36). The woodwork of the wagons had perished, but of certain parts of them a very clear imprint was left in the soil and could be photographed and measured (*v.* Pl. 33); they were of the same type but not of the same size. The first, that in front of the entrance, had front wheels with a diameter of 0·60 m. and back wheels of 0·80 m. with an axle-hole 0·10 m. in diameter; the axle length was 0·70 m. and its diameter 0·14 m.; the body of the car was 0·56 m. wide and copper bolts (U. 10555) 0·185 m. and 0·105 m. long secured it to the axle-box—unless indeed the wheels revolved on a fixed axle, in which case it was to the latter that the body was nailed. The second wagon had four wheels of the same size, 1·00 m. diameter, and the axle was 1·00 m. long, but the body of the car seems to have been only 0·50 m. wide; the sides of it could be traced only as far as the axles, but it must have overlapped them to some extent. All the wheels were of solid wood, apparently made up of three pieces (cf. the wagon in PG/1232), and they had tyres; round the rim was a band of decayed white substance which seemed to have the texture of leather—this was very clear in the case of the first wagon and can be seen in the photograph; in the second it was less obvious. I was at first inclined to think that the wheels were fixed to the axle which revolved with them, but the fact that the axle-hole is circular is an argument against this, and although the traces in the ground were not enough to prove that the central part of the axle-tree was square, yet the position of the copper nails does rather suggest that the body of the car was fixed directly to the axle-tree itself. This seems to be the case in PG/1232 also.

From the front of each wagon projected a pole on which at a point 2·70 m. from the front axle was fixed a terret or rein-ring; one of these was of silver and was well preserved (U. 10551, Pl. 167), the double ring surmounted by a mascot in the form of a standing ox; the other, which was of copper, was completely decayed but had been of the same form. Through the rings passed the reins, which were decorated with very large silver date-shaped beads (0·10 m. long) interspersed here and there by smaller beads of lapis-lazuli; they were lying in order, but the silver beads, made of thin metal over a bitumen core, were too far decayed to be re-strung (U. 10550, 10590) (Fig. 8).

The draught oxen (*v.* p. 409) were rather small beasts but with a good horn span of 0·45 m. Each had a silver ring in its nostrils, for guidance, and a silver collar 0·09 m. wide decorated with a repoussé pattern of eyes in square compartments with a rayed border (U. 10835, Pl. 39); the reins appeared to be made fast to the collars. The collars seemed to be more or less crescent-shaped, 0·09 m. being the greatest measurement, which narrowed at the ends,

and judging from the remains on the two lowest animals the broad centre came in front of the chest—it was lying actually underneath the bones of the neck; the reins came to the narrow ends, which must have met over the back in front of the shoulders. The loop made by the reins was curiously short, coming only just behind the rump, and there was only one set for each car, not one for each animal; it is of course possible that they are not reins at all but an ornament of the harness. As to the details of the harness we can say nothing, for no further traces of it could be discerned; for such we must look rather to the pictures on the 'Standard', &c., *v.* p. 270; but it is legitimate to assume that here where there are three beasts fastened to the car instead of the four shown in the representations, two of them were harnessed one on each side of the pole and the third was a tracer.

FIG. 8. Scale $\frac{1}{25}$.

In the car of the first wagon was a dagger with bronze blade and a richly decorated handle; the guard was of gold set with studs of lapis-lazuli, and the hilt was plated with silver having gold studs in its pommel (U. 10553, Pl. 157), and by it was a whetstone of lapis-lazuli hanging on a gold ring (U. 10552, Pl. 174). Behind the second wagon was a silver bowl of Type 7 (U. 10554).

North-east of the wagons the whole floor of the open pit was covered with human bodies. Most of the bones were so completely decayed, reduced in fact to a layer of brownish powder, that the attitudes of few of these could be definitely fixed and we had to content ourselves with noting the position of the skulls in so far as the presence of the teeth or of bead necklaces, ear-rings, &c., betrayed their presence. Including the soldiers at the entry, the total number of victims in the death-pit was sixty-three. Half-leant against the south-west wall of the tomb-chamber was a row of women (Nos. 51–62), the most important, or at least the most richly adorned, of all in the grave; of the rest many were women, others, especially those who lined the passage leading to the chamber door, were men and apparently soldiers: all these were relatively poorly equipped. The objects found with each body were as follows:

No. 1. Two silver hair-rings, necklace of lapis-lazuli double conoids, necklace of silver date-shaped beads, necklace of lapis date-shaped beads with some carnelian rings. U. 10592. Fragments of small clay pot.

No. 2. Silver hair-ring, necklace of lapis, silver, and carnelian beads, copper pin with lapis head, a few small flat strips of gold leaf, small white calcite bowl, fragmentary. U. 10593.

No. 3. Silver hair-ring, small lapis double conoid beads, some silver beads, cockle-shells with green and blue paint. U. 10594.

No. 4. Two gold hair-rings, silver, lapis, and carnelian beads, copper pin of Type 1, fragments of small limestone bowl, cockle-shell with black paint. U. 10595, 6.

No. 5. Silver hair-rings, some small lapis and one gold bead, copper pin with lapis head and fragment of a second, remains of small white calcite bowl. U. 10597.

No. 6. Nothing.

No. 7. Silver hair-ring, lapis and silver beads, silver pin with lapis head, copper pin with lapis head, remains of white calcite bowl, cockle-shell with paint. U. 10598.

No. 8. Necklace of gold and lapis double conoids with carnelian rings, silver pin with lapis head, gold finger-ring, remains of a copper and of a white calcite bowl, cockle-shells with paint. U. 10599.

No. 9. Three silver hair-rings, small silver and lapis beads, silver pin with lapis head, silver wire bracelet, remains of white calcite bowl. U. 10800.

No. 10. Two silver hair-rings, necklace of small lapis date-shaped beads and carnelian rings strung alternately, with a gold fly amulet, necklace of large lapis and silver double conoids, copper pin, conch-shell cut as a lamp, silver wire bracelet, cockle-shells with green and white paint. Also some short lengths of gold hair-ribbon folded up into little lumps; the total weight of these was one shekel. U. 10801.

No. 11. Necklace of small lapis double conoids, necklace of gold and lapis long date-shaped beads, copper pin with lapis head, remains of calcite bowl, cockle-shells with paint. U. 10802.

No. 12. Silver hair-rings, necklace of silver and lapis double conoids, necklace of gold and lapis balls and carnelian rings, copper pin of Type 1, remains of calcite bowl, cockle-shells with paint. U. 10803.

No. 13. Silver hair-rings, silver date-shaped beads and carnelian rings, silver wire bracelet, white shell cylinder seal, copper pin of Type 1, cockle-shell with paint. U. 10804.

No. 14. Silver hair-rings, necklace of gold and lapis double conoids, necklace of lapis double conoids, copper pin of Type 1. U. 10805.

No. 15. Silver hair-ring, small lapis and silver double conoids, silver pin with lapis head. U. 10806.

No. 16. Three silver hair-rings, 'dog-collar' of gold and lapis, necklace of lapis double conoids, silver pin with lapis head, copper pin of Type 1, conch-shell cut as a lamp, remains of silver object, possibly a comb, remains of two small calcite bowls. U. 10807.

No. 17. Silver hair-ring, necklace of small lapis double conoids, necklace of small shell rings, copper pin with lapis head. U. 10808.

No. 18. A copper helmet flattened and much decayed; under the man's chin passed a slender strip of silver, *c.* 0·37 m. long, of which one end was plain and one coiled; it came up on each side of the face to the lower rim of the helmet and looked like a metal chin-strap, *v.* Pl. 218. The man wore two silver lunate ear-rings, small type.

No. 19. One silver hair-ring, a *brîm* of two silver chains and two lapis and two silver large date-shaped beads; at the waist a dagger. U. 10810–11.

No. 20. A pair of copper tweezers, and at the waist a dagger and a whetstone. U. 10812.

No. 21. Remains of a *brîm* with two silver chains and one gold and two lapis large date-shaped beads; at the waist a dagger. U. 10813.

No. 22. Dagger. U. 10814.

No. 23. Remains of a *brîm* with silver chains and two lapis and one silver large date-shaped beads with carnelian rings, necklace of lapis double conoids, silver pin with lapis head, two silver hair-rings. U. 10815.

No. 24. Two silver hair-rings, necklace of gold and lapis double conoids with carnelian rings, necklace of lapis double conoids, necklace of silver double conoids (the last two perhaps one string), two limestone bowls, silver pin with lapis ball head, a few shell rings worn in a row on the breast, clay pot of Type 90, cockle-shells with paint. U. 10816.

No. 25. Silver hair-rings, copper pin of Type 1, cockle-shells with green paint. U. 10817.

No. 26. Silver hair-rings, necklace of gold and silver double conoids and carnelian rings, copper pin of Type 1, shell rings worn in a row on the breast, cockle-shells with paint. U. 10818.

No. 27. Silver hair-rings, necklace of silver and lapis double conoids, a silver and a copper pin, both with lapis heads, cockle-shells with paint, a limestone bowl of Type 22. U. 10819.

No. 28. Silver hair-rings, necklace of silver double conoids, copper pin of Type 1, silver finger-ring, conch-shell cut as a lamp, remains of a limestone bowl, cockle-shells with paint. U. 10820.

No. 29. Silver hair-rings, a very slender silver hair-pin, necklace of silver and lapis double conoids with one gold and two carnelian in centre, silver wire bracelet, limestone bowl, cockle-shells with paint. U. 10821.

No. 30. Silver hair-ring, silver pin of Type 1 with lapis and gold fluted ball head, lapis cylinder seal (Pl. 195), a limestone and a copper bowl. U. 10822.

No. 31. Silver hair-ring, gold and carnelian long date-shaped beads, gold and lapis barrels, carnelian faceted double conoids, apparently three strings in disorder, lapis cylinder seal, Pl. 194, two silver pins of Type 1 with lapis and gold ball heads, a silver fluted tumbler, Type 43, and a copper lamp, sixteen silver rings, d. 0·04 m., and some silver on the head, apparently a fillet; remains of two limestone and one copper bowls. The silver rings went right round the body and must have been ornaments of a belt; a larger ring came in the middle. U. 10823.

No. 32. Two silver hair-rings, remains of a silver head-ornament of the 'comb' variety, Pl. 219, in very bad condition, necklace of gold and lapis double conoids, silver pin with lapis ball head, fragments of a dagger, three small vases of white calcite, Types 61, 89, and 90. U. 10824.

No. 33. Bronze axe of Type A 3, broken; above the head a copper bowl too crushed to type.
No. 34. Lapis beads.
No. 35. Lapis beads, copper pin of Type 1, cockle-shells with paint.
No. 36. Nothing.
No. 37. Silver hair-rings, silver and lapis beads, copper pin with lapis head. U. 10829.
No. 38. Silver hair-rings, bracelet of silver and lapis beads, silver razor, two copper razors, copper pin of Type 7, remains of conch-shell cut as a lamp, cockle-shells with paint, a number of shell rings which had been sewn in a row on to some material, probably a belt, but they lay with one end right up by the neck. U. 10830.
No. 39. Silver hair-rings, silver and lapis beads, ring of thin gold wire, silver pin with lapis head, fragments of copper bowl. U. 10831.
No. 40. Silver hair-rings, necklace of lapis date-shaped beads, necklace of silver and lapis and one carnelian beads, copper pin of Type 1, one white shell ring, fragments of limestone bowl. U. 10832.
No. 41. Silver hair-rings, string of lapis beads, copper pin of Type 7, copper pin of Type 1 with lapis ball head, remains of limestone bowl. U. 10833.
No. 42. Silver hair-rings, string of lapis and carnelian beads, two copper pins, remains of limestone bowl, cockle-shells with green and black paint. U. 10834.
No. 43. Dagger-blade.
No. 44. Nothing.
Nos. 45–50. Copper helmets and one or two spears each of Types 1, 3, and 6. Pl. 148.
No. 51. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-ring, two silver pins with lapis heads, necklace of lapis double conoids and ovoids and carnelian rings, cockle-shell with black paint. U. 10751.
No. 52. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, two silver pins, one with lapis ball head, necklace of gold and lapis double conoids, necklace of silver and lapis double conoids, two silver hair-rings, small limestone bowl of Type 19, cockle-shells with paint. U. 10584.
No. 53. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, four silver hair-rings, gold ear-rings, many gold, lapis, and carnelian beads, silver pin with lapis head, small calcite bowl. U. 10580–1.
No. 54. Gold ear-rings, gold and lapis double conoid beads and carnelian rings, silver hair-rings, silver pin, Type 1, with lapis head, remains of silver tumbler, Type 42, remains of a mosaic object consisting of minute lapis tesserae with a band of thin gold leaf dividing them across the middle, and two small bull's legs carved in the round in ivory; the object was hopelessly crushed and the original shape could not be ascertained. U. 10582, 3.
No. 55. Silver pin, Type 1, with lapis head, string of lapis double conoid beads. U. 10579.
No. 56. Gold hair-ribbon, gold leaf pendant wreath, silver hair-rings, gold ear-rings, silver pin of Type 1 with lapis head. U. 10585.
No. 57. Gold hair-ribbon, gold leaf pendant wreath, silver hair-rings, gold ear-rings, silver comb with inlaid flowers, silver pin of Type 1 with lapis head, necklace of gold and silver double conoids. U. 10588.
No. 58. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, silver hair-rings, gold ear-rings, necklace of gold, silver, and lapis double conoids with carnelian rings, silver pin of Type 1 with lapis head, miniature clay vase of Type 223, cockle-shells with black, green, and blue paint. U. 10752.
No. 59. Gold hair-ribbon, gold leaf pendant wreath, silver hair-ring, silver comb with inlaid flowers, gold ear-rings, necklace of gold and lapis double conoids, two silver pins of Type 1 with lapis heads. U. 10586.
No. 60. Gold, silver, lapis, and carnelian beads, in disorder. U. 10591.
No. 61. Two silver pins of Type 1 with lapis heads, many gold, silver, and lapis double conoid beads, calcite bowl of Type 47, remains of two copper bowls. U. 10589.
No. 62. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, silver hair-rings, gold ear-rings, silver pin of Type 1 with lapis head, necklace of gold, silver, and lapis double conoids. U. 10587.

It has been remarked that the bones everywhere were in very bad condition and much confused owing to the bodies lying so close together and often

one above the other; the confusion was increased by the fact that most of those lying close to the wall had really been seated and leaning against it so that their bodies had fallen forward and the skulls lay at all angles amongst the leg-bones. Down the middle of the passage leading to the door of the chamber was a mass of bones which could be distinguished as animal and not human but could not be more closely identified; evidently they were the bodies of sacrificed animals. At the very end of the passage we found some very thin fragments of gold leaf which had been the casing either of a sceptre or of a large cylinder seal (cf. U. 12442, Pl. 153), and half-way along the passage were the remains of two wooden chests; the sides and bottoms could be traced, but there was nothing in them, so that either they had been empty, which is improbable, or their content had been of a kind that would leave no signs of itself; woven materials would perish thus completely, and the natural conclusion is that the chests were wardrobes containing clothes.

Fig. 9. Scale $\frac{1}{6}$.

In the main part of the pit there were objects of more importance lying amongst the human bodies. At *A* there were four spears with bronze blades of Type 2a, 0·345 m. long, set in shafts which were bound with alternate bands of gold and silver; the bands were about 0·03 m. wide and were separated by about the same length of plain wood; two of the shafts had plain ends, two had a silver butt from which projected a copper fork or string-notch. The shafts had been broken across before they were laid in the grave and the butt ends were up against the spear-heads; as the wood had perished the total length of the shafts could be gauged only by the metal bands lying in order in the ground, but not all were in order and it was not possible to say which lower end corresponded to which upper end of a shaft and therefore there could be no accurate measurement, but the length was not less than 1·35 m.; it may have been a good deal more. This is in any case too long for an arrow, and the weight of the heads is also too great; the weapons are light lances. By the broken ends of the shafts lay a copper nail with a very large silver disk head; it probably formed the base of a quiver in which the lances were kept.

At *B* there was a similar set of four weapons, but in this case the heads were of gold, 0·145 m. long. Again the shafts had been broken in half, but as the gold and silver binding which decorated them also had not been continuous but left a considerable but uncertain length of plain wood in the middle, measurements were yet more precarious. From the head of the shaft three gold and two silver bands accounted for a length of 0·37 m., and from the butt end one gold and one silver gave 0·11 m.; if the silver-plated disk from the base of the quiver really gave the position of the broken ends, as is possible, the total length of the shafts would be just over 0·90 m., and such impression as remained in the earth gave 0·92 m.; to this must be added the length of the metal points. Here again two of the spears had string-notches of silver and copper and two were plain (U. 10411, Pl. 153).

At *C* was a third set of lances, this time with silver heads and shafts bound with silver only; the bands were terribly decayed and there was no quiver-disk; from them no further data as to measurement could be obtained (U. 10472).

The representations on the 'Standard' show that the charioteer was provided with four spears kept in a quiver which was attached to the front of the chariot; these sets of four found in the grave are therefore of regulation army pattern. Since they are spears and not arrows the string-notches are not for bow-strings but for throwing-thongs looped on to the finger; in each set there are two such for long-distance fighting; for throwing at close range the throwing-thong is not necessary, and as it takes time to adjust is a positive hindrance; therefore two of the spears are plain.

At *D*, close to the copper spears, was found a remarkable object, U. 10475. It is a relief in copper, 0·43 m. long and 0·18 m. wide, which was originally fixed on to a wooden background. Possibly that was a shield of which the slightly convex rosette which forms the lower part of the relief would be the central boss and the rectangular panel would extend across its width above the centre; but there is nothing to substantiate the theory. The main design shows two lions advancing to either side and beneath each the prostrate figure of a naked man; the chief interest lies in the style, which is astonishingly like that of Assyrian reliefs of the eighth or seventh centuries B.C. That the cemetery has produced no other object which at all compares with this in its artistic rendering is perhaps merely due to the accident of survival, and had we a wider range by which to estimate the art and technique of the period we should perhaps be less struck by the resemblance which this relief bears to the products of the northern country in so much later an age; the connexion might be shown to be far closer than we can assume on the strength of a single work. But even so it would seem that tradition must be allowed for, and it may well be that even in those features which appear most individual the art of Assyria has its roots in prehistoric Sumer (Pl. 169).

At *E* there was, leaning against the wall of the tomb-chamber and actually standing on the skull of one of the women victims, the remains of a lyre.[1] The body of this had been of wood of which only an impression was left in the soil; it was 0·50 m. long from the base of the neck to the back of the sounding-box and of the back upright there remained the first twenty centimetres only. All that really remained of the lyre was the decoration of the front of the sounding-box, namely the head of a young bull cast in copper and three shell plaques engraved with animal scenes (U. 10577, Pls. 104, 120). The plaques had suffered a good deal from the decay of the surface of the shell; the copper head was in excellent condition.

Against the north-west side of the pit, standing over the top of the bodies

[1] I did not at first realize that this and the next object to be described were lyres, and in the preliminary report (*A.J.* viii, p. 437) spoke of them both as statues; at that time there were no parallels to help us, the absence of mosaic on the sounding box made the body seem more naturalistic than it was (though I remarked that it 'showed no signs of modelling' and that 'the treatment of the body must have been very sketchy') and the destruction of the front upright and of the cross-bar entirely misled me.

there, was (*F*) the second lyre. The sounding-box and uprights of this instrument also were of plain wood; their outlines could be seen in the soil, except that the front upright had been cut away, but they were not too clear; they gave a maximum length of 1·17 m. and for the back upright a height of 1·40 m. In front of the sounding-box was the magnificent head of a bearded bull in gold and lapis figured on Pl. 107 (U. 10556), below which came the even more remarkable shell plaques, U. 10556, Pl. 105. The head appeared at first to be in a lamentable condition and as removed from the earth in a mass of paraffin wax (*v.* Pl. 106) gave little promise of successful restoration, but in fact the task was far less difficult than I had feared. The decay of the wooden core on which the thin metal had been hammered had of course resulted in the latter being much crushed; one of the ears and both horns had been broken away, having been fixed to the core through holes in the gold plate; much of the lapis-lazuli hair on the top of the head had fallen through into the hollow gold mask, and the bending of the silver plate which formed the backing for the lapis tesserae of the beard had caused these to start from their places so that they overlapped and could no longer be fitted down into position. Fortunately gold, if newly annealed, can for the few seconds during which it is soft be pressed out by the fingers into its original shape with little or no risk of modern distortion; to achieve this the silver and lapis had to be detached so as to avoid damage by heat, but they could of course be replaced the more easily when the head had recovered its true shape. The gold mask, duly pressed out from the inside, was lined with plastic wood, plaster, &c., and the horns and ears fitted perforce into their right positions as dictated by the holes and by the angle of the edges of the gold which had been brought up to disguise the joins; the silver backing of the beard was reduced and straightened and the lapis tesserae, which had been kept in their original order, were replaced; the lapis tesserae between the horns, in so far as they were in any order at all, had been preserved in that order by having muslin waxed on to them; they were now put back and the gaps filled by the pieces found loose inside the head. Owing to the diversity of the materials our usual principle of never taking a thing to pieces had had to be abandoned, but the reconstruction involved no risk of any departure from the original and was fully justified by its results.

The shell plaques required no such drastic methods; they merely needed to be flattened out. The figures are shown in silhouette, the ground of the plaque being cut back and the hollow filled in with bitumen. The bitumen had, as always, been reduced by time to a black powder having no longer any quality of adhesion; but the wax which we poured over the whole mixed with the dry powder and fixed it to the shell; in the laboratory the superfluous wax and dirt had to be removed carefully so as to expose the figures and leave the mixed substance in the hollows untouched; the dark background therefore has indeed somewhat changed its composition but preserves the actual material employed and the effect aimed at by the original artist. The subject and importance of the plaques are discussed on p. 280.

Some large lumps of unworked lapis-lazuli lay in the south corner of the

pit (*G*) (U. 10842). At *H* was a silver lamp, U. 10463, of the usual type, at *J* a crushed silver bowl of Type 7, U. 10464, and at *K* a white calcite vase of Type 89, U. 10498; these objects seemed to be just above the real floor of the pit and may have been put in as offerings as the filling-in began.

Robbers had broken through the vaulted roof of the tomb-chamber and had looted it thoroughly. In the south corner, along the south-east wall, there was a shallow depression in the mud floor like that in PG/1236; presumably it had been made to receive the body of the king. We found it quite empty. Between it and the door, however, was something which had escaped the robbers. Close against the wall, the stones of which had fallen forwards and were wedged against and over it so that we had to prise out a number before it could be removed, was (1) a silver model of a boat, U. 10566. There had been a precisely similar model in copper (2) next to it, but that was scarcely recognizable, so decayed was it, but the silver boat was in surprisingly good condition. It is 0·65 m. long and the peak is 0·20 m. high; there are five thwarts for the rowers and the leaf-bladed paddles were still in their places, fixed to the gunwale by the corrosion of the metal; amidships was an arched band of silver, clearly the support for an awning under which the owner would sit and find shelter from the sun; the arch has been somewhat crushed by the wall-stones, and this is the only serious damage that the delicate craft has suffered. It is exactly the type of boat that is used to-day by the Marsh Arabs of southern Iraq, and within forty miles of Ur one can still see on the water replicas of the craft which was to carry the soul of the king who died in the fourth millennium before Christ; it is certainly one of the most eloquent examples that we have of the continuity of life in Mesopotamia.

Opposite the door, flung on one side by thieves who were concerned only with things of intrinsic value, lay (3) the splendid gaming-board, U. 10557; *v.* p. 276 and Pl. 96. The top of it is inlaid with shell plaques engraved with animal scenes and rosettes, the sides and back are of silver. As was probably always the case, the board was hollow, being really a box with either a lid or a drawer, in which were kept the 'men'; we did not know this at the time, but when at home the back was removed so as to enable us to flatten the shell squares which had fallen back into the hollow left by the decay of the wood, the gaming-pieces were found inside (*v.* Pl. 221).

At (4) was a broken dagger-blade of Type 4; (5) was a shell handle ornamented with alternate rings of shell and black shale and ends like a spindle-whorl, U. 10574; (6) a white calcite vase, ht. 0·013 m., rim d. 0·105 m., broken; (7) found inside the last, a gold finger-ring made of wire twisted to produce a cable-pattern, U. 10571, cf. Pl. 138; (8) a cockle-shell containing paint; (9) a small clay pot of Type 223, ht. 0·07 m.; (10) remains of a hemispherical copper bowl; (11) a plain oval gold frontlet, U. 10558; (12) a white calcite vase of Type 66, U. 10844; (13) a *brîm* consisting of two lengths of gold chain, two lapis and one gold large beads, U. 10561, found on remains of a skull; (14) gold lunate ear-ring, small type, U. 10562; (15) bronze axe, Type A 3, U. 10567; (16) another bronze axe; (17) remains of dagger-blade; (18) silver pin with lapis head, Type 1; (19) copper lamp, U. 10565; (20) pair of gold wire spiral hair-rings, U. 10559, found with fragments of a skull; (21) another pair of gold hair-rings also with remains of a skull, U. 10560; (22) two large lapis date-shaped beads, possibly from a *brîm*; (23) beads, a quantity of lapis double conoids, found with (20) and (21) U. 10563–4; two silver finger-rings, U. 10573; (24) a pair of copper razors, U. 10575.

THE RELATION BETWEEN SHUB-AD'S GRAVE AND THE 'KING'S GRAVE'

The relative position of these two important graves is very curious. Each is complete in itself, with stone-built chamber and death-pit; but whereas the 'King's Grave', PG/789, may be considered perfectly normal in that all is contained within one shaft and at one level, Shub-ad's death-pit is immediately above that of the king and her tomb-chamber, at a lower level, actually abuts for most of its length on the king's chamber: the section on Fig. 10 will make the arrangement clear.

The two stone buildings are not strictly contemporary; the king's was finished first and the queen's was built up against it, and there must have been an interval of time between the constructions although there is no inherent reason for that interval to have been long. Similarly the queen's death-pit must be later in date than that of the king, for it lies above it and could only have been made after the other had been at least partly filled in, and again the interval is not necessarily long. The queen's death-pit and chamber are both intact, the king's death-pit is undisturbed but his chamber has been plundered, and here there is something tangible in the way of evidence. The robbers had made their way through the roof; the crown of the roof was flush with the floor of the queen's death-pit, and the queen's wardrobe-chest had been placed carefully over the hole in the underlying vault; the robbery therefore took place not later than the time of the queen's funeral, the grave-diggers had in the course of their work actually exposed the top of the vault which, at least not very long before, contained valuable booty, and the grave-diggers were at pains to hide the evidence of sacrilege: there can be little doubt but that they were the thieves. From the conditions in the plundered chamber two facts could be deduced: a certain amount of intrinsically valuable loot had been overlooked, which meant that the thieves had had to do their work hastily; and the bones could only have been scattered as they were if the bodies were already decayed to skeletons, that is, a few years at least had elapsed between the burial of the king and the desecration of his tomb.

The facts then present themselves thus: a king had been buried, and some years after his death a queen has to be buried in her turn. The shaft of the king's tomb is opened and re-excavated down to the lowest level to which work can go without disturbing the old burial, excavated so deep that the diggers stop only when the roof of the king's chamber comes into view: with this to guide them the men dig down behind the chamber and in a pit at the far end of their main shaft build a stone tomb for the queen right against the side of the king's chamber. Naturally it was not foreseen that the workmen would yield to the temptation offered them by the old tomb treasures; they did not dare to dig into the death-pit, though there was gold there too, because that meant disturbance of the soil on a scale which could not be hid, but the great wardrobe gave them the means to conceal a mere hole in a brick roof and so they broke through; but the opportunity only arose because they were ordered to go as close to the king's grave as possible. The obvious explanation is that Shub-ad was the widow of the king and wished to be buried next

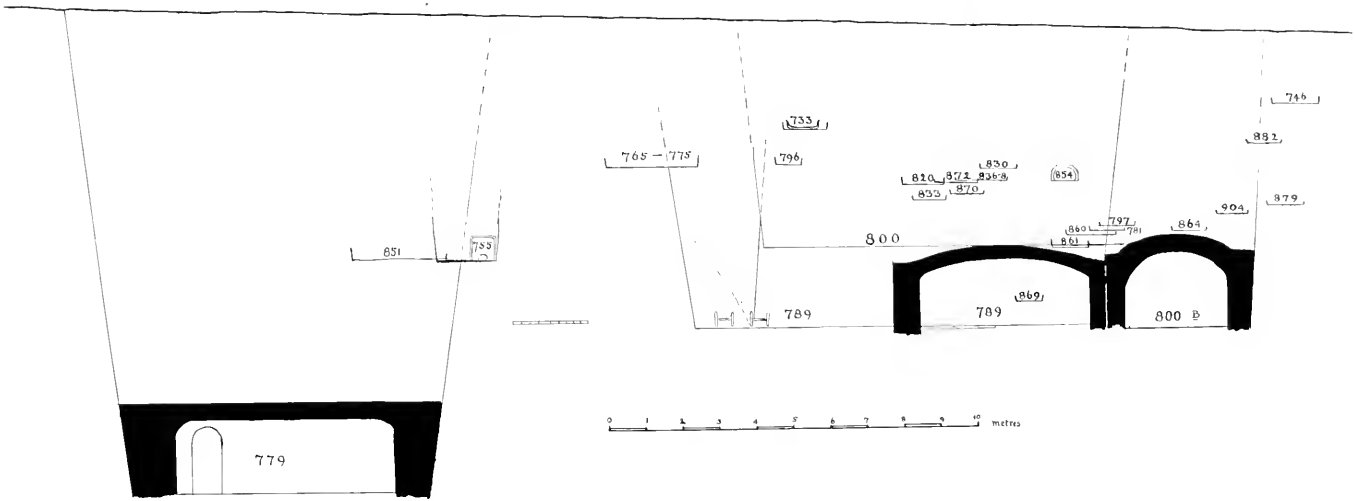


FIG. 10

SECTION SHOWING RELATIVE POSITIONS OF THE ROYAL TOMBS PG/789 AND PG/800
AND OF THE ROYAL TOMB PG/779 AND MES-KALAM-DUG'S GRAVE, PG/755

to him for that reason. If that is so, a close time relation is established between the two graves. Their intentional proximity is also a further argument in proof that these are indeed the graves of royal persons, for what is easily explained by the affection of a widowed queen would be unintelligible if the tombs were those of victims of a mere fertility sacrifice; and that their occupants are not the bridal pair in a 'sacred marriage' is proved by the interval which must have separated the two funerals.

PG/800. (*Pls. 36–43*)

THE TOMB OF QUEEN SHUB-AD. The tomb was identified by a lapis-lazuli cylinder seal bearing the name and title of Shub-ad found against the right shoulder of the queen, *v.* p. 88.

The grave consisted of the two essential features, the tomb-chamber and the 'death-pit', but in this case the two were side by side yet not at the same level. The death-pit floor was at a depth of seven metres below the modern ground-surface, whereas the chamber, built at one end of the pit, was 1·70 m. lower than that, so that its roof was flush with the floor of the main shaft; it was against and actually touching the north-east wall of the chamber of PG/789 and its death-pit lay immediately over that of PG/789; the relation between the two graves which this implies is discussed above.

The soil in which the shaft had been dug was unusually loose because it had all, or most of it, been excavated before for the making of PG/789, and it had been very much distributed by later interments, some of which came down almost to the level of the grave; consequently the outlines of the shaft were extremely difficult to follow and were defined by us as much by the position of objects in the pit as by any real indications in the earth itself. As I worked it out in the field the shaft is most irregular in shape; probably that irregularity is largely due to the conditions described above and should be rectified to give a true idea of the original shaft: on the ground-plan, Pl. 36, I show the outline as I first worked it out and a suggested outline which is more logically probable.

In any case the death-pit was roughly speaking a rectangle measuring 11·75 m. by 4·00 m.; it lay north-east by south-west. The floor was flat but sloped down a little—perhaps half a metre in all—from the north-east to the south-west. A sloped *dromos* led into it from the south-east; from the middle of the north-west side there projected a recess measuring 1·90 m. by 1·50 m. which was paved with rough slabs of limestone. The whole pit floor had been covered with mats, and matting had been laid over the offerings in it; the sides of the pit also had been concealed by a matting dado, but traces of this could be found only in the few spots where the sides themselves could be distinguished.

In the floor of the *dromos* about two metres from the entrance to the pit there had been dug an oval hole about a metre deep which finds a close parallel in the hole dug in the *dromos* of PG/789 and should perhaps be compared with the drain made by the side of the domed chamber in PG/1054; it is clear that these pits had a ritual significance, and they were probably intended to receive

libations poured at a moment when the filling of the pit had reached a certain level; the paved floors with drains going down into the shaft which were noted in the cases of PG/337 and PG/1237 should mean a more elaborate repetition of the same rite at a later stage in the funeral ceremony.

Between this hole and the entrance to the shaft there was a shallow rectangular depression in the *dromos* floor wherein lay five human skeletons in a row; they seemed to be all men. They had with them dagger-blades, a razor, and seven clay saucers of Type 4; alongside the trench were two more dagger-blades, four more saucers of clay, and a large clay pot apparently of Type 88 but in a very fragmentary state. These bodies correspond to the soldiers on guard at the entrance of PG/789, PG/1236, PG/1237, &c.

At the south-west end of the shaft there lay a harp and the bodies of ten women. The harp stood against the pit wall and one woman lay right against it with the bones of her hands actually in the place of the strings; she must have been the harpist and was playing almost to the last. The other nine women were ranged in two rows facing each other, three in one and six in the other; all wore the rich head-dress of the court.

In the middle of the pit just in front of the *dromos* down which it had been driven was the sledge-chariot of the queen drawn by two asses: mixed up with the bones of the animals were those of four grooms, and a fifth human skeleton lay just clear of the asses' hoofs against the corner of the entrance. In front of the stone-paved recess were large vessels of copper and silver and then, close to the chariot and occupying the middle of the north-east part of the pit, was a great wooden chest measuring 2·25 m. by 1·10 m.; it was empty, presumably not because it had always been so but because its contents were of a nature to decay and leave no trace; we may fairly safely assume that they were stuffs and that the chest was the wardrobe of the queen. It had itself been an object of art, for along its south-east side ran a band of mosaic in shell and lapis-lazuli with a design of human and animal figures in the same technique as the 'Standard' but unfortunately in very bad condition; against its south-west end lay the body of a man who may have been the Keeper of the Wardrobe, and another skeleton was found near its north corner and one at the north-east end. All round the chest was an amazing wealth of offerings, vessels of gold, silver, copper, clay, and of such stones as white calcite, steatite, obsidian, and lapis-lazuli; silver heads of lionesses from a piece of furniture, gold drinking-tubes, gold saws and chisels, an inlaid gaming-board, &c.; the richness of the death-pit attached to the 'King's Tomb' was nothing compared to this. The objects must now be described more in detail.

The Harp, U. 10412, Pls. 104, 108–10.

The first thing to come to light was the gold cap of the upright, which seemed to be loose in the soil and gave us no hint as to what lay below. As the work went on there were found two or three gold-headed nails and, searching for their possible connexion, we found a hole running down into the earth across which could be seen the shafts of more nails obviously in position, i.e. the hole represented some wooden object which had decayed

away altogether but the nails once fixed in it were being kept in place by the soil against their heads. A stick was therefore inserted into the hole for so far as it would go and plaster of Paris was poured in round it; when that had had time to set the digging continued and there was found the lower part of the upright modelled in the plaster with the gold-headed nails in it; measurement of the soil and the calculation of the distance apart of the dislodged nails gave the full length of the upright and enabled us to refix the gold cap at the original height. Below, the plaster had expanded into the 'shoe' of the instrument and its flow had then been stopped by the not altogether decayed bitumen which had held the shoe to the base; this, with the line of shell and lapis inlay which emphasized its curve, was at once hardened with paraffin wax. This brought us to the sounding-box which, being of wood, had completely perished, but the broad band of mosaic along its edges was for the most part in position, though rather distorted, and could be cleared little by little and secured as it appeared by waxed muslin. The wood had apparently been painted black with a line of red paint running parallel to the edge a little inside the inlay border. The top edge was first treated (see photograph, Pl. 38*a*) and then the side could be laid bare and the form of it ascertained; as the second photograph shows (Pl. 38*b*), the rectangle of the near side was complete (it was indeed lifted in one piece) and the back of the inlay of the far side could also be cleaned and secured. The gold and lapis-lazuli calf's head which decorated the front of the instrument seemed to be in rather bad condition, for the whole of the top of the head, consisting of lapis tesserae representing hair, had fallen down into the hollow left by the decay of the wooden core, and the metal was a good deal bent, but nothing was missing; in the end it was restored without much difficulty, *v.* Pl. 108*b*.

The restoration of an ancient object of which most of the original material has vanished requires a certain amount of justification. As regards the sounding-box, it certainly was of wood and that had to be made good; besides the photographs, very elaborate notes were taken in the field and measured drawings made, and the fact that the woodwork was outlined by a mosaic whose elements survived and on the whole kept their place guaranteed the general correctness of the new work. One thing did puzzle me and remains a source of doubt. The border of the left-hand side of the sounding-box was not nearly so perfect as that seen in the photograph; parts of it were lifted in short lengths, but many of the tesserae were loose and had to be simply gathered up and, in the work of reconstruction, arbitrarily reset. Now amongst them there were some definitely curved pieces; and in the border of the right-hand side there are curved pieces also. I naturally thought of the curved dip in the top line of the sounding-boxes of the lyres, a dip which corresponds to the curve between shoulder and rump of the bull whose head decorates the front and whose body is, in a very schematized form, reproduced by the body of the instrument; but no such curve was visible in the better-preserved side or shows in the photograph, and I could not make the curved bits of the mosaic form any such line as seemed required; they were indeed not numerous enough. It must be remembered that the analogy with the other

instruments is probably misleading, for they are lyres and this is a harp; in them the strings come together from above and their span corresponds to the segment of the curve; here the strings slant from the upright and should be equidistant throughout their length and the curve would have no meaning. I came, with some reluctance, to the conclusion that the top of the sounding-box was really straight, as the actual remains appeared to show, and that the curves were accidental—the craftsman used the tesserae which he had in stock and fitted the curved bits into a straight line, as my own experience proved it was easy to do without their showing much, and as he himself did on the right-hand side of the sounding-box. In this respect the restoration is possibly wrong, but I believe it to be right. The second difficulty was with the base. The photograph on Pl. 38*b* shows that the curved shoe of the upright passes beneath the sounding-box and does not connect with it; there was therefore a base on which the box rested. All along here there was in the soil a mass of very thin silver plate the edges of which were pierced with minute silver nails, but the metal was hopelessly decayed and preserved nothing of its shape. The line of blue-and-white mosaic continued on each side as far as the front of the sounding-box, and as both lines, i.e. those of the two sides of the base, lay in the ground clear to one side of the bottom edging of the box it was evident that there was a certain vertical space between them, since otherwise the box could not have shifted so far while yet retaining its shape. The two lines starting from the shoe seemed to run in curves which met under the gold head and suggested that the base was boat-shaped (cf. the silver lyre, U. 12355); but it was found afterwards that there was not nearly enough of the strip inlay to run the whole length of the sounding-box, and it was therefore judged that the whole appearance of the inlay in the soil was deceptive and due to the accident of distortion. All that could be said was that there had been a base covered with silver; for the restoration this was kept to the simplest form possible, a mere rectangle of the height and width given by the shoe and of a length to take the sounding-box; it is frankly a restoration on insufficient evidence.

In view of the character of the lyres, where the animal's head is fixed to the front of the sounding-box whereas here it rises from the top of it, it might be thought that here there was a mistake in the restoration. This is not so. The head was still attached both to the mosaic border and to the shell plaques which form the front of the sounding-box and its position was thereby fixed; even if that had not been the case the fact that the height of the sounding-box at the back, given by the intact mosaic edging, is identical with that of the mosaic and of the shell plaques in front would be enough to prove that the head could not have been fixed against the front edge above the plaques as it is in the lyres, for the simple reason that there is no room for it there. Again the difference in form is due to the fact that the instruments themselves are different in kind. The precise angle at which the head stood is doubtful. In the field notes it was recorded that the front of the sounding-box was set at an angle, and that was certainly the appearance of the remains in the ground; but the bottom edging was badly bent and when it was straightened

the front line came to the vertical; it had merely been pressed forwards by the weight of earth. That this was so was further proved by the fact that the shell plaques had been telescoped together so that the bottom plaque was behind the second instead of below it. The two narrow strips of shell framing the plaques had red paste between them.

The harp stood at the end of a slight trough-like depression in which the bodies of the women lay with their heads resting on the brink and so at a higher level; the bones were in very bad condition and necessarily confused in that they lay very close together, and their legs actually crossed in the middle of the trench; their ornaments, &c., were as follows:

No. 1. Gold hair-ribbon, gold leaf pendant wreath, silver hair-rings, gold ear-rings, silver pin of Type 1 with lapis head, a strip of thin silver 0·025 m. wide, probably a fillet, found on the head, necklace of silver and lapis beads, two small clay pots of Type 223 and a clay saucer of Type 4. U. 9977–81.

No. 2. Silver hair-rings, necklace of silver and lapis double conoids, copper pin of Type 1 with lapis head, fragments of small limestone bowl, clay pot of Type 45, cockle-shells containing green and black paint. U. 10402–5.

No. 3. Gold hair-ribbon, gold leaf pendant wreath, a very slender copper pin (on the forehead), gold ear-rings, copper pin of Type 1 with lapis head, necklace of silver and lapis double conoids. U. 10337–42.

No. 4. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, necklace of gold and lapis double conoids, copper pin of Type 1 with lapis head. U. 10343–7.

No. 5. Gold hair-ribbon, gold leaf pendant wreath, a very slender copper pin in the hair, gold ear-rings, necklace of silver and lapis double conoids, silver pin of Type 1 with lapis head. U. 10348–52.

No. 6. Gold hair-ribbon, gold leaf pendant wreath, on the head a very slender copper pin, gold ear-rings, U. 10094–7; also beneath the head a large pot of drab clay, too broken to be typed, and a small bottle of black burnished ware, much broken and flaked, U. 10098. Behind the head a copper lamp.

No. 7. Gold hair-ribbon, gold leaf pendant wreath, silver hair-ring, gold ear-rings, silver pin of Type 1 with lapis head, necklace of gold and lapis double conoids, silver finger-ring, cockle-shell with green paint. U. 9983–90.

No. 8. Gold hair-ribbon, gold leaf pendant wreath, silver hair-ring, gold ear-rings, two pins of Type 1 with lapis heads, one silver and one copper, lapis and silver double conoid beads. U. 9991–7.

No. 9. Two silver hair-rings, silver pin of Type 1 with lapis head. U. 10093.

No. 10. This was the body of a child rather than of a woman, seeing that the teeth were not fully developed. Necklace of gold and lapis double conoid beads, copper pin of Type 1. U. 10401, 10099.

No. 11. Silver frontlet of oval type with the ends elongated to ribbons (cf. Pl. 219), entirely decayed, silver hair-rings, copper pin of Type 1 with lapis head, necklace of gold and lapis date-shaped beads, by the skull two lapis and one silver large date-shaped beads and carnelian rings, as if from a *brîm*, a bracelet of silver and lapis double conoid beads. U. 9998, 10089–92, 9999.

No. 12. Gold hair-ribbon, gold leaf pendant wreath, above the forehead a very slender copper pin, silver hair-rings, gold ear-rings, remains of, apparently, a silver leaf pendant wreath, silver pin of Type 1 with lapis head, copper pin of Type 7 with lapis head, necklace of gold and lapis double conoids, copper razor. U. 10329–36.

No. 13. Silver object, apparently a comb with flower rosettes, completely decayed, small lapis cylinders and carnelian rings apparently from a silver leaf pendant wreath.

No. 14. Two copper pins of Type 1, four copper bowls of Type 6, clay cup of Type 7, and fragments of a large clay pot.

The last body was not that of one of the group of women but lay between the corner of the entrance and the two asses; he—for it was a man's skeleton—may have been one of the servants in charge of the chariot. The metal bowls were not very close to the body and are only described with it for convenience' sake.

To go on with the human remains, 15 to 18 are those of the grooms at the asses' heads. With No. 15 were three beads worn at the neck, U. 10532, a whetstone, U. 10533, a dagger of Type 7, U. 10534, a silver lunate ear-ring, U. 10535. No. 16 had a silver lunate ear-ring, U. 10536, a dagger of Type 7, U. 10540, a whetstone, U. 10539, a razor, U. 10542, and four beads probably from a *brîm*, U. 10537. No. 17 had one gold lunate ear-ring, U. 10538, two razors, U. 10541, a dagger of Type 7, U. 10543, and a whetstone, U. 10417. No. 18 had a shell cylinder seal inscribed with the name *lugal* Ša(g)-pad-da, U. 10530, Pl. 197, *v.* p. 341; a bronze spear of Type 3, U. 10531, three beads of gold and lapis probably from a *brîm*, U. 10544.

The body No. 19, lying crouched against the end of the wardrobe, wore a *brîm* with gold chains and gold carnelian beads, U. 10449, a gold lunate ear-ring, U. 10448, a dagger, U. 10471, and two whetstones, U. 10422 and 10471. The other two bodies alongside the wardrobe had no personal possessions.

The Chariot.

The chariot was drawn by two asses whose bones were in so bad a state that it was impossible to preserve them. The animals wore copper collars, plates of thin metal lunate in shape and decorated with a repoussé pattern of rectangular compartments containing eyes; fixed to one of the ends of the collar was a ringed copper stud, *v.* Fig. 11, U. 10468–9. Over the back of one of the animals was found the terret or rein-ring which had been attached to the pole, U. 10439, Pl. 166. The segmental base made to fit the pole and the two rings for the reins were of silver; above rose the 'mascot' in the form of an ass cast in electrum, an astonishingly fine piece of realistic sculpture and one of the most charming objects that the cemetery has produced. When it was found the body of the ass had been bent over to one side and was at right angles to its base, two of the legs had snapped and the other two were cracked half through; the straightening of it was an extremely difficult task and to get the bent ends true was impossible, so that the delicacy of the line of the legs has suffered a good deal in the object as it is seen today, but if due allowance be made for that there is nothing to stint our admiration for the art of the maker.

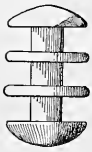


Fig. 11. Scale $\frac{3}{5}$.

A line of carbonized wood could be traced from between the draught animals towards the entrance of the pit, at an angle of 45 degrees from what should have been the line of the chariot-pole; it may be the pole itself, snapped off near the couplings when the beasts fell. No wood could be discerned on the line where I have dotted in, on the plan, the proper direction of the pole.

The restoration of the chariot, U. 10438, Pls. 122–6, was difficult but made possible by the fact that the woodwork was for the most part outlined by a mosaic border of lapis-lazuli, red limestone, and shell, much of which retained its position in the soil and could be removed in strips. A great many measured drawings and diagrams of the mosaic were made, at every stage of the excavation; allowance had of course to be made for the twisting and buckling of this unstable material, and as the diagrams were worked out various measurements were seen to record such distortion rather than the original proportions and therefore had to be discarded; but in the end it was found that the margin of error for the whole framework did not exceed three-quarters of an inch—0·018 m. The first thing discovered was a row of three lions' heads in gold

with lapis-lazuli and shell manes which formed the decoration of a panel high up on the side of the body of the chariot (Pl. 124). Above and slightly behind them was a row of very small heads, also in gold, of lions and bulls alternately; between them were disks of shell and lapis and above them, connecting them all, was a band of minute inlay which edged the top bar of the body. Following this bar along in both directions we found the angles where the border turned down to outline the sides of the car. Enough of this remained to give the original height of the bar above the larger lions' heads, but it had been much buckled by the crushing down of the bar almost to the level of those heads, and it was impossible to say whether there had been between them solid wood, as in the restoration, or an open space with the heads on a free bar above; the argument for restoring solid wood was that otherwise there would probably have been a band of mosaic just above the big lions' heads defining the top of the panel below the opening, and there was no such band. On the other hand, it is possible that the solid part of the body ended with the mosaic band below the lions' heads, that those were fixed (as in the restoration) to a transverse bar, and that above and below them the panels were filled not with wood but with wickerwork: inside the body some traces of basket-work were found at about this level, lying horizontally, not upright, but that probably thanks to the collapse of the frame, but there was no means of saying whether this was anything more than a lining.

It should be stated that no attempt was made to restore the manes of the big lions, which had been crushed out of all shape; what the original shape was and how they joined the cross-bar there was nothing to show, so they were replaced in the condition in which they were found. The width of the cross-bar was given by the impression in the soil.

On the near back upright the mosaic was well preserved and gave the total measurement from the top of the body to the bottom of the leg, as well as the point of junction with the lower cross-bar. The coincidence of this straight band of inlay with the two curved bands lying at virtually the same level puzzled me at first, especially as we had no idea of the shape of the car as a whole and indeed were inclined to regard it as a sort of throne, but at one end the vertical distance between the curved bands was maintained and the explanation as a step became obvious. It was impossible to say whether the wooden sides stopped short at the floor of the car, as in the restoration, or went down to the lower stay (of which we found very faint traces, but it is constructionally necessary and could safely be restored). The legs ended abruptly. We looked most carefully for wheels and there were none.

The two silver heads of lionesses in front of the body of the car came definitely lower down than the gold lions' heads; their position was quite clearly fixed. In front of them, at a distance of 0·40 m. from the front of the car, was a wooden bar decorated with mosaic and having at each end a silver head of a lioness, smaller than those on the front of the car and, like them, in very bad condition; the bar lay rather lower in the soil than the larger heads on the body of the car, and from them there could be traced a thin strip of decayed wood which ran back to the sides of the car at the level of the bottom

of its feet. This seemed to give the key to the question raised by the lack of wheels; the chariot, obviously a much lighter affair than the wagons in PG/789 and, judging by its decoration, intended for pleasure or for state use, was really in the nature of a sledge; the strips of wood we had distinguished were the runners and the bar with the two silver heads was the cross-bar joining the curved ends of them; a sledge-chariot of this type seems to be represented on the pictographic stone tablet from Kish, and goes far to justify our restoration.

The top bar with the small gold heads on the far side of the car was badly broken and had to be reassembled on the analogy of the near side, where it was in two pieces only; afterwards there was found a seventh little gold head; therefore either the two sides were not symmetrical or there had been one head on the bar in front of the chariot, but as nothing in its position in the ground suggested its having been there it was simply left out in the restored body. Most of the mosaic border was lifted in strips and re-applied to the new wood in its original place, but some of it was disintegrated and a good deal of the shell inlay had gone to powder, and a good deal of the lapis must have been lost in the earth (where it was extremely hard to see). There were therefore considerable gaps in the border, and these were either left blank or, in some cases, filled in with plaster after the small stock of loose tesserae had been exhausted. Such repairs as there are can at once be distinguished from the original work.

With the wardrobe chest nothing could be done. It measured 2·25 m. in length by 1·10 m. in width, and its height could not be ascertained. All the woodwork had perished, leaving only a twisted and warped imprint in the earth, and there were no mosaic borders to guide us. All the decoration had been on the south-east face, which was presumably the front, and all was fallen in disorder. Two narrow strips of gold with lapis-lazuli between them had formed a frame or, since there was not enough of it to go round, a single border either above or below, to a long strip of mosaic executed in the technique of the 'Standard', i.e. a mosaic of silhouetted figures cut in shell set against a background made up of small lapis tesserae. The fallen fragments of it lay all along the front of the box and all that could be done was to pick them up in the order in which they lay—though as some had sprung out much farther than others even the order was uncertain—and try to reset them; but something in the nature of the soil at this point had so attacked the shell that the surface was all gone and all the internal detail of the figures therefore lost, and many were eaten right away and even their outlines were unrecognizable. Pl. 94 shows all that I could make out of the ruin, and it shows little. One element of the decoration I have been unable to use, a series of ten hollow cones of thin gold plate, filled with bitumen, about one centimetre high, which were strewn for a space of about a metre against the middle of the chest; they looked rather like gaming-pieces, and again like the much more numerous cones of copper which were found in PG/755 and which had been attached to a wooden object; probably they were part of the decoration of the wardrobe but I have no idea how they were employed. *v.* U. 10440–2.

By far the greater number of the objects deposited in the death-pit were placed round the chest in the part of the pit lying to the north-east of the entrance, and here they were bewildering in their abundance; only a few were as far away as the skeletons of the draught asses. These must now be briefly described; for a more detailed account of each object reference must be made to the catalogue.

Against the north-east wall, near the asses' skulls, was a large clay pot of Type 203 (20). Near the heads of the grooms were several objects, viz. (21) calcite spill-vase, Type 1, U. 10486, (22) similar, U. 10485, (23) calcite vase, Type 65, U. 10529, and by it a number of cockle-shells containing paint; at (24) was a copper reticule, at (25) a dagger-blade, at (26) remains of a copper bowl, inside which a copper lamp, U. 10413; (27) was a large steatite bowl, Type 50, U. 10481, inside which was a second similar, U. 10528, and inside that, U. 10497, a calcite bowl of Type 41; (28) was a steatite jar with lid, Type 100, U. 10521; (29) another steatite bowl of Type 51, U. 10482; (30) was a silver pot of Type 10, U. 10462, inside which was another silver bowl in very bad condition (U. 10461) and also the silver mouthpiece of (31), a long drinking-tube of silver decorated with rings of lapis-lazuli and gold and having this silver mouthpiece which was bent at right angles so as to fit more easily into the pot, U. 10450. Against the south corner of the chest was U. 10506, (32), a very large steatite bowl of Type 51, half inside which and half hanging over its edge were two copper tools of Type 2, U. 10476, a copper drill, U. 10467, the chisels, U. 10414 and 10421, the adzes, U. 10415 and 10504, the saws, U. 10420; immediately behind the bowl, (37) was a group of gold chisels, U. 10429–33, and a gold saw, U. 10428; with them and probably belonging to their handles were three rings of gold binding, U. 10443; just beside them, against the woodwork of the chariot, were two bronze axes, U. 10416 and U. 10418, a whetstone, U. 10419, and all together and right against the chisels a cluster of nineteen wooden balls (U. 10434) which are perhaps gaming-counters. Between the stone bowl and the chest were many lumps of red pigment, ochrous earth, U. 10505. At (33) were two bronze axes with gold binding of Type A 12, U. 10435, and at (34) a gaming-board, U. 10478, originally made of wood inlaid with shell 'eyes' having red or blue centres and with two shell plaques engraved with rosettes; *v.* p. 275, and Pl. 95. The board had been lying face downwards, and all that was left of it after the decay of the wood was the edging of red limestone and shell strips, the minute mosaic round its edge, and the little shell eyes; all these of course were loose in the soil. To preserve them the dust of the decayed wood was blown away (the eyes being held down meanwhile, as a breath was enough to disturb them) and plaster of Paris was poured into the form made by the upright edging strips; the result is not perfect but has conserved all that remained of the board. Under one end of it were found the playing-pieces, arranged in two piles, seven of shell engraved with animal scenes, seven of black shale inlaid with five dots; under the other end were six dice, solid triangles of shell inlaid with lapis, and (scattered) four dice of lapis inlaid with gold (Pls. 95, 98).

At (35) were two copper spear-butts, U. 10466, cf. U. 9963, lying rather high up in the soil; (38), (39), and (40) were calcite bowls, U. 10484 of Type 16, U. 10487 of Type 16, U. 10489 of Type 45; close to them was (36) a lapis-lazuli cylinder seal inscribed with the name *A-BAR-GI* U. 10448 A, Pl. 193; it was not down on the floor; somewhat above it and close to it but higher were some gold and other beads and small objects which may have belonged not to the deposit made round the chest but to one placed in the grave-shaft as it was being filled in, *v. infra*, U. 10423–7, 10466, 10477, 10479; in any case, however, it belongs to the grave. At (41) was the very exquisite little toilet-box of the queen, U. 10436, with its inlaid top of lapis and shell, Pl. 103. (42) were four long rods plated with gold and silver (U. 10445), the use of which I was quite unable to determine; between them and the chest were three fragments of gold foil, very thin, which bore impressed designs apparently taken from cylinder seals, U. 10444. (43) was the fine obsidian bowl, U. 10488, Pl. 165; it was found in fragments, but is complete. (44), (45), and (46) were copper vessels, bowls, too much decayed for their shapes to be certain; (47) was the decorated steatite pot, U. 10522, Type 10, Pl. 178, and (48) was the remarkable lapis-lazuli spouted cup, U. 10517, Pl. 174. (49) was the silver colander, U. 10459; (50) the silver 'askos', U. 10460; (51) was a whole collection of silver vessels; it consisted of fifteen fluted tumblers of Type 42, nested into each other in groups of five, a libation-jug of Type 83, and a paten of Type 32; all are catalogued together as U. 10458. (52) was a set of four silver bowls of Type 7, U. 10457, (53) a white calcite bowl, U. 10516, (54) a large copper cauldron probably of Type 49 but hopelessly decayed.

Then came the most spectacular find of all. At (55) there were found set close together four vessels of gold, all in more or less perfect condition; they were U. 10451, a spouted bowl which may have been a lamp-filler, U. 10452, a chalice of curiously classical form, U. 10453, a fluted gold tumbler of Type 43, one side slightly dented but otherwise intact, and U. 10454, a pedestal cup with fluted sides and a long spout, perhaps a feeding-cup; these are figured on Pls. 160–2, 164.

(56) was a collection of copper vessels almost repeating the group of silver vessels (51), (52); there were bowls one inside the other, most of them of Type 7, tall fluted or plain tumblers, Types 43 and 42, and a paten and long-spouted libation-jug, U. 10473–4. (57) was a silver bowl of Type 7; (58) was the very beautiful bowl, U. 10480, cf. Metal Type 7, made of green calcite, Pl. 174, (59) a calcite bowl of Type 16, U. 10515, and (60) a calcite spouted vase of Type 94, U. 10502. Immediately below this was a steatite bowl of Type 51, U. 10520, and by that (61) a calcite bowl, U. 10499, of Type 41; (62) was a calcite bowl of Type 41, U. 10511. Close to the chest was (63) a group of three calcite bowls, U. 10510, 10512, 10513, all badly broken. (64) was a large steatite bowl of Type 51, U. 10483, inside which was a tumbler (Type 32) of greenish steatite, U. 10503; (65) was the well-preserved silver jug, U. 10456, of Type 83, Pl. 173. Nos. (66), (67), (68), and (69) were all bowls of white calcite, the second of which, U. 10501, was a particularly fine translucent cup of Type 13; by it lay a very slender copper rod (?) which may have been a drinking-tube. (70) was a bowl of translucent calcite, U. 10514, broken; (71) a calcite bowl, U. 10507, of Type 50. Right against the corner of the chest and underneath the wood of it where that had fallen forward there were (72) and (73) two silver lionesses' heads with inlaid shell and lapis eyes, Pl. 127; they certainly formed the ornament of a piece of furniture which had been broken either when it was put into the grave or afterwards, for they were fixed to wood which had left its traces in the soil behind them. Unfortunately the presence of broken pottery in the soil made it impossible to get plaster casts of the holes; the sketch of these made on the spot was, however, quite consistent with the object having been a chair of which the lions' heads with manes carved in wood formed the arms; there was a vertical hole which may have been the chair-leg, a slender horizontal hole representing perhaps a back rail, and a projection forward at right angles to the last which broadened to the back of the silver head, which I take to be the arm of the chair; by the second head there were holes containing wood of which I could not ascertain the size and direction. The heads were 0·45 m. apart.

(74) was a calcite vase of Type 86, U. 10490, (75) of Type 89, U. 10493, (76) a calcite bowl, U. 10527, Type 19, (77) a grey steatite bowl of Type 35, U. 10500, (78) a calcite vase of Type 86, U. 10491, (79) a fine dark steatite bowl, Type 14, U. 10508, (80) a calcite bowl, in fragments, U. 10495, of Type 16, (81) a steatite bowl of Type 51, U. 10519, and inside it the steatite cup, U. 10509, of Type 34; (82) was a silver tumbler, Type 43; (83) was the stone offering-table, U. 10525, which seems to have had a wooden stand, though no trace of such was found. (84) was the fine vase of veined calcite, U. 10492, Type 85, (85) a grey and white marble vase, U. 10496, Type 79, Pl. 178, (86) a calcite vase, U. 10494, Type 61, (87) a calcite vase, in fragments, ht. 0.30 m., U. 10518, (88) another calcite vase, fragmentary, (89) a pot of drab clay of Type 88, (90) vase of dark grey gypsum, U. 10526, Type 75, (91) a bowl of dark steatite with the surface covered with minute lozenge-pattern in relief, Type 10, U. 10523, Pl. 178; (92) a flat copper tray of Type 33 in very bad condition, in which were two other copper vessels too far decayed to be typed. Below this was a silver pot of Type 10, U. 10455, standing on a pottery ring-base, U. 10524.

This completes the list of objects found in the places in which they had been put inside the death-pit. Apart from them were a few objects, not marked on the plan, which were found in the filling immediately above the wooden chest; they were not in position, and in the disturbed condition of the soil it was difficult to be quite sure that they belonged to the grave, but in all probability they did. They had not been deposited in the death-pit at the same time as the other offerings, that was certain, because from those offerings they were separated by a stratum of earth which effectually closed up the original offering-deposit: but their presence here may be explained by the analogy of other royal graves if we suppose that they belonged to an upper stratum of offerings deposited during the process of filling the shaft; the subsequent disturbance of the soil by grave-diggers (one later grave lay only just above the top of the chest) would amply account for the disappearance of most of such offerings and the scattering of a few of the smaller of them into the lower strata of the filling.

These objects were, U. 10423, a gold stiletto and tweezers from a toilet-set; U. 10424, 10425, gold and lapis-lazuli beads, from just above the front edge of the chest; U. 10426, remains of a belt consisting of lapis disks set in gold rings, cf. Pl. 135; with them were very many minute lapis ball beads which at first were supposed to belong with them, but in view of the parallel example figured, wherein the disks are separated by concave-sided lapis spacers, the beads were probably

from a distinct string; U. 10427, a gold pommel from a dagger set with gold and lapis studs; no part of the blade was found and some of the studs were missing, which supports the theory that these objects came from a plundered level rather higher up; U. 10466, an arrow-butt of silver with copper string-notch (cf. Pl. 227), broken off from its shaft; U. 10447, a shell plaque engraved with three human figures, Pl. 100, broken and in bad condition; this was about 1·00 m. higher than the other objects and may not have belonged to the grave; U. 10479, a hole running down vertically into the soil was found above the chest, only the lower part of it surviving, the upper part obliterated or cut away; a plaster cast taken of this produced what seemed a staff, 0·30 m. long, round which was coiled a snake carved in the wood, *v.* p. 386; U. 10477, a (broken) whetstone hung on a loop of gold wire was found underneath the chest and may have belonged to PG/789.

The Tomb-Chamber.

The tomb-chamber measured internally 4·35 m. by 2·80 m. at floor-level. The walls of limestone rubble rose straight to a height of 1·40 m. and then came a levelling-course of burnt brick to take the springers of the arch. At the corners stones laid across the angles to form rude pendentives started low down, a little above the floor, and by the time the walls had reached their full height the ends of the chamber were semicircular and prepared to receive the apsidal vaulting characteristic of the majority of these tombs. The central part of the roof consisted of a series of independent but contiguous ring arches, of which two were found intact, all the rest of the vault being fallen. The arch was composed of twenty-three kiln-fired bricks measuring 0·31 m. by 0·16–0·17 m. by 0·04 m., in shape practically flat; fragments of broken brick were inserted in the outer ends of the mortar joints to secure a radial effect; the soffit was 1·50 m. above the floor; in the lower courses of the arch the bricks were laid as headers, their length at right angles to the wall face, in the upper courses they are on edge and parallel to the wall so that the ends show on the face of the arch. A certain amount of mud brick was employed mixed with the burnt brick, especially in the lower courses, and probably this was responsible for the collapse of the structure. The floor was of mud. The walls up to the height of 0·60 m. had been mud-plastered and on the plaster there were marks of a matting dado; above this traces of wood could be seen. It was fairly certain that the method of construction had been by caissons, the stones and mud mortar being laid in the space between the earth side of the shaft and a wooden hoarding set up 0·60 m. from it, but it also seemed probable that the upper part of the walls had been disguised by wood panelling and that fastened to this were shelves on which some of the offerings had been arranged: both the impression of the panels and the existence of shelves was particularly clear at the south-east end of the chamber, where too the objects were in tiers, an order which could scarcely have resulted from anything but an original position on shelves (Pl. 42).

The chamber, as has been stated, lay 1·70 m. below the level of its death-pit, i.e. its roof was flush with that pit's floor; it was therefore difficult to understand how access to it was obtained. At the west end of the south-west side, where the chamber overlapped that of PG/789 and its wall faced on the passage leading to the chamber of that grave, there was a good deal of burnt brick mixed with the stonework, and on the outer face some of the burnt bricks did take on a curve suggesting that there was here a blocked-up doorway;

but on the inner face there was nothing to support this suggestion and the masonry appeared quite continuous. I was at first inclined to suppose that this really was a door: the theory involved that of the passage belonging to the old tomb having been reopened for the door to be approached; but there was no sign of such repeated excavation; on the contrary, since the floor of the chamber PG/800 was 0·40 m. below that of the passage it would have been impossible to approach it in this way without removing the bodies lining the passage which as a matter of fact were found intact. Moreover the evidence of the inner face of the wall was just as important as that of the outer face, and since the arch in the latter was to say the least very doubtful and the absence of any arch in the former was certain, the theory of a door here could not be maintained. There was no other door; and I was driven to the conclusion that the vault was only built after the chamber was occupied. As it is quite sure that the vault was constructed from the outside, there is no reason why this should not have been the case except that such was not the practice generally followed: it has been stated (p. 72) that the makers of this grave had, apparently, to comply with certain requirements which might well explain various irregularities.

Inside the chamber a wooden bier stood somewhat askew across the north-west end; on it lay the body of Queen Shub-ad. She lay quite straight on her back, her head to the west, her hands crossed over her stomach; a woman attendant was crouched by the side of the bier, near the head, and a second at the foot.

There was no sign of any coffin; neither wood nor matting was found above the queen's body, and the framework of the bier was perfectly distinct and unmistakable as such. In the graves of commoners there is always either a coffin or, at the least, a mat rolled round the body; but in PG/1054 there was nothing of the sort—and PG/1054 is the only other instance in which a queen's burial has been found undisturbed. For all we can tell this apparent exception may have been the rule.

The regalia worn by the queen was most magnificent; it was in effect a more splendid and elaborate version of the court head-dress worn by the women whose bodies are found in the royal tombs in attendance on the principal occupant. The gold hair-ribbon, U. 10934, was unusually wide and heavy (it was 0·02 m. wide and 12·00 m. long); over this came a wreath of lapis-lazuli cylinder beads and carnelian rings from which hung gold ring pendants, U. 10935; next came a wreath of similar beads but with gold 'beech-leaf' pendants; then a wreath with the same 'beech-leaf' pendants but each leaf tipped with a carnelian bead, U. 10935 A; then a wreath with gold willow-leaf pendants tipped with carnelian beads arranged in sets of three, and between the leaves gold flower rosettes whose petals were inlaid with lapis and white paste, U. 10936. The order of these wreaths, one above the other, was well preserved in the soil and could be noted accurately; a set of large and rather coarse lapis ovoid beads, U. 10951, was scattered over the head but in disorder, and its original arrangement could not be observed. From the back of the head rose a tall 'comb' of gold, U. 10937; it seems to have been

set so as to lean slightly forwards and its seven points ending in rosettes of gold with lapis centres were bent so as to droop over the crown of the head. Below the ears hung enormous gold ear-rings of the usual lunate type, 0·11 m. in diameter, U. 10933; fixed in the hair (but exactly where it was impossible to say, for with the decay of the hair they had fallen back on to the soil) were four hair-rings of spirally twisted thick gold wire, U. 10942. Round the neck was a necklace of small gold and lapis beads with a pendant in the form of a wheel-rosette of open-work in gold set with carnelian, U. 10982. The complete head-dress is shown on Pl. 128 mounted on a modern head. In order that this might give as true an idea as possible of the original appearance the head was modelled in wax by K. E. Woolley over a plaster cast of a woman's skull from al-'Ubaid—the skull of Shub-ad herself was in too damaged a condition to be used and therefore a somewhat older skull of the same physical type was employed; the wax was used thinly so as to preserve the bony structure of the face and the marks on the bones of muscular adhesions were carefully followed and the result was in the opinion of Sir Arthur Keith an accurate representation of the Sumerian type; incidentally it is a type occasionally seen amongst the Arab women of southern Iraq at the present day. It is certainly not like the representations in Sumerian works of art, whether we regard the finished sculptures of the Third Dynasty of Ur, a thousand years later in date, or the crude reliefs of Ur-Nina (*c.* 2700 B.C.), or again the drawings such as we have in the contemporary 'Standard' of Ur; but it is extremely hazardous to fix *a priori* the extent to which naturalism or convention prevail in ancient art, particularly where the subject is the human figure; in Egypt at any rate portrait sculpture, for all its seeming liveliness, bears sometimes very little relation to the actual physical forms of the person portrayed. In such Sumerian works of art as we can fairly and without anachronism adduce a highly formalized convention is obvious and their evidence is so far suspect; on the bones of the individual Sumerians we ought to be able to rely with tolerable confidence, and a reconstruction worked out as this has been cannot err very far; *v.* p. 400.

In the *Gazette des Beaux-Arts*, vi. 2, 1931, pp. 2–5, and again in the *Museum Journal* of Philadelphia, xx, p. 211, Dr. Legrain has published a reconstruction of the head of Queen Shub-ad in which not only the physical type is derived from sculpture of a date a thousand years later than that of the tombs but the original style of hair-dressing and decoration is abandoned in favour of one of the same late period. Having assumed that women's fashions were so strangely constant Dr. Legrain is able to point to a head of Third Dynasty date from Ur and claim that it shows that Shub-ad's style survived for more than a thousand years; actually we know from dozens of examples that the court head-dress of the Shub-ad type had completely disappeared by 2700 B.C. and had been replaced by one which required a different fashion of doing the hair; and that style in its turn had been changed by 2400 B.C. But there is fortunately no room for theory at all. Queen Shub-ad's coiffure does not stand alone: we have found scores of such head-dresses in which the ribbons although crushed retain much of their original order and they are always of

more or less the same pattern; some of them are illustrated on Pl. 37, and though the drawings and photographs can show only so much of the ribbon as was visible at a time, part being always hidden by soil or by fragments of the skull, the general arrangement is clear. The ribbon is wound round the head in such a way that the strands cross each other a little way back from the forehead and form festoons on either side which hang one below the other; at the back of the head the strands cross each other again, most of them between the skull and the chignon, though it is possible that one or two were taken right round to confine the chignon also. In no single case do we find the strands of ribbon fastened one above the other in a solid band as they are made to do in Dr. Legrain's reconstruction, and in no single case do 'two strands of the ribbon passing from the nape of the neck to the crown reinforce the edifice on very pure Greek lines' (*Mus. J.*, Phil., xx, p. 237). In the case of Shub-ad a projecting stone forced half out of the wall of the chamber had helped much to protect the head-dress, and the ribbon, thicker and stronger than usual, had indeed broken in two or three places (this because the mixture of silver makes the alloy brittle) but retained exactly the curves and loops into which it had been wound (*v.* Pl. 43 *b*). As the earth was brushed away from the ribbon strips of glued brown paper were inserted between the coils and twisted round the strands so as to fix them in their relative positions and the whole of the ribbon was lifted up in its original shape.[1] This gave us the outline and measurements of the coiffure on which the gold had been arranged, and as the diameter was no less than 0·38 m. it was evident that the queen wore her hair so full that it must have been dressed over pads. A wig was made of the required dimensions and the ribbon, still fixed in a solid mass, was balanced on the top and then the paper which held it was carefully cut away and the strands fell of their own accord into precisely the lines which they had on the queen's head; the symmetry of the festoons on either side left no doubt as to the correctness of the arrangement. In the reconstruction here illustrated there has been no tampering with the order of the head-dress as found, except for the fixing down of the broken ends in a couple of loops: in Dr. Legrain's reconstruction the original coils have all been undone and the head-dress remodelled to suit a theory which disregards all the archaeological evidence. A further result of the rearrangement of the ornaments on a tight-fitting coiffure is that Dr. Legrain could find no room on the head for three out of the four wreaths which the queen was actually wearing. Dr. Legrain says (loc. cit., p. 241), 'It is hard to believe that she wore, when alive, the four at the same time'. He may be right; we only know that she did when she was dead. One of the ladies in PG/1237 wore three wreaths, a child in PG/1068 wore three, a woman in PG/1130 wore two, and so on. If the final appeal is to be to modern taste, I personally prefer the rather barbaric splendour of Shub-ad to the jejune rearrangement of Dr. Legrain.[2]

[1] Dr. Legrain argues that 'the golden ribbons may have spread when the hair and skull collapsed'. If a metal ribbon is wound in circles those circles cannot all spread; one can only expand at the expense of another.

[2] There is not sufficient evidence to put the style of hair-dressing beyond doubt. Representations on cylinder seals and shell engravings prove that a chignon was worn, and this was needed for fixing the comb, but for such details as the wave of the

It should be noticed that the wreaths do not go all round the head. In many instances they are quite short and would at most stretch across the forehead as far as the tops of the ears, and Shub-ad's wreath of gold rings would do no more than this. Her other wreaths are longer than usual because her wig (if it was a wig) was unusually full, but they did not reach round the back. This must mean that the chignon was broad and was coiled up after the wreaths were in place so as to hide their fastenings, or at any rate that the fastenings were tied behind the chignon.

The whole of the upper part of the queen's body was covered with beads of gold, silver, lapis-lazuli, carnelian, and agate, U. 10975–8, U. 10980–1; they were astonishingly numerous and of exceptionally fine quality, as can be seen from the selection illustrated in colour on Pl. 131. The actual strings on which they had been threaded had of course disintegrated and with the collapse of the body the order of the beads had been disturbed, but they were not altogether in disorder and in most cases the individual chains could be followed quite well. Across the body at about the waist ran a broad belt of beads, tubes of gold, carnelian, and lapis, U. 10879, in ten rows of alternating colours, from which had been suspended rings of thick gold wire, U. 10867; they had certainly been sewn on to a background of cloth or leather. Shell rings have in several cases been found lying round the waist of a body, and were certainly the decoration of a belt; presumably the same is the case here, though the materials are more varied and richer. Round the neck or shoulders was a set of the triangular beads, alternately of lapis-lazuli and gold, which are so often worn in the form of 'dog-collars' by the court ladies; but in this case the triangles instead of being contiguous were separated by small beads of gold and lapis in sets of three (U. 10983). All the other beads lay in vertical strings running from the neck to the waist. By every analogy these should be necklaces, and the multiplication of necklaces is not uncommon—three or four ranks are usual, as many as ten have been found, but here there were about fifty. A more serious difficulty arose from the order in which the beads lay in the ground. In ordinary cases the necklace comes close against the back of the neck and hangs down over the breast, and where the order is at all preserved the curve of the loop in front can be followed. Here the single chains could be traced running down from the top to the waist, but never were there beads lying horizontally and connecting two vertical strings; each chain seemed to come to a definite end at about the same level as the rest. Had all been looped necklaces there should have been at the waist (which there was not) a huge accumulation of beads, supposing the necklaces to have

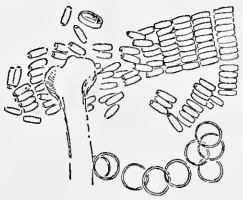


FIG. 12. Scale $\frac{1}{8}$.

hair I have had to go to models which are admittedly of later date. Very likely a single tress came down over each shoulder, but there is no proof of this in Shub-ad's case and it seemed best to avoid any feature which was not required by the gold ornaments, so the long tresses were omitted. Similarly the gold hair-rings were left out of the reconstruction because we do not know quite where they went; they seem to have been worn close to the ear-rings, in some cases at least, but in this case the evidence was lacking.

been of about the same length; or, if they were graded so as to lie across the breast one above the other, the curves of the loops should have been obvious and, even if they were broken, the hanging ends of the chains could not have been all of one length, as they were. Again, the necklace should be tight against the back of the neck; but in the case of Queen Shub-ad there were as many beads under the body as above it, and the straight chains ran down from the neck to the waist in exactly the same way. Again, though this point was not so easy to establish, some of the strings in front seemed to start definitely from the middle of the neck, under the chin, and did not hang from the shoulders as a necklace must. Lastly, the beads on the two sides of the body did not correspond; thus on the right side near the arm-bones there were several strings of small plain carnelian ring beads which had no counterpart on the other side; they could not therefore have been chains hung round the neck. The impression given by observing the beads in the soil was that they had formed vertical strings sewn on to a kind of cloak; and in spite of the argument from analogy I believe this to have been the case, for in no other way can I explain the facts. The close-set tubular beads and gold rings were a belt, whether that was worn tight round the waist or was more in the nature of a border to a loose cloak—the former is more likely; and I fancy that the normal 'dog-collar' was in this case modified to make the cloak collar. The argument for this is that the dog-collar was always tight about the neck, indeed it is usually not nearly long enough to go all round the neck, and there was no need for it to do so, since the heavy chignon hid the nape and the beads there would not have been visible; so a relatively short row of gold and lapis triangles was finished off behind with plain string. Here the 'dog-collar' made of more triangles than usual is eked out with the interspaced small beads and is actually too long to fit the neck at all; worn in the ordinary way it would have hung loose in a manner quite alien to its character; used as the standing collar of a cloak it would have served its purpose well.

Against the right upper arm of the queen were found three gold pins, U. 10870, 10940–1, which probably secured the cloak, made open on this side, as was the usual fashion. With the pins were four amulets, two fish of gold and one of lapis (U. 10944–5, Pl. 142) and one, of gold, in the form of two seated gazelles (U. 10943, Pl. 142); with them were three lapis-lazuli cylinder seals, U. 10871, 10872, 10939 (Pl. 193), of which the last bears the name of Shub-ad. The cylinders were perhaps tied to the pins to make toggles for securing the cloak. By the right shoulder was a lapis-lazuli amulet in the form of a reclining calf (U. 10946, Pl. 143) strung on a row of three large beads of lapis and agate; a pair to it in the form of a bearded bull (U. 10985, Pl. 143) was by the left shoulder; probably they hung from the hair.

On the fingers of the queen's hands were ten gold rings, U. 10877, 10878, 10949, 10950, eight of them of plain gold with cable-pattern decoration, two inlaid with lapis-lazuli, Pl. 138. On the top of the thigh-bones were found a number of large faceted date-shaped beads of gold, lapis, and carnelian,

U. 10880, which may have been connected with the belt but were of a different character from the other beads composing it. Round the right knee was a garter made of flat rectangular beads of gold and lapis with one carnelian ball, U. 10979. To the left of the waist but clear of the body, resting on the woodwork of the bier, was a gold pin of Type 5, U. 10938, Pl. 165. This completed the personal ornaments worn by the queen.

To the left of the bier, near the head, there was found something which can best be explained in the light of discoveries made afterwards in PG/1618, where in the corner of the coffin there was a wig bearing its gold ornaments, an alternative to the *brîm* head-dress actually worn by the dead man. We found here in Shub-ad's grave remains of wood which can be interpreted as belonging to a shelf or small table; resting on this layer of carbonized material were the elements of a magnificent diadem. There were thousands of very small lapis-lazuli beads which lay against a strip of white powdery material the fibrous texture of which suggested leather; this must have been the background to which the beads were sewn. Against this blue field there had been attached small ornaments of gold which in spite of the decay of the background still kept their order and to some extent their spacing and so could be replaced with tolerable accuracy. There are four pairs of animal figures, stags, bearded bulls, gazelles, and rams, small eight-petalled rosettes, ears of wheat, clusters of three pomegranates with their leaves, plants with stems of gold leaf over silver, and with gold, lapis, or carnelian pods, palmettes of twisted gold wire, the last found always inverted and so apparently hanging downwards, U. 10948, Pls. 140–1: with them, perhaps part of the fastening, was a short gold pin with flat head ornamented with guilloche pattern, U. 10984, Pl. 138. This is undoubtedly the queen's spare diadem, fixed to a wig which was placed alongside of her in the grave, and of all her treasures it is one of the most remarkable. Fragments from a similar diadem were found in PG/777, but there the workmanship was distinctly poor; but the little animals from Shub-ad's head-dress are exquisitely modelled, the plants and ears of corn are very charming, and the general effect is one of great richness and delicacy.

Lying across the body was a silver lamp of the usual sort, Type 115, but of unusual size, its width being no less than 0·32 m.; it was terribly decayed and the spout end had perished altogether. Under it, on the edge of the bier near the queen's right hip, were four *brîm* head-dresses (U. 10873–6) placed together. On the corner of the bier by the right side of the head was a golden bowl, U. 10851, of Type 7 and by it a silver drinking-tube.

With the attendant crouched by the side of the bier were found a few date-shaped beads of lapis and silver (U. 10929), a whetstone (U. 10928), two daggers in a hopeless state of decay, fragments of an ostrich-shell which had been encrusted with white, red, and black tesserae, and a silver pin of Type 1, U. 10888. The sex of this attendant could not be told either from the bones, which were much decayed, or from the objects, though the daggers suggest a man; in that case the *brîms* found on the edge of the bier might well belong to him and have fallen from his head. The attendant at the foot of the bier

was a woman; she wore a pair of gold hair-rings (U. 10890), a string of large double conoid beads of gold, lapis, and carnelian (U. 10889), and had two pins, one of copper much decayed, the other of silver with a lapis head capped with gold, Type 1, U. 10887. Fragments of another skull were lying against the middle of the south-west wall of the chamber, but there were no objects with it. A pair of very large gold lunate ear-rings and a quantity of gold and lapis-lazuli conoid beads (U. 10866 and 10866 A) were found between this skull and the bier, but they were lying 0·70 m. above the floor and are therefore more likely to have fallen from the filling through the broken arch of the roof than to have been part of the offerings inside the chamber or the property of any one inside it.

Besides the personal ornaments there was in the tomb a vast store of offerings of all sorts, vessels of gold, silver, copper, stone, and clay, and a few pieces of furniture, &c. These were piled together at each end of the chamber, some having been placed on the floor, others fallen from shelves; and against the north-east wall was another pile. The north-west half of the tomb was all encumbered with such offerings, with the bier, and with the bodies of the attendants; in the south-east half the south-west wall and the central space were fairly clear except for some fragments of broken clay pots. There did not seem to be any method in the arrangement of the offerings, all appeared to be mixed up without regard to material or use; but the position of each was recorded and the description will be most easily followed if it be given in the order in which the objects lay, so that their enumeration may be continuous.

Beginning in the south corner of the tomb (1), (2), and (3) are clay pots of Type 61, the first two of drab, the third of red ware; (4) fragments of an ostrich-shell, decorated; (5) a copper pot of Type 59 in very bad condition, ht. *c.* 0·50 m.; (6) calcite vase, U. 10885, Type 87; (7) steatite vase, U. 10852, Type 74; (8) remains of a copper bowl; (9) a copper pot of Type 4 (?), ht. *c.* 0·12 m., inside which was a second copper pot too decayed to be typed and (10) a copper ladle of Type 94, U. 10955; (11) a calcite vase, U. 10971, Type 68; (12) a copper bowl of Type 74, ht. 0·08 m., rim d. 0·13 m., hopelessly decayed; (13) a copper tray, Type 104, U. 10856; (14) remains of a shallow dish of white limestone, decayed; (15) two copper ladles and an adze corroded together, U. 10956; (16) calcite bowl, Type 19, U. 10972; (17) copper bowl, Type 16, U. 10957; (18) copper pot, Type 70, U. 10954; (19) copper pan, Type 23, d. *c.* 0·50 m., much distorted; (20) inside the last, a copper bucket, rim. d. 0·15 m., decayed; (21) copper pot, Type 53, rim d. 0·20 m., decayed; it was inside (22), a copper basin, type uncertain, ht. 0·25 m., also much decayed; (23) calcite bowl, Type 22, U. 10963; (24) limestone bowl, ht. 0·13 m., U. 10973; (25) silver pot of Type 52, U. 10855, from the mouth of which projected a gold drinking-tube about 0·80 m. long; attached to it was the silver saucer, U. 10859; (26) calcite vase, Type 89, U. 10924; (27) remains of copper bowl of Type 7; (28) fragments of calcite tumbler, Type 12; (29) silver pot, Type 52, U. 10910; (30) a drinking-tube of copper cased in lapis, U. 10911; (31) fragments of an ostrich-shell used as a cup, coloured reddish brown and encrusted round the rim and base with mother of pearl set in bitumen, cf. Pl. 170; (32) calcite vase, Type 89, U. 10853; (33) remains of copper bowl of Type 4; (34), (35), (36), broken clay saucers of Type 4, one of them containing cow's teeth; (37) calcite vase, Type 89, U. 10920; (38) calcite vase, Type 3, U. 10921; (39) steatite bowl, Type 50, U. 10968, inside which a silver cup, Type 42, U. 10863; (40) calcite vase, Type 87, U. 10854; (41) gold bowl, Type 8, U. 10850; (42) silver bowl, Type 7, l. 0·20 m., decayed; (43) silver libation-jug, Type 84, U. 10860, to which was fastened by corrosion a silver fluted tumbler, Type 43, U. 10861, and another broken silver vessel; (44) a silver paten, Type 32, U. 10862, under which was a silver colander, Type 96, U. 10858; (45) fragments of a steatite bowl, Type 50, U. 10969; (46) a set of three silver fluted and engraved tumblers, Type 43, U. 10858; (47) fragments of an ostrich-shell decorated as No. 31; (48) a mass of broken and decayed silver including two cylinders of the metal originally encasing wood covered with bitumen, they were two offering-tables of Type 102; a silver bowl was corroded

on to one of the legs; (49) silver fluted and engraved tumbler of Type 43, U. 10857; (50) silver bowl, Type 4, U. 10953; (51) silver bull's head, U. 10916, from a lyre; with it were the two shell plaques (one broken, and the rest of it was not found) which had decorated the front of the sounding-box, U. 10917; (52) a number of shell roundels and a shell staff-head, U. 10881, making a handle of some instrument, possibly a sistrum; (53) calcite vase, Type 76, U. 10925; (54) silver bowl, Type 4, U. 10905; (55) fragments of ostrich-shell with encrusted mosaic ornament; (56) calcite vase, Type 89, U. 10923; (57) silver bowl, Type 4, U. 10902; (58) calcite vase, Type 72, U. 10926; (59) unusually large cockle-shell containing green paint, U. 10966; (60) remains of copper bowl, Type 7, l. 0·18 m.; (61) gold strainer, U. 10931, Type 97; (62) gold bowl, Type 7, U. 10930, Pl. 164; (63) silver bowl, Type 4, U. 10909; (64) limestone bowl, Type 15, U. 10959; (65) calcite bowl, Type 16, U. 10962; (66) calcite vase, Type 2, U. 10922; (67) calcite vase, Type 66, U. 10960; (68) calcite vase, Type 19, U. 10964; (69) bowl of Type 7 made of silver with applied bands of electrum, U. 10891, Pl. 173; (70) remains of a very small copper cup; (71) four silver fluted tumblers, Type 43, U. 10897; (72) silver bowl, Type 4, U. 10908; (73) two silver fluted tumblers, Type 43, U. 10895; (74) remains of copper bowl; (75) calcite vase, Type 3, U. 10961; (76) remains of copper bowl; (77) remains of copper bowl; (78) silver fluted tumbler, Type 43, U. 10900; (79) remains of copper bowl; (80) copper bowl of Type 4, decayed; (81) copper bowl of Type 4, d. 0·11 m., decayed; (82) silver bowl, Type 4, U. 10918; (83) calcite vase, Type 88, U. 10883; (84) calcite vase, Type 87, U. 10884; (85) silver bowl, Type 4, U. 10903; (86) silver bowl, Type 4, U. 10904; (87) silver lamp, Type 115, original length 0·60 m., but much decayed, U. 10974; (88) silver offering-table, Type 101, U. 10914, on which (89) a silver fluted tumbler, Type 43, U. 10894; (90) a calcite bowl, Type 16, U. 10958, and (91) another silver object too distorted to be recognizable; (92) copper bowl of Type 7, in hopeless condition; (93) calcite vase, Type 76, U. 10882; (94) silver bowl of Type 28, U. 10912; (95) copper bowl, Type 4, and a second similar, U. 10912; (96) calcite vase, Type 61, U. 10919; (97) silver bowl, Type 4, U. 10865; (98) silver fluted tumblers, Type 43, U. 10899; (99) copper bowl, Type 4, decayed; (100) remains of several copper bowls corroded together; (101) copper bowl, Type 4, decayed; (102) copper bowl, Type 4, decayed; (103) remains of copper bowl; (104) a pair of silver model cockle-shells, U. 10901, Pl. 137; (105) silver fluted tumbler, Type 43, U. 10892; (106), (107) two very large cockle-shells containing paint, and a number more, not so large, in the soil immediately below them, U. 10966; (108) silver fluted tumbler, Type 43, U. 10899; (109) remains of copper bowl; (110) calcite vase, Type 87, U. 10927; (111) silver fluted tumbler, Type 43, U. 10893; (112) remains of two copper bowls; (113) handle of lapis-lazuli, U. 10952; (114) two silver bowls, distorted and corroded together, U. 10907; (115) calcite bowl, Type 103, U. 10965; (116) silver lamp, Type 115, U. 10886; (117) a pair of gold model cockle-shells containing paint, U. 10932, Pl. 165; (118) two silver tumblers, Type 43, U. 10898; (119) silver tumbler, Type 43, U. 10913; (120) silver askos, Type 113, U. 10915; (121) gold bowl, U. 10851 (Pl. 161), inside which a silver drinking-tube, U. 10915; a silver bowl of Type 4, U. 10906, a gold hair-ring, U. 10868, and a gold ear-ring, U. 10869, were unplaced.

PG/1050. (*Pls. 46–8*)

At a depth of 2·20 m. below the foundations of Nebuchadnezzar's Temenos Wall there were found the tops of mud-brick walls which formed a rectangular building divided by cross-walls into four compartments; the whole building measured 7·20 m. north-east by south-west and 10·00 m. north-west by south-east; the cross-wall dividing the two chambers on the north-east was quite shallow and most of it was dug away before its existence was observed, the others were preserved to a height of *c.* 1·20 m. At first the two chambers on the south-west were regarded as separate and were given independent numbers, PG/1050 and PG/1051 respectively; later it was seen that they were parts of one whole, and that the other two chambers had to be added to them.

Flush with the tops of the walls of the two south-west chambers there was a deposit varying from 0·20 m. to 0·30 m. thick of burnt earth, ashes, small lumps of lime, and charred wood all mixed together; this rested on a layer of

long thick reeds not woven into matting but laid in layers of single reeds, each layer at right angles to that below it. In the north-westerly of the two compartments concerned only a little of the reed layer was preserved, in its south corner; over the south-east compartment (our original PG/1050; see photographs on Pl. 46) it was in very good condition and covered the entire area. In the north-westerly compartment (our original PG/1051) there was immediately beneath the reeds, or on the surface where the reeds had disappeared, a certain amount of pottery fragments mixed with mud; at the north-west end there were some clay vessels either intact or so far complete as to be recognizable; they were of Types 7, 180, and 209 and with them were fragmentary examples of spouted bowls apparently more or less like Type 215. Below the pot layer there came alternate strata of red burnt earth and black ashes, quite thin strata lying fairly flat but rising slightly against the sides of the chamber. It looked as if a succession of fires had been lit and put out by earth being thrown on to them. The burnt layers continued for 0·80 m. and then came more pottery of the same types as before, not very many in number but in better condition, and against the north-east side a bronze chisel. Forty centimetres lower down, at 1·50 m. from the top of the wall (approximately), there was against the north-east wall, just below the chisel, a human body; there were no objects with it. The bones lay on a layer of burnt red earth which extended under the walls.

In the south-east compartment (PG/1050) under the extremely well-preserved reed layer there was found a wooden pole, d. 0·055 m., lying halfway between the north-west and south-east walls and parallel with them; there may have been other poles, but no traces of them could be seen. It seems almost certain that the wood and the reeds and the burnt earth, &c., immediately above the reeds represent a flat roof of the ordinary native type. The fact that the walls had a slight batter which on the north-west side was exaggerated to the extent of one in three did at first incline me to suspect a domical construction, but for this there was no further evidence and the witness of all the other phenomena is strongly in favour of the flat roof.

The reed layer can be seen on Pl. 46; as it was removed there came to light (Pl. 46 and Pl. 47) an amazing mass of broken pottery together with a few intact or nearly intact specimens, most of the latter close to the sides of the room. The pots were all of Types 7 and 209; many of them had been provided with mud stoppers on which there had been seal-impressions, none of which were any longer legible; and with them were a few small clay models of boats, and animal bones including the shin-bones and teeth of cattle. The pottery rested on a layer of earth which was neither very level nor continuous; below it came a second pottery layer and below that again a third; always the same types repeated themselves. And at all three levels there were human bodies. Four of them were at a depth of 0·40 m. to 0·50 m. below the top of the walls, i.e. in the uppermost pottery level; one was a complete skeleton sprawled amid the pots across the middle of the room, of the others only the skulls were preserved, if indeed there had ever been more of them than the skulls. Six more skulls lay at depths varying from 0·60 m. to 0·70 m.,

in the second layer of the deposit, and one high in the bottom layer at 0·80 m. None of them had any objects associated with them.

The south-west wall of the building rested on the firm soil of the old rubbish-mounds, which had been cut back for its foundation; the other walls, built over the filling of the tomb shaft, rested on a floor or level of hard-rammed red burnt earth; all the foundations came at the same level. The burnt earth was about 0·70 m. thick. Below it the earth sides of the shaft ran down, that on the north-east side apparently vertical—but it was very difficult to distinguish—and that on the south-west with a pronounced batter; at this point the varicoloured stratification of the rubbish-mounds was most obvious in the face of the shaft's side. At a depth of 2·90 m. below the wall top this sloped earth-face had been cut back into a recess in which was a coffin made of stout reeds planted upright in two rows in the ground and with their top ends bent over inwards and lashed together so as to form a roof; at intervals the reeds instead of being set thinly in a row were in bundles or fasces which served instead of wooden staves to strengthen the coffin sides. This construction, which is not recorded elsewhere in the cemetery, is of interest in that it exactly anticipates the modern Arab's way of building his hut.

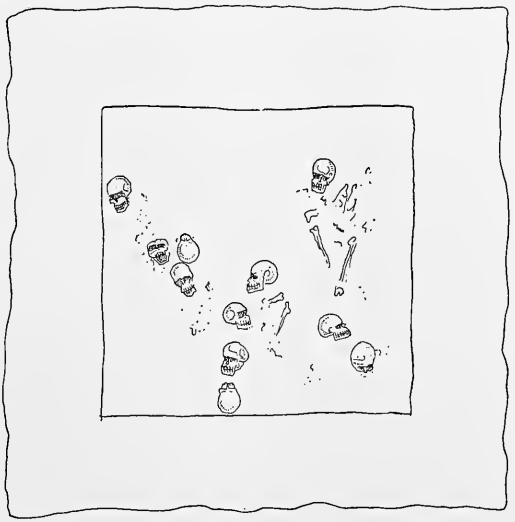


Fig. 13. PG/1050.

In the coffin was a body lying with the head south-east; with it a copper pin, a cylinder seal of pink limestone, completely decayed, a drab clay pot of Type 108, a pot of pinkish clay of Type 231, and a saucer of Type 5. Below the coffin there was found a large dedication-bowl inverted over a mat; by analogy with the drain-pipe in PG/1054 (*v.* p. 101) this ought to belong to the tomb, but it lay actually outside the shaft, and although it could have been put where it was when the shaft was open by sinking a hole in the top of the ledge destined to receive the reed coffin I could not determine whether or not that had been done, and recorded as my opinion that it was more likely to be older than the tomb and to have no real connexion with it. Such dedication-bowls are found sometimes under buildings of the prehistoric periods and sometimes unconnected with buildings (*v. A.J.* vi. 4, p. 397), and they were

fairly common in the cemetery, particularly in its western part, where they occur amongst the graves. In the present case the main difficulty was to decide whether the earth immediately above the bowl had been replaced when the mud-brick wall at the edge of the ledge was built, and this I could not do. If the ledge was originally cut at the level on which the bowl rests and then the wall built and the space behind it filled in, as was perfectly possible, then the bowl belongs to the tomb; but I did not detect any signs of that having been done.

From this point we had to deal with a pit within a pit (*v.* the section, Fig. 14). The new pit measured 4·00 m. in either direction; its north-east side was the vertical side of the higher shaft, its south-east and north-west sides were of mud brick and had a distinct batter, its south-west side below was cut in the soil with a slight batter but above was defined by a wall of mud brick whose foundation was let into the edge of the shelf on which stood the coffin of reeds: lower down, however, there was a wall on the north-east also, the foundations of which went right to the bottom of the whole tomb-pit, but the upper part was broken away just above the floor-level of the chamber which it helped to enclose. The whole filling of the pit from the belt of red burnt earth downwards was of mixed rubbish showing no stratification. At the bottom of it there was a floor of mud brick 0·50 m. thick extending unbroken over the space between the walls; on it had been the main burial; both this floor and the walls of the pit had been lined with matting.

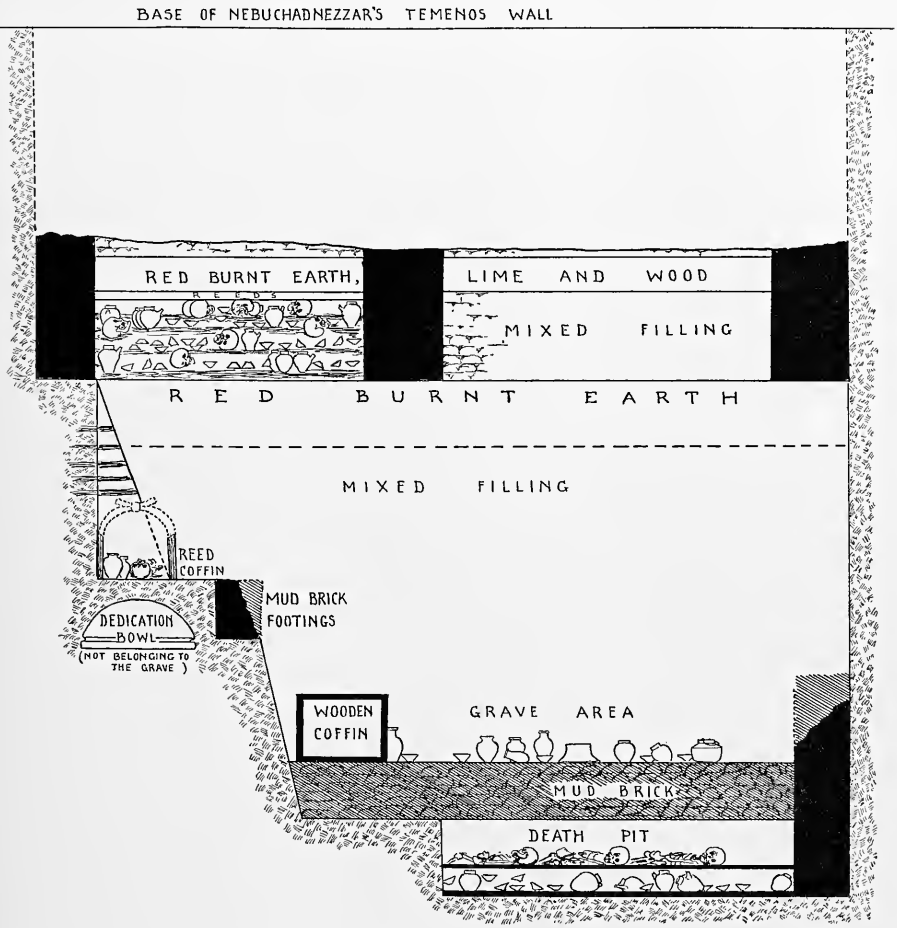
Against the south-west side were the remains of a wooden coffin measuring 1·60 m. by 0·80 m.; it had been broken open and the bones inside it were in hopeless confusion, one half of the pelvis lying against the lower jaw; it was evident that the disturbance had taken place after the soft parts of the body had decayed and the bones were loose and dry. On the body, which lay with the head north-west, there were some beads of gold, lapis-lazuli, and carnelian, and traces of silver.

By the foot of the coffin were the white calcite vase U. 11760, of Type 85, a much decayed copper bowl of Type 7, 0·22 m. long, and with this the broken skull of a second person, presumably one of the attendants. In the middle of the floor lay inverted another vase of white calcite, U. 11762, Type 92, and near it a large copper pan of Type 23, 0·18 m. in height and with a diameter of 0·30 m.; to the north-east of this was a copper cauldron of Type 46, completely crushed and broken; below it were found a little clay vase in the form of a nut as well as the large lapis-lazuli cylinder seal, U. 11825, inscribed with the name A-kalam-dug; on this see p. 316.

By the head of the coffin there were heaped together many clay pots, including six examples of Type 102, all of drab clay, and a number of saucers (Type 5); ranged along the north-west side of the pit were more clay vessels, all broken, of Types 5, 100, 102, and 173.

Also by the head of the coffin was the white calcite vase U. 11761, of Type 87; the whole of the centre of the pit was empty except for the few scattered objects already described.

We dug through the mud-brick floor and found that the built wall on the north-east continued below it whereas the north-west and south-east walls were but superficial. Under the floor the pit went deeper, but was much reduced in width, for the south-west part of the floor rested on unexcavated soil forming a ledge or step *c.* 1·25 m. wide, while its length was that of the main shaft; it measured *c.* 3·10 m. by 12·00 m. Under a filling of mixed earth



SECTION SW–NE THROUGH PG 1050

SCALE 0 1 2 3 4 METRES

Fig. 14.

there was a floor of hard light yellow clay on which were arranged in more or less orderly ranks forty human bodies.

It was difficult to establish the attitude of the bodies owing to the decayed condition of the bones; very many of the skulls even had disappeared and their existence could only be deduced from a few surviving teeth or from the beads which had been round the necks. On the whole it was clear that many of the victims had been lined up against the walls of the pit and, since the skulls were often at a slightly higher level than the other bones, had reclined or sat with their heads propped against the walls; others had taken up their positions down the middle of the pit floor, but not in any very regular array. None of these forty attendants was richly dressed, many had no objects or ornaments at all; at most one would wear small lunate ear-rings of copper or silver, a copper or a silver pin, generally of Type 7 with a lapis-lazuli ball head, one or two hair-rings of spirally coiled silver wire, and one or occasionally two necklaces of silver and lapis-lazuli beads strung in alternate groups. One broken ostrich-shell, a few shallow bowls of white limestone, and a few copper weapons completed the furniture of this very poor 'death-pit'.

Below the 'death-pit' floor there came, at a depth of 0·25 m., another floor of light yellow clay; the intervening space was filled with burnt ashes and broken clay pots, some of which had had mud stoppers; the types represented were 5, 108 and 209. The area was divided into compartments by cross-walls of mud brick, shallow and ruinous, and it was impossible to say whether these really belonged to the tomb-shaft or were ruins of an older building which the tomb-shaft had accidentally laid bare. On the whole the latter supposition seemed the more probable, for let into the floor there was a circular hearth which, had it been made for the tomb, should have been intact, whereas actually it was half destroyed, and in the floor or just below it (the strata were not clear) were found a few archaic tablets of the pre-cemetery period. That the clay pots belonged to the tomb can, I think, safely be assumed, but the floor on which they rested probably did not.

In one very important respect the tomb is a puzzle. The principal burial must have been on the main floor, where the signs of plundering were obvious; and the plundering had been done in such a way as to imply quite clearly that the robbers broke into a chamber in which they were able to move about at pleasure. They had not dug straight down from above, for the upper chambers with their deposit of pottery and bones remained undisturbed; they must have tunnelled in from one side (though we failed to detect their tunnel) and they did not cut away at all the brick floor. The wooden coffin had been effectively looted and all the central space cleared, and only a few objects of no intrinsic value had been left and these evidently thrown away—they were not in positions in which they could have been placed at the time of the burial. All this postulates the existence of a tomb-chamber such as we find in PG/1054; a chamber with a roof of some sort. But no trace of any roof was found by us. As has been said, the upper parts of the walls defining the lower pit which must have constituted the tomb-chamber were broken away, and they were broken away very much at the point where they would have

given, had a vault or dome supported by them collapsed; but we failed to recognize any such mass of fallen mud brick as would necessarily have resulted from the fall of a roof. Further, it is none too easy to explain how, if a roof over an empty chamber at the bottom of the pit did fall in, the floor higher up in the shaft, with its mass of votive pottery, did not fall in also, but remained undisturbed; nor was there any empty space between this floor and the floor of the lower chamber, but a mixed rubbish packing which was at least tolerably solid.

That there was a tomb-chamber seems to me certain. As regards the difficulties which this involves I can only suggest that the robbers entered by a tunnel which came down from the surface at a sharp angle and hit the chamber either at the junction of wall and vault, if it was vaulted, or half-way up the dome if it was domed; the rubbish coming down this tunnel (much of it probably thrown back by the robbers) filled the chamber at least up to the level of the springers of the roof, leaving a comparatively small space beneath the roof empty; then the roof collapsed, but because the empty space beneath it was small its fall did not seriously disturb the upper part of the filling of the shaft, and the floor with its pottery deposit was not noticeably damaged. In that case we must have cut through a good deal of fallen mud brick without observing the fact—which when all the soil is mixed rubbish is quite possible, though it ought not to happen: the admission of a fault on the excavator's part would reconcile the conflicting evidence recorded at the time. A vault of four and a half metres' span is not impossible; if we restore such, the grave as a whole bears a close resemblance to PG/1054, the only important difference being the existence in this case of a death-pit under the tomb-chamber.

PG/1054. (*Pls. 8, 49–57*)

This grave illustrated more fully than any other the ritual of a royal burial; the soil above it was full of later graves the digging of which had destroyed any superstructure that there might have been and the upper part of the tomb-shaft; the tops of the original walls were only encountered at a depth of 4·00 m. below the modern surface. But below this there had been no disturbance and the tomb and its accessories were intact. The excavation was not easy, partly because the virtual disappearance of the south-east wall and the fact that the north-east wall was for a long while not discovered, being hidden under the earth ramp made for our basket-men, prevented us at first from seeing that we were dealing with one definite shaft, and the different stratification on the two sides of the cross-wall, at least in the upper levels, further concealed the truth. The higher part of the shaft sides were never found and are therefore only dotted in on the section. The correlation of field notes written quite independently was not simple, but fortunately there were enough points of contact, and the section, though slightly schematic, does give the facts fairly accurately.

The first sign of the tomb's existence was given by the discovery that the pit dug to receive the later larnax burial PG/1053 had been cut down into a

solid wall of mud brick which ran north-east by south-west; from it a branch wall was found running towards the south-east. Against either side of this wall there began to appear clay pots and then, a little way from it to the north-east, the outlines of a wooden box, 0·65 m. by 0·60 m. square, now reduced to a whitish powder; by it was a vase of white calcite (U. 11510; *v.* Pl. 49) and inside it two daggers and a cylinder seal. The seal, U. 11751 (Pl. 196; *v.* p. 316), is of shell with plugs of lapis-lazuli at each end; the surface is much decayed but still legible, and it bears the inscription 'Mes-kalam-dug the King'. Each of the daggers (U. 11512 and 11513) had a blade and guard of gold and a wooden handle 0·11 m. long the pommel of which was decorated with gold studs (Pl. 157).

These offerings lay in a chamber built half-way up the shaft of a royal tomb. The building, whose walls seem to have been a metre thick, enclosed a space measuring about 6·00 m. from north-east to south-west and perhaps as much again from north-west to south-east, but the south-east wall had been ruined away. A cross-wall running north-east by south-west divided the area into two parts, of which that which survives has a width of 3·50 m.; this space is again subdivided into two unequal parts by the cross-wall close to which lay the box with the daggers. The walls differ greatly from each other; the outer north-east and south-west walls have their foundations at 2·90 m. below the level at which the box lay; the north-west wall goes down only 1·00 m. below that level, and the cross-walls no more than 0·15 m. About the whole of the south-east section of the building there is nothing to say, because there was nothing of it left except a continuation of the south-west wall, which was curiously recessed (*v.* plan, Fig. 17). The cross-wall which divides the north-west half of the building seems to imply a roof, and in my publication in the *Antiquaries Journal*, ix. 4, Pl. xxvi, I suggested that the larger north-east chamber might have been covered with a mud-brick vault. The difficulty about this is that a vault underground starting at this level and having the normal rise would imply that the ground-level was higher, in relation to that of to-day, than we have perhaps any right to assume, and we certainly found no such mass of fallen brick as should have resulted from the vault's collapse; and although the ground immediately above has been disturbed by later interments some of the vault material would have been left. The analogy of PG/1050 is rather in favour of a flat roof of beams, reeds, and mud, and as such need not have been at all high the danger of our exaggerating the depth of the shaft is obviated. It is of course likely that if there was a flat roof it extended equally over both chambers.

Taking first the north-east compartment in which was the box with the daggers, the walls were lined with matting and there was matting spread over the floor, which was of beaten clay. On the north-west side half on the wall and half in the chamber was a terra-cotta drain-pipe which lay on the mat lining and had over it remains of the mats which had covered all the contents of the room; it apparently therefore belonged to the tomb, but there was nothing to explain its purpose. Under it, against the wall, was (1) a white calcite pot of Type 85 and a row of clay pots (2–7) all broken, all of Type 174; three

more pots of the same type stood alongside the dagger-box (8–10) and with them (11) a broken example of the clay vase Type 68 and (12) a vase of white calcite of Type 91 (U. 11511); between the box and the cross-wall lay a group of six oval copper bowls (13, Type 7) one inside the other, two hemispherical copper bowls (14, 15, Type 4), a copper strainer (16, Type 96), and (17) a bronze adze. Beyond the box there stretched to the south-east a large patch of black wood ash which might have resulted from fires lit on the spot but might also represent the roof. Mixed with the ashes were bones and teeth of animals.

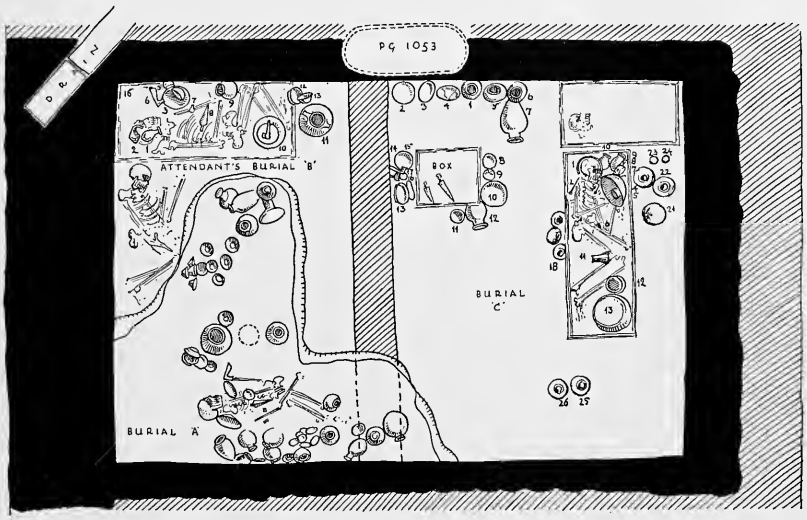


Fig. 15. PG/1054
Plan of upper part of shaft showing brick walls and burials at different levels. Scale $\frac{1}{50}$.

In the north corner of the chamber there was a second wooden box containing only a few bones (a broken skull was found here but it was not clear whether it was inside the box or not), and though it is unusually small it may have been a coffin, in which case it had been plundered. At right angles to this and parallel with the north-east wall from which it was 0·50 m. distant was a wooden coffin well preserved and intact; it is shown as Burial *C* on the ground-plan and section.

The woodwork of the coffin had left a very clear impression in the soil; the sides were built with three planks each 0·15 m. wide, the lid was of similar planks laid lengthways and fastened with 0·03 m. battens set at intervals of 0·06 m.; the interior measurements were 1·60 m. by 0·50 m. Outside it at the south-east end there had been a round wooden pole, d. 0·07 m., fixed in the ground, and a slenderer pole (d. 0·035 m.) at the north-west end; they may have been the uprights of a canopy. The body lay on its left side with the head north-west; *v.* the detailed grave-plan, Fig. 15. On the head were (1) a plain gold fillet, U. 11735, a pair of hair-rings of plain gold wire spirally coiled, U. 11736, a wreath of carnelian cylinders and minute gold balls with gold ring pendants, U. 11742, and at the neck (and also in the bowl, U. 11733) a quantity of beads of gold, lapis-lazuli, and carnelian, U. 11743–4. Apparently on the right shoulder was (2) a copper pin with lapis ball head,

U. 11738, and a second similar but shorter pin just behind the shoulder-blades (3; U. 11737); between the hands and the head was a dark steatite bowl (4) of Type 50 (U. 11733), inside which (5) a copper cup, U. 11740, of Type 4. At the waist, where it must have hung from a belt, was (6) the lapis-lazuli cylinder seal, U. 11734, Pl. 192. In the north corner of the coffin came (7) a copper bowl, U. 11739, a copper lamp, U. 11741 (8), a vase of white steatite (9) of Type 92, U. 11731, and another of Type 60 (10), U. 11732. In the crook of the knees was (11) a clay tumbler of Type 7, and below the knees (12) a bowl of dark green steatite, U. 11730, of Type 26, and (13) a copper cooking-pot of Type 23 lying upside down and crushed (ht. 0·15 m., base d. 0·23 m.). Against the south-west side of the coffin was another body lying with the head north-west half under the pots which were tilted against the coffin's side; it was on matting with, apparently, a plank beneath it. These pots were (18 on the ground-plan) one of Type 69 and several, including two complete examples, of Type 148 (19, 20). Between the coffin and the north-east wall of the chamber was (21) a large steatite bowl of Type 42 and, 0·60 m. above the level of the floor on which the coffin stood, a clay pot of Type 108 (22) and (23–4) two clay saucers of Type 5; below these, on the floor, was another pot of Type 108, one of Type 174, and fragments of a number of clay saucers (Type 5) lying in the burnt wood ash; with them was a human skull, a bronze spear-head of Type 2 (U. 11886), and a dagger-blade, U. 11887.

Under the thin clay floor there was a layer of clean dust and then a stratum, some 0·20 m. thick, of broken mud bricks; but across the middle of the room this stratum was broken by clay pots which, coming under those set between the coffin and the dagger-box, went down in regular tiers one below another (*v.* Pl. 53 *b*). Whether they had been placed in position as the earth was being put into the shaft or whether a trench had been dug to receive them after the brick rubble stratum and the clay floor were complete I could not decide. It should be explained that although only two clay pots are shown in the chamber at any distance from the coffin or the box (25–6; two examples of Type 108) there was mixed with the carbonized wood a great deal of broken pottery, and it is quite possible that the deposit of funerary vases extended all over the room. Below the floor there was no such general distribution of sherds, but the offerings were confined to this central space; only against the north-east wall were there fragments of pottery which might denote offerings at a lower level. The tiers of pots in the middle went down through the broken brick stratum and through a stratum of fairly clean soft soil which underlay it, and the bottom row stood on or in a thin layer of broken brick and clay which made a lower floor-level uniform with the foundations of the cross-wall dividing the chambers. With them was a clay offering-table of Type 243.

On the other side of the cross-wall, in the north-west chamber, the facts were quite different. A mixture of red burnt earth and wood ash including, in the south-east part, remains of quite heavy timber, was spread over the whole room and went down to the level of the floor on which in the adjoining chamber the dagger-box stood; but here there was no corresponding floor and below the red earth came mixed filling which overlay a floor of clay level with the bottom of the foundation of the dividing wall. On this floor there was a wooden coffin which occupied most of the space against the north-west wall; the coffin itself was in very bad condition and could hardly be recognized, but its contents were intact. It is marked on the ground-plan and section as Burial *B*. The body lay on its left side with the head south-west; the objects with it (see the detailed plan, Fig. 15) were as follows:

(1) a vase of white limestone, Type 60, U. 11567; (2) a copper lamp, Type 115, U. 11569; (3) a large bowl of grey steatite, Type 50, U. 11568, inside which an oval copper bowl, Type 7, in bad condition; (5) a copper cup, Type 4, U. 11572; (6) a bronze axe, Type A 3, U. 11570; (7) a copper razor, U. 11571; (8), clearly suspended from the waist by a belt, a dagger-blade, broken, l. 0·21 m.; (9) a clay pot of Type 108; (10) a copper pan, Type 27, ht. 0·10 m., d. 0·30 m., in bad condition, and inside it a small copper bowl and a strainer (Type 96); (11) a copper cauldron, Type 75, ht. 0·18 m., d. 0·28 m., in bad condition; (12, 13) clay saucers of Type 5; (14) a bronze spear-head of Type 2, U. 11573. The last three objects were probably outside the coffin, at its foot, but the woodwork here had disappeared and the coffin's limits could not be fixed. Against the south-west wall were remains of another body lying with head north-west; there were no objects with it.

Below this floor, over which were strewn numerous fragments of broken pottery, came the same strata of clean soft soil and then of broken brick and clay as were encountered on the other side of the dividing wall; in fact, below the foundations of that wall the strata were continuous over the whole area of the building. Only against the south-west wall was the stratification interrupted; here, as in the other chamber, there were tiers of clay pots one above the other going down to another floor-level of beaten mud 0·35 m. below that on which Burial *B* rested. Following these pots down (*v.* section) we came upon three which stood higher than the new floor and might as well therefore have been assigned to the upper stratum except for the fact that they were close to and may have formed part of a burial, *A*, which rested on this floor.

The pots were examples of Types 7, 108, and 193; the body to which they perhaps belonged lay stretched along the south-east wall of the chamber with the head in its south corner; it had been wrapped in matting and had no coffin. A group of plain saucers of drab clay, Type 5, lay by the body; a broken clay pot apparently of Type 193 was also by it; there were two copper bowls, both of Type 7, and both completely smashed; with the bones were two sets of toilet instruments from reticules, U. 11527, and one broken; a broken copper pin; a bronze axe, Type A 3, U. 11525; two copper daggers, both in fragments, one found under the body by the hip; by the left knee a crystal and a copper bead, a number of very slender copper rods and a shell cylinder seal completely decayed; and two more shell cylinder seals, both in bad condition, U. 11528, Pl. 195.

Immediately under the foundations of the dividing wall there had been found a copper pan resting in the layer of broken bricks and clay; below this, on the level at which lay Burial *A*, there were very many clay pots, for the most part broken and difficult to type, including an offering-table and numerous saucers; these lay in the south-west half of the building under the north-east compartment of the upper floor; there were plenty of sherds but no complete vessels; there were also animal bones.

Under the mud floor came more loose earth mixed with ashes and potsherds resting on another mud floor 0·20 m.–0·25 m. below the last, this being the fourth floor-level in the south-west half of the building and the fifth in the north-east. On it were some human bones, too incomplete to be identified as a burial though it probably was such, and, near the south-west wall, a few clay saucers. Here too it was broken by the emergence of the tops of clay pots belonging to a burial *D*, on another mud floor 0·25 m. lower down in the shaft. The body, the bones of which were much decayed, lay with its head almost due west and had no personal ornaments, only pots of offering. The three tall pots already mentioned were one of them certainly and the other two probably of Type 174 (two were in fragments); there were eleven

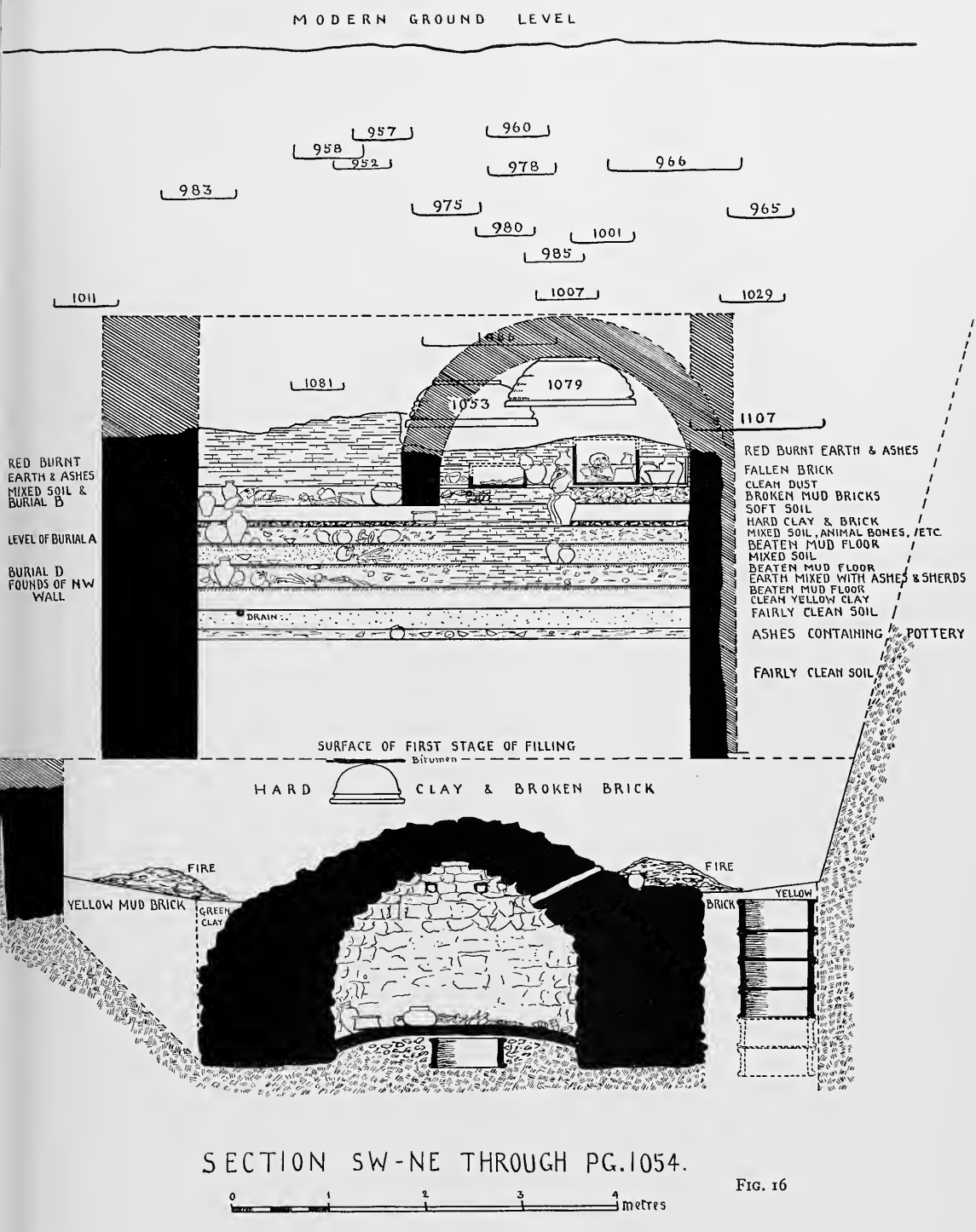
saucers, some of which lay higher in the ground than the body and two or three of them inverted, a large copper pan too distorted to be typed, and remains of two other clay pots apparently of Type 108.

Below this floor was a stratum of clean yellow clay and then one of earth, also fairly clean, but having at the south-west end lying in it a drain-pipe which cannot, one would say, have served any purpose whatsoever; it was an isolated pipe about 0·30 m. long communicating with nothing. Next came a layer of ashes containing pottery fragments and a fair number of complete saucers, some with animal bones in them. In this layer, towards the north corner of the chamber and immediately below Burial *C*, there was a patch of broken mud brick and in it three or four burnt bricks of the rather flat plano-convex type having a single finger-hole in the top and measuring 0·22 m. by 0·16 m. and 0·22 m. by 0·18 m.; there were also a few fragments of limestone. The north-east and south-west walls of the building continued to go down into the soil, but the north-west wall had stopped short at the floor-level on which lay the last subsidiary burial *D*; the limit of our excavation soon became the sloped side of the tomb-shaft.

The layer of ashes and food offerings in saucers marked a definite stage in the filling of the shaft, for below it came a mass of fairly clean soil 1·20 m. thick which ended abruptly with a flat surface of hard clay and broken brick. On this surface both the north-east and the south-west walls of the intermediate building in the shaft came to an end. At one point an irregular patch of bitumen spread over the clay level; under it was inverted one of the great clay basins which are set under the foundations of prehistoric houses as foundation-deposits covering a 'table of the god', a piece of matting on which are placed saucers of food. Here we find the matting, the primitive 'table', and saucers containing bones, dates, and grain, the staple foods of the land. A similar inverted basin was found by the side of the shaft of PG/1050, though its connexion with the tomb was in that case doubtful; here, coming as it does in the middle of the shaft and at a level where the ordinary filling ceases and the foundations of the shaft building start, it affords a very close parallel to those in the residential quarter (cf. *A.J.* vi. 4, p. 397).

Very little below the rim of the dedication-bowl we came upon limestone rubble set in and thickly plastered with stiff green clay; the masonry assumed a rounded convex form, and it was clear that we were unearthing a dome which was standing intact. Through the stonework there ran holes containing traces of carbonized wood; the holes sloped inwards and by clearing them and holding an electric torch in one and looking through another it was possible to see something of the interior—walls of rough stone and a floor covered with a light dust still retaining the appearance of wooden planks and beams, and sticking up through the dust the rims of pottery and copper vessels and an occasional glimpse of gold (Pl. 56 *b*).

Much work, however, had to be done before the dome could be entered. The whole of the upper filling of hard clay and broken mud brick had to be removed and the limits of the tomb-shaft exposed; on three sides there was a steeply sloping earth face, on the south-west the earth was masked by a



SECTION SW-NE THROUGH PG.1054.

FIG. 16

mud-brick wall. The domed building did not occupy the whole area of the shaft; on the south-east side there was a space 2·90 m. wide, on the other three sides a space of *c.* 1·90 m.; on the south-east side there was only earth filling, on the other three sides there ran from the pit face to the masonry a smooth slope of clay laid over the mud bricks which had been used to block the gap between the two. On this smooth surface on the north-east side were the piled ashes of a fireplace and next to them, on a spread mat, a deposit of (broken) clay pots, saucers, &c., and animal bones; there were four such fireplaces, not regularly spaced but one towards each corner of the shaft. On the north-east side between the tomb and the side of the shaft a large vertical drain composed of terra-cotta rings had been constructed, obviously while the tomb-chamber was being built, and brought up to the level of the clay slope (we traced it down for 1·20 m. below this); round it was a packing of clean clay.[1] The wider space on the south-east of the dome represented the forecourt lying in front of the chamber door; it was 2·90 m. deep and as wide as the building. A human skeleton with a dagger by its side lay with its head against the earth slope on the south-east, a second skull and remains of the body occupied the centre of the court (the bones were too decayed for the exact position to be fixed), and a third lay near it to the north-west; by the second body were the skull and bones of a sheep and remains of another animal lay to the south-east of the door's axis; a skeleton, this time apparently of a goat, lay against the south-west jamb of the door. By the skeleton, against the blocking of the door, was a clay saucer, and against the north-east jamb a row of pots, three of Type 208, one of Type 62, one of Type 106, the last a type which is almost peculiar to royal graves, fragments which could not be certainly identified but seemed to duplicate the forms already recorded, and nine complete saucers (Type 5) as well as fragments of others; with the pots were scattered animal bones, and all the complete saucers contained bones which were for the most part small and broken—obviously the remains of cooked dishes.

Owing to the bad condition of the walls, which had sagged beneath the weight of the earth, the blocking of the door was scarcely to be distinguished from the door-jambs, and it was not easy to open it without bringing down the upper part of the wall and the roof in ruins; at best it could be only a very small opening through which one could creep on hands and knees. The chamber itself measured 2·60 m. by 2·20 m. and was 1·70 m. high from the floor to the soffit of the dome; the floor was of mud bricks loosely laid without mortar; owing to the sinking of the foundations the floor surface was strongly concave; under the middle of it, serving to support it, was a large terra-cotta drain, a single ring packed inside and out with broken pot-sherds; possibly it was intended for offerings, more probably for the draining away of fluids from the decomposing bodies.

[1] Usually such drains have holes in the rings and around them a packing of broken pottery which keeps the earth away from the holes and allows the water poured down the drain to escape into the surrounding soil. Here the clay packing would have the opposite effect, and the purpose must have been to let the liquid run down as far as possible into the subsoil, so that the drain would seem to be a form of *apsu*. Cf. Burrows, 'Problems of the abzu', in *Orientalia*, i. 3, p. 231.

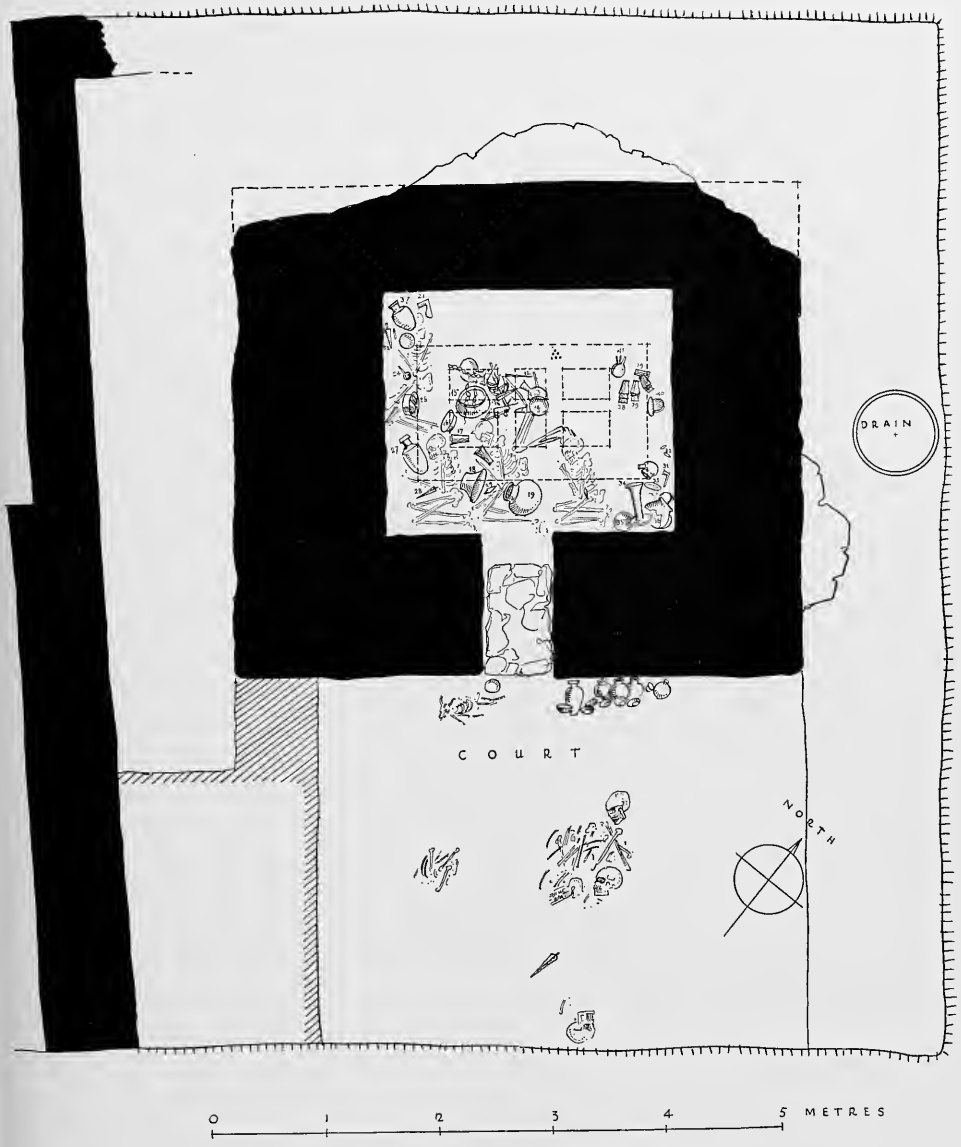


FIG. 17. PG/1054. Plan of tomb-chamber and court.

The beam-holes through which we had been able to catch a glimpse of the interior were half-way up the curve of the dome. By the use of rough pendentives the builders had turned the rectangle of the chamber into a circle whose area was reduced by the corbelling of the rubble blocks; perhaps they mistrusted their skill, but in any case when the roof was thus half done they laid stout timbers across the opening to support a centering. Probably this was of light earth and straw piled over planking to make a mound against which the stones could be laid; most of this would in time have filtered through the rotting wood and would account for the light dust which thickly shrouded the objects below; then the timbers themselves had given way and fallen on to the dust of what they had once supported. Spread over the middle of the floor was a rectangle of what had been wood, a heavy frame divided by cross-beams into panels filled with light planks (*v.* Pl. 56*b* and the measured drawing on Fig. 17). Of course the woodwork might be interpreted as a canopy, but in that case there is no explanation of the timbers having been left in the roof, as they certainly were; it seems much more likely that the complete centering was left as a ceiling which masked the stonework of the dome, and that the fallen panelling is that ceiling. As we found it, it is smaller than the area of the room, but the corbelling of the walls below the cross-beams would account for the difference in size; the edges were not so clean cut in the original as they appear in the drawing, where the extreme measurements are given, but the general effect is correct; for a canopy it seems too solid.

There were five bodies in the chamber, one, of a woman, lying approximately in the centre, on her right side with her head south-west, three of men lying in a row with their heads inwards and their feet against the south-east wall, and one, also of a man, along and facing the south-west wall. The bones were all in bad condition, and of the fourth man only the leg-bones and pelvis could be recognized at all.

The woman held in her hands (1) a fluted gold tumbler, U. 11902, just like that found in the tomb of Queen Shub-ad (Pl. 157); on her breast—though it had probably slipped from her shoulder—was (2) a gold pin with carnelian head of Type 7 (U. 11903, l. 0·28 m.), the only gold pin of this type found in the cemetery; almost touching the head of the pin, to which it may well have been attached by a string, as was sometimes the case with seals, was another unique object, (3) a cylinder seal of gold, U. 11904, Pls. 142, 193. Partly on her head and partly lying across the copper cauldron (15) was the hair-ribbon U. 11905; a gold frontlet consisting of an elliptical plaque with very long gold wires for attachment (U. 11906) lay with the plaque on the fragments of the skull, but the wires stretched out on either side as if it had been not worn but simply laid over the head (4); again partly on the head and partly over the cauldron was (5) a wreath of gold ring pendants supported on strings of lapis-lazuli and carnelian beads, U. 11908, and a second wreath, of gold leaves hanging from strings of lapis and carnelian beads, U. 11907 (6 and 7); on the head was (8) a pair of gold wire spirally coiled hair-rings, U. 11909; reaching from the neck down over the breast was (9) a string of large beads, double

conoids and flattened date-shaped beads of gold and carnelian, U. 11910, and another string (10) of gold and carnelian balls, U. 11911; on the hands were (11) two gold finger-rings, U. 11912. By the waist were a dagger-blade and a whetstone. It should be remarked, as a point of fashion, that in this jewellery there was an unusual preponderance of carnelian over lapis-lazuli; also, the habitual 'dog-collar' of gold and lapis triangles was lacking.

Closely associated with the body were a certain number of vessels, &c. Just behind it (12) was a drinking-tube of silver with a gold mouth-piece, U. 11913; (13) was a copper jug with long spout of Type 84, U. 11921; and with it, as usual, (14) a copper paten of Type 32, U. 11922; almost on the top of the skull was (15) a copper cauldron of Type 67, in bad condition, a large vessel 0·20 m. high and with a rim diameter of 0·18 m.; (16) was a copper bowl of Type 7, U. 11924; (17) was a silver fluted tumbler of Type 43, hopelessly decayed; (18) a copper pan of Type 25, U. 11925; (19) a copper cauldron of Type 55, 0·30 m. high, in too bad a condition to be kept. Probably to the body of the Attendant *A* belonged the *brîm* head-dress of gold chains and large beads (20) which was actually lying close to the woman's head, U. 11914; certainly to him must be assigned (21) a bronze axe of Type A 3, (22) a dagger, and (23) a whetstone. In the corner of the chamber here were two clay pots, a saucer of Type 7 and a jar of Type 62. To the same attendant but set lower down the body belonged (24) a copper ladle of Type 96, U. 11923; a dagger (25) slung at his waist; a large copper pan (26) of Type 25, hopelessly broken and decayed, inside which was a copper bucket (Type 45) with swing handle, also in bad condition, 0·17 m. high and with a rim diameter of 0·17 m.; and (27) a clay pot of Type 62.

The clay pot perhaps really belonged to Attendant *B*, whose only other possession was a dagger (28). Attendants *C* and *D* also had daggers at their belts (29, 30), and the copper vessels described above (18 and 19) may rather belong to them. Clearly Attendant *A* was the most important of those buried with the woman. Attendant *D* had a copper pin and a silver ear-ring, but there were no other personal ornaments.

The remaining offerings were all at the north-east end of the chamber where there were no bodies, and piled in two distinct groups. In the east corner was (31) a very large and heavy bronze hatchet, U. 11915, of Type A 10, and by it (32) a pair of copper scale-pans, U. 11916; a white limestone bowl of Type 19, U. 11926 (33), a spouted pot of white calcite, Type 93, U. 11927, and a large offering-table (Type 101) of white limestone, U. 11928 (34), were right in the corner together with clay pots of Types 208 and 154 (35, 36), another example of Type 62 (37), and fragments of a large jar too fragmentary to be typed. In the group of objects farther towards the middle of the chamber there were (38) three sets each consisting of three copper tumblers (Type 42) nested one inside the other, U. 11918; (39) another similar set of three copper tumblers, U. 11919; (40) a set of six copper bowls, Types 4, 7, two bearing inscriptions, U. 11920; and (41) a group of two copper spouted bowls, Type 19, and a copper strainer of Type 96, U. 11917.

Though not rich, not rich, that is, in comparison with such great tombs as PG/789, PG/800, and PG/1237, PG/1054 is the most complete example preserved to us of a royal tomb and illustrates far better than any other the ritual of the burial. It is unfortunate that no name can be attached to it. The cylinder seal in the offering-box in the upper chamber gives the name of the king Mes-kalam-dug, but as the principal occupant of the domed tomb is a woman that seal cannot be hers; it must have been put here as an offering, and although we may suspect that it was her husband's we cannot assume that.

PG/1157. See Chapter VI under PG/1151.

PG/1232. (*Pl. 62*)

The grave consisted of a small pit measuring at the bottom 4·50 m. by 3·00 m., approached by a *dromos* on the north-east. The southern half of the

south-west side had been destroyed by, apparently, a robbers' shaft which had been driven down into it, and the soil here had caved in and we encountered only loose rubbish and fallen mud brick. There was no tomb-chamber.

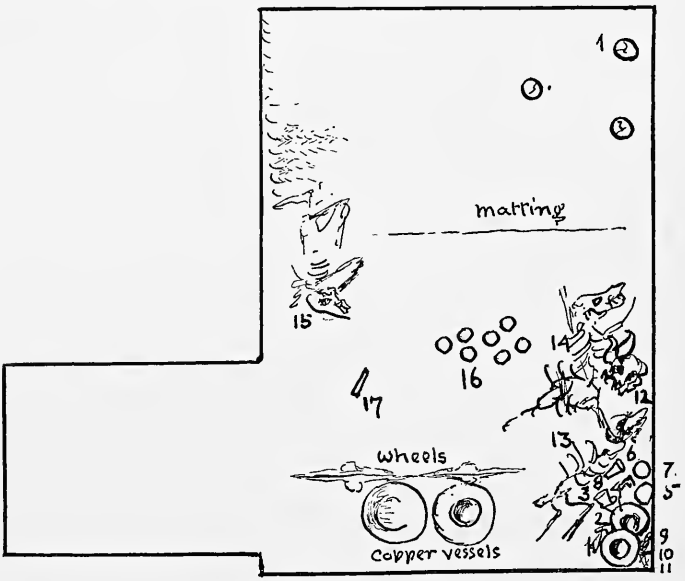


FIG. 18. PG/1232. Scale $\frac{1}{45}$.

On the lower part of the *dromos* slope stood the remains of a chariot or wagon. No trace of the body remained, and the wheels on one side had likewise disappeared—very careful search was made for them, but nothing was found, and it was uncertain whether the vehicle had been drawn up in the middle of the *dromos* or was right up against its north-west side; the position of two large copper pots which were to the north-west of the remaining wheels favoured the latter view, supposing that they had been placed inside the wagon, and the position of the draught animals as strongly supported the former. The two wheels of one side had left a very clear impression in the soil (*v.* Pl. 62*a*); a good deal of the front wheel and the upper part of the rear wheel had been destroyed by our workmen before the paper-thin vertical film of grey and black powder which alone represented the vanished wood had been noticed; but the damage had not gone very far. The wheel had a diameter of 0·65 m. and was made of three pieces of wood—distinguishable by the grain—and there were faint but unmistakable marks of the binding which had held them together, three close-set vertical marks on each side of the axle; as the material had perished completely it could not have been metal, and as it did not appear to have been wood I should suggest thongs of sinew. There was no tyre as on the wheels in PG/789, but the edges were

simply rounded off, and as the wood had been 0·022 m. thick the tread was distinctly narrow. The hole for the axle was 0·13 m. in diameter and round it was a wooden felloe which projected 0·04 m.; this fell off before the photograph was taken. The diameter of the axle-shaft was 0·10 m. Judging from the construction the wheel must have revolved on a fixed axle; the same seems to be true in the case of PG/789. Against the south-east side of the wheels and 0·15 m. below the top of their rim there was in the soil a black film showing distinct traces of finely woven wickerwork which probably comes from the panels in the body of the car; but nothing of the shape could be made out. The two copper vessels, one of Type 23 measuring 0·20 m. high and 0·42 m. across the rim, and one of Type 78, *c.* 0·52 m. high and 0·50 m. in diameter, may, as I said above, have been placed inside the wagon, but quite possibly they were merely put by it in the filling; they stood 0·40 m. above the floor.

Mats had been spread over the floor of the pit at the foot of the *dromos*, and on them lay the skeletons of the two asses which had drawn the car. The bones were in terribly bad condition. The two beasts were not abreast but one skull lay more than a metre in front of the other; between the skulls and from the hinder skull back towards the wagon were stretched the reins, now represented only by their decoration, a line of date-shaped beads of lapis-lazuli and similar but much larger beads of silver, the lapis beads strung in pairs and the silver beads singly. Mixed up with the body of the leading ass were those of the groom; he wore two silver hair-rings, a necklace of silver and lapis-lazuli double conoid beads, and two silver pins of Type 1 with lapis ball heads, and by him was a copper razor. In front of where the body of the wagon should have been and a little to the south-east of the animals was the body of a second man, presumably the driver; a short distance away from him lay a copper axe of Type S 6 (?) and a group of nine clay saucers of Type 5.

Towards the west corner of the pit the matting spread over the floor rose sharply in a curve to a height of 0·40 m. and then ran flat once more; the high ground was triangular in shape, about 1·50 m. wide against the south-west wall and tapering to nothing in the north corner: the field notes taken at the time stated that 'it looks as if the pit had been filled up with earth to a certain height before the chariot was brought in; either the filling was not level, or it was soft, so that the matting sank down in the centre with the weight of the chariot, &c., while the edges remained higher'. Accordingly the work was carried down in the west corner and at a depth of between 0·55 m. and 0·65 m. beneath the matting of the main floor there was found a second floor covered with matting. On this there lay in the west corner of the shaft numerous vessels in copper, silver, and clay, and over the rest of the pit there were strewn the skeletons of oxen, sheep, &c. This was the real bottom of the pit. Mats had been laid over it and against the sides (where they were found bent up vertically) and the offerings had been placed on them; then earth was thrown over them and stamped down and fresh matting was spread and the wagon was driven in. The decay of the animal bodies accounts for the sinking of the higher floor on which the wagon stood.

The objects shown in the plan were as follows: (1) a copper cooking-pot of Type 77, very much crushed; (2) a copper pan of Type 27, 0·12 m. high and 0·30 m. across; (3) and (4) two fluted copper tumblers of Type 66; (5) a copper dish too fragmentary to type; (6) a third fluted tumbler; (7) a silver bowl of Type 7, U. 12441; (8) a bronze axe of Type A 3; (9) a bronze adze, U. 12439; (10) a spear-head, broken; (11) a chisel of Type 2, U. 12438; (12) is the carcass of an ox, (13), (14), (15) are skeletons of sheep; at (16) is a group of seven clay saucers of Type 5; the clay vessels in the west corner were too fragmentary to be safely typed. A second chisel (17) lay out in the middle of the pit's area.

The sides of the shaft were for the most part cut in the earth, but on the south-west side, at a distance of 1·60 m. from the west corner, the sloped earth face was replaced by a mud-brick wall; but whereas the earth face was standing here up to a height of 2·50 m. above the high floor on which the wagon and the asses lay, the brick wall only rose to the level of that floor. It was just here that the robbers' hole already mentioned had been made, and as there were bricks in the loose rubbish which filled it, it cannot be asserted that the wall never rose higher than the floor. The wall may have been built simply because the soil at this point was loose and would not cut to a clean face, and its destruction down to the exact level of the upper floor may be pure coincidence.

On the south-east side there was in the mud plaster of the pit's face a long dark line slightly concave where a single stout reed-stem had been pressed into the mud; it looked as if it had been set here as a guide to show up to what level the earth was to be piled over the lower deposit of offerings. The real bottom of the shaft was only a few centimetres lower than that of PG/1237, and the floor on which the wagon stood was about half a metre higher than it. The *dromos* of PG/1232 was cut right through into the neighbouring death-pit, but the two were separated by a mud-brick wall which was contemporary with that death-pit; the plaster on the sides of PG/1237 was continuous over the brickwork.

Either PG/1232 is part of an older grave which was accidentally cut into by the makers of the death-pit PG/1237 who walled it off as they certainly did the shaft on the other side (marked 1237 B on the general plan), or else it is part of PG/1237. I was at first inclined to favour the former view, chiefly because of the difficulty I found in the difference of levels, but am not sure that the other does not rather commend itself. If the two shafts belong together then we must imagine that the *dromos* formed a doorway between them by which the ox and sheep were first brought in; their sacrifice would be the initial act of the burial ritual. Then a low wall was built across the doorway and the inner chamber (PG/1232) filled in to something less than a metre's depth. The second act was the death of the seventy-two persons in the Great Death-pit, and over them broken bricks and earth was piled and a clay floor laid down; over this floor, or across the earth immediately above it, now flush with the top of the dividing wall, the wagon was driven into the inner chamber to play its part in the third act. Unfortunately the soil above this was so disturbed that we cannot say whether the dividing wall ever did rise higher than the upper floor of PG/1232; but even if it did the fact would not be decisive, for it may have been thought necessary to complete the main

pit in which the half-way houses of offering were to be built. Perhaps the strongest argument is that if PG/1232 be regarded as independent it has no tomb-chamber in existence or to be assumed, and its offerings are too partial to be those of the normal death-pit; apart from the two grooms there are no human victims and very few objects and yet rather a plethora of animals. PG/1237 on the other hand has an astonishing wealth of human victims and no animal offerings at all. If the two shafts be taken together they present a far closer analogy to the best-preserved death-pits, those of PG/789 and PG/800.

PG/1236. (*Pls. 63–8*)

THE TOMB OF A-GIG-[ḪU?]-^{D}IM. PG/1236 is the largest of the stone-built tombs, measuring externally 13·10 m. by 9·20 m.; it is therefore somewhat greater than PG/779, which in most respects it closely resembles. Robbers had broken into it through the roof of the outer chamber, three of the cap-stones of which they had removed, and had thoroughly plundered the contents. As the plan shows (Pl. 273), a sloping *dromos* led to a door in the north-east side near the east corner; this gave on a chamber running the full width of the tomb, roofed with a stone vault, 2·35 m. high, which was of corbelled construction and finished off with large flat cap-stones. A door facing the entrance led into the second chamber, one of two which together occupied the middle of the building; they were of nearly equal size and were domed; a door in the cross-wall afforded communication between the two chambers. At the south-west end of the building was a second long chamber corresponding to that at the north-east, like it roofed with a corbelled vault, and having in its north-east wall doorways to each of the central chambers. The building material employed throughout was limestone rubble; the floors and the inner faces of the walls were covered with a very fine white cement so smooth as to seem almost polished; most of that on the walls had fallen away owing to the shifting of the stones under pressure, but in the outer chamber a good deal remained both on the walls and on the roof (*v.* Pl. 65*a*) and the floors were intact. The door-jambs facing the *dromos* were likewise rendered with cement; the door blocking was smoothly mud-plastered (Pl. 63*a*). All doors were arched, but with corbelled, not true arches. For a more detailed study of the architecture *v.* Chapter X.

The entrance door with its masonry blocking was intact, the robbers having made their entry through the roof, and better than anything else did it show what was the appearance of the stonework before the walls sagged under the pressure of the soil; it was indeed remarkably true and neat. It is in the light of this well-preserved detail that we must judge the other royal tombs whose present appearance seems so little worthy of their contents.

The hole made by the robbers down from the ground-surface had of course destroyed the stratification of the north-east part of the grave-shaft, and other digging had increased the damage, but at the south-west end the sharply sloping side of the shaft, cut to a clean face, could be traced to a height of 7·15 m. above the roof of the chamber; most of the south-east and north-west

sides and nearly all of the north-east were ruined right away. In the south corner of the shaft at 4·30 m. above the chamber roof there was preserved a patch about 2·00 m. square of a floor of fine lime plaster very much like that found over the grave PG/337; it was bordered on the south-east and south-west sides by walls of mud brick (in very rotten condition) which ran right up against the earth sides of the shaft. At 0·50 m. above the chamber roof there were remains of two other walls of mud brick each 1·00 m. thick and one standing to a height of 1·30 m.; these ran parallel to the sides of the shaft at a distance of 1·80 m. from them, the ends prolonged to hit the earth face and so dividing the whole area of the pit into a series of compartments; the walls rested on a mud floor which was covered with matting.

We have no means of estimating the original depth of the tomb-shaft, which may have been considerably greater than is proved by the existing evidence; it is safe to assume that the two floors, of plaster and of mud, extended over the whole pit, though they now exist only where protected by the high south-west side of the shaft. Clearly we have here evidence of just such constructions built half-way up the shaft during the process of its filling as we find in PG/1050 and PG/1054 and, less well preserved, in PG/337 and PG/1237: these are the buried chambers for offerings and subsidiary burials whose construction formed part of the ritual of the actual ceremony of burial, intervening between the tomb proper and the funerary chapel which we may perhaps assume to have stood over the tomb at ground-level.

Digging down to the roof of Chamber *A* we found three or four of the cap-stones of the vault pulled up and lying on the roof by the robbers' hole, which was 2·70 m. long (part of its length was probably due to the subsequent fall of stones); the rest of the roof appeared intact, but was in so dangerous a condition, only supported by the earth inside, that it had to be removed by us before the chamber could be cleared. Many of the corbel stones of the roof had broken or fallen away and encumbered the chamber; the sinking of the wall foundations had resulted in the cement floor taking a strongly convex form, and most of the wall plaster had flaked away. The width of the room at floor-level was 2·20 m., the walls were vertical to a height of 1·20 m. and were then corbelled in till at 2·35 m. there was left between them a gap averaging only 0·65 m., which was covered by the cap-stones; the stones of the vault were not laid horizontally but had a decided slope, anticipating the employment of voussoirs, but there was nothing in the nature of a keystone. There were beam-holes in the walls between the springers of the vault showing that four beams had been used for centering during construction; they had not been removed afterwards, but that the rest of the centering had been cut away was proved by the fact that the cement plaster was carried over the whole of the vault. The entrance door was 1·70 m. high, the springers of the arch starting at 0·75 m., and was 1·10 m. wide; the width between the corbels just under the cap-stones was 0·40 m.; the doorway to Chamber *B* was 1·40 m. high with springers at 0·95 m., 0·95 m. wide with a gap of 0·45 m. under the cap-stones.

In the chamber there were a very few fragments of human bone, remains of an ostrich-shell with encrusted ornament in mother of pearl and lapis-lazuli, and a copper libation-vase of Type 84. Scattered about the floor there were beads of gold and lapis-lazuli, mostly double conoids, U. 12444, and parts of a wreath with gold leaves and gold rosettes, U. 12443, a cylinder seal, U. 12461, Pl. 196, and two whetstones.

The most interesting object was found in fragments, but these fortunately lay together, many of them in position, and it was possible to reconstruct it. Small triangles of shell and lapis-lazuli inlay, shell and pink limestone rings, and small curved lapis pieces making rings of the same diameter, and bands of very thin gold leaf with impressed designs together made up the decoration of a sceptre (or handle of a fly-whisk?); one end had a mushroom-shaped cap of white shell inlaid with a rosette in red and blue, the other end was plain (U. 12442, Pl. 153).

The pottery, not very abundant, included several saucers of Type 5, two examples of Type 211, one of Type 61, and (in this and in Chambers *C* and *D*) four of the curious 'imported' vases (two of Type 105, two of 106) which are characteristic of royal tombs. There were also some teeth and bones of sheep.

Chamber *B* produced nothing except a few pottery fragments. In Chamber *C* against the north-east wall there were two silver lamps (U. 12446–7, Type 115) in good condition, and scattered over the floor amongst fragments of human bones very much broken up were quantities of beads in gold, lapis-lazuli, and carnelian, U. 12452–3, gold leaf and ring pendants and rosettes and palmette pendants from wreaths, U. 12451, part of a girdle consisting of lapis-lazuli disks set in gold rings with lapis spacers between them (U. 12450, Pl. 132), a gold chain from a *brîm* head-dress, U. 12449, the lapis-lazuli cylinder seal, U. 12448, Pl. 195, a small cylinder seal of shell, completely decayed, and some hair-rings of spirally coiled silver wire; also a silver pin of Type 1 with a simple tang head from which the original ball head had disappeared, three copper pins of Type 1, two pairs of copper razors, two dagger-blades (both fragmentary), and fragments of a copper bowl. A clay pot of Type 106 has already been mentioned.

In Chamber *D* there were at the south-east end quantities of gold, lapis-lazuli, and carnelian beads (U. 12454–6, 12458, 12460). Two pieces of embossed gold binding (U. 12457) having a much larger diameter than those from Chamber *A* might have come from another handle or might be the casing of a gold cylinder seal; owing to the thinness of the metal in both cases the design is difficult to make out (Pl. 217). A white calcite jar-lid, a broken bowl of rough limestone, and a number of broken clay vessels including Types 7, 18, and 61, besides the foreign Type 106, completed the list of objects not removed by the old tomb-robbers.

The cylinder seal, U. 12461, a very unusual seal with a scene of soldiers and a chariot, bears the inscription *a-gig-*[*ḫu?*]*-dim*, which may be the name of a king (*v.* p. 318).

PG/1237. (*Pls. 3, 8, 69–77*)

'THE GREAT DEATH-PIT'. The name 'The Great Death-pit' was given to PG/1237 for the very good reason that it consisted of a death-pit and little else. It might at first sight seem incorrect to class as a royal tomb what was not really a tomb at all, and for a time I was even inclined to think that the character of PG/1236 was in itself an argument against any of the 'royal tombs' being rightly identified as such, for whereas here we had an exact equivalent of the death-pits associated with those other tombs this pit contained no tomb-chamber in which *ex hypothesi* the king or queen should have been buried; if a death-pit was not necessarily associated with a burial, did its association with a burial imply that that was a royal one?

The answer would seem to be that while the ritual was constant its details varied in different cases. In PG/789 the pit contained the chamber, in PG/800 the chamber was at a lower level than the pit and properly speaking outside it; in PG/1050 the pit was directly underneath the chamber, in PG/1054 there were subsidiary burials in front of the chamber door but most were high up in the shaft above the roof of the chamber. There was no fixed relation of place between the two essential features of the royal tomb, and it cannot be

claimed that no chamber existed because none was found inside the pit itself. To the south-east of the shaft and about 4·00 m. from its east corner on a level about 1·50 m. above that of the pit's floor we found a number of loose blocks of limestone rubble and a short length of a ruined wall of rubble masonry; scattered about the same area there were many beads of gold, carnelian, and lapis-lazuli of unusually fine quality and colour. I have very little hesitation in accepting this evidence for the existence of the tomb-chamber of PG/1237. That there had been here a stone-built tomb was quite certain, and such are never found except as royal tombs; that it had been thoroughly plundered was proved by the scattered beads; and if the robbers could work undisturbed they might very well have thought it worth their while, in this alluvial land where stone was far-fetched and dear-bought, to carry off the material of the walls as well as their contents. Under the First Dynasty of Ur rough limestone was still in regular use for foundations; we have definite instances of old stone as well as of old brick being plundered for re-use in buildings of the later historic periods, and there is nothing inherently improbable in the removal of a complete chamber. In fact, the chamber here was removed; the only question is whether it belonged to the death-pit. That it did cannot be proved, but is rendered likely by the fact that evidence was forthcoming to show that in other respects PG/1237 was similar in type to the other tombs of the series.

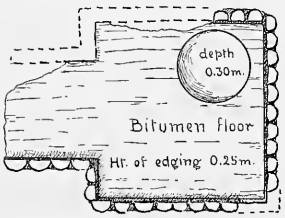


FIG. 19. PG/1237. Scale $\frac{1}{45}$.

To the north-east of the grave-shaft and close to its east corner at a point 3·60 m. above the floor of the pit there was a curious structure in burnt brick and bitumen; it was shaped as an offering-table, i.e. was a rectangle measuring 1·50 m. sq. with a 'spout' projecting from the south-west side; its sides were of burnt bricks, plano-convex with single finger-holes, and these walls contained a sunken pavement of broken bricks thickly covered with bitumen; the floor sloped down to the south-west, where was the 'spout' at the same level and open at the end. Some of the Arab workmen believed it to be a date-press for making *dibs*, the honey-like extract used for sweetening, and as such it came to be known; but the obvious analogy is with the cement floor leading to a drain over PG/337. In this case the offering-table itself is not over the shaft but to one side of it; but just as the drain in PG/337 coincided with the side of the earth-cut shaft, so here the 'spout' is only 1·90 m. from the side of the pit as we found it, and allowing for the slope of that side and for the height of the offering-table above the level of the pit's floor the spout would allow any liquid to run out almost if not quite into the filling of the shaft. Pl. 69*b*.

The offering-table was partly destroyed by an intrusive larnax burial, PG/1180, and in front of it all the soil over the death-pit had been much disturbed; if there had been a floor laid over it at this level it would have left no trace of itself. The table rested on a mass of mud brick which went down solid for 2·00 m. At 0·70 m. below the level of the table and in the very corner of the shaft there was a human skeleton lying on its right side with the head

north-west. Behind the head was a broken clay pot; on the head were two hair-rings of spirally coiled gold wire, on the left hand three gold finger-rings and on the shoulder a silver pin of Type 1 with a lapis-lazuli ball head capped with gold, and a very slender copper pin or needle. By the hands was a copper fluted tumbler of Type 66, and a set of three copper models of cockle-shells containing a very bright blue paint; a plain clay saucer, Type 5, lay in front of the head.

A little below the level of the table, under the disturbed earth, there began to appear remains of mud brick which took the form of walls but of walls very irregular and much destroyed; there seemed to have been a system of cross-walls dividing the area of the shaft up into compartments; between them the compartments, especially the two at the south-west end (or there may have been three, but the second cross-wall had vanished), were filled with a mass of fallen mud brick and fragments of limestone; there was so much of this that we imagined ourselves to have come upon a series of fallen vaults. The burial described above apparently lay in one of the compartments, but there was no floor to prove this, and here in the north-east and east part of the shaft there was but little fallen brick, only earth filling; the north corner of this compartment had been disturbed by a later drain of terra-cotta rings driven down into it. In the south-west part there gradually emerged a rectangle of broken limestone and mud brick plastered above with stiff green clay which seemed to form a floor between the cross-wall on the north-west which we did find and one on the south-east which had disappeared; it measured *c.* 4·15 m. by 2·60 m. In the compartment to the north-west of it there were found two human skulls, a clay pot of Type 143, another of Type 108, and a plain saucer, Type 5; just on the edge of the floor was a clay pot of Type 2; they were if anything below the wall foundations. In the east corner at much the same level,[1] actually at 1·90 m. below the floor of the offering-table, there was the lower part of a large pot of coarse clay in or on which a fire had been lit and round it was a heavy deposit of burnt ash, in which lay a large stone saddle-quern and a rubbing-stone of a kind of pumice. Connected with this but distinct from it and at a slightly lower level (the deposit in the corner made a low mound) was a much thinner stratum of ash which extended right over the shaft, running just under the walls and floor already described; it rested on a remarkably smooth floor of yellow mud—smooth but not very flat—which covered a stratum chiefly composed of broken mud brick; the latter was about 0·25 m. thick and lay directly on the top of the bodies set out on the floor of the shaft.

Here at the bottom the shaft measured 8·50 m. by 7·50 m. The floor was of mud and in the north corner was raised to make a step or platform with a roughly curved front before the entrance, which was at the north end of the north-east wall and consisted of a sloped *dromos* with earth-cut sides. The walls of the shaft were smoothly cut, at a slope, in the stratified soil of the old

[1] 'Levels' at this stage were very irregular; owing to the sinking of the loose earth as the bodies beneath decayed both the floor and the wall foundations were far from horizontal, and the term must not be taken too literally.

rubbish-mounds and were plastered with mud which in places, where the rubbish was light, was almost thick enough to warrant the term revetment; at two points, in the north-east wall and in the south corner, where the shaft had cut into older excavations, these were divided off by regular walls of mud brick laid in heavy courses of mud mortar with layers of matting between the bricks. Both walls and floor had been covered with matting.

Against the north-east wall lay the bodies of five men-servants carrying knives or axes and a sixth lay a little in front of the platform edge. The other sixty-eight occupants of the pit were women who lay for the most part in well-ordered rows across the pit from north-west to south-east, but six kept rather apart in the south corner where were the remains of a canopy (?), two were against the south-east wall and four were grouped about four lyres which lay also against the south-east wall nearer to the east corner; by the lyres stood a very large copper cauldron. In the west corner there were the two statues of goats made of gold, shell, and lapis-lazuli.

Before giving the details of the objects in the pit it would be well to sum up the evidence for its character. There can be no doubt but that, ruined as is the upper part of the shaft, it does afford a close parallel to the other royal graves. Not only is the 'date-press' offering-table to be compared with the limestone floor and drain in PG/337, but the remains of brick walls in the shaft resemble those in PG/1054 and in PG/1050. It would be perfectly possible to argue that here we have in fact the principal tomb-chamber, built and vaulted in mud brick as was that in PG/1050, and that the few pots found there were all that had been left by systematic plunderers; personally I should rather believe that the analogy is with PG/1054 and that the walls belonged to chambers half-way up the shaft containing subsidiary burials and that the main burial was in the stone chamber alongside; whether they were vaulted or not the evidence is not enough to prove. The stratum of burnt ashes containing human remains, and the clay floor beneath it, are precisely what we have in PG/1054. Altogether it is a perfectly normal tomb signalized only by the unwonted richness of its death-pit; and the death-pit is all that has been left by tomb-robbers.

The objects with each body were as follows:

No. 1. At the neck a few beads of lapis, one gold and one carnelian; in front of the body a dagger blade and whetstone.

No. 2. A plain clay saucer, Type 5.

No. 3. Necklace of three rows of silver and lapis-lazuli beads, silver wire spirally coiled hair-rings. U. 12389. (P. 30·12. 470–2.)

No. 4. Two copper pins of Type 1, necklace of three rows of silver and lapis double conoid beads, silver wire hair-rings, and a (decayed) shell cylinder seal. U. 12390.

No. 5. Necklace of silver and lapis double conoids, silver wire hair-rings, copper pin, Type 7 b, dagger. U. 12391. (L. *BM.* 123330.)

No. 6. One lapis and two silver beads from a *brîm*, and a copper blade of Type S 19. U. 12400. (L. *BM.*)

No. 7. Gold ear-rings, two gold wire hair-rings, gold pin (Type 1) with fluted lapis ball head, three gold finger-rings, 'dog-collar' of gold and lapis, gold and lapis double conoid bead necklace, lapis cylinder seal. U. 12374. (P. 30·12. 2, 703–9.)

No. 8. Gold ear-rings, two gold wire hair-rings, two silver pins (Types 1 and 7 b) with gold and lapis heads, two gold finger-rings, necklace of lapis date-shaped beads, necklace of gold, silver, and lapis double conoid beads with gold 'grape-cluster' pendant inlaid with lapis. U. 12375.

No. 9. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, three silver finger-rings, bead cuffs, necklace of gold and lapis double conoid beads, necklace of silver beads, silver pin (Type 1) with lapis and gold head, one silver and one copper pins with lapis heads, two cockle-shells with green paint. Small bones as of a very young person. U. 12423. (P. 30·12. 436, 725–6, 728–34.)

No. 10. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, three gold flower rosettes on head, 'dog-collar' of gold and lapis, necklace of four rows of gold and lapis double conoids, two silver finger-rings, silver pin (Type 1) with lapis head, copper pin (Type 7 b) with lapis head, shallow limestone bowl, conch-shell cut as a lamp, cockle-shells with green paint. U. 12397.

No. 11. Gold hair-ribbon, silver comb with inlaid flowers, three gold rosettes from the head, gold ear-rings, gold leaf pendant wreath, 'dog-collar' of gold and lapis, 2 silver finger-rings, necklace of gold and lapis ball beads, copper bowl (fragmentary), cockle-shells with green paint. U. 12398. (P. 30·12. 675–84.)

No. 12. Gold ear-rings, silver pin (Type 1) with lapis head, necklace of large ribbed balls of gold and lapis with carnelian balls, necklace of lapis and silver double conoids, bracelet of lapis double conoids, fourteen shell rings (from a belt?), copper bowl completely decayed but preserving the texture of the cloth which had been against it, conch-shell cut as a lamp and ornamented with a bird's head, cockle-shells with green paint. U. 12399.

No. 13. Silver wire hair-rings, copper pin, Type 3 b, copper razor, two copper bowls, decayed, and small limestone bowl, also decayed. U. 12378.

No. 14. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, four silver wire hair-rings, 'dog-collar' of gold and lapis, necklace of four rows of gold and lapis double conoid beads, necklace of two rows of silver beads, cockle-shells with green paint, copper bowl in hopeless condition. U. 12373. (L. *BM.* 122372–87.)

No. 15. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoid beads, necklace of silver and lapis double conoid beads, copper pin, Type 1 b, with lapis head, cockle-shells with green paint, copper bowl completely crushed. U. 12372. (L. *BM.* 122399–410.)

No. 16. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold flower rosette on silver stem, gold ear-rings, 'dog-collar' of gold and lapis, necklace of fluted balls of gold and lapis, silver finger-rings, bead cuffs, silver pin, Type 7 b, with lapis head, copper pin, Type 7 b, with lapis head. U. 12366. (P. 30·12. 438, 710–15, 717–20.)

No. 17. Three silver hair-rings, copper pin, Type 7 b, with lapis head, necklace of gold and lapis fluted ball beads, cylinder seal of white calcite, very slender copper pin (or needle?) on head, silver baldric 0·012 m. wide passing slantwise over the breast, hopelessly decayed, copper bowl, decayed, white limestone bowl, decayed, cockle-shells with green paint. U. 12371.

No. 18. Two silver wire hair-rings, 'dog-collar' of gold and lapis, silver pin of Type 7 b with lapis head, necklace of silver and lapis double conoid beads, cockle-shells with green paint. U. 12396.

No. 19. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of fluted ball beads of gold and lapis, string of lapis cylinder beads, silver pin, Type 7 b, with lapis head, bead cuff on right wrist. U. 12395.

No. 20. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, 'dog-collar' of gold and lapis, necklace of three rows of gold and lapis double conoid beads, necklace of silver and lapis double conoids, silver finger-ring, bead cuff, silver pin of Type 7 b with lapis head, conch-shell cut as a lamp, copper bowl, decayed, and white limestone bowl also in hopeless condition. U. 12394.

No. 21. One silver hair-ring, necklace of silver and lapis double conoid beads, copper pin with lapis head, Type 7 b; bronze axe of Type A 3. U. 12393.

No. 22. Necklace of gold and lapis date-shaped beads with carnelian rings, necklace of very small silver and lapis ball beads, copper pin.

No. 23. Gold ear-rings, three gold flower rosettes with lapis centres, 'dog-collar' of gold and lapis, necklace of gold and lapis fluted ball beads, necklace of silver and lapis double conoids, silver pin, Type 7 b, with lapis ball head. U. 12411.

No. 24. Gold hair-ribbon, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of three rows of silver and lapis double conoid beads, silver pin of Type 7 b with lapis ball head, bead cuff, cockle-shells with green paint. U. 12412.

No. 25. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings,

'dog-collar' of gold and lapis, necklace of three rows of gold and lapis ball beads, necklace of gold and lapis fluted balls, necklace of gold, quartz, and carnelian ring beads, two bead cuffs, silver pin of Type 7 b with lapis head, lapis cylinder seal, copper bowl and limestone bowl, both in very bad condition, cockle-shells with green paint. U. 12413.

No. 26. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis ball beads, silver pin of Type 7 b with lapis head. U. 12414.

No. 27. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, two gold flower rosettes on silver stems, gold ear-rings, 'dog-collar' of gold and lapis, necklace of silver and lapis fluted ball beads, silver pin of Type 1 b with gold and lapis head, silver pin of Type 7 b with silver and lapis ball head, bead cuff, a copper and a limestone bowl, both in very bad condition, a small white calcite jar-stopper, cockle-shells with green paint. U. 12421.

No. 28. Silver pin of Type 1 b with lapis head, necklace of silver and lapis double conoid beads, necklace of small lapis double conoids, a copper bowl completely crushed, cockle-shells with green paint. U. 12422. (P. 30·12. 468.)

No. 29. Silver hair-ribbon or fillet, silver hair-rings, silver wire spiral coil finger-ring, copper pin of Type 7 b with ball head, pair of copper razors, necklace of gold, silver, and lapis double conoid beads, very slender copper pin (on the head), cockle-shells with green paint. U. 12370.

No. 30. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of large gold and lapis ribbed ball beads, necklace of four rows of small lapis double conoids, necklace of silver beads, silver pin of Type 7 b with lapis head, cockle-shells with green paint. U. 12368.

No. 31. Silver hair-rings, necklace of silver and lapis double conoid beads, copper pin of Type 7 b, limestone bowl hopelessly smashed, cockle-shells with green paint. U. 12376.

No. 32. Silver hair-rings, necklace of gold and lapis double conoid and date-shaped beads, copper pin of Type 1 with lapis head, a copper and a stone bowl, both hopelessly crushed, cockle-shells with green paint. U. 12369. (P. 30·12. 753.)

No. 33. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, 'dog-collar' of gold and lapis, necklace of gold and lapis date-shaped beads, necklace of gold and lapis double conoids, two silver pins of Type 7 a, one with lapis head. U. 12383. (L. *BM.* 122363–71.)

No. 34. Gold hair-ribbon, gold ear-rings, silver hair-rings, 'dog collar' of gold and lapis, necklace of three rows of gold and lapis double conoids, a copper bowl hopelessly decayed, cockle-shells with green paint. U. 12384.

No. 35. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, 'dog-collar' of gold and lapis, silver wire hair-rings (found inside the ear-rings), necklace of gold and lapis ball beads, bead cuff, silver pin of Type 7 b with lapis head, copper pin of Type 1 with conical head, a white calcite spill-vase, cockle-shells with green paint. U. 12392.

No. 36. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis fluted ball beads, necklace of silver and lapis double conoids, two silver wire finger-rings, two silver pins of Type 7 b with lapis heads, bead cuff, copper bowl, destroyed, cockle-shells with green paint. U. 12409. (L. *BM.*)

No. 37. Silver hair-ribbon, silver hair-rings, necklace of three rows of silver and lapis double conoids, bead cuff, copper pin of Type 1, a limestone bowl, crushed. U. 12410.

No. 38. Gold ear-rings, necklace of three rows of lapis double conoids, copper pin of Type 7 b with lapis ball head, bead cuff, small limestone bowl. U. 12417.

No. 39. Silver hair-rings, necklace of two rows of silver and lapis double conoids, bracelet of small lapis double conoids, copper pin of Type 7 b with conical head, cockle-shells with green paint. U. 12418.

No. 40. Silver hair-ribbon, silver hair-rings, gold ear-rings, necklace of two rows of silver and lapis double conoids and a few carnelian, necklace of four rows of small lapis ball beads, silver pin of Type 7 b with lapis head, remains of copper bowl, cockle-shells with green paint. U. 12419.

No. 41. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, two gold flower rosettes on silver stems, 'dog-collar' of gold and lapis, necklace of four rows of gold and lapis ball beads, two silver finger-rings, bead cuff, two silver pins of Type 7 b with lapis heads, remains of a copper bowl. U. 12420. (P. 30·12. 437, 735–8, 740–3, 745–6, 748.)

No. 42. Silver hair-rings, necklace of gold and lapis double conoid beads, necklace of lapis date-shaped beads, copper pin of Type 1 b with lapis ball head, two very slender copper pins, copper razor, remains of copper bowl. U. 12367.

No. 43. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, remains of a copper and of a limestone bowl. U. 12364.

No. 44. 'Dog-collar' of gold and lapis, necklace of gold and lapis double conoid beads, two silver pins of Type 7 b with lapis ball beads, bead cuff, remains of a copper and of a limestone bowl. U. 12377. (L. *BM.* 122429) (P. 30·12. 751–2.)

No. 45. Gold hair-ribbon, silver ring pendant wreath, silver comb with inlaid flowers, three gold flower rosettes with lapis centres on silver stems, gold ear-rings, gold leaf pendant wreath, 'dog-collar' of gold and lapis, necklace of large gold and lapis ribbed ball beads, silver wire hair-ring, bead cuff, two silver pins of Type 7 b with lapis heads, cockle-shells with green paint. U. 12365.

No. 46. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, silver hair-ring, 'dog-collar' of gold and lapis, necklace of gold and lapis ribbed ball beads, gold ear-rings, two silver pins of Type 7 b with lapis heads, bead cuff. U. 12385. (L. *BM.* 122330–8.)

No. 47. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of four rows of gold and lapis double conoids, silver pin of Type 7 b with lapis head, copper pin of Type 1, bead cuff, on the right ankle a bangle of lapis and gold cylinder beads and carnelian rings, copper bowl in hopeless condition, cockle-shells with green paint. U. 12382.

No. 48. Gold hair-ribbon, gold leaf pendant wreath, three gold flowers on silver stems, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoids, silver pin of Type 7 b with lapis head, &c., all waxed *in situ* and preserved on the skull. U. 12381.

No. 49. Gold hair-ribbon, gold leaf pendant wreath, gold flower rosettes on silver stems, gold ear-rings, 'dog-collar' of gold and lapis, necklace of silver and lapis double conoids, silver pin of Type 7 b with lapis head, remains of copper bowl. U. 12388. (P. 30·12. 441–7.)

No. 50. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, 'dog-collar' of gold and lapis, necklace of gold and lapis ribbed ball beads, necklace of gold and lapis double conoids, silver pin of Type 7 b with lapis head, copper pin of Type 7 b with lapis and gold head, bead cuff, conch-shell cut as a lamp, remains of copper tumbler and of limestone bowl. U. 12405.

No. 51. Gold hair-ribbon, gold leaf pendant wreath, silver hair-rings, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold, silver, and lapis double conoids, necklace of small natural shells, silver pin of Type 1 b with fluted lapis and gold head, bead cuff, two silver finger-rings, remains of small limestone bowl, cockle-shells with green paint. U. 12406. (L. *BM.* 122339–49.)

No. 52. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, three gold flower rosettes on silver stems, gold ear-rings, 'dog-collar' of gold and lapis, necklace of large gold and lapis fluted ball beads, two silver pins of Type 7 with lapis heads, bead cuff. Waxed together on the skull and preserved as a whole. U. 12407. (P. 30·12. 435, 638.)

No. 53. Gold hair-ribbon, gold leaf pendant wreath, silver comb with inlaid flowers, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis date-shaped and double conoid beads, silver pin of Type 7 b with gold and lapis head, bead cuff; all waxed together on the skull and preserved as a whole; also remains of a copper and of a limestone bowl, and cockle-shells with green paint. U. 12408. (L. *BM.* 122294–6.)

No. 54. Gold ear-rings, necklace of three rows of gold and lapis double conoids, copper pin of Type 3 b with lapis head, remains of a copper bowl. U. 12416. (L. *BM.* 122357–62.)

No. 55. Gold hair-ribbon, gold leaf pendant wreath, gold ear-rings, 'dog-collar' of gold and lapis, necklace of silver and lapis double conoids, copper pin with lapis head. U. 12424. (L. *BM.*)

No. 56. Silver hair-ribbon, not worn on the head but found coiled up near the waist, gold ear-rings, silver hair-rings, necklace of silver and lapis double conoids, two silver finger-rings, copper pin of Type 1 b with fluted lapis head. U. 12425. (P. 30·12. 455, 611–17, 620–2.)

No. 57. Two gold hair-rings, necklace of silver and lapis double conoids, silver finger-ring, bead cuff, silver pin of Type 7 b with lapis and gold head, silver pin of Type 3 b. U. 12429.

No. 58. Gold flower rosette, gold ear-rings, necklace of three rows of silver and lapis double conoids, silver pin of Type 1 with lapis and gold head. U. 12362. (L. *BM.* 122215) (P.)

No. 59. Silver ear-ring of two interlaced spirals of silver wire, necklace of small lapis date-shaped beads, limestone bowl, in fragments, cockle-shells with green paint. U. 12361. (L. *BM.* 122489.)

No. 60. Gold ear-rings, necklace of four rows of silver and lapis double conoid beads, silver pin of Type 7 b with lapis head, lapis cylinder seal, Pl. 194, U. 12387. Two of the flowers broken off from the second ram statue lay one under the head and one by the hand of this woman.

No. 61. Gold hair-ribbon, gold leaf pendant wreath, wreath of gold triple willow-leaves, wreath of gold rings set with lapis disks (cf. Pl. 132), silver comb with inlaid flowers, gold ear-rings, two gold hair-rings, three gold flower rosettes on silver stems, 'dog-collar' of gold and lapis, necklace of gold and lapis tubular beads and carnelian rings, necklace of large gold and lapis fluted balls and carnelian rings, necklace of gold and carnelian and gold double conoids and carnelian rings, necklace of gold balls, lapis double conoids, and carnelian rings, six gold finger-rings, bracelet of gold and lapis diamonds and carnelian rings, bead cuff, gold pin of Type 1 with lapis ball head, silver pin of Type 7 b with lapis head, lapis cylinder seal, Pl. 195, silver tumbler. U. 12380. (L. *BM.* 122300) (P. 30·12. 551.)

No. 62. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoids, necklace of gold and lapis small double conoids, silver pin of Type 7 b with lapis head, bead cuff, cockle-shells with green paint, fragments of ostrich-shell with applied mosaic ornament. U. 12379.

No. 63. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoids, silver pin of Type 7 b with lapis and gold head, two bead cuffs, remains of small limestone bowl. U. 12386. (P. 30·12. 695.)

No. 64. Silver hair-rings, gold ear-rings, necklace of gold and lapis double conoid beads, 'dog-collar' of gold and lapis, necklace of very small lapis ball beads, two silver finger-rings, two bead cuffs, a silver and a copper pin of Type 7 b with lapis heads, copper pin of Type 3 a with conical head. U. 12402. (L. *BM.* 123689.)

No. 65. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of silver and lapis double conoid beads, two bead cuffs. U. 12403. (P. 30·12. 721–4.)

No. 66. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoid beads, silver pin of Type 7 b with gold and lapis head, conch-shell cut as a lamp, copper bowl hopelessly crushed, cockle-shells with green paint. U. 12404.

No. 67. Gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoid beads, silver pin of Type 7 b with lapis head, two bead cuffs, remains of a copper and a limestone bowl. U. 12415. (P. 30·12. 664, 668, 670–2.)

No. 68. Silver hair-rings.

No. 69. Silver hair-rings, gold ear-rings, 'dog-collar' of gold and lapis, necklace of gold and lapis ribbed ball beads, necklace of two rows of lapis double conoids, necklace of silver double conoids, silver pin of Type 1 b with lapis head, bead cuff, lapis cylinder seal, Pl. 193, remains of a copper and of a limestone bowl, cockle-shells with green paint. The silver hair-rings were inside the gold ear-rings. U. 12427.

No. 70. Silver hair-rings, gold ear-rings, 'dog-collar' of gold and lapis, necklace of silver and lapis date-shaped beads, copper pin of Type 7 b, bead cuff, fragments of a limestone bowl and of a spouted jug. In the hand and apparently grasped by it was a third gold ear-ring which should belong to No. 71. U. 12428.

No. 71. Gold ear-ring, one only, *v.* No. 70, 'dog-collar' of gold and lapis, necklace of gold and lapis double conoid beads with some carnelian rings, silver pin of Type 7 b with lapis head, bead cuff, remains of copper bowl, cockle-shells with blue paint. U. 12426. (P. 30·12. 660, 685–90.)

No. 72. Silver hair-ribbon, silver hair-rings, necklace of two rows of lapis double conoids with two carnelian cylinders, copper pin of Type 3 a with conical head, remains of limestone bowl, remains of copper bowl, cockle-shells with green paint. U. 12363.

No. 73. Silver frontlet of oval type with the ends prolonged as ribbons, cf. Pl. 219; gold ear-rings, silver hair-rings (found virtually inside the ear-rings), necklace of lapis and carnelian beads, a row of shell rings round the waist. U. 12360. (L. *BM.* 122413–23) (P. 30·12. 500.)

No. 74. Silver hair-ribbon, silver hair-rings, gold ear-rings, necklace of lapis double conoid beads, a row of shell rings at the waist, cockle-shells with green paint. U. 12359.

It should be remarked that, as can be seen in the plan, the bodies lay very close together and often actually overlapping; the bones were in very bad condition, in many cases decayed so completely away that the attitude of the body was very difficult to make out (in the plan the bodies are necessarily somewhat schematized, though the position is shown as accurately as possible) and there was consequently much difficulty in attributing to the right bodies some of the more outlying objects such as bowls and even the cuffs at the

wrists; it may well be that where two bodies lying next to one another are assigned one cuff apiece both of these ought to be given to one body or the other; but I have preferred to reproduce the field notes as written, with no theoretical amendments. Similarly it is quite likely that each of the bodies was provided with a bowl of metal or stone; sometimes one body is credited with two bowls, many with none, but over fifty in all are recorded, and as the limestone bowls were usually reduced to a patch of white lime with no shape and no substance, and the copper was likewise a patch of green, a certain number of either may have been passed over without notice. Four of the better-preserved skulls well provided with ornaments were waxed together with all the beads, hair-ribbons, &c., and removed for exhibition; they illustrate clearly the arrangement of the head-dress. All the ear-rings in the death-pit were of the big lunate type shown on Pl. 219; the hair-rings all of that also shown there, a spirally coiled length of gold or silver wire. The only uncertainty is about silver hair-ribbons; silver was in nearly every case reduced to a purplish powder not at all easy to distinguish on the broken fragments of the skulls; in one case what was worn was definitely not a hair-ribbon but a fillet, in a few cases it was as surely a ribbon; in one the complete ribbon was found coiled up apparently in the woman's pocket looking precisely like the tape bought in a modern shop, wound in a coil with the end passed over it to keep it in place; it is probable that in a good many cases where no head-dress is mentioned there had been a silver ribbon of which not enough remained to be taken as evidence.

In one or two cases traces of textile were found adhering to the metal or stone bowls; there was just enough to show that it had been a bright red material. The bead 'cuffs', which were all of virtually the same pattern, were made of gold and lapis tubular beads and carnelian rings which had been sewn on to stuff (they were therefore not properly bracelets) and presumably to the cuffs of a sleeved coat; the rows of shell rings were attached as ornaments to belts.

The two statues found in the west corner of the pit are described on p. 264, cf. Pls. 87–90; here only the conditions of their finding need be recorded. The first found, U. 12357 B, was broken in half and the head also was in fragments, the thin gold leaf broken into eighteen pieces and flattened; but it retained the roundness of the shoulder and of one side of the back, and the legs too were bent but not crushed. The two fragments of the figure were standing upright side by side and none of the shell locks of fleece had been dislodged and only one or two of the lapis tesserae from the head; one of the horns had been broken off and had sprung some 0·30 m. away and was only found twenty-four hours after the figure had been removed. Long before the character of the object could be recognized steps had to be taken for its preservation, for the delicacy of the disconnected incrustation was obvious; wax was poured over it as each fresh tessera came to light; bits of wood and wire were waxed on to the gold leaf of the 'thicket' of which the core had perished, splitting the thin gold into many pieces, and waxed muslin held the fleece together. The second animal was lying on its side and was crushed completely flat,

but therefore preserved as a silhouette the entire outline of the beast's back and chest just as the first had given the spacing of the branches and their relation to the legs. The same methods were employed to lift it from the soil. Between the two every detail of both could be certified. It was only a matter of softening the waxed muslin and pressing from the inside the shell and lapis which the muslin held in place until the body took on its original roundness; the gold parts had to be detached and re-annealed so that irons inserted inside could press them also back into the shape to which they had been hammered over their original core. In the work of restoration a good deal of the wax had to be retained so that none of the shell and lapis need be taken apart; copper wires were used for the legs, and round the wires was put plastic wood and wax; the bodies were filled with plastic wood over the skeleton of cork and wires which upheld the old 'skin', and wood was used for the trunk of the tree and copper wires for its branches.

The lyres lay near the south-east wall of the pit, piled one on the top of another, all much crushed owing to the decay of part of the material of which they had been made and of the weight of earth which rested directly upon them; where the metal of the different instruments came in contact they had been fixed together by its corrosion and had to be forcibly separated. Both the silver lyres, U. 12354 and 12355, were crushed quite flat. The bodies had been of wood overlaid with very thin plates of silver, and the wood having disappeared the two metal sides had been pressed together with only a film of dust between; fortunately the dust was sufficient to prevent the sides from adhering to one another. The metal was not only cracked into innumerable pieces but was so completely reduced to chloride that it was in many places no more than powder which had to be solidified with wax. The whole instrument was, in each case, swathed in waxed bandages and strengthened with a wooden framework fixed to it by waxed binding, and so was lifted. In the laboratory the covering was left on while the work was done from the inside; the two sides of the sounding-box were separated with heated knife-blades and saws and fixed to a new wooden core made to measure; wooden and metal rods were forced up the interior of the uprights and cross-bar and fastened into the body; a certain amount of reduction was attempted on the silver, but could not be carried far, as there was practically no metal left; in the case of U. 12355 it was subsequently found safest to give it a background of plaster to keep it from possible collapse. The lyres were at best but shadows of their former selves, but they have suffered only from time and burial and not in any way from reconstruction; they are faithful shadows. Pls. 111, 112.

The 'gold' lyre, Pls. 114–15, had to be treated differently because it had consisted largely of wood not sheathed in metal, and this had to be replaced. Nearly the whole of the elaborate mosaic border of the sounding-box was in position with scarcely any distortion and could be fixed with wax and cloth; this was so much the case that the whole of one side of it was lifted in a single piece. The uprights were also well preserved, though of course flattened so that the edges had been brought into the same plane as the sides, and the mosaic on them could also be lifted in sections on waxed cloth. That part

of the cross-bar which was of plain wood had disappeared, but its disappearance was proof of its character; the other part was guaranteed by its silver casing. Measured drawings had been made before any part was removed and a new lyre body was made accordingly to which the mosaic could be affixed; cedar-wood was chosen as being most likely to reproduce the original. Although the mosaic of the two sides had been crushed together, the width of the sounding-box was given by the shell plaques which decorated the front of it, and the construction of the new body proved perfectly simple; even the tapering of the uprights had been assured by the measurements taken in the field, and the mosaic was found to fit as accurately, probably, as in the original work wherein we may be sure the bitumen allowed of the same adjustments as were necessary to-day. For setting the tesserae in this as in other cases we employed a mixture of the ancient powdered bitumen with paraffin wax. The copper figure, U. 12356, had suffered much more severely than the rest, and if I did in the end after much hesitation attempt to lift it I did so more as an experience than in hopes of salving an object whose condition can be vaguely seen in the photograph on Pl. 75. It was only after I had been working on it in the laboratory for over a month that I discovered that there had originally been two animals instead of one. The bodies had been so crushed into one another that of the animal now preserved the surface of one side of the body is really the inner face of the metal covering of the second, and actually the two heads are still both there though scarcely to be distinguished. Probably the two stags decorated a lyre of which the rest was in wood (there was a mass of carbonized wood below the socket of the group), and by analogy it may be surmised that the shape was more or less that of U. 12355; but as to this there can be no certainty. Pl. 113.

Much more serious difficulties were presented by the objects in the south corner of the pit, lying along the south-east wall. Here there were a number of rods or poles of which one was decorated with alternate bands of gold and of mosaic in lapis-lazuli and shell; between it and the wall was one entirely sheathed in silver; on the pit side was a third with gold bands at intervals of 0·58 m. and silver between the bands, and attached to it was a row of sixteen shell knobs projecting from the metal; either attached to or resting on the mosaic pole there was a row of fifteen large shell rings; another silver-sheathed pole lay a little farther out into the pit. Lying along the top of the first three poles were slender wooden rods ending in broad leaf-shaped heads of copper originally gilt; they were in very bad condition but seemed to be six in number; two more lay farther away amongst the bodies. At the south end there was a wider band of gold shaped like a shoe which came from under both the mosaic pole and that of gold and silver to which the shell knobs were attached, and from it ran a heavy beam curved at first and then straight, the curve bringing its main length to a right angle with the original poles; this was covered with silver and had along it a narrow band of mosaic in shell and lapis-lazuli, and below it there seemed to be a second similarly decorated pole or beam. Pl. 73.

The whole thing was in so lamentable a state of decay that it was impossible

to obtain exact measurements or a coherent description of it, and still less possible to ascertain its nature. That it had been something standing upright, which had fallen, was fairly clear, for the silver and mosaic beam lying parallel to the south-west wall lay across the necks of the two bodies Nos. 73 and 74. The two silver poles were approximately 1·20 m. long, the gold and mosaic pole was about 0·85 m. long, reckoning from the gold shoe, and then continued for 0·90 m. but with a covering of plain copper; its end lay over the skull of body No. 31. The silver and mosaic beam could be traced for about 1·00 m.; between it and the south-west wall was a mass of decayed silver which might mean that all the poles curved round in the same way. My only explanation was that it was the framework of a canopy to which the cloth had been attached by the shell rings and studs; the slender rods with their broad 'spear-heads', which were certainly not spears, might have been the uprights holding up the edge of the awning; in that case some one must have entered the pit and lowered the canopy after the death of the victims—which is not impossible in view of the fact that some one had certainly gone down into the death-pit of PG/789 and placed the lyres on the top of the dead bodies there. I do not think that the explanation is necessarily correct, but can suggest no other.

PG/1332.

Of this tomb only the 'death-pit' was found. The upper soil had been very much disturbed, and of the higher part of the tomb shaft and of the tomb itself no vestige could be traced; it was only at a depth of 8·00 m. below the present surface that the outlines of a pit could be recognized, and this was followed down to its floor-level at 9·00 m. The south limits of the pit were not found; but as the bodies came to an abrupt end those limits were probably reached without our being able to distinguish them; in that case the shaft measured 4·30 m. in length with a known width of 2·40 m.

In it there were two layers of bones, separated by an earth stratum 1·10 m. thick, representing in the upper layer 23 and in the lower 20 human bodies. In the top layer the bodies were arranged fairly regularly in rows of five across the pit's axis, the rows, measured by the heads, being about 1·00 m. apart; in the lower layer the arrangement was less orderly and at the north-east end there was only one body which, judging from its position in relation to the lyre, may have been that of the musician of the party; in the upper layer all the bodies lay with their heads to the north-east, in the lower all lay with their heads south or south-west except the 'musician', whose head was in the north corner of the pit. All the bones were in very bad condition, and the position of the skulls could in many cases be identified only by the teeth or, where these failed, by the metal ornaments and beads.

The ornaments on the bodies in both layers were very poor; the record describes them thus: (A) *Top row*: with body (1), three strings of lapis-lazuli double conoid beads at neck; (2) three strings of silver and lapis-lazuli double conoid beads, silver pin and hair-ring, cockle-shells; (3) two strings of silver and lapis-lazuli date-shaped beads; (4) pair of silver spiral wire ear-rings;

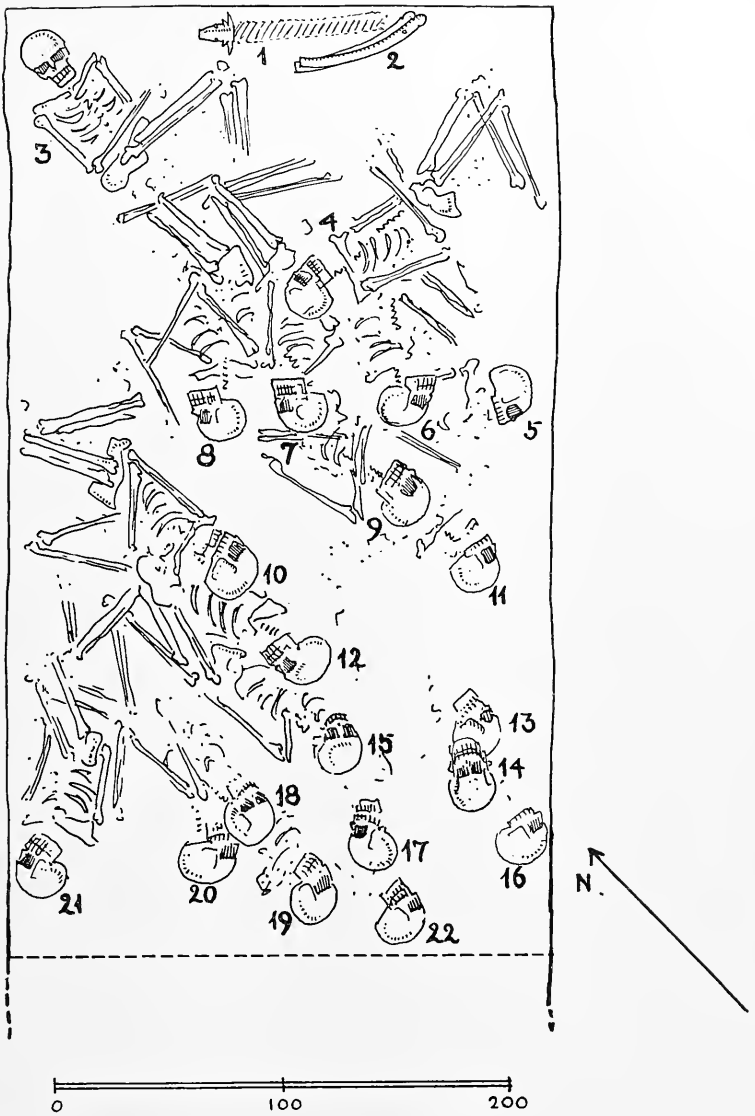


FIG. 20. PG/1332. Scale $\frac{1}{25}$.

(5) two strings of lapis-lazuli beads, one silver hair-ring; (6) three strings of silver and lapis-lazuli double conoid beads, silver pin and hair-rings; (7) nothing; (8) string of silver and lapis-lazuli double conoids; (9) two strings of lapis-lazuli double conoids; (10) three strings of silver and lapis-lazuli double conoids, strung in groups of six of each material alternately, two silver hair-rings; (11) two strings of silver and lapis-lazuli double conoids; (12) lapis-lazuli and silver double conoids; (13) pair of silver wire ear-rings and cockle-shell; (14) lapis-lazuli ball beads; (15) lapis-lazuli ball beads; (16) lapis-lazuli ball beads; (17) silver and lapis-lazuli double conoids; (18) silver ear-rings; (19) silver ear-rings; (20) silver and lapis-lazuli double conoids; (21) silver and lapis-lazuli double conoids; (22) silver and lapis-lazuli double conoids; (23) nothing. (See U. 15406.) (B) *Lower row*: with body (1) nothing; (2) copper dagger (?) hopelessly decayed; (3) silver and lapis-lazuli double conoid beads, silver wire spiral ear-rings, copper pin, Type 3; (4) nothing; (5) lapis-lazuli date-shaped beads, cockle-shells; (6) lapis-lazuli double conoid and agate date-shaped beads, copper dagger (?); (7) string of lapis-lazuli double conoid beads, copper pin of Type 7, and a shell cylinder seal, decayed; (8) silver wire ear-rings; (9) lapis-lazuli double conoid beads, copper pin with copper ball head, Type 7, shell cylinder seal U. 12433, Pl. 194, cockle-shells with green paint; (10) small lapis-lazuli date-shaped beads, silver wire ear-rings; (11) lapis-lazuli ball beads, silver pin with lapis head, Type 1, small limestone bowl, crushed; (12) lapis-lazuli ball beads; (13) three strings of silver and lapis-lazuli ball beads; (14) silver and lapis-lazuli double conoids, copper pin with copper ball head, Type 7, shell cylinder seal, decayed; (15) lapis-lazuli ball beads, silver wire ear-rings; (16) lapis-lazuli date-shaped beads; (17) nothing; (18) lapis-lazuli date-shaped beads; (19) nothing; (20) three strings of small lapis-lazuli ball beads. One example of a silver ear-ring which was a small replica of the large gold lunate ear-rings usually found in royal graves did occur but could not be assigned to any one body.

This lamentable poverty was to some extent relieved by the presence of a lyre at the north-east end of the death-pit (No. 1 on plan); it was of a simple sort, made of wood throughout, and boasting no other decoration than the admirable calf's head in copper which came at the front end of the sounding-box and the shell plaques from immediately below it. The head, U. 12435, Pls. 116 and 117*a*, has, in addition to the normal inlay of the eyes, a triangle of lapis-lazuli let into the middle of its forehead; originally its juncture with the wooden body of the lyre was masked by a line of mosaic in lapis squares and shell triangles. The plaques, of which there are two only, eked out by unusually wide borders above and below, are in the same rare technique as the 'Standard' and the ruined decoration of Queen Shub-ad's wardrobe chest, i.e. the shell figures are cut in silhouette and set in a mosaic background of lapis-lazuli. The two registers go together to make up a conventional banquet scene with three standing figures in attendance on a seated person who is drinking from a cup.

Lying beside the remains of the lyre were (2) two objects unique in the

cemetery. These are curved strips of thin copper, 0·30 m. long and 0·04 m. wide, with one end cut off squarely, the other lobed, and with a nail driven through the metal at 0·13 m. from the lobed end; along one side of each there

Fig. 21. Scale $\frac{1}{5}$.

were traces of wood, clearly the wood to which it was secured by the nail; the two strips lay one on the top of the other, but sufficiently out of exact alinement to show that they had not been fixed to opposite sides of the same piece of wood but had been separate.

In the 'A' cemetery at Kish Mackay had previously found, in nine graves, similar objects—similar if not quite identical[1]—which in every case except

Fig. 22.

Fig. 23. Scale $\frac{1}{5}$.

one occurred in pairs; he suggested that they might be a weapon of warfare or of the chase, such as a scimitar; but this tentative suggestion is ruled out by later evidence, and there can now be no doubt as to the nature of the curved copper 'wands'. In the grave PG/1332 they are associated with the lyre. On the gold cylinder seal from PG/1054 (U. 11904, Pl. 193 and Fig. 23) there is represented a seated figure playing on a lyre, and behind are three standing figures of whom one, with joined hands, seems to be dancing, and the other two hold curved objects which are unmistakably the same as the metal examples found in the grave. A fragmentary mother-of-pearl inlay from Kish[2] preserves part of what must have been an almost identical scene;

[1] Mackay, *A Sumerian Palace and the 'A' Cemetery at Kish*, Part II, Chicago, 1929, Pl. LXI, p. 160.

[2] Langdon, *Kish*, vol. i, Pls. VI and XXXVIII; our Fig. 22.

two women (only the upper parts of the figures remain) hold in their hands in such a way that they cross more or less as they do on the gold cylinder two flat curved rods more pointed at the end than are our copper wands but in all other respects evidently like them (Fig. 22). The musical connexion is manifest and the copper wands can be none other than castanets, long clappers of metal mounted on wood (the pointed ends seen on the cylinder and on the inlays must be the wooden handles) and beaten together to emphasize the rhythm for the dancers. Cf. p. 338, cylinder seal No. 21.

PG/1618. (*Pl. 80*)

The grave was not easy to understand. Digging down from the surface we first encountered a rectangular enclosure of mud brick measuring about 4·50 m. by 3·75 m. preserved in places up to a height of 1·00 m. Below this there were in the soil a number of rough limestone blocks which, however, were loose in the filling of the shaft; it was evident that the brickwork was in a shaft, but the precise limits of the latter could not be determined; the fact was that the ground here had been turned so often that there was no longer any stratification and the filling of the shaft and the soil in which the shaft was cut were identical in texture. The wall foundations came at about 4·30 m. below modern surface-level; at a little depth beneath them the main shaft must have ended and in the bottom of it there was sunk a smaller shaft some 4·50 m. long by rather less than 2·00 m. wide, the bottom of which was 1·70 m. under the foundations of the mud-brick walls; this lower pit had its axis differently orientated from that of the main upper shaft and ran almost exactly north-east by south-west; the north-east end of it contained a wooden coffin, the south-west end served as a death-pit. Immediately above the coffin there were a few limestone rubble blocks, quantities of fallen mud brick, and lumps of stiff clay; along the north-west side of the coffin clay and a few lumps of limestone seemed to form a definite wall and along the south-east side there was stiff clay only. The presence of stone in use as building material but in quantities insufficient to merit the description of masonry was puzzling at first; later it was found that the coffin-pit had hit the top of the tomb-chamber of PG/1648 and the stones had been pulled up from its walls. It was presumably on this occasion that the best objects in that tomb-chamber were stolen. On the other hand, it was clear that there had been a wall round the coffin, though the wall consisted of little else than clay; and the lumps of clay and fallen mud brick lying on the top of the coffin must have come from a vault. But the 'building' was of the most meagre description; it can only have been constructed after the coffin was placed in the pit and the vault, starting almost at ground-level, can only just have covered the coffin. That, at least, is how I would interpret evidence admittedly obscure. The building above it, of mud brick, must have been not a superstructure but a chamber half-way up the shaft such as we find in several other tombs, e.g. PG/1054; it will be noticed that although its orientation is different it does almost exactly coincide with the longer axis of the burial-pit proper, which therefore could perfectly well have been dug in the bottom of

the main shaft; the coincidence may have been even closer than appears, for as the brick building had to be cleared away before the burial could be reached the precise relation between the two was not easy to establish.

The coffin was of unusually stout timber and was unplundered. It measured 2·00 m. by 1·00 m., and was therefore more than a third as large again as the normal coffin. Inside was a man's body lying on its left side with the head to the south; as the legs were flexed and the feet were right up against the end of the coffin there was a space of half a metre between the head of the coffin and the man's skull; this proved to be a point of some importance.

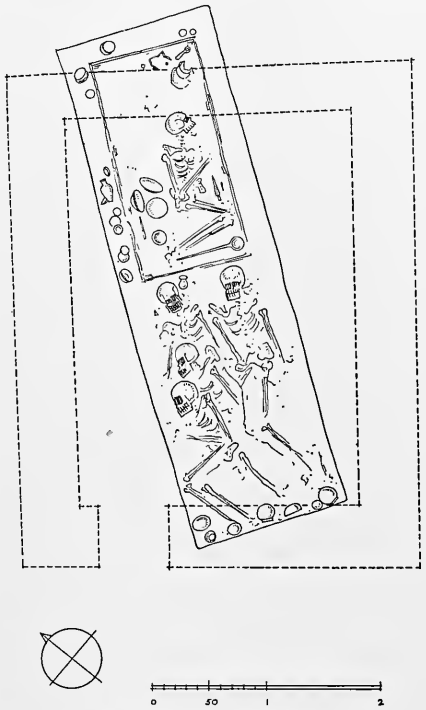


Fig. 24. PG/1618. Scale $\frac{1}{5}$.

On the skull there were no less than four *brîm* head-dresses (U. 13793–6); the first had two gold chains, two carnelian and one gold long beads square in section, separated by gold fluted balls and with carnelian balls on the outside; the second was similar but the large beads were cylinders, round in section, and all the four small beads were gold; the third had long faceted date-shaped beads of gold and carnelian and carnelian rings as spacers, the fourth had faceted long date-shaped beads, two of lapis and one of gold: all these were worn together round the head. A single gold earring was made of two interlaced coils with lunate ends (U. 13792; cf. Pl. 219, Type 3). Round the neck were beads, apparently a necklace of three rows of lapis-lazuli and gold double conoids, the latter in groups of three, the former in larger groups, U. 13797.

At (1) in front of the pelvis there was a dagger lying point upwards. The blade was of gold, the handle, of wood now completely decayed, had its pommel decorated with gold studs (U. 13788, Pl. 146); there was no trace left of the scabbard. By it was a whetstone, U. 13789, (2). By the feet (3), set parallel to the coffin end, was a copper ladle of Type 95, l. 0·48 m., the bowl diameter 0·15 m.; it was in too bad a state to be kept. Behind the legs were (4) the remains of a silver bowl, in hopeless condition, and (5) a copper chisel, U. 14405; close to these came (6) a copper bowl, its shape unrecognizable, (7) more shapeless copper, probably a bowl, and (8) a copper bowl of Type 7, l. 0·22 m., also in very bad condition.

In the south-east corner of the coffin, behind the skull, was another group of objects. No. 9 was a copper bucket, apparently of Type 46, but battered and decayed, (10) was a bronze axe, U. 13800; between these and the end of the coffin there was a heap of very light fibrous dust which was undoubtedly

hair—the texture was quite well preserved although the substance had completely perished. Sunk into the dust were (11) a plain fillet of gold ribbon, U. 13790, somewhat crushed but still retaining an almost circular form, and (12) two hair-rings of spirally coiled gold wire, U. 13791. It was fortunate that these things lay so far away from the skull that they could not possibly be connected with it; the hair was not that of the man's head. Moreover, the skull was more than adequately provided with ornaments, in that it had four *brîms* and an ear-ring (men wore a single ear-ring, never two); and the head-dress on the skull and that in the corner are quite different in type. The hair in the corner is that of the ceremonial wig which the Sumerian wore on State occasions, and its ornaments are fixed in it; the man himself was, as usual, clean-shaven and wore a head-cloth which the *brîms* kept in place: incidentally the presence on the wig of the spiral coils of gold wire shows that these are properly described as *hair-rings*; the two found here are not of the same size, so they are not even a pair; sometimes such rings do seem to have been worn in the ears, and there is no reason why they should not be, but their real character is clearly proved by their present occurrence.

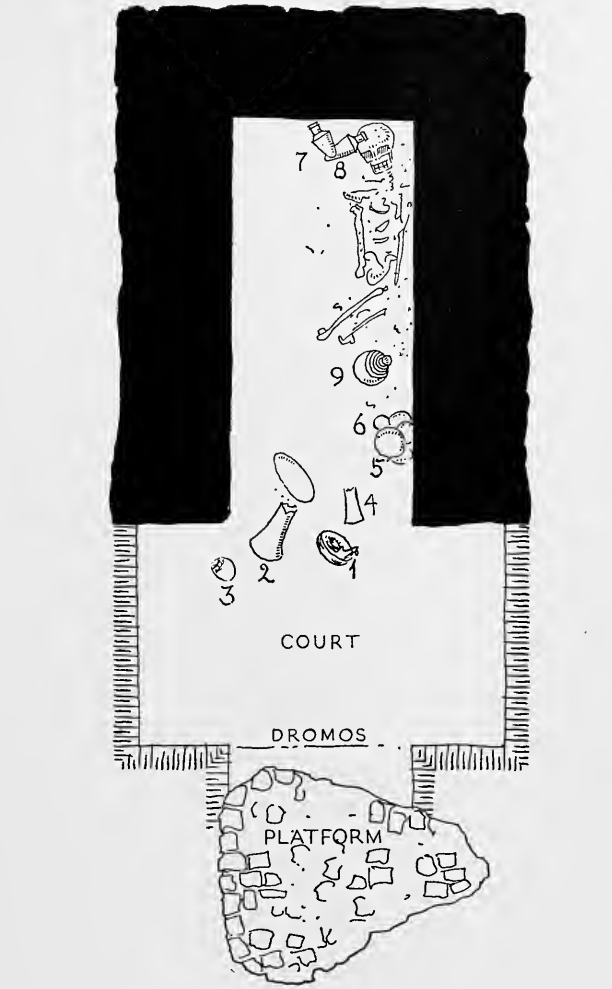
Outside the coffin, against its footboard, there were (13) three bronze spear-heads of Type 1 stuck close together in the earth with their points upwards; by them, lying on its side, (14) a white calcite spill-vase of Type 6, U. 13799, and the diorite bowl (15), U. 14401, containing animal bones; also (16) the white calcite vase, U. 14402. With them were a number of clay pots, all in fragments, including five or six examples of Type 108 and several of Type 5 and one of Type 61 (17–19). Against the side of the coffin (20) was a large bowl of white limestone, U. 14403, badly broken, and by it two more examples (21) of the clay saucer Type 5. Outside the corner of the coffin, hopelessly smashed, was a silver bowl (22), a clay saucer of Type 5 (23), and farther along the end of the coffin the remains (24) of two large copper cauldrons apparently of Type 49. A large bowl of white calcite lay against the east side (25), and at (26) a copper bowl in fragments.

Beyond the south end of the coffin the pit or trench was extended to form the 'death-pit'. Here there were four bodies, all in very bad condition. Two lay with their heads close to the coffin, the bodies occupying the middle of the pit, two more along the pit's western side; one had a necklace of lapis date-shaped beads, one a silver wire hair-ring, the others no ornaments at all. Beyond them, serving to define the end of the pit, was a row of seven clay pots, saucers of Type 5 and jars of Type 108; a layer of matting was spread over the floor and a second layer covered the bodies and the clay vessels. The floor was from 0·10 m. to 0·30 m. below the level on which the coffin stood, and the skulls against the coffin's end were actually under the offerings set there.

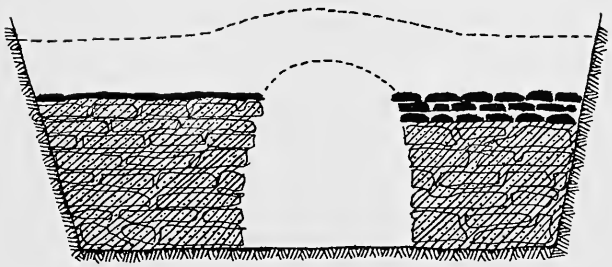
The tomb is necessarily later in date than PG/1648 which itself is probably not very early in the cemetery period; it is therefore the more interesting to find in it the gold fillet, a type of head-dress most characteristic of the later cemetery. All the other objects are undoubtedly of the early period; in this gold ornament alone there may be evidence of the change of fashions which introduced the fillet typical of the Second Dynasty and Sargonid periods.

PG/1631. (*Pl. 81*)

This was one of the smallest of the royal graves; it lay (as did the neighbouring small grave PG/1648) very much higher than all the rest if positive



PLAN



SECTION

FIG. 25. Scale $\frac{1}{50}$.

measurements reckoned on sea-level be taken as an argument; but really such measurements are deceptive. In both cases the tomb-shaft is cut down into a peculiarly well-marked stratum of red burnt brick-earth and broken pottery which from this point slopes steeply down to the north and east, so steeply that it is pierced only by the south-west end of PG/1236 and runs considerably below PG/1050; this is the stratum SIS 4 seen on the section in Pl. 270. There can be no doubt but that the ancient ground-level, at the time when the cemetery was in use, corresponded fairly closely with this underlying stratum—that can also be seen on the published section—and the grave, whose floor comes 7·00 m. below the modern surface, was relatively just as deep as any of the others.

An important point was that the masonry of the north-east wall of the chamber protruded into the steeply sloping shaft of PG/1236 and actually overhung the corner of it. The shaft could not have been cut without disturbing the stone, and therefore the chamber of PG/1631 is later in date than the tomb PG/1236. The tomb-shaft was a rectangular cutting measuring 6·00 m. by 3·50 m. with apparently a sloped *dromos* leading down into it from the south-east. Over the *dromos* (1·40 m. above the chamber floor-level) but not centred over it (for it extended beyond its edge to the north-west) there was an irregular patch of mud-brick paving about 2·40 m.×2·00 m. in area the connexion of which to the grave, if any, could not be ascertained. At the bottom of the slope there was an open space or forecourt 2·00 m. deep, and the rest of the shaft was occupied by the built chamber, 4·00 m. long. It was a single chamber composed of three walls with no door reveals; in the absence of any fallen stone by the doorway it seemed not impossible that the door itself had been of wood. The walls were of the usual limestone rubble; the inner face of each was vertical to a height of 0·50 m. and thereafter was brought in gradually by corbelling which reduced the width from 1·40 m. to 1·05 m.; the south-west wall stood 1·40 m. high, the north-east wall 1·10 m. high, and both were finished off above with stiff greenish clay; above this there had been mud brick of which three courses were preserved on the north-east wall while on the south-west there were only faint traces of such; inside the tomb there was a layer of fallen mud brick 0·30 m. thick. It is obvious that the roof had been of mud brick, and since that material is ill adapted to corbelling we may assume, in spite of the corbelling of the lower stonework, that the roof here, as in PG/789 and PG/800 (where, however, the material was burnt brick), took the form of a true vault (Fig. 25).

The tomb had been plundered from above, the whole shaft, apparently, having been opened up.

Against the north-east wall, with its head in the north corner, lay the body of a man of about 40–50 years of age (*v.* p. 405). In and just outside the entrance amongst numerous fragments of broken pottery there were found (1) a drab clay spouted pot of Type 208 and (2) a (broken) red clay offering-table (Type 243) on the tray of which was the skull of a sheep or goat. Close to these were (3) the fragments of an ostrich-shell decorated with large triangles of bright red paint; it looked as if it had had a net-work binding and had then been dipped in colour which took effect only on the exposed parts; the decay of the binding had resulted in the triangular pattern. In the doorway was (4) a fragment, the stem and base of a tall clay pot apparently of Type 16; it was

0·27 m. high and 0·09 m. in diameter with a splayed base d. 0·15 m.; the base had been made open and a clay saucer of Type 5 had been fixed into it and secured with clay before firing. Against the north-east wall, at (5) there was a group of numerous clay saucers of Type 5 which contained vegetable remains and animal bones, small food dishes for the use of the dead, and with them (6) another example of Type 208. Against the north-west end wall, lying above the remains of the fallen mud-brick roof (but this might well be accidental), were two broken clay pots of Type 61, (7) and (8). At (9), more in the middle of the chamber, were fragments of one of the 'foreign' ribbed bottles of thin hard-fired ware, Type 106.

PG/1648. (*Pl. 81*)

This is the smallest of all the royal tombs. Like PG/1631 it lay high as regards the other royal tombs, calculating height from a positive base such as sea-level, but had probably lain no less deep than others below the ancient surface; its depth below the modern surface (to floor-level) was 7·30 m.

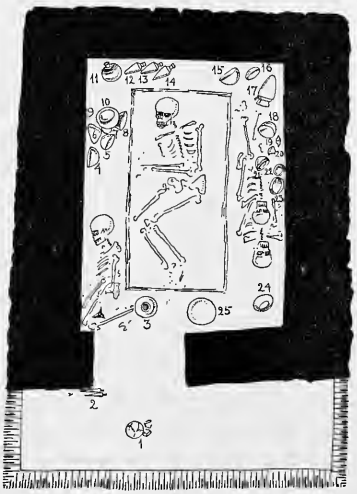


Fig. 26. PG/1648. Scale $\frac{1}{45}$.

The shaft measured 3·30 m. by 2·40 m. and the whole of this space except for a narrow strip 0·60 m. wide at the north-east end, in front of the door, was occupied by the single-chambered stone structure. The walls were of rough limestone rubble, the roof, which was of the same material, had been corbel-domed; most of it had fallen in. The corbelling of the walls started very little above floor-level and applied to the end (north-west and south-east) walls as well as to the sides; rough pendentives in the angles gave the vault a nearly circular base. There was no plaster on the walls, but they had been concealed by a panelling of wooden planks 0·015 m. thick. The doorway at the north-east end showed no signs of masonry blocking and may have had a wooden door (cf. PG/1631).

The patch of mud-brick pavement recorded in the description of PG/1631 lay partly over the shaft, and over the masonry chamber, of PG/1648. If it belonged to PG/1631 then that grave must be later in date than PG/1648, since otherwise it could not have escaped destruction; if it belonged to PG/1648, then PG/1631 must be the older, since the *dromos* of that grave, however short it may have been, could not have been dug without destroying the pavement. The latter lay at 1·10 m. above the top of the masonry of the chamber, and its form was too irregular to aline with anything and give a clue as to its connexions. There was really nothing to show to which grave (if to either) it did belong, and therefore the order in time of the two tombs could not be proved.

The interior of the tomb-chamber measured 2·00 m. by 1·50 m. and it was almost entirely taken up by a wooden coffin measuring 1·60 m. by 0·75 m. which had been placed accurately in the middle; in the coffin was a body lying with the head south-west; against its north-west side were two bodies

and another against the south-east side in the south corner of the chamber. In the little forecourt in front of the door there were many animal bones, of sheep or goats, in very bad condition, and (1) the fragments of a large limestone bowl, U. 13780, and a number of clay saucers of Type 5 containing a dark-coloured substance probably of vegetable character; at (2) there were two arrow-heads of Type 5 a and an arrow-prong, U. 13779.

The tomb-chamber was in a certain amount of disorder owing to the collapse of the roof, but the space between the coffin and the pit sides at least was unplundered.

Immediately inside the door was (3) a clay pot, broken, of Type 108; right in the east corner, associated with the body there, was the copper tripod-shaped object, U. 13782; this was the only object found with the body, the bones of which were in very bad condition; they are those of a young person, apparently male. Farther along against the south-east wall was a group (4 to 10) of white limestone bowls, U. 13770–6, covered over with matting; in the south corner (11) a broken example of the 'foreign' ribbed bottle, Type 106, and beyond it (12), (13), (14), three examples of Type 61 in drab clay, all broken. At (15) was a white limestone bowl, U. 13777, and at (16) a copper bowl of Type 4, U. 13778; in the west corner (17) a clay vase of Type 208. Beyond this the space between the coffin and the wall of the chamber was taken up by two bodies, those of a 'very feminine' young woman of under 20 years of age, and of an older woman, *v.* p. 405. Lying with the bones were (18) a broken hemispherical copper bowl; a large conch-shell (19) cut as a lamp or ladle, U. 13786, with it several hair-rings of spirally coiled silver wire; (20), a set of cockle-shells containing green, black, and yellow paint; a copper bowl, hemispherical, in hopeless condition; (21) a set of six small hemispherical copper bowls one inside the other, all much broken and decayed, Type 4; (22) a copper bowl of Type 29, 0·13 m. in diameter, inside which was a second bowl of Type 4, d. 0·08 m., and two copper cylinders of thin sheet metal, l. 0·12 m., d. 0·015 m., open at one end and with the other stopped by a disk of copper soldered on, containing remains of wood, which seem to represent some article of furniture; (23) a copper cauldron of Type 21 (?), in hopeless condition; (24) a plain white limestone bowl, U. 13785; (25) an offering-table (Type 243) of light red clay, broken. A silver pin of Type 1 with lapis-lazuli ball head was also with the bodies.

Inside the coffin was the body of a man lying on his right side with the head south-west; the bones were almost completely decayed and the skull resembled a lump of lime. On the head were quantities of double conoid beads in gold, silver, and lapis-lazuli, all so blackened that they were indistinguishable one from another and the original order could not be observed, (U. 13783). Three very large faceted date-shaped beads, one of gold and two of lapis-lazuli (U. 13784), belonged to a *brîm* head-dress of which the chains may have been in silver—no trace of them was found: a very much broken button (?) of gold leaf over a bitumen core was found by the shoulder.

The poverty of the interior of the coffin is striking, especially in view of the fact that the offerings outside it, although not by any means rich, were fairly numerous; moreover there were lacking just those objects which seem indispensable, e.g. the cup or bowl by the hands of the dead man, and his weapons. The subsidiary burials had not been disturbed, but the evidence would perfectly well allow of the coffin itself having been opened from above and looted, and as the (also royal) grave PG/1618 came immediately above and actually touched the walls of the tomb-chamber of PG/1648 the chances of its having been desecrated by the later tomb-diggers were very great. That they should have overlooked the small objects which were all we found was natural enough if they, like the robbers of PG/800, had to work quickly and secretly while the cemetery was still in use.

CHAPTER V

GENERAL DESCRIPTION OF THE PRIVATE GRAVES

THROUGHOUT the whole period covered by the cemetery the fashion of the private graves changes but little: always the custom was for inhumation, and though developments may be observed, yet these are always on the lines of old tradition and there are no sudden innovations. Certain graves, it is true, stand out from the rest, in particular those multiple graves of the Second Dynasty which will be described in detail, but these are exceptions in the same way as the Royal Tombs of the early period are exceptions, and other graves contemporary with them are uniform with the mass and link up the early cemetery with that of the Sargonid age in a consistent line of descent. It seems best therefore to deal, in this chapter, with the cemetery area as a whole, and only by way of parenthesis to point out such minor features as are peculiar to one or another of the periods concerned.

The typical grave consists of a rectangular shaft or pit sunk vertically into the ground with the body placed at the bottom of it. The shafts vary very much in size; the smallest recorded measured only 1·10 m. by 0·45 m., the average was about 1·50 m. by 0·70 m., and the largest might be nearly 4 m. by 2 m.; similarly the depth must have been very different in different cases, though here, owing to the difficulty of determining what was surface-level at the time of the interment, exact measurements were seldom possible: probably the richer graves were as a rule dug deeper than the poorer where the cost of labour was a consideration and the poverty of the contents lessened the need to protect them from robbers. The nature of the soil, consisting as it did of the mixed rubbish of the old refuse-mounds, made neat cutting difficult; certainly in the case of the deeper graves the sides of the shaft had to be sloped to prevent subsidence, and in a few cases a mud plaster was spread over the pit's sides to improve their appearance and to prevent the loose and crumbling rubbish from falling down on to the body: very often the bottom of the pit, the floor, and the walls up to the height of half a metre or more were lined with matting, the coarse reed matting which is still used for the hut shelters of the Iraqi villager.

The dead man was laid at the bottom of the shaft either wrapped in matting or enclosed in a coffin which might be made of matting, of reeds or wicker-work, of wood or of clay.

In spite of the perishable nature of matting some evidence of it nearly always remains; in most cases a film of very fine white powder which none the less retains the texture of the woven reed lies under and round the body (*v.* PG/505, Pl. 15 *b*); where this fails, some object in the grave is likely to preserve the imprint of the mat on which it was set. Speaking of those graves where there was no coffin and putting out of account such as had been too

thoroughly plundered to be faithful witnesses, one can say that no single grave produced evidence for a burial without reed matting being placed below the body. What was impossible to determine in all cases was whether, when the shaft was mat-lined, the body was wrapped in matting also or whether the lining was held equivalent to a coffin and so obviated the need of wraps. Usually the traces of mats could be found above the objects deposited in the grave as well as beneath them (e.g. PG/675, Pl. 19 *a*); either a mat had been spread over the body and its appurtenances after they had been placed in position or else the mats which lined the walls of the shaft were, when all was ready for the earth to be thrown back into it, bent inwards so as to meet above the body and form a cover protecting it from the earth. In these cases to distinguish between the mats which extended over the whole area of the grave and the mat which may have wrapped the body when the two would have been originally in direct contact and both are now disintegrated and reduced to a film only in spots recognizable at all was generally a task beyond our powers of observation; so far as observation was possible it would seem that there was no rule in the matter.

At the present time the local Arab custom is to bind the body of a dead man to a pole, so that it may be rigid for carrying; occasionally we have found inside the matting in which the body was wrapped two or three stout sticks which presumably served the same purpose. The mats, which were fairly stiff, must normally have been kept in position either by being laced or by having strings tied round them; but sometimes we have found against the body and actually in the remains of the mat copper hold-fasts (Pl. 226) which, driven through the matting and then bent open, would effectively secure the roll: in a few burials the copper pins ordinarily used for fastening the dress were found in such a position that one could only conclude that they had been employed for the mat shroud—indeed these long straight pins are so well adapted for the purpose that it seems strange that they were not in more regular use.

Although the poorer graves were most often of this sort, yet it by no means follows that a mat-lined grave contained little of value; there seems to have been no rule in the matter and, while the wooden coffins were on the whole the richest, the different types of burial do not correspond to any recognizable difference of caste or wealth.

The mat-covered coffin was distinguished for us from the mat-lined grave by the presence of the wooden frame (e.g. PG/622, Pl. 16*b*). Sometimes the traces left by such—holes in the soil with the discoloration due to the decay of the wood—may have escaped our notice and a mat coffin have been classified as a plain interment in a mat-lined shaft, but even so the straightness of the sides might suffice to correct the description (e.g. PG/1234, Pl. 61 *b*). The best example of such a coffin was given by the Second Dynasty shaft-grave PG/1850, Burial 3 (*v.* p. 199). Digging down here the workman came upon three holes which converged at the top and ran down into the soil at different angles; careful work in the vicinity produced other holes, some vertical and others horizontal or nearly so. The earth was soft and a good deal

of dust had filtered into the holes, so that it was impossible to make a plaster cast and another method had to be devised in order to find out what had been the wooden construction which the holes represented. Accordingly measuring-rods were pushed down them as far as they would go and pieces of wood were cut to scale and fixed on to a core of plasticine in the relative positions and at the angles of the holes in the ground; at the end of two days' work we had an accurate and complete model on the scale of 1:10 of the framework of a gabled coffin (Fig. 81). The bedding-timbers along the bottom of sides and ends were the most solid, having a width of 0·10 m., the upright battens varied from 0·08 m. sq. at the corners to 0·03 m. by 0·02 m. in the middle of the sides; no metal was used in the construction[1] and the mat covering must have been attached by lacing; the coffin measured 1·85 m. by 0·80 m. and its sides were 0·55 m. high, the top of the gabled roof 0·80 m. Late in date as this grave is, compared with those of the old Royal Cemetery, the coffin is a faithful reproduction of the many less complete examples of the class found in that cemetery; there may sometimes have been a flat lid in place of the gable roof of the Second Dynasty, but so far as the evidence has been preserved the body of the coffin at least was identical in construction; and the same holds true of the mat-coffin burials of the Sargonid age.

A slightly different type of coffin, and one less common, is that in which for the mat cover there is substituted wickerwork or a screen of reed stems; here again our best example for illustration comes from a Second Dynasty grave, PG/1847 (Pl. 84). The wooden frame of this type is the same as in the last, but the nature of the casing makes the coffin much more solid; the wickerwork is of withies woven as in the modern hurdle, the reeds are simply laid side by side and fastened together and to the framework with horizontal and diagonal string laces; in the photograph of part of the coffin roof on Pl. 86 *a* the string binding can be clearly seen. In the case of the coffin from PG/1847 the corner-posts were prolonged below the floor so as to form short feet raising the coffin 0·08 m. above the ground, and this may of course be an exception to the rule, nor can it be asserted that the gable roof was invariable, indeed we have (Pl. 14 *b*) a definite instance of a coffin-lid thus constructed with criss-cross withy-work on a light wooden frame being flat.

The wooden coffin had sometimes a gabled roof (PG/1422, Pl. 78 *a*) but more often a flat lid (see Pl. 14 *a*, PG/389); the planks were fixed horizontally against a framework of battens (Pl. 59 *b*, PG/1100), and the impression left by them on the soil is often so clear that exact measurements can be taken; as the planks are sometimes as much as 0·40 m. wide they must have been cut from large trees and were probably comparatively expensive, which would agree with the greater wealth of offerings usual in a grave with a wood coffin. The absence of metal nails shows that the joinery of the coffins was achieved with mortices and tenons and wooden studs; it was a rare exception to find any metal that could have been used in coffin construction; stout holdfasts such as

[1] This is generally true, but in PG/283 there lay on the bedding-timbers a row of copper bolts and holdfasts (Pl. 218, U. 8550), two of each sort, the bolts at the ends and the two holdfasts in the middle, for a space of 0·40 m. These may have belonged to the construction of the wickerwork coffin.

those from PG/675 (Pl. 226) cannot have been for fastening the planks to the uprights because only two of them were found and two are insufficient for the purpose: they might have been used as rings through which would pass the pole used for carrying the coffin to the graveside.

In the clay coffins there was a certain variety. The normal clay larnax was oval, the sides nearly straight, the ends curved, and the walls, almost if not quite vertical, were strengthened by horizontal ribs, generally plain but sometimes notched to represent the rope binding from which doubtless the clay ribs were derived. Such coffins were set right way up in the grave and were provided with lids which were most often of clay but sometimes of wood and even of reeds thickly plastered with bitumen; the lids were flat as a rule, but not uncommonly were gabled, and in that case there would be on the sloping sides clay ribs in sets of three which were an obvious imitation of the ribbing on the reed coffins. Occasionally imitation went much farther, and in PG/1219 (Pl. 61*a*) we have an example of a rectangular clay coffin modelled on one of wood with the smooth sides and vertical stays faithfully reproduced, while in PG/1141 (Pl. 60*b*) the modelling assumes really architectural proportions.

Meanwhile there is another and quite distinct type of clay coffin; this is an oval with ribbed sides, but the sides instead of being vertical slope inwards to a base which has only half the dimensions of the rim; it looks like an elongated dish-cover, and does not stand on its base but is inverted over the body. By the time of the Third Dynasty of Ur this had become the standard type of clay coffin, but it is not uncommon in the Sargonid age and instances do occur in the old cemetery: the practice, however, of inverting the coffin over the body instead of placing the body in the coffin and covering it over with a lid was not confined to and did not originate with the 'dish-cover' larnax; in the old cemetery the regular straight-sided coffins are found inverted (e.g. PG/37, PG/97, PG/1273) and in the Sargonid cemetery are still the more usual. Unfortunately our examples are not sufficiently numerous to afford any criteria for dating; a very large proportion of the clay coffins recorded were so broken up by tomb plunderers that the difference between a sloping and a straight side had disappeared and the distinction of material was the only one that could safely be made; but when we find that the other types of burial were so indiscriminately used at one and the same time we need not assume that to this particular form of coffin there attaches any great chronological importance; its main interest is that it was the only type used in the two cemeteries which was to survive in the normal practice of the later dynastic periods; under the Third Dynasty flat-lidded clay coffins and wooden coffins seem to be unknown and mat-burials (except in brick vaults) are rarely if ever recorded.

In the size of the coffin there is very little variation; the average measurements are 1·40 m. by 0·75 m. Obviously a coffin of this size will not accommodate a normal body laid out at full length; it would have imposed an attitude if it had not itself been designed to suit an attitude which religious tradition had fixed. Always, whether inside a coffin or wrapped in matting, the body is laid

on its side, the back straight or but slightly curved, the legs more or less flexed at hip and knee, the hands brought up in front of the breast about the level of the mouth. I hesitate to use here the phrase 'contracted burial' because that is wont to imply the more violent contraction of the limbs which results in the embryonic position, and the fact that the dead man is laid in the grave in the attitude which as an unborn infant he had in his mother's womb may involve a religious belief or illustrate an outlook on life which we are not justified in imputing to the Sumerians. The position of the Sumerian dead is clearly that of a person asleep; the fact that it was invariable whereas so much else in the funerary ritual seems to have been capricious and subject to no rules at all would certainly tend to show that a special significance attached to the attitude and therefore that there was some religious belief to account for it. Pl. 16*b*.

I have said that the position is invariable. There are of course a few cases where the collapse of the body has led to an apparent departure from the rule, e.g. PG/955, p. 162; but these are not real exceptions. In one or two cases we were inclined to assume 'collected burials' or reburial; not all the bones of the skeleton would be found, and those that were present would not be in any natural order, and it looked as if the dry bones had been gathered for re-interment after the decay of the flesh. In this there is nothing inherently impossible; reburial may take place in any country and at any time, and we have conclusive evidence for isolated cases of it in later dynastic periods, but should it occur it is improbable that the bones would be arranged in the semblance of one newly dead, and if the doubtful instances recorded by us were correctly interpreted the disarray of the bones would not be equivalent to a breach of custom. But it must be admitted that the evidence was not conclusive; the graves in question might owe their appearance to having been plundered or accidentally disturbed, and in any case we cannot say that 'collected burials' represent a regular practice. The only real exception is in the case of infants, who were buried in jars or under clay bowls; as a rule no objects at all were placed with them and no attempt was made to order the limbs in any way—generally the small size of the bowl would have defeated any effort of the kind—and the body was disposed of without ceremony. Right down to the end of the Babylonian Empire the same lack of care or order marks the burial of the new-born infant; a clay pot or bowl continues to be the usual recipient for the small body—even a basket will serve the turn, e.g. PG/1711, and cf. Pl. 188*b*—and the objects found with it seldom if ever amount to more than a few beads worn at the neck or a cheap amulet; what was universal throughout the history of the land cannot be considered as symptomatic in any one period of it.

An interesting point is that the attitude of the dead as of one asleep does not agree with the oldest traditions of the country. In the al-'Ubaid period, which coincides with the first settlement of the lower Euphrates valley, the dead man was laid out rigidly upon his back. The burial customs of the succeeding Warka period are not yet known, but in the Jemdet Nasr age, which comes between Warka and the Royal Cemetery, the bodies are laid on their sides and are so violently contracted that the phrase 'embryonic position' can be not

unreasonably applied to them. The 'sleeping' attitude, therefore, which was to be the rule for the future, was introduced relatively late and is first known to us in the Royal Cemetery or, to use a wider term, in the 'plano-convex brick period'.[1] Burial customs tend to be so conservative that as a rule an innovation in a matter so important as the position of the body (and that it was important is proved by the uniform observance of the custom thereafter) may be taken as evidence for a racial change or for a religious revolution. If that assumption is made here it must be made with caution. The archaeological remains of the different periods of early Mesopotamian history show too great a degree of continuity to admit of any wholesale replacing of one racial element by another;[2] at the same time there was a constant influx of peoples sometimes alien to the first inhabitants, sometimes of the same ultimate stock but in a different phase of cultural progress. In the south part of the country we have to deal, so far as we can see, with Sumerians as the dominant element from the earliest days down to about 2000 B.C.; but immigration, local and sporadic, must have resulted in the alternate weakening and reinforcement of native traditions not violently and at one time over the whole land but irregularly in the various city centres into which it was divided and whose interplay constitutes so much of its history. The very little that we know of Sumerian religion in the early periods does not warrant any assumption of a pronounced breach in the continuity of belief, and if we find here an innovation in ritual it stands, so far as we can tell, alone. If the change in burial custom is the result of evolution, then finding the new position of the body to be invariable in the Royal Cemetery we must allow that, for the process of evolution to be thus complete, a considerable time was required, and that in consequence the interval between Jemdet Nasr and the Royal Tombs of Ur was a long one; the differences in the physical types of the inhabitants, in the pottery, the building material, and the writing of the two periods would point in the same direction: but it is unwise to eliminate as a factor in the change the influence of fresh arrivals in the Euphrates valley.

The very strictness with which the Sumerians observed the rule that the dead man should be buried reclining on his side emphasizes their complete indifference to other points on which in most countries where the ritual of burial has been at all elaborated no less stress has been laid. The body lies sometimes on the right, sometimes on the left side, and there seems to be nothing to determine the choice. Certainly it is not a question of date, for two bodies in a single grave may rest on different sides, nor does one position predominate in one part of the cemetery and the other elsewhere; it would appear to be a mere matter of caprice. Further, there is no orientation of the bodies. The vast majority of the graves were dug with their longer axis either north-east by south-west or north-west by south-east; and in either case the head of the dead man would be found almost as frequently at one end of the

[1] Dr. Christian has suggested for this period the term 'the Lagash period', referring to Ur-Nina and the early 'patesis' of Lagash. Dr. Christian would so shorten the plano-convex brick period as to make it almost synchronous with the reigns of the 'patesis'; for myself, believing the plano-convex period to be very long, I do not like to give it a name which is really applicable only to its last phase.

[2] Frankfort, *Archeology and the Sumerian Problem.*

grave as at the other; there were, therefore, four directions to which the dead might be orientated indifferently. But even such a statement of the case suggests a greater degree of uniformity than really existed. For the bulk of the graves the exact compass-bearing was recorded or attempted (obviously in the case of a plundered grave there might be considerable error in determining the axis), and it was found that they lay approximately north-east by south-west or north-west by south-east, but generally with a fair margin of variation, making it clear that the grave-diggers must have been working to a rule but the rule was not such as to call for geometrical accuracy: in other cases we were content to record the approximate bearings of the grave and body, i.e. the intended direction and not the accidental deflexion. While on the plan of the cemetery the individual graves are drawn to the exact bearing wherever that was recorded, in the tabular analysis (Appendix A) the direction of the graves is given only to the nearest cardinal point. Where the body can lie indifferently in any one of four directions (these four being in fact multiplied by all the minor variations which it seems best to disregard) there can be no religious principle determining its orientation. A glance at the cemetery plan (Pl. 274), where the general impression is that of graves lying in one of two directions at right angles to one another and therefore of much more uniformity than is found in the bodies, does suggest a theory of intentional orientation which would find support in the fact that the graves, like the religious buildings of Sumer at all periods, do lie with their angles orientated, roughly, to the cardinal points of the compass. In view of the positions of the bodies that theory cannot apply to them, but the facts on which it would rely must have an explanation.

The royal tombs, which form the nucleus of the older cemetery, were undoubtedly orientated with their angles to the cardinal points;[1] this was natural because they were themselves buildings and buildings of a sacred character. In any case the private graves would have tended to lie in the same direction, because to dig them parallel or at right angles to each other would be an obvious economy of space, which in the crowded cemetery would have been an important consideration, but in all probability the other reason was again operative and the grave, regarded as the house of the dead, was orientated like all sacred constructions. But it was only the 'house' that was thus orientated, and even so, provided that the angles pointed approximately rightly, no regard was paid to the longer as against the shorter axis, so that the graves do lie at right angles one to another and any theory of orientation as applied to the bodies is necessarily defeated, quite apart from the fact that the body's direction inside the grave is not uniform. It will be seen that the rule as applied to graves is not absolute and that a certain percentage are eccentric, but such are exceptional; on the whole the graves are orientated though the bodies in them are not.

My own explanation could be stated as follows. The grave was originally regarded as the house of the dead and therefore as a sacred building,

[1] The Sumerian rule was that the lines bisecting the angles of any religious building should point north, south, east, and west.

consequently, like all sacred buildings, it was orientated with its angles to the points of the compass; the practice would be encouraged by the need that superstructures, in so far as such existed, should conform to the general rule (and the superstructure was dependent on the grave-shaft) and also by the exigencies of space, which would require that shafts should lie at regular angles. The normal grave is orientated simply *qua* religious structure, irrespective of what happened to qualify it for that description; its orientation is not determined by any funerary ritual or by any particular religious beliefs connected with death: as to the position of the dead body in relation to the points of the compass, practice was quite promiscuous and therefore no religious principle can have been involved.

Certainly it would be difficult to explain, otherwise than by some religious principle, the one real exception to the general rule of simple inhumation found in the cemetery; the 'burnt burials' do bring in an entirely new ritual. As can be seen from the tabular analysis of the cemetery, the 'burnt burials' are always dated by their contents, where these are in any way distinctive, to the old cemetery; in a few cases they might belong to the early phase of that cemetery so far as the objects go, but most of them are by the objects decisively assigned to the latter part of the Royal Cemetery period, and the range of evidence is so small that the apparently early cases cannot carry much weight. Then there is the evidence of position, and as is stated on pp. 218–21 the graves stand in a very definite relation to the rubbish-stratum which overlies the old cemetery and is, in the very area wherein most of the 'burnt burials' are clustered together, dated by jar-sealings to the First Dynasty of Ur: some of the burials lie under this stratum which passes unbroken above them and is therefore later in date than they; some are in the stratum and must therefore be contemporary with or later than it, and others again are above it, in the later rubbish. The burials, then, belong to a period of which the First Dynasty is the centre.

There is no cremation here. The body was laid in the grave in the ordinary way and in the traditional attitude and then, it would seem, a fire was lit in the grave close to the head of the dead man and was allowed to burn itself out before the earth was flung back into the grave-shaft. Nearly always the marks of burning were confined, so far as we could see, to the skull and its immediate neighbourhood, but there the calcining of the bones was sometimes complete, and other objects might have suffered severely, e.g. a vessel of white calcite might be reduced to plaster of Paris and the lapis-lazuli beads of a necklace would be quite black. The actual wood ash was generally noted, but as evidence it is not conclusive because it is impossible in the field at all events to distinguish wood carbonized by age and the action of the soil from wood carbonized by fire; thus the cases in which a body described in the field-notes as showing signs of burning was found in a wooden coffin (e.g. PG/1572, PG/1591) must be regarded as suspect. But when in PG/111, a mat burial, the field-notes record that the bones were partially burnt and blackened all through and that a limestone bowl against the skull was also burnt, or in PG/353 that the head showed marked signs of burning, the teeth were

blackened, and the earth round the skull reddened by fire, there is no reason to suspect error in observation; and when the body was inside a clay coffin but 'the upper part of the body heavily burnt' (PG/1528) or (PG/390) 'the bones blackened by heavy fire; the larnax full of ashes', then the evidence is conclusive. The fire was partial. In PG/390 the copper objects found in the clay larnax were not noticeably damaged by fire; in PG/203 the shaft was lined with matting and apparently the body had been wrapped in matting also, for in the middle of the grave four layers of mat could be distinguished; between the layers was a brown matter which had not been burnt and the matting was itself unusually well preserved and light yellow in colour: but near the head of the grave there was a heap of light grey and black ash lying over and round a group of (much broken) clay pots, some of which had contained animal bones, and here the earth was slightly discoloured by fire; the field-notes remark that the burning was certain, but that the fire could not have been violent and that it was confined to one small part of the grave and did not extend over the whole.

The rubbish stratum with which the 'burnt burials' are connected not only gives a date but affords a proof that the old Royal Cemetery was at that date no longer in regular use; the fact that refuse was being dumped over the site can only mean that burials there had ceased long enough for its sanctity to be overlooked. The burnt burials are for the most part poor (though there are a few better than the rest, e.g. PG/156), and they are confined to one part of the cemetery site; most of them date from a period which is definitely later than the Royal Cemetery and the burials were made in ground which actually at that moment was being used as a rubbish-dump. I think that one can fairly conclude that the people of the burnt burials were (*a*) distinguished by some quality of race or religion from the bulk of the inhabitants of Ur, and (*b*) of low social standing, in that their dead, and their dead alone, were buried in dishonoured ground and promptly covered with the town refuse; their relative poverty would agree with this. I have suggested that they might be members of a slave population, prisoners of war brought in from some other state. To prove this is impossible, and only the discovery on some other site of a cemetery in which burnt burials were the rule instead of the exception would establish the foreign character of these at Ur, where they form about two per cent. of all the graves; as it is, one can only accept them as a group separated from the cemetery as a whole both in date and by a rite of partial cremation for which at Ur no parallel has been found in any period.

The dead, whether wrapped in matting or placed inside a coffin, were buried in their clothes. In all cases the fabric has perished, and at the best some fragment has left its impression and perhaps something of its substance on the oxidized surface of a copper vessel or on the base of a clay jar—enough to show that various styles of woollen and linen cloth were used. There is no evidence of any winding-sheet, but none is to be expected.

On the body, therefore, we find such personal belongings as the man or woman would have worn with the ordinary costume of the time. Pins to fasten the dress, finger-rings and bracelets, ear-rings and necklaces, these went with the body to the grave, and although special finery may have been

used to do honour to the corpse yet such things are not what can be called distinctive grave furniture. Similarly the knife or dagger, the toilet-case, the cylinder seal, the weapons of the warrior, may have reference to the continuance of life in another world, but taken by themselves they might also be nothing more than the personal and private effects of the dead which are placed with him not so much because he may need them as because they are peculiarly his and nobody else has any right to or wish for them. The more impersonal offerings are those most informative for the beliefs of the age.

In every undisturbed grave the dead man holds between his hands, in front of his face, a cup or drinking-vessel of metal, stone, or clay; in practically every grave there is some kind of jar or bottle, presumably for the replenishing of the cup, and in most, if not in all, there is a saucer for solid food: of these essential articles the first is always and the others are generally placed inside the coffin or the matting roll. Here quite definitely we have witness to a belief in a future life; the food and drink are needed by the man himself, and a dead man needs neither.

These are the essential things, but they could be multiplied indefinitely in the case of a wealthy person, and to them would be added cooking-pots, arms, vessels of luxury, spare jewels, musical instruments, and what not. Some of them might be put into the coffin, but where the offerings were numerous there would be no room for them there and other accommodation had to be provided. It has been remarked that the grave-shafts differed very much in size; the whole purpose of the larger shaft was to afford space for the extra grave furniture. In the barest form of grave the whole area of the bottom of the shaft is taken up by the mat-wrapped body or by the coffin; the first stage of elaboration was to make the shaft longer and wider so that the coffin should not occupy the whole of it but should leave a vacant space at one side or end, or at both sides and at the ends; an example of such simple elaboration is the grave of Mes-kalam-dug, PG/755, p. 155, or PG/1133, p. 167; sometimes the coffin is sunk, or a partition of raised earth separates the part of the pit intended for the coffin from that destined to receive offerings (e.g. PG/689, p. 152) or there might be a raised platform for the latter, as in PG/1417, p. 177, or again the offering-place might be sunk, as in PG/1407, p. 176, PG/643, p. 181. For the offerings there was no ritual order; they were put as the space allowed, often piled one on the top of another, and of the vessels many must have been empty, though others contained food or drink; bird and animal bones are commonly found in the open bowls or saucers, the jars frequently contain a sediment of a vegetable character such as would come from a beer brewed from barley, and whole wheat or barley grains and date-stones are also found, the last sometimes in baskets; occasionally the complete body of a sheep or goat is placed beside the coffin (e.g. PG/1422), but this does not seem to be an instance of animal sacrifice properly speaking, i.e. of sacrifice either to or on behalf of the dead; on the analogy of the other offerings it is far more likely that we have here merely the provision of food on a more generous scale than was the rule. All the offerings are strictly utilitarian; food, utensils for cooking and eating, weapons, games, they are what a man had used in this life and would

wish to continue using in the next: the belief in personal survival seems strong, but that is all to which the graves bear witness; of deistic religion connected with the dead there is astonishingly little sign. Apart from scenes on cylinder seals not a single representation of a god was found in the whole cemetery;[1] there are no religious texts; none of the objects hint at the worship of the gods.

One curious object of a definitely religious character—though again it witnesses to a belief touching the dead, not to any worship of the gods, is the bitumen boat. These boats are most common in the Sargonid age, but they can boast a good pedigree, for they are found in the multiple burial-pits of the Second Dynasty and, though less often, in private graves of the old cemetery, and two such lay in the royal tomb PG/580, the tomb of the gold dagger. They vary greatly in length, from half a metre to 2 metres and more; sometimes they are in the grave proper, but more often they are quite apart from the body, higher up in the filling of the shaft and well to one side of it. The smaller examples are made of a mixture of bitumen and earth and are roughly modelled by hand; the larger are modelled in the same material on a framework of withies: a very clear example of the latter is seen on Pl. 20 *a* (PG/721) while the small sort is illustrated in PG/627 on Pl. 19 *b*; other examples figure on Pls. 16, 19 *a*, 84, 86. With their shallow draught and long narrow hull and high prow and stern, the bitumen models, like the silver boat found in the royal tomb PG/789 (Pl. 169), are prototypes of the craft still used by the Arabs of the Marshlands some 40 miles south of Ur. No oars were found with them, but one (PG/721, *v.* p. 154) had long copper punt-poles; in a few cases there had been seats made of wood which had been simply fixed in place by pressing the ends down into the soft bitumen (Fig. 27). The boats were actually made *in situ*, as is shown by the fact that the bitumen has in many cases adapted itself to the irregularities of the ground on which it rests, and that the clay pots placed on it have also left their mark on the bitumen, which must therefore have been still soft. Always the craft is charged with a cargo of clay or copper vessels containing the usual offerings of food and drink. I had suggested for these boats the obvious parallel of the Egyptian funerary boats in which the soul crossed the waters to the next world; Sidney Smith, however,[2] has a different explanation, remarking that the Babylonians were in the habit of placing pots with food in them as a lure for the demon Lamashtu, that she might enter the boat and be carried down the river, and he considers the Egyptian analogy to be probably fallacious. In support of this one might stress the fact that the boat is often, though not always, placed apart from the other objects in the grave, against it is the difficulty of distinguishing into two categories, provender for the dead and bait for the demon, offerings identical in character and not always separate in position; and a perhaps stronger objection is that

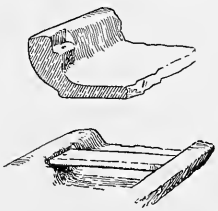


Fig. 27. PG/635.

[1] I do not count the broken clay figurine from PG/895; it is only the decoration of a jar-handle and probably had at best very slight religious significance. *V.* p. 388 and Pl. 187*a*.

[2] *J.R.A.S.*, October 1928, p. 868; but cf. A. Parrot in *Rev. d'Ass.* xxx, iv, p. 171.

the theory introduces a very definite piece of demonology to a ritual in which otherwise there is a complete lack of any reference to gods or devils. The few personal amulets (Pls. 142–3) are no exception to this rule; they are obviously ornamental and their religious potency would seem to be of secondary importance even though it was religion that originally dictated their form; and in any case they are the personal decorations carried by the living man and have no special reference to death or the cult of the dead.

In a certain number of graves, e.g. PG/755, PG/1422, were found spears planted upright in the corners or at the head of the coffin, the points usually downwards but sometimes upwards; but the fact that the whole spear could (in some instances) be traced by the impression of the decayed wood in the soil proved that the weapon was buried for its entire length and did not show above ground; it was an offering placed *in* the grave, not a trophy fixed above it. Was there then anything to mark the position of the graves? In the case of the royal tombs there probably was a superstructure (cf. p. 37), and the multiple burials of the Second Dynasty have mud-brick walls along the edges of their shafts which must have belonged to surface buildings closely connected with the shafts; but was this the rule for the ordinary private grave? The question cannot be answered satisfactorily. At one point on the north-west fringe of the cemetery there were found, as has been mentioned elsewhere (p. 37n.), two more or less circular pavements of plano-convex burnt brick enclosed by the remains of plano-convex mud-brick walls (*v.* Pl. 69*a*) but neither of these lay directly over a grave; one, in fact, was so far away from any grave at all as rather to disprove any real connexion between the pavements and the cemetery in spite of the analogy with the limestone floors of what must have been funerary buildings (but not necessarily surface buildings) belonging to the royal tombs PG/337 and PG/1236 (pp. 43 and 111). It has been suggested that the stratum largely composed of disintegrated mud brick which overlies the cemetery site and has been referred to by me as the 'grey stratum' or the 'barren stratum' is due to the decay of the mud-brick superstructures of the graves; that would be a happy solution, but it is ruled out by the facts. In the first place the stratum is clearly due to material brought from outside being deposited over the site;[1] in the second, had it resulted from the collapse and decay of walls, at least the footings of those walls would sometimes have survived, buried in and protected by the fallen debris, whereas not a single trace of connected brickwork occurred anywhere in the 'grey stratum'. The ground was so often disturbed that any building remains would necessarily have been fragmentary, but that they should have disappeared so completely is really impossible if one assumes, as the theory obliges one to do, a cemetery crowded with superstructures corresponding to the close-set graves. There must have been mounds, if only as a natural result of digging and filling in the graves, and these would have been obliterated by time and weather as well as by the diggers of later graves; but if there was anything more to distinguish the graves and preserve their individuality no vestige of it survives.

[1] My field-notes made when the stratum was first discovered suggest that it may have been due to the deliberate levelling of the area. Cf. also pp. 218 *et seq.*

CHAPTER VI

DETAILED DESCRIPTION OF SOME IMPORTANT PRIVATE GRAVES OF THE OLDER CEMETERY

PG/39. (*Pl. 10*)

This is not a grave at all but a typical example of the 'dedication bowls' which occurred not infrequently in the cemetery area but more especially towards the south-west end of it.

At 2·80 m. below the modern surface, which here has suffered a good deal from denudation, there stood inverted a circular clay bowl whose thick walls were relieved by heavy horizontal ribbing; it measured 0·95 m. in diameter and its original height was 0·50 m., but the base of the bowl when found was crushed in by the weight of the soil. Against the south-east side of the bowl there was a quantity of carbonized wood but the bowl itself showed no sign of burning, so that if the wood was burnt it was not burnt *in situ* but had been placed here after burning: but it must be remembered that the carbonization might have been due to normal decay and that in this respect appearances are deceptive. With the wood were three clay pots, an example in reddish drab clay of Type 108, ht. 0·22 m., one in drab clay of Type 41, ht. 0·12 m., much broken, and fragments of a third apparently similar. Round the bowl, filling the pit in which it had been placed, was ordinary mixed soil rising to a height of 1·30 m.; above this and very sharply distinguished from it came a band of heavily burnt earth and ashes red and grey in colour, curved in the form of a dome 1·80 m. to 2·00 m. in diameter; above this again was ordinary mixed soil, the rubbish of the old mounds. The sides of the pit could not be traced in the mixed soil above the burnt stratum; the edges of the latter corresponded with the hole in which the bowl stood and came down to 0·80 m. above the level on which it was set, so that at the time I was inclined to regard this as ground-level and to assume that the pit was only 0·80 m. deep and that the earth was heaped above the bowl to form a low mound rising above the ground-surface; but analogy with many other similar 'dedication bowls' is against this; more probably the pit was very much deeper.

The very clear line of demarcation between the burnt stratum and the soil below it implies that the soil was mounded up and carefully smoothed; as the soil is untouched by heat the earth and ashes must have been burnt elsewhere and put into the hole when already cold and then the pit filled with mixed soil and rubbish up to surface-level. Here we seem to have evidence of one of those ceremonies of purification by fire which the texts mention in connexion with the foundation of religious buildings. At Ur such bowls have been found several times under the foundations of buildings of the early dynastic or predynastic periods.

In the case of PG/39 nothing was found inside the bowl. In other examples

there have been found matting spread on the ground, and on it one or more clay saucers wherein were small animal bones, grain, and date-stones; no human bones have ever been found. Where the bowl is quite empty, as here, it may well be that food offerings were deposited but not in clay vessels; in that case their complete disappearance would be only natural.

PG/55. (*Pl. 10*)

This was the wreckage of what must have been a very rich grave. Owing to the denudation of the area the bottom of the grave-shaft was only 1·20 m. below the modern surface; the outlines of the shaft could not be properly traced and it was only the white film of decayed matting spread over the floor that enabled us to identify the grave. The bones had perished and left no more than a discoloration of the soil; the disturbance of the grave was shown not by the state of the body but by the fact that the offerings were all in disorder, piled together in one spot almost as if for removal.

The first objects encountered (*v.* Pl. 10*b*) were (1) a white calcite cup, Type 19, U. 7996, containing a black bituminous paste; (2) a pair of cockle-shells containing white paint; (3) a white calcite pot, Type 8, U. 7998, covered with a cockle-shell and containing green paint; (4) a saucer of very light whitish clay, Type 5; (5) three more cockle-shells, one containing green paint; (6) a white calcite pot, Type 19, blackened by fire, containing black paste, U. 7999; (7) some sheet lead (seen at the back of the photograph), shapeless and pierced with holes due to decay; (8) a quantity of small carnelian beads. Almost touching these objects, but at a very slightly lower level so that they were classed by us as a distinct group, though some of them show equally with the first group on Pl. 10*b*, were (9) a gold diadem of strip metal, length 0·36 m., width 0·007 m., with a border of punctured dots and a hole for attachment at each end, U. 8003; (10) a set of very long double conoid beads in carnelian and gold together with large lapis-lazuli ball beads, U. 8011, 8012; (11) a small calcite pot, Type 16, containing yellow paint, U. 7997; (12) some chips of pink chert; (13), (14), a silver bracelet and antelope's head, U. 8013. When this group had been lifted there was found immediately below it a compact mass of beads, &c., in gold, lapis-lazuli, carnelian, and shell; some of them were inside a (broken) clay cup and therefore were not on the body, but had either been dedicated as we found them in the cup or had been collected in the cup by the grave robbers.

The beads are catalogued under the numbers U. 7914, 8004, 8008, 8009, 8018; the other objects were (15) a lapis-lazuli cylinder seal, U. 8006, Pl. 200; (16) a shell figurine of a seated bull, U. 8033, Pl. 142; (17) a gold bead in the form of a fruit on which is standing a bird which pecks at the fruit, an exquisite and minute triumph of the goldsmith's work, U. 8005, Pl. 142; (18) a gold chain strung with lapis-lazuli beads, U. 8002, Pl. 159*b*; (19) a large silver plaque with electrum bosses, U. 8007, Pl. 219; (20) two 'gaming-pieces', one of shell, the other of black shale, each inlaid with five dots, U. 8020, cf. Pl. 98*b*; (21) three silver models of cockle-shells, U. 8000; (22) a silver pin with head in the form of a hand, U. 8014; a copper pin with

lapis head, and a third with plain metal ball head, and fragments of a cuttle-fish bone.

The mere enumeration of these objects is enough to prove that the grave, of whose contents they can represent only a fraction, must have been unusually rich; it is clear that the larger objects have been removed and only the smaller overlooked or dropped by the robbers. Such plundering would normally imply that there was an actual tomb-chamber into which the robbers could go and move about freely to select their plunder rather than a mere inhumation grave which would have to be dug out; but nothing in the nature of chamber walls was noted by us. In view of the denudation of the soil, walls of mud brick might well have disappeared altogether, though with stone walls that could scarcely have occurred. It is then possible that PG/55 was originally a royal tomb, but there is nothing to prove it.

PG/261.

A simple inhumation grave, lying 4·50 m. below the present surface which was much denuded by weather; the bottom of the shaft was actually cut into the stratum of burnt earth and pottery which underlies the whole south-west end of the cemetery and contains hand-modelled clay figurines and archaic tablets and seal-impressions; the grave should therefore be considerably earlier than its positive depth might be thought to imply.

The grave had been disturbed and the bones had perished.

In the grave were left a few personal ornaments, but most of them had been taken by robbers; a gold stiletto and tweezers, U. 8510, Pl. 218, was the best object remaining; a cylinder seal of shell bearing an inscription of Gig-ḫulugal (*Ur: Royal Inscr.* No. 270), in poor condition, U. 8513, Pl. 197; a whetstone, U. 8511; cockle-shells containing black paint, found near the feet. Lying under and round a pair of copper razors (U. 8508, cf. Pl. 231) were fifteen counters, U. 8509, nine of them circular, made of black shale and inlaid with seven white dots (except for one of them, which was plain) and six square and made of shell, one engraved with a cross; they were arranged alternately in a half-circle, with the odd black pieces at the ends, and at each end of the curve was a slender bone rod engraved with linear patterns; beneath the counters were the remains of wood. There can be little doubt that there was here a gaming-board of normal type but entirely of wood, the squares and marks being merely engraved (cf. Shub-ad's board, Pl. 95, which is only lightly inlaid), and as usual the board was in the form of a box in which the counters were kept. The arrangement of the pieces would imply that in the bottom of the box there were depressions into which the counters fitted; actually some of them were found face downwards, a sign of carelessness, so that the apparently elaborate arrangement must have been imposed by the nature of the box made to receive them.

A copper axe of Type S 19, U. 8506, was interesting because enough of the wooden handle was left to show the method of hafting. The base end of the blade was bent sharply round, but the nail projected on the opposite side to the curve, and remains of wood were preserved both in the curve of the blade

and round the nail. Clearly the butt had been passed through a slot in the haft and then bent to one side against the circumference of the wood, while the nail had been driven right through the shaft from the opposite side (*v.* Fig. 28).

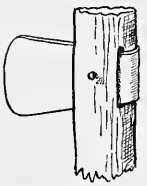


Fig. 28. PG/261. $\frac{1}{5}$.

A dagger-blade of Type 7, U. 8512, a chisel, U. 8505, an oblong copper bowl of Type 7, l. 0·185 m., U. 8507, a second example, U. 8518, in poor condition, and a strainer, U. 8507 B, of Type 96, together with a white calcite vase of Type 66 were the only other objects left in the grave apart from pottery, most of which was smashed to atoms. One clay vase, U. 8519, was remarkable; it was of creamy ware, almost of egg-shell thinness, decorated round the shoulder with two plain horizontal bands of red paint. If it really belongs to the grave and not to the rubbish in which the grave was dug it is a unique survival into the cemetery period of a class of ware characteristic of a much older time, for it occurs soon after the Jemdet Nasr period. As the rubbish stratum in which the grave-shaft is sunk does belong to that period it is highly probable that the vase is to be associated with it and not with the grave.

PG/263.

The coffin was of clay, of normal type with rounded ends, measuring 1·75 m. by 0·30 m. and 0·30 m. high; the ribbed sides were vertical and there had been a flat clay lid, the fragments of which were found crushed down to the body.

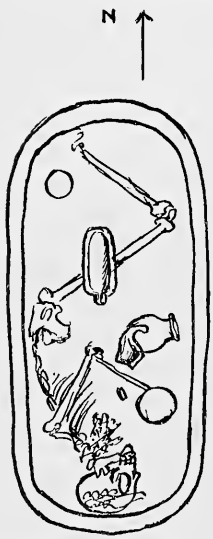


Fig. 29. PG/263. $\frac{1}{10}$.

The body lay in the usual position with the head to the south; the bones were very much decayed.

On the remains of the skull was a 'wreath' composed of gold ring pendants suspended from a triple band of lapis-lazuli and carnelian beads, U. 8528, cf. Pl. 135; across the forehead was an oval silver frontlet, l. 0·18 m., width 0·022 m., U. 8524, and a length of narrow silver ribbon which had been wound spirally round a lock of hair; a pair of silver wire spirally coiled hair-rings, U. 8523; at the neck was a dog-collar made up of the usual triangular gold spacers between which came triangles of minute lapis-lazuli and carnelian rings, U. 8527, Pl. 220; a necklace, apparently three rows deep, of gold and lapis double conoid beads gradated and strung in groups of a colour, U. 8526; a necklace of similar but larger beads, perhaps part of the last; some small silver beads, U. 8527; a necklace of very long double conoids in gold and carnelian, lapis balls and fluted gold balls, U. 8525; a copper pin, Type 1, with ribbed lapis and gold head, U. 8522; a copper pin of Type 1, the head missing; on the hand (on one finger) three rings of plain silver wire, U. 8531; by the hands a small copper bowl, Type 4, completely decayed; a lapis cylinder seal anciently cut

in half and re-used, U. 8529; a copper lamp of Type 115; a white calcite vase of Type 86, U. 8520; a white calcite vase of Type 87, U. 8521; a limestone bowl of Type 102, U. 8533.

PG/333. (*Pl. 11*)

At about 4·60 m. below the modern surface was a larnax burial of unusual type in that it consisted of two clay coffins of which one was inverted over the other and acted as its lid; both were much crushed and broken. The grave was also noteworthy for having outside the coffin a greater number of

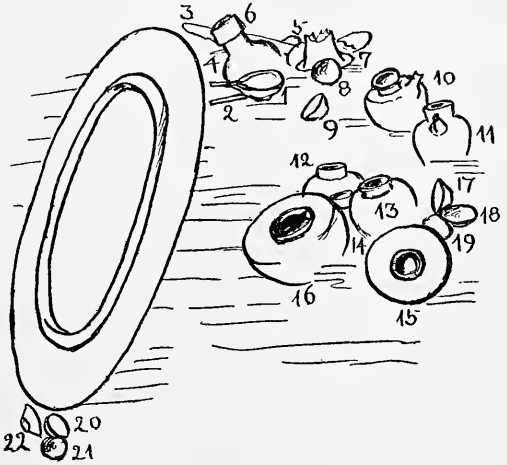


Fig. 30. PG/333. Scale $\frac{1}{20}$.

offerings than was found with any other clay coffin; the sketch (Fig. 30) shows these in position. (1) a copper spouted bowl, Type 88, U. 8597; (2) copper chisel, U. 8596, Type 2, l. 0·21 m.; (3) a copper saw, U. 8594, l. 0·355 m., Pl. 229; (4) copper chisel, Type 4, l. 0·16 m., U. 8595; (5) a whetstone; (6) pot of light-drab clay, Type 209, ht. 0·30 m.; (7) an offering-table of red clay (Type 243), with incised decoration on stem, ht. *c.* 0·30 m., broken; (8), (9), plain red clay saucers, Type 5; (10), (11), two pots of light-drab clay, Type 209, ht. 0·24 m. and 0·20 m.; (12), (13), two pots of light-drab clay, Type 108, ht. 0·21 m.; (14) saucer, red clay, Type 5; (15) a large clay pot very much broken, apparently Type 101; (16) large clay pot too fragmentary to type; (17), (18), (19), saucers of Type 5; (20), (21), (22), three saucers of Type 5, each containing sheep's bones; also a copper needle, a small copper arrow-head, Type 5, U. 8609, and a silver tube, U. 8605, *v.* p. 258.

PG/543.

The shaft contained a coffin of wickerwork measuring 1·80 m. by 0·80 m. lying north-east by south-west. The coffin took up the whole of the space

at the bottom of the shaft. The body lay on its left side with the head to the south-west.

On the forehead was an oval frontlet of silver (decayed); in the right ear a single ear-ring, U. 9146; round the neck were three (or four) strings of beads, U. 9142–4, including the copper ball beads plated with gold foil which later become characteristic of the Sargonid graves. In front of the face was (1) a knife-blade, U. 9161, and by it a cylinder seal (2) of green stone, U. 9145, Pl. 205; close by was (3) a spill-vase of white calcite, U. 9148, Type 3, and in the corner of the coffin (4) the remains of a copper pot of unknown form; next to this (5) were numerous small pieces of bone inlay which probably came from a wooden box, but nothing could be made out as to their order and pattern. On the level of the shoulders was (6) a copper pin of Type 1 with lapis and gold head, U. 9151, and against its middle lay (7) a lapis cylinder seal, U. 9150, Pl. 205, and (8) a short string of four beads, two gold balls, one crystal ring, and one jasper tubular bead, probably the string by which the seal had been attached to the hole in the shaft of the pin. By the hands was (9) a copper bowl of Type 4, U. 9155, and beyond it the remains of an ostrich-shell. On the wrists were plain silver bracelets, U. 9152, and on the hands were silver rings, four on the index finger and one on the middle finger of the right hand and a broad belt-ring on the left hand. At the foot of the coffin were (10) a copper bowl of Type 7 (?), much crushed, U. 9156, (11) a shell cut to serve as lamp or ladle, (12) a copper pin of Type 1 with lapis head, and against it a silver cylinder seal in very bad condition, U. 9149; (13) was a circular copper box of Type 110, U. 9147. By the feet were a few shell beads which may have been a bangle.

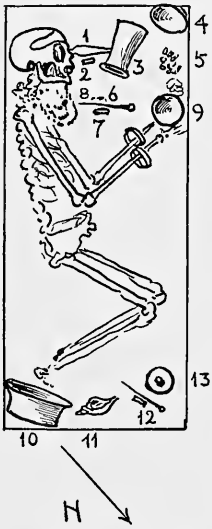


FIG. 31. PG/543. $\frac{1}{25}$.

PG/689.

The grave was of unusual shape. The shaft measured 2·40 m. for its maximum length with a width of 1·50 m., but the main excavation was a square of 1·50 m., out of which opened a recess measuring 0·90 m. by 0·80 m. At the bottom, which was 4·10 m. below the modern surface, the main shaft was again divided into two compartments by an earth bench, 0·25 m. high and 0·25 m. wide, while the recess was not so deeply dug and its floor was 0·45 m. above that of the grave proper; see drawing. The pit was orientated as usual, with its angles to the cardinal points of the compass; the body was in the south-west compartment and lay on its right side with the head to the south-east; there had been a coffin, but only the impression of it was left. On the neck were remains of a silver collar, the nature of which could not be ascertained; the other objects of a personal sort were not on the body but lay in front of it.

(1) Behind the shoulder was a magnificent cylinder seal of rock crystal with red and white paste making a chevron pattern in the boring, U. 9679, Pl. 205; (2) by this were two plain silver bracelets, much decayed, which evidently were not worn but placed with the body in the grave; (3) in front of the body and apparently held in the hands was the remarkable bronze axe, U. 9680, Pl. 224, unique of its kind; (4) underneath it was a copper pin of Type 1, with a tang at the head which implies a ball head in some material which has perished, U. 9682; (5) touching the pin were the lapis-lazuli cylinder seal,

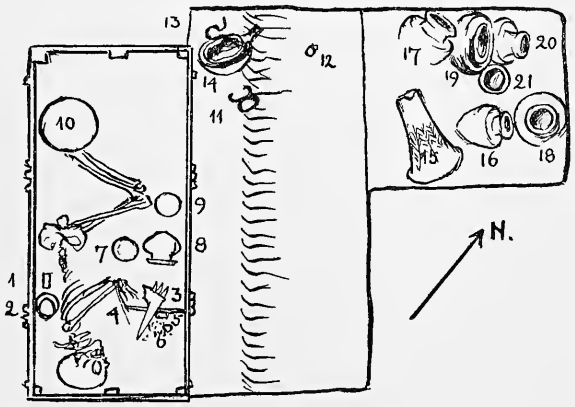


Fig. 32. PG/689. Scale $\frac{1}{50}$.

U. 9681, Pl. 206, and (6) a quantity of beads, lapis-lazuli diamonds alternating with silver disks, U. 9683; between the beads was a single silver earring (?) of plain wire, spirally coiled, U. 9684. Apart from these there were (7) a small copper vase completely crushed out of shape; (8) a clay vase, Type 45, of red clay with burnished haematite wash, broken; (9) a second similar example of the same type; (10) a copper pan of Type 23, d. 0·32 m. In the central compartment of the grave were (11) a copper hold-fast (?), U. 9685, Pl. 226, 0·14 m. long, of uncertain use, and (12) a plain copper ring, d. 0·05 m.; another copper hold-fast, cf. U. 9846, Pl. 226, lay in the west corner (13), with below it (14) two clay bowls of Type 214, of drab clay, one on the top of the other. The paucity of objects in what one would expect to be the principal part of the grave is probably due to its having been plundered by robbers who overlooked the other compartments. In the cupboard-like recess were (15) the stem only of an offering-table in white limestone, ht. 0·37 m., with a tree-pattern lightly scratched on it, U. 9914, Pl. 221; (16), (17), clay pots, Type 174, drab clay, ht. 0·28–9 m.; (18), (19), clay pots, Type 100, drab clay, ht. 0·20 m. and 0·42 m. respectively; (20) clay pot, Type 174, drab clay, ht. 0·29 m.; (21) clay pot, Type 127, drab clay, ht. 0·065 m.

PG/697.

At the bottom of the earth shaft and occupying the whole of its space was a coffin of which the body was made of thin wooden planks held together by upright stays in sets of three with single posts at the corners, and a lid of basket-work; it measured 1·60 m. by 0·60 m. and was 0·50 m. high; it lay north-west by south-east. The body lay on its left side with the head to the north-west.

Fig. 33. PG/697. $\frac{1}{25}$.

On the forehead was (1) a plain gold frontlet, U. 9763, and in the ear an ear-ring of gold and silver, U. 9766, the only one worn; round the neck were beads, U. 9767, of gold, lapis-lazuli, and agate; on each arm was a plain silver bracelet (2), U. 9768; in front of the waist several objects which clearly had been suspended from a belt, namely (3) a dagger, U. 9768 *bis*, (4) a copper reticule with gold rim, U. 9769, (5) and (6), two cylinder seals, one of shell and one of lapis with gold caps, U. 9765 and U. 9764, Pl. 205. Between the hands was (7) a copper bowl, U. 9772, and near this (8) a bronze axe of Type A 3, U. 9770, the handle of which was probably held in the hand of the dead man. At the foot of the coffin lay (9) a copper bowl of Type 73, broken and decayed, (10) a clay pot of Type 163, with inverted over its mouth a copper bowl of Type 4, (11) a copper strainer, U. 9773, (12) a copper bowl of Type 4, and (13) the fragments of a copper vase of Type 58.

PG/721. (*Pl. 20*)

The main shaft was a rectangle measuring 3·80 m. by 1·80 m.; at the bottom of it, which was 5·70 m. below the modern surface, there was a secondary pit a metre deep dug partly within the area of the main shaft but

Fig. 34. Scale $\frac{1}{30}$.

in part projecting beyond it. The deeper pit was the grave proper; it had been plundered and contained only the remains of a body lying with the head to the south-west, a clay pot of Type 108, drab clay, ht. 0·19 m., and fragments of two other clay pots too broken to be typed. The bitumen model boat (Pl. 20*a*) lay at the bottom of the main shaft, resting for part of its length on the filling of the real grave; as the latter had been approached from the farther end the boat and its accompanying offerings were undisturbed. The boat was unusually long, 2·45 m., with a width of 0·45 m. It had had three wooden seats whose position was clearly shown by the marks in the sides

where the wood had been pressed into the still soft bitumen (cf. fig. 34, p. 154), and in front of the bow seat there was a ridge in the bottom of the boat which had all the appearance of a thwart, though such was lacking in the case of the other two seats. Lines of white paint running longitudinally along the bottom of the craft imitated planking, and near the bows there were on the outside traces of red paint, but no recognizable design; there was red paint amidships, also on the outside of the bulwark. Against the side of the boat, much bent by the weight of the soil, were two long copper punt-poles, each 0·50 m. long, rounded at the top and round in section except for the last 10 cm. where they are wrought to a square section.

Close to the bows of the boat were (1) a copper cauldron, Type 50, in very bad condition; (2) a large copper pan, Type 20, d. 0·40 m., in which were four other smaller copper vessels, all much broken and distorted, U. 9957; (3) a copper pan of Type 23, d. 0·42 m., U. 9958, inside which a shallow copper tray; near the stern of the boat were a clay pot of Type 38, with a hole in the base, drab clay, ht. 0·23 m., and a clay strainer, Type 248, d. 0·11 m.

PG/755. (*Pl. 21*)

THE GRAVE OF MES-KALAM-DUG. The first intimation that we had of the existence of the grave was the finding of a bronze spear-head sticking point upwards in the soil; following this downwards we discovered that below it the wooden shaft had been plated with gold for a length of 0·28 m., the binding worked in imitation of the jointed stem of a reed. Below the gold the hole left by the decayed wood could be traced downwards and led us to the grave-shaft. Almost at the same time we found about a metre to the south-west a slender copper rod also set vertically in the earth which proved to be 0·62 m. long; like the spear it had been planted against the north-west side of the grave-shaft and led us down to the level of the coffin lid; what the rod was we could not determine.

The grave was constructionally a normal one. A rectangular shaft or pit measuring 2·50 m. by 1·50 m. had been sunk in the soil to a considerable depth—the present surface of the ground was 6·75 m. above the pit's bottom, and the original depth was probably at least 5·00 m.; the spear-point was 1·80 m. above the floor, but it had certainly been buried in the filling of the shaft—and a wooden coffin measuring 1·70 m. by 0·65 m. and 0·50 m. high had been placed against the north-east side of it. The coffin received the dead man, the space at either end and on the south-west side of it was used for offerings. In all respects therefore the grave of Mes-kalam-dug was exactly paralleled by many others in the cemetery, but it stood out from all of them by the extraordinary richness of its furniture: both in the coffin and outside it in the shaft there were such objects as elsewhere were found only in royal graves.

The spear and the copper rod led us to the shaft. As we worked down we encountered a row of holes in the soil which, as was seen later, stood for the shafts of a number of spears which had been set point downwards against the shaft's side; then there were brought to light the vessels of clay, copper,

stone, silver, and gold which crowded the offering-place, the daggers, &c., and the side of the coffin itself. The latter, being of wood, had decayed completely, but the impression of it in the soil was marvellously distinct, even the grain of the wood being as it were painted on the earth, and it was difficult to remember that there was nothing there which a touch even of a brush would not destroy. As we worked along the side the foreman, touching the light dust incautiously with his knife, pierced it, and there fell out in a torrent hundreds of splendid lapis-lazuli and gold conoid beads: up to that moment, as the south-west side of the shaft had not been laid bare and only a comparatively narrow trench had been dug, we had not known whether we were indeed outside the coffin or inside it; for all we could tell the other side of the coffin lay to the south-west of us and the contents were immediately below us but deeper down; that torrent of gold told us that the real treasure was behind the semblance of woodwork and beneath a mass of soil not yet excavated. Work had therefore to start again at the top level; the north-east face of the earth shaft was discovered and followed down and the lid of the coffin exposed; only then was it possible to explore the interior. It was a surprising sight.

The body, that of a young man powerfully built but only about 5 ft. 4 in. in height, lay on its left side, the head to the north-west; the skull, broken and decayed, had fallen away from the body. By the side of the skull was (1) the famous gold helmet, U. 10,000, Frontispiece. Close to it (2) was the gold lamp, U. 10004, Pl. 163; (3) the electrum double axe, U. 10018, Pl. 156; (4) the gold bowl of Type 7, U. 10001, Pl. 163, inscribed like the lamp with the name of the owner, Mes-kalam-dug; (5) was a second gold bowl, U. 10002, of Type 9, Pl. 163, also inscribed; this had been grasped in the dead man's hands. In front of the head (6) was the electrum axe-head, U. 10025, of Type A 3, Pl. 155, which clearly had been either placed in front of the hands or held by one of them; round the loins, or laid across them, for no trace of metal could be seen under the bones, was (7) a silver belt or baldric recognizable but in very bad condition, too decayed for more than a fragment of it to be moved; from it were suspended (8) a dagger, found with the blade leant against the body and the point upwards, U. 10014, of which the blade was of gold, the guard of gold studded with gold studs, the grip and pommel of silver plated over wood and the pommel studded with gold; the sheath was of silver: the silver had perished and had to be restored, Pl. 152. With the dagger was (9) a whetstone of lapis-lazuli hung on a gold ring, U. 10015; a shell cylinder seal (10) in very bad condition, U. 10011, and (11) a silver tool hung also on a gold ring, but completely decayed and of unrecognizable form—it might have been a toilet reticule; across the legs of the skeleton lay (12) two silver lamps, one inside the other, one completely decayed, the other (U. 10024) in good condition. Between the knees and the south-west side of the coffin (13) were the beads, double conoids of gold and lapis-lazuli, already mentioned, U. 10006; they are amongst the largest and the finest in colour of all found in the cemetery: evidently they were not worn, but had been placed in the coffin as an offering.

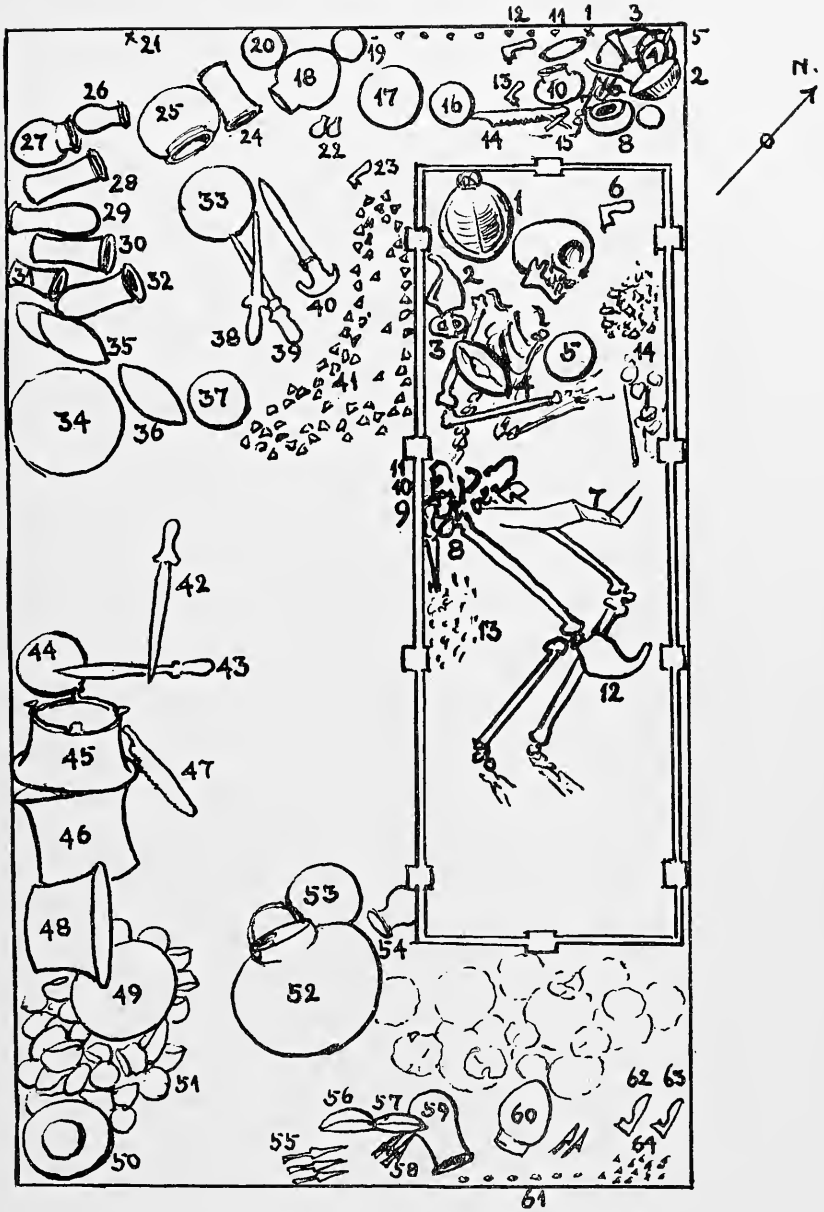


FIG. 35. Ground-plan of PG/755 showing objects in position. Scale $\frac{2}{25}$.

The same is true of all the remaining objects found inside the coffin. Lying close to the north-east side of the coffin and opposite to the upper part of the body was a collection of jewellery which not only was not on the body but much of it was quite unsuited to it, being of the sort carried only by women; there were no bones here, and it was not a case of a secondary interment or of such human sacrifice as is found in the tombs of kings,[1] but simply of offerings, presumably made by a woman. A gold pin, U. 10005, was found (14) skewered through a number of spirally coiled wire hair-rings of which four were of gold (U. 10019) and twelve of silver, these much decayed; a gold finger-ring, U. 10029, and others of silver, U. 10030, and a coil of narrow silver ribbon, presumably a hair-ribbon, a 'dog-collar' of gold and lapis triangles, U. 10007, a wreath of gold 'beech'-leaves hung from a double chain of lapis and carnelian beads, U. 10027, and a second wreath of silver ring pendants, U. 10026, quantities of gold and lapis beads, including gold beads formed of three double conoids soldered together, U. 10028, covered the floor of the coffin, and with them were two lapis amulets, one in the form of a frog (U. 10008), and one in that of a seated ram (U. 10009), Pl. 142, and the remarkable pin U. 10010, Pl. 165, of copper, with a head in the form of a squatting monkey exquisitely rendered in gold; lastly came a lump of silver, U. 10012, very heavy but with its surface completely decayed.

The offerings outside the coffin were bewildering in their number; the richest were placed at the head (north-west) end, but comparatively little of the space was unoccupied. There was a certain order in their arrangement, but it seemed to be dictated rather by the value of the objects than by any ritual considerations. There were weapons at both head and foot of the coffin, spears planted point downwards in the earth, axes (whose wooden handles may also have been stuck into the ground), a quiver full of arrows and sets of light javelins or arrows; all these were close to the sides of the earth shaft. At the foot of the coffin came the clay pots, and beyond and above them, along the south-west side of the pit, the copper vessels and some of silver; in the west corner, flanking the head of the coffin, were most of the stone vessels and some of silver; against the coffin head were the vessels of gold and electrum, and with them the silver ritual vessels, the tall spouted jug and paten, and the copper saw and chisels which judging from the gold examples in the tomb of Shub-ad must have had some ritual significance. By the side of the head of the coffin lay the best of the weapons, the gold- and silver-mounted daggers; I noted at the time of excavation the impression that they might have been originally on the top of the coffin and have slipped from it to their present position, the lid of the coffin having a decided tilt from north-east to south-west; but they could only have fallen before the earth was put back in the shaft, and at that time the coffin lid was presumably straight, so there is no reason to suppose that they were not placed exactly where we found them.

[1] I have elsewhere suggested that these offerings of women's finery might possibly represent a survival of the primitive custom, the ornaments being substituted for the actual human victim, but I do not think that the suggestion can be upheld; there is no parallel case to support it, and the finding of several bodies in the royal vaults of the Third Dynasty implies that sacrifice did not die out.

Taking the objects in the order in which they lay, and starting at the head of the coffin, in the north corner of the pit, (1) is the spear with gold-plated shaft which led us down to the grave, U. 10023, Pl. 154; (2) a fluted gold bowl of Type 7, with lapis-lazuli handles, U. 10003, Pl. 160; (3) was an electrum bowl of Type 9, U. 10034, Pl. 159, inside which was (4) the small electrum bowl, U. 10013; these were lying on and by the corrosion of the metal were fixed to (5) the copper tray, U. 10036, Type 30, and with them was (6) a silver libation-jug of Type 84, in very good condition, U. 10035, Pl. 172; (7) was a copper strainer of Type 96, (8) a copper bucket of Type 76, (9) a square whetstone hung on a copper ring, U. 10079, (10) a copper vase of Type 82, U. 10085, (11) a whetstone, U. 10078. Nos. (12) and (13) are bronze axes, U. 10037–8, (14) a copper saw, U. 10042, (15) a group of chisels, U. 10053–6; between these and the end of the pit there were the remains of several clay vases too broken to be typed. Against the end of the pit there were stuck into the ground point downwards, as already described, a number of spears, U. 10045–9. No. (16) was a calcite vase, U. 10066, of Type 60; (17), (18) were clay vessels, broken, apparently of Type 67; (19), (20) calcite vases, U. 10072, 10074; (21) was the copper rod which led us down to this part of the grave. No. (22) was the pair of copper razors, U. 10057, (23) another bronze axe-head, U. 10039. Nos. (24) to (32) are the calcite vases, U. 10076, 10064, 10065, 10075, 10077, 10067, 10068, 10069, 10070; (33) a steatite bowl, U. 10060, (34) another steatite bowl, U. 10063. Nos. (35), (36), (37) are silver oval bowls, U. 10031–3. The three daggers, Nos. (38), (39), (40), are respectively U. 10022, with silver-plated handle and bronze blade, U. 10021, Pl. 155, with bronze blade, gold guard, and handle of silver (?) studded with gold, and U. 10020, Pl. 152, with bronze blade and a handle with a silver grip studded with gold and a gold lunate pommel. Between them and the coffin lay (41) an object made of either wood or leather—there were plentiful traces of wood but some remains seemed to be of leather—and thickly studded with small conical bosses of thin copper sheeting laid over wooden cores. It was impossible to ascertain the outlines of the object, which had probably been doubled up and crushed by the weight of the earth, nor was there any definite order in the arrangement of the bosses; it might possibly have been a shield or a drum; *v.* p. 259.

No. (42) is a dagger with silver handle, U. 10058, and (43) a second dagger, U. 10050, of which only the blade remained, the hilt having been presumably of wood. No. (44) is a steatite bowl, U. 10062, of Type 49; (45) a copper pan supported on four short legs in the form of bulls' feet, Type 24, U. 10083; (46) a copper cooking-pot of Type 17, diam. 0·27 m., U. 10080; (47) a copper saw, usual type, U. 10043; (48) a copper pan of Type 21, diam. 0·30 m., much crushed, U. 10087; (49) a steatite bowl, U. 10061; (50) a copper vase of Type 63, ht. 0·44 m., U. 10084; this lay on the top of (51) a pile of cups and bowls of copper and of silver, perhaps sixty in all, all corroded together and most of them crushed and broken, U. 10081; one of these bore the name Mes-kalam-dug, one that of Nin-Tur-Nin, Pl. 190; (52) is a copper bucket of Type 76, ht. *c.* 0·20 m., on the mouth of which was placed a shallow copper

dish of Type 33, U. 10086; (53) was a fragmentary clay vessel, (54) the calcite vase U. 10070. No. (55) was a set of three hollow-socketed copper arrow-heads of Type 1, U. 10045; (56) and (57) were oval silver bowls with lapis-lazuli handles, U. 10052; (58) a set of copper harpoons, Type 4, U. 10044, four in all, l. 0·18 m.; (59) is a calcite vase, U. 10071, much decayed; (60) another calcite vase, U. 10073; (61) more spear-heads set point downwards against the end of the pit; (62), (63), two bronze axe-heads, U. 10040, 10041; (64) a collection of small flint arrow-heads, U. 10051, *v.* p. 381; these were all in a cluster, point—or rather cutting edge—upwards and 0·30 m. above the floor of the pit; they had evidently been in a quiver, which had perished, and judging from their position the shafts to which they were attached had been 0·30 m. long. All the floor at this end of the pit was thickly strewn with fragments of broken clay vessels, crushed by the weight of the soil and rotted by salt: their types could not be determined.

PG/780.

A coffin of ribbed wickerwork overlaid with matting proofed with bitumen occupied nearly the whole area of the shaft, leaving only a short space at the foot. The coffin measured 1·50 m. by 0·60 m. and its sides were 0·30 m. high; the height of the gable roof could not be traced. In it there was a body, undisturbed, lying on its left side, the legs flexed.

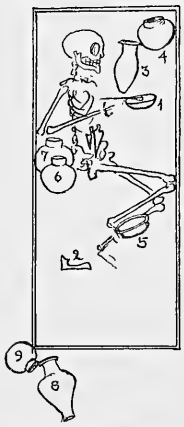


Fig. 36. PG/780. $\frac{1}{25}$.

At the neck were a number of beads, double conoids, of glazed frit, the surface much decayed, U. 10171; on one wrist was a bracelet of lapis double conoid and carnelian cylindrical beads strung alternately, U. 10172. On the hands were two silver finger-rings made of $1\frac{1}{2}$ spiral coils of plain wire, U. 10164; between the hands was (1) a copper bowl, Type 35, d. 0·11 m., U. 10163; lying across the last was a copper pin of Type 1 with a ball head of glazed frit having copper caps, 0·30 m. long, U. 10165; at the waist, obviously once attached to a belt, was a copper reticule containing the usual set of toilet instruments, cf. Pl. 159, fig. *b*, U. 10166; also a copper knife, Type 7, U. 10167; a lapis-lazuli cylinder seal, U. 10168, Pl. 204; and a flake of grey obsidian, triangular in section, with serrated edges, l. 0·03 m.—how it had been attached to the belt could not be seen.

By the feet was (2) a bronze axe of Type A 3, l. 0·14 m., U. 10173; in front of the face was (3) a vase of white calcite, Type 92, ht. 0·245 m., U. 10162; in the corner of the coffin (4) a clay vessel of Type 108; by the legs was (5) a copper bowl of Type 35, ht. 0·06 m., U. 10170; behind the body (6), (7), two examples of the clay vessel Type 108. Outside the coffin, at its foot, were two more clay vessels, one (8) of Type 174, ht. 0·41 m., the other (9) of Type 108, drab clay, ht. 0·23 m.

PG/867.

A simple shaft grave lined with matting at the bottom of which the body, wrapped in matting, lay on its left side with the head to the north-west. On the head there were two hair-rings of spirally coiled gold wire, U. 10767; round the neck a double string of beads, gold double conoids, minute gold rings, carnelian barrels and lapis rings, U. 10762; on the hand two copper finger-rings and round the right wrist a silver bracelet, much broken, a second silver bracelet to which was attached a lapis-lazuli cylinder seal (U. 10766, Pl. 206), and by it an oval (?) silver ring with another cylinder seal attached to it (U. 10766, Pl. 204).

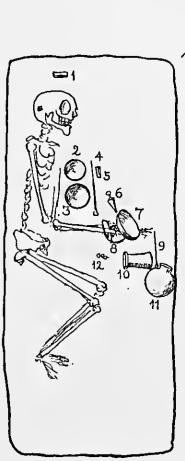


Fig. 37. PG/867. $\frac{1}{25}$.

Above the head (1) was a lapis-lazuli cylinder seal with silver caps, U. 10765, Pl. 205; in front of the breast lay (2) the remains of a hemispherical copper bowl (Type 4) and a second similar (3); (4) was a copper pin of Type 1 with a metal knob head; (5) was a cylinder seal of dark steatite, U. 10764, Pl. 203; (6) was a copper reticule containing the usual toilet instruments, U. 10771; (7) a copper bowl of Type 7; (8) a copper bowl apparently of Type 4, much decayed; (9) was a second copper pin of Type 1, broken; (10) a white calcite vase of Type 3, U. 10768; (11) a vase, Type 44, of reddish drab clay; (12) a set of three cockle-shells containing black paint.

PG/895.

An ordinary shaft grave, rectangular, the bottom lined with matting on which the body was laid apparently on its right side, but the bones, although undisturbed, were so far decayed that their position was not easy to determine.

At the neck were two strings of beads, one, U. 10705 A, steatite diamonds and carnelian barrels and double conoids, the other, U. 10705 B, minute lapis-lazuli and carnelian ring beads strung in groups of four and six. Behind the head were two cockle-shells containing paint and by these a white calcite vase, Type 78, ht. 0·115 m., U. 10711: at the waist a copper pin, Type 1, with knob head; by it, a shell cylinder seal, U. 10708, Pl. 198; a second copper pin of Type 1, but with its point downwards instead of upwards, and a copper pin of Type 7, U. 10710; a copper bowl, Type 4, in very bad condition. These were all normal offerings or ornaments; but two points of real interest marked the grave off from the general run. Down the front of the body, on the line of the breast-bone from the bottom of the neck to the waist, there was a row of flattened discoid beads a centimetre in diameter, eight of frit once glazed (originally blue? but now bleached white) and seven of dark steatite, lying flat and in single file practically touching each other. These cannot be beads in the ordinary sense of the word; they must have been sewn on as buttons down the front of the dress, either for use as buttons or as ornament, and in

either case seem to bear witness to a fashion in costume of which we have little knowledge. Ten shell rings found in the grave, but not in position, may have been trimmings of a belt, cf. PG/1237, Body No. 12, p. 117; *v.* p. 239.

At the back of the head there was the terra-cotta figurine, U. 10747, Pl. 187. It lay close to the skull and at the same level, and thus it would be difficult to maintain that it does not belong to the grave, but the curious thing is that it is only a fragment, and in an undisturbed grave a broken fragment seems out of keeping. Just by the figurine there was a large clay offering-table, U. 10748, with the usual decoration of combed work and cross-hatching on its stem; but though this was in many fragments the fragments were all there, whereas the terra-cotta figurine is an isolated piece; on the other hand, as it does preserve a complete figure it might have been considered by its owner an object of some value and so have been deposited in the grave. It is the only instance in the whole cemetery of a definitely religious figurine being placed with the dead. Dr. Legrain (in the *Museum Journal*, Philadelphia, for September–December, 1929, p. 223) pointed out that the figurine in question is broken off from the rim of a vase to which it had formed a handle, and that it belongs to the series of 'granny' vases found at Kish (cf. Mackay, *The 'A' Cemetery at Kish*, Pls. IX, X); that type of vase seems to be a local type peculiar to Kish and it has no real parallel at Ur (though cf. Legrain, loc. cit.), so that this isolated and fragmentary instance may well have been an imported example and therefore would possess a certain value even though it was broken. As a point of contact between the Kish cemetery and the Ur graves it is interesting.

PG/955.

A high-lying grave, only a metre below the modern surface, but this because of denudation. A trench grave lined with matting, unimportant in its contents but peculiar because of its small size. The trench measured only 1·10 m. by 0·45 m. and the body was in consequence much more constricted than usual; it lay virtually on its back with the head turned to the right and the arms crossed over the chest; the legs were doubled up as tightly as possible, and it looked as if the body had been laid in the grave with its knees in the air, and these had only fallen to one side later when decay set in.

FIG. 38. PG/955. $\frac{1}{25}$.

At the head end of the grave, in the west corner and a little above the skull, was a red clay pot of Type 193, ht. 0·15 m.; set into the mouth of it was a cup of Type 7 of greenish-drab clay, roughly made and with very thick walls; in the crook of the knees was a plain red saucer of Type 5, d. 0·19 m. A very small and shapeless scrap of copper was the only other object in the grave.

PG/1068. (*Pl. 58*)

THE GRAVE OF THE LITTLE PRINCESS. The grave was a small one. The long sides of the shaft had been lined at the bottom with plano-convex

mud bricks which formed a substitute for a wooden coffin; the space left between them was 1·25 m. long and 0·50 m. wide; nothing was found to show the nature of the roof, but probably it had been of wood. The grave was lined with matting and in it was the body of a quite small child lying in the usual attitude with the head to the north-west.

In the corner at the foot of the grave were (1), (2), two copper bowls of Type 7, decayed; inside (1) was another similar and two small bowls of Type 4; beyond them were (3) a limestone bowl, U. 11543, of Type 96; (4) a calcite goblet, U. 11544, of Type 99, and (5) a steatite bowl, U. 11545, of Type 51. On the top of the body lay a steatite bowl (6), U. 11546, of Type 50, and inside it (7) a little gold pot, U. 11551, of Type 16, Pl. 165; beyond the head of the child was (8) a third steatite bowl, U. 11549, of Type 50, and in the north corner of the grave (9) a calcite vase, U. 11547, of Type 60, and (10) another of Type 86, U. 11548. By the head was a group of metal vessels, (11) being a silver bowl of Type 7 with tubular handle-lugs of electrum, U. 11550, inside which was a smaller bowl of the same type while a third lay alongside (12); (13) was a silver tumbler of Type 42; the interesting feature was that while the stone and copper vessels were of normal size the gold pot and the silver bowls and tumbler were all miniature, the proper table-utensils of a little child. And the same was true of the jewellery she wore. By the shoulder there were (14), (15) two gold pins with lapis heads, of Type 1, less than half the usual length, U. 11552–3; by them was (16) a lapis-lazuli cylinder seal, U. 11554, Pl. 198. On the head there were three wreaths; over the forehead came one of minute gold 'beech-leaves' strung on a double chain of lapis ball beads, U. 11557; below this but higher up on the head was a wreath of very small gold ring pendants strung on a triple chain of lapis and carnelian beads, U. 11558; higher up still was a wreath of lapis, gold, and carnelian pear-shaped pendants strung on a manifold band of minute beads held in order by gold bar spacers, U. 11559. A necklace of very large gold and lapis double conoid beads (U. 11562) was normal, as were the other beads (U. 11562); these were very numerous, gold and carnelian tubular, gold and lapis double conoid, fluted lapis balls, &c., and all lay horizontally across the upper part of the body, practically touching each other, sometimes in distinguishable strings, sometimes confused, forming such a close-set mass as to give the appearance of a beaded garment rather than of a series of necklaces. At the waist were beads in order which had clearly been a girdle—sets of three gold date-shaped beads soldered together, carnelian cylinders and carnelian and lapis and white shell balls (U. 11560), probably sewn on to a cloth basis

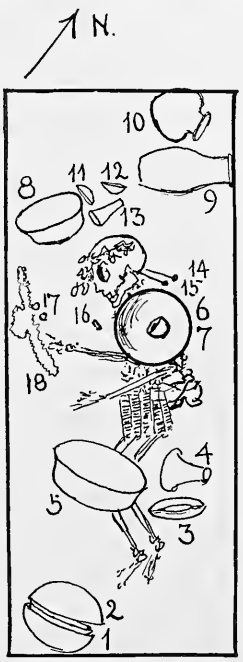


Fig. 39. PG/1068. $\frac{2}{25}$.

and making a girdle 0·055 m. wide. Two gold spirally coiled hair-rings of the normal size and type lay apart from the skull at (17) (U. 11555), and on one hand was a gold finger-ring, U. 11556. Near the side of the grave and quite clear of the body was (18) a very long string of plain carnelian ring beads, U. 11561.

PG/1069. (*Pl. 58*)

PG/1069 is a good example of the typical middle-class grave. There was no coffin, the body being wrapped in matting and laid at the bottom of the earth shaft, which lay with its axis north-west by south-east, and measured 2·00 m. by 1·20 m. The body lay on its right side with the head to the north-west.

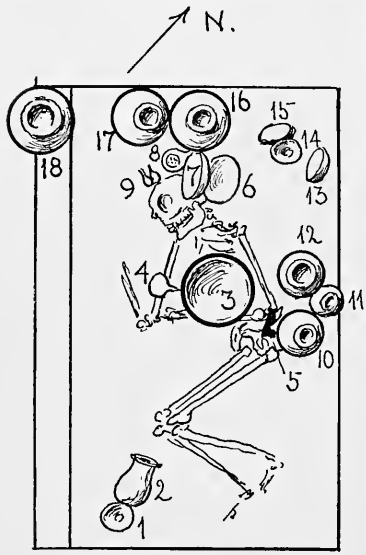


FIG. 40. PG/1069. $\frac{1}{25}$.

At the foot of the grave were (1) a clay saucer of Type 5; (2) a calcite vase, U. 11541, of Type 60; on the top of the body was (3) a grey steatite bowl, fragmentary, U. 11542, of Type 43, and by it (4) a copper mirror (?), cf. Pl. 230, fig. *j*; against the back of the pelvis, obviously once slung from a belt, was a bronze axe of Type A 3, U. 11538 (5); by the head was a group of two copper bowls (6) and (7), one of Type 4, the other of Type 7, and a copper strainer (8), of Type 96, broken; (9) a pair of copper razors, U. 11539. A number of pots were set round the sides of the shaft, behind the body and above the head; (10) and (12) were drab clay examples of Type 174, ht. 0·19 m., and (11) of Type 108, ht. 0·22 m.; (13), (14), (15) were clay saucers of Type 5, (16), (17), (18) were all examples in drab clay of Type 174. Between these and the two razors was an object with a slender copper shaft like a drill and a mushroom-shaped shell head, d. 0·013 m., of uncertain use.

PG/1100. (*Pl. 59*)

The first indication of the grave was given by the discovery of a hole in the ground due to the decay of a wooden upright; more of these were found, holes not all of one size but varying in diameter from 0·05 m. to 0·10 m., which by their arrangement outlined a rectangle 1·40 m. by 0·70 m.; this was the real size of the coffin to which the uprights belonged, but as the stays at the foot end had collapsed inwards the apparent length as first measured by us was only 1·10 m. Below the level at which the holes first showed the area enclosed by them was filled with a mass of plano-convex mud bricks. Evidently the stays had supported a wooden roof over which the bricks had been laid, either flat or in the form of a relieving arch; in either case they had

given way and had sunk down into the coffin, but in so doing had jammed together before they reached the bottom, so that in spite of infiltered earth there was still an empty space between them and the coffin floor. When the brickwork was removed the impression of the sides of the coffin and of the uprights was very distinct in the soil (*v.* Pl. 59*b*).

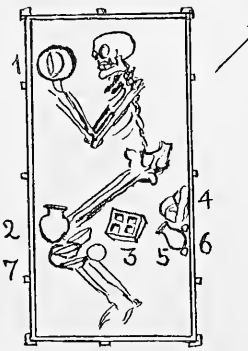


Fig. 41. PG/1100. $\frac{1}{25}$.

The body, of which the bones were in very bad condition, lay on its right side with the head to the north-west. At the neck were beads, U. 11585, balls and slender tubes of gold, lapis, and carnelian, one of the last having a bleached design; on the head was a single gold ear-ring, U. 11584, Pl. 138, unique in design; by the hands (1) was a white calcite bowl, Type 24, U. 11589; inside this fragments of a copper bowl of Type 4, and of some other unrecognizable copper object; at (2) was a calcite vase, U. 11588, of Type 91; (3) a calcite box, U. 11586, with four compartments; (4) a mass of decayed copper consisting of two flat dishes of Type 20 and a bowl of Type 4; (5) a white calcite vase of Type 90, U. 11587; (6) cockle-shell containing black paint; (7) a number of plain clay saucers of Type 4 and two cups of Type 5.

PG/1130. (*Pl. 60*)

The grave lay just outside the south-west wall of the royal tomb PG/1054. The shaft measured 2·40 m. by 1·40 m. and in it was a wooden coffin, the sides formed of planks kept together by three upright staves, which was 2·20 m. long and about 0·75 m. wide, but one of its sides had been too much destroyed for the measurement to be exact. It lay north-west by south-east. The body lay on its right side with the head north-west. Between the side of the coffin and the north-east side of the shaft there were numerous offerings.

On the broken skull was an elaborate head-dress. A broad fillet of plain gold ran across the front of the head, U. 11771, and immediately below it was a wreath of gold ring pendants strung on a double chain of short lapis-lazuli cylinders and carnelian rings, U. 11770; apparently on the top of this was a bandeau composed of short cylindrical beads of gold and silver (made of very thin metal over a core, and the silver beads now completely decayed) sewed together to form a strip of three tiers of gold and silver beads alternately, and against this were fastened small and rather roughly modelled figures of reclining bulls made of gold foil over a bitumen core, fruit made of large balls of blue-glazed frit capped with gold (also in very bad condition), and bunches of three gold leaves with a cluster of pomegranate fruit, two gold and one silver; a reconstruction of a part of this bandeau (U. 11776) is shown on Pl. 142; the glazed fruit and the silver is a modern reproduction of the decayed original.

At the neck was a 'dog-collar' of gold and lapis triangles, U. 11769, a

string of very small gold and lapis double conoid beads and another of larger double conoids of gold, lapis, and silver, apparently strung in sets of three of a sort, U. 11780, and a third string of ribbed balls of gold, lapis, and silver. Two copper pins of Type 1 with lapis heads fastened the dress (U. 11771–2), and used either as a clasp on the dress or as a pendant hanging from the necklaces was a disk of silver filigree in very bad condition resembling U. 8734 shown on Pl. 219. In front of the body lay two lapis cylinder seals, U. 11773–4, Pls. 194–5. By each ear were two gold spirally coiled wire ear-rings, U. 11767, on one finger a broad filigree gold ring and another of twisted gold wire (U. 11768, cf. Pl. 138); at the waist there were a number of silver rings and flat ring-shaped lapis 'buttons' which probably decorated the belt (U. 11778) and a string of rectangular beads, alternately gold and lapis, together with a few carnelian rings (U. 11779), which may have been a bracelet or cuff; at least they did not seem to be connected with the 'buttons', but the order was not clear. Besides these personal ornaments there were in the coffin (1) a limestone bowl, U. 11789, of Type 14, which lay on the body and had presumably been held in the hands in the usual way and, in the west corner of the coffin, a clay pot of Type 108 (2) and a group of metal vessels; of these (3) was a copper bowl, U. 11793, of Type 4, (4) a copper strainer and a mass of copper bowls, all in hopeless condition, and one silver bowl, U. 11794, of Type 4 and (5) a set of two copper and one silver bowls, the former all decayed, the latter, U. 11792, of Type 3. At the foot of the coffin were (6) a white calcite bowl, U. 11790, of Type 14, (7) a clay pot of Type 174, ht. 0·38 m., broken, this in the east corner.

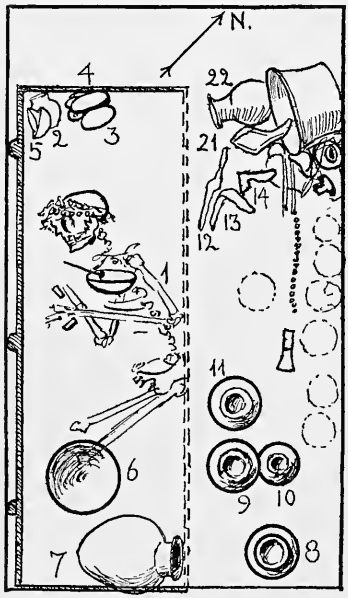


FIG. 42. PG/1130. $\frac{1}{25}$.

Against the outside of the coffin were (8) another clay pot of Type 174 in fragments and (9, 10, 11) three examples of the clay pot, Type 100, all broken, and beyond them a row of clay pots all in fragments but all apparently of one or other of the two Types 174 and 100. (12) and (13) were gold frontlets, U. 11771 and U. 11772; (14) a bronze axe, U. 11777; (15, 16, 17, 18) were four calcite vases, U. 11784–7, and with them the remains of a fifth, completely perished; (19) was a copper offering-table in hopeless condition apparently of Type 101; (20) a copper pan, U. 11788, of Type 23; (21) a copper lamp and (22) a vase of which the body was an ostrich-shell to which had been attached a clay foot and a clay mouth having a flat rim

decorated with incrustation in red paste and mother of pearl, U. 11782. With these objects were the remains of a harp of the type of that found in the tomb of Shub-ad. The instrument lay partly underneath the stone pots and mass of crushed copper, and had itself been terribly crushed, but enough remained to show its character. The sounding-box had been of wood with a border of mosaic, red limestone and lapis squares and shell triangles, which had run along the top edge of the box and had perhaps outlined the whole of it, but the mosaic was too much broken up for more than the top band on each side to be recognizable, and there it could be followed only for a length of about 0·60 m., which may or may not have been the original length of the box;

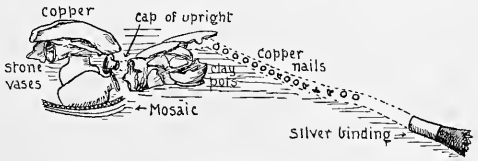


Fig. 43.

its width was not more than 5 centimetres, judging by the position of the mosaic bands. There was no animal's head at the end of the box, and no set of engraved shell plaques. The lower end of the wooden upright had round it a binding of sheet silver 0·10 m. wide; it had a diameter of about 0·045 m. and was continued by a 'shoe' of bitumen which broadened out exactly as did the bitumen shoe of Shub-ad's harp. At 0·14 m. above the silver binding was a copper nail with a large circular head, the first of a row of fifteen which were set at regular intervals of 0·03 m.; the mushroom-shaped silver cap of the upright was found beyond the last of the nails and gave a total length of 0·97 m. for the upright, measuring from the top of the silver binding. I cannot understand the lowest nails being so close to the shoe, for they would seem not to give sufficient length to the strings, but they cannot be out of place by more than a centimetre or so, but perhaps the shoe rose higher in this harp than in Shub-ad's. Incomplete as it is, the instrument is not unimportant, because Shub-ad's harp was otherwise unique and its restoration might have been considered doubtful, whereas we have now grounds for saying that it was an example of a regular type. The accompanying sketch, done in the field, shows the relative position of what was found.

PG/1133.

At the bottom of the shaft was a small wooden coffin measuring only 1·00 m. by 0·50 m.; in it were the bones of a very young child, apparently lying on its right side with the head to the south-west; the bones were in a very rotten condition and the position could be given only approximately.

On the head was the remarkable ornament, U. 11806–7, figured on Pl. 133, and with it, perhaps belonging to it, but its place could not be ascertained, a small pendant of gold filigree, Pl. 138, U. 11806. Also on the head were three gold ear-rings, U. 11810. Close to the head there lay on the floor of the coffin

(2) four *brîms*, the normal man's head-dress, consisting of gold chains and large beads, cf. Pl. 146; they were not being worn and must be regarded as offerings. Against the side of the coffin was (3) a sceptre of wood overlaid with gold and mosaic, U. 11824, cf. Pl. 153; by it (4) were two copper imitations of cockle-shells (U. 11823). At (5) was a limestone bowl, U. 11817, of Type 25; (6) was a bowl, Type 15, U. 11819; (7) was a silver bowl of Type 4, U. 11822; (8) a mass of copper and silver bowls all decayed and corroded together, and by them, below the silver bowl (7), were two copper vessels of unrecognizable form. These were all the objects in the coffin. In the shaft outside there were numerous clay and stone vases. (9) and (10) were clay saucers of Type 5, (11) a copper bowl, hopelessly decayed, in which was (12) a calcite tumbler, U. 11811, of Type 12; (13) was a similar tumbler of green calcite, U. 11812; (14) a calcite bowl, round which were remains of three or four clay saucers; (15) a clay pot of Type 148, broken; (16) a calcite bowl, U. 11818, of Type 16; (17) fragments of a copper bowl; (18) a clay pot of Type 150, together with at least three more broken examples of the same type; (19) a clay saucer; (20) a calcite vase, U. 11816, of Type 61; (21) a calcite vase, U. 11813, of Type 61; (22) was a silver bowl of Type 7 with double lugs for a wire handle made of electrum; inside it were remains of a second; (23) was also a silver bowl, U. 11821, of Type 7, distorted; (24) a calcite vase, U. 11834, of Type 61; (25) a calcite bowl, U. 11815, of Type 16; (26) a calcite vase, U. 11820, of Type 79; (27) a spouted clay pot, broken, of Type 209; (28) a calcite vase, U. 11814, of Type 60; (29) a mass of broken clay saucers.

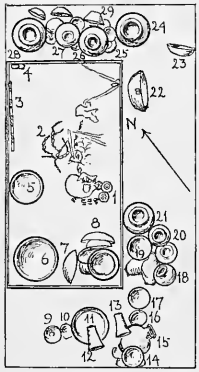


FIG. 44. PG/1133. $\frac{1}{25}$.

This is one of the very few instances in the cemetery of a child's grave being richly furnished.

PG/1151, 1156, 1157. (*Pl. 118*)

At the time of excavation these three graves were given separate numbers, but it was noted that they might well belong together as part of a plundered royal grave. About PG/1157 there is no doubt at all; it is a normal 'death-pit' of the poorer sort; the question is whether the two coffin burials which are within the limits of the shaft belong to it or are later burials dug down into it and therefore in part responsible for the destruction of the original royal tomb. Unfortunately the sides of the shaft could only be recognized and traced *below* the level of the graves PG/1151 and PG/1156; the only hint of material connexion was that three holes caused by the decay of wooden uprights did rise to the level of the coffins immediately above the north corner of the underlying pit, and if the decayed wood had been, as is likely, the shafts of spears set upright in the filling of the death-pit, then the levels overlap; but even so there is no proof. By the holes were four clay pots of Type 101, ht. *c.* 0·35 m., and remains of three or four clay saucers, Type 5.

PG/1151. Lying at 6·00 m. below the modern ground-surface and accurately alined with the sides of the underlying pit PG/1157 was a wooden coffin placed north-east by south-west; it measured 1·65 m. by 0·50 m. In it was a body lying with the head to the south-west. On the head was a *brîm* head-dress consisting of one gold and two carnelian large cylindrical beads separated by small lapis balls—there were no chains, U. 11878; over the breast were traces of thin sheet silver, by the waist was a copper dagger, completely decayed. The other objects in the coffin were a bronze axe, Type A 3, U. 11877; a copper razor, U. 11879; a copper pan, Type 27, much broken; a copper tumbler, Type 42, and strainer, Type 96, both decayed, and a bowl of Type 4, d. 0·12 m., U. 11880; a clay pot of Type 108, and a clay saucer, Type 5, both of drab clay. Just beyond the head of the coffin was another skull together with broken clay vessels belonging to a separate burial which presumably had been disturbed when the grave PG/1151 was dug—an argument against the connexion between PG/1151 and the death-pit.

Immediately against the foot of the coffin and at 0·80 m. above its floor there were noticed two holes running down into the soil; they were rectangular and measured 0·05 m. by 0·03 m. and 0·04 m. by 0·03 m. respectively, and were 0·85 m. apart; they went down 0·80 m. at an angle so as to approach one another gradually; it was then found that at the top they were connected by a horizontal hole, round in section and 0·03 m. in diameter, slightly curved but continuous. Wooden sticks and wires were inserted into the holes, care being taken not to dislodge the loose earth, and very liquid plaster of Paris was poured in round them so as to make a reinforced cast of whatever might have been there; then the soil was cleared away to a vertical face and there emerged the complete lyre shown on Pl. 118, with the copper head of a heifer and a shell plaque attached to the plaster sounding-box. Two pieces of wood which stood against the lyre but did not belong to it had been moulded in plaster at the same time (one of them is seen in the photograph) and had to be removed; when this was done there were distinctly visible the ten strings of the instrument, the first 0·07 m. away from the back upright, the last 0·20 m. from the front, the strings being about 0·015 m. apart. The yellowish-white dust to which they had been reduced was fibrous in texture and resembled gut, but there was no means of determining its nature; the strings were duly photographed, but in a very short time the air currents had removed all trace of them.

At 2·50 m. away from the lyre to the south-west an accident led to another curious discovery. As the workmen dug down they had left standing an isolated column of earth supporting a survey-pole which I had been anxious not to disturb; since the column, only about 0·75 m. in diameter, was now much more than a man's height and was becoming dangerous I gave orders for it to be removed. The foreman undercut it and then pushed it over, the earth breaking away on a natural line of fissure, and he at once called me to see what had been found. On the sloping top of the column stump there was an admirable cast of an elaborately carved wooden object, one panel of which was decorated with a row of human figures in very low relief; nothing could have

been clearer or more perishable; and at that moment there descended on us a storm of rain. The measured drawings, which were all that I could make, show only part of what I originally saw, for in a few minutes the whole picture had been washed away; it is difficult to say exactly what the object was (*v.* p. 383 and Pl. 222 *a–d*), but it is the only example of real wood-carving that we found.

PG/1156. Parallel with PG/1151 and at virtually the same level (its depth from the modern surface was 6·20 m.) was a coffin made of matting spread over a wooden frame; the body lay with its head to the south-west. On the head were two ear-rings each made of a spiral coil of gold wire suspended from a similar coil of copper wire, U. 11854; at the neck were two strings of beads, one of lapis-lazuli and gold double conoids strung apparently in sets of five or ten of a sort, the other of barrels and date-shaped beads of lapis, carnelian, and gold, wherein sets of three or four carnelians were separated by two gold and two lapis beads arranged alternately, U. 11855; on the breast were traces of silver, its shape unrecognizable. Other offerings were a calcite vase, Type 60, U. 11859; a calcite vase, Type 3, U. 11860; a limestone vase, Type 69, U. 11858; a vase of grey stone, Type 71, U. 11857; two copper bowls of Type 4, d. 0·11 m.; a wooden box 0·55 m. square and 0·23 m. high, inside which were cockle-shells containing paint; at the head of the grave three clay pots of which one was of Type 71, ht. 0·26 m., the others too fragmentary to type.

PG/1157. Below the coffins the shaft was recognizable and was filled with a mass of plano-convex mud bricks, not laid but tumbled in; then came a layer of pottery vessels, all in fragments, amongst which the Types 108, 143, and 5 were at least predominant if they were not the only types represented. The pottery layer rested on a layer of matting spread over the shaft. At a depth of 9·20 m. below the modern surface and therefore 3·00 m. below the two coffins which stand in such doubtful relation to the death-pit came the floor of the shaft with the bodies lying thick upon it; it measured *c.* 5·00 m. by 3·25 m. and contained fifty-eight bodies. Many of the dead had absolutely no objects with them, and all were very poor; with Body (3) were found a cylinder seal of white shell, hopelessly decayed, and a whetstone; Body (11) silver wire hair-ring, a string of lapis cylindrical and silver date-shaped beads; Body (13) silver wire hair-ring, necklace of faceted lapis cylinders, Body (14) silver wire hair-ring, small lapis date-shaped beads, a copper pin of Type 7; Body (15) silver wire hair-ring, lapis double conoid beads; Body (16) string of very small lapis ball beads; Body (17) very large faceted date-shaped lapis beads; Body (18) silver wire hair-ring, lapis double conoid beads; Body (19) shell cylinder seal, decayed, two cockle-shells containing paint, lapis and silver cylindrical and date-shaped beads; Body (20) silver wire hair-ring, lapis cylindrical beads; Body (22) silver wire hair-ring, copper pin, shell cylinder seal, decayed; Body (23) silver wire hair-ring, lapis and silver date-shaped beads; Body (44) white limestone bowl and three flint chips; Body (45) copper razor and copper axe, decayed; Body (48) copper lamp, Type 115; Body (50) a copper knife.

In one place a fire had been kindled on the floor of the death-pit; five other fires occurred in the lower part of the filling of the shaft, two at 0·40 m. above the floor, two at 0·60 m., and one at 1·00 m.; these open hearths were not on proper mud floors but on the surface of the filling as it then was.

The death-pit is so poor that the two graves PG/1151 and PG/1156, which are by no means rich, scarcely seem unfit to rank as the principal burials attached to it; but it is more probable that the real royal tomb attached to PG/1157 has disappeared altogether and that the two coffins in the upper part of the shaft are intrusive.

PG/1234. (*Pl. 61*)

At a depth of 7·80 m. below the modern surface was a coffin of wicker-work measuring 1·30 m. by 0·45 m. In it was a body lying on its left side with the head to the south-west, the knees so tightly doubled that the heels came against the pelvis.

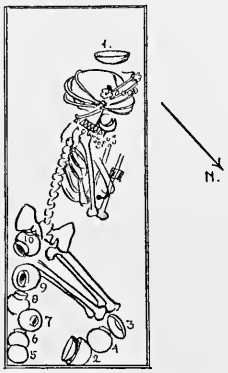


Fig. 45. PG/1234. $\frac{1}{25}$.

On the head was a wreath of gold 'beech'-leaves hung on a double string of lapis and carnelian beads, cf. Pl. 135, U. 12049; a gold hair-ribbon wound round the head and over the crown, five strands crossing above the forehead, U. 12042; remains of a silver 'comb' with rosette finials having inlaid petals, cf. Pl. 136; perhaps belonging to this, but perhaps attached to the wreath, were two gold flower rosettes; in the ears a pair of very large lunate gold earrings, cf. Pl. 138, U. 12043; at the neck a 'dog-collar' of gold and lapis triangles, U. 12048; also a necklace of lapis-lazuli ball beads with some silver and gold and some very small carnelian rings, U. 12047; round the right wrist a bracelet of small beads, lapis, gold, and carnelian, two rows of a colour together, six beads deep, U. 12046; in the crook of the arms two silver pins of Type 7, one with gold and lapis head, the other plain, U. 12045. Above the head was (1) a shallow white limestone bowl, Type 27, much decayed; by the knees (2) a copper bowl of Type 4, d. 0·12 m., inside which a limestone bowl, and inside that again a second; (3) was another shallow limestone bowl: all these stone bowls were so decayed that their type was uncertain and they could not be preserved. Nos. (4) to (10) were all small clay vases of Type 223, of drab clay and alike except for slight variations of size, the average height being 0·125 m.

PG/1247.

At a depth of 5·70 m. from the modern surface was a wooden coffin measuring 1·20 m. by 0·55 m. placed at the bottom of a shaft 2·00 m. long by a little more than half a metre wide. In the coffin was a body lying on its right side with the head to the north-west. On the head were two hair-rings, spiral coils of silver wire, and at the neck a string of very long gold, lapis, and carnelian cylinder beads strung with small lapis balls between them,

U. 12111; also in the coffin were (1) a bronze adze, U. 12102; (2) a copper knife; (3) a copper bowl, Type 4, d. 0·08 m.; (4) a copper bowl of Type 7, badly broken; (5) a copper pan, Type 23, in fragments; (6) a copper strainer, Type 96; (7) a copper cauldron, Type 51, broken; (8) a grey steatite bowl, Type 42, U. 12110; (9) a clay saucer, Type 5; (10) a clay pot too fragmentary to type. Outside the coffin, at its foot, were (11), (12), two clay pots in fragments, type unrecognizable; at the head of the coffin in the space of rather more than half a metre between the head-board and the end of the pit there had been placed (13), (14), two spear-heads of Type 1, U. 12103, 12106; (15), (16), two arrow-heads of Type 1, U. 12105; (17) a copper harpoon, Type 4, U. 12104; (18) a copper bowl of Type 7, in bad condition; (19) a clay pot, type unrecognizable.

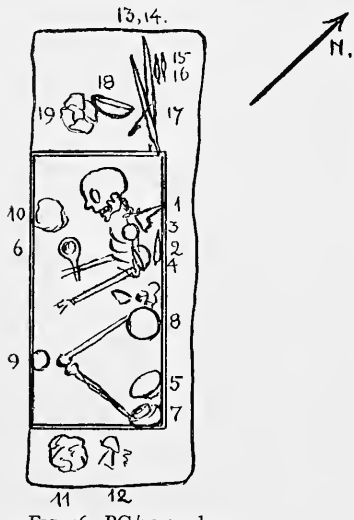


Fig. 46. PG/1247. $\frac{1}{25}$.

PG/1266.

The grave consisted of a simple rectangular shaft lined with matting and measuring 1·60 m. by 0·60 m.; it lay north-west by south-east, and at the south-east end there was a slight depression as if for offerings, but it contained only one object. The unusual feature of the grave was that in it there were three bodies side by side; this seems to be a case not of human sacrifice but of the simultaneous interment of three persons who had died at the same time, presumably members of one family. The bodies lay with their heads to the north-west and owing to the constriction of the space were but slightly flexed.

Fig. 47. PG/1266. $\frac{1}{25}$.

The body in the middle was the richest; on the forehead was a broad fillet of plain gold with dotted border, U. 12126, and by the side of the head two spiral gold wire hair-rings, U. 12133; round the neck was a two-rank necklace of gold, lapis-lazuli, and carnelian beads, U. 12127, and on the left hand a gold filigree finger-ring, U. 12134, Pl. 138. Just below the knees were a quantity of shell rings, U. 12137. By the head of the left-hand body were two pins of Type 1, one of silver and one of copper, with lapis-lazuli heads, U. 12128. The other body had no personal ornaments.

In the north corner of the grave there lay (1) a copper bowl of Type 4, diam. 0·09 m., U. 12131; (2) a second copper bowl, probably similar but completely smashed; (3) a copper cockle-shell for cosmetics, U. 12136; (4) a white calcite vase, U. 12132, of Type 85; (5) two copper razors, U. 12130;

(6) a bowl of dark steatite, Type 39, the outside decorated with a cable pattern the hollows of which were apparently filled in with red pigment, U. 12129; (7) a copper pan of Type 26, ht. 0·175 m., very badly crushed; (8) a lamp of white calcite on the outside of which is carved the figure of a bearded bull in high relief, U. 12135, cf. Pl. 182. A copper dagger, U. 12178, was also in the grave, but it was not certain to which body it belonged.

PG/1312.

This is one of the very few graves (cf. PG/755, the grave of Mes-kalam-dug) in which female ornaments are placed with a male body.

The grave-shaft measured 2·25 m. by 1·70 m.; its depth below the modern surface was 7·60 m. Against the south-west side of the shaft was placed a wooden coffin, 1·75 m. by 0·70 m., in which was a body lying on its left side with the head to the north-west. The grave was unplundered. For all objects see Catalogue, No. U. 12256.

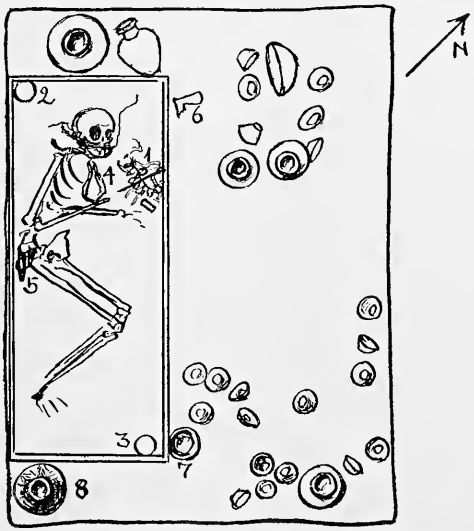


Fig. 48. PG/1312. $\frac{1}{25}$.

On the head, but not fastened round it, was an oval gold frontlet decorated with a chased rosette and with long wires for attachment; it had slipped down so that the gold oval lay across the chin. Also slipped out of position and lying across the lower jaw was a *brîm* head-dress consisting of two lengths of gold chain with two large lapis and one gold faceted date-shaped beads separated by carnelian rings; with these was a single hair-ring of spirally coiled gold wire. Of these ornaments the first can be worn by either sex but is more common with men, the second is exclusively male, and the hair-rings are worn by both men and women. But in front of the body, just clear of the hands and obviously not worn on the body but lying with it in the grave, was a heap of objects, two of which at least were definitely feminine in type; these were (1) a wreath of gold 'beech'-leaves suspended from a double chain of lapis and carnelian beads, cf. Pl. 135; a quantity of narrow silver ribbon which must have been a hair-ribbon of the familiar type; a silver pin of Type 1, with lapis ball head; two gold wire spirally coiled hair-rings; a quantity of beads in lapis, carnelian, and gold (the last mostly plated, thin metal over copper cores, in bad condition); a cylinder seal of lapis lazuli, Pl. 194. In the west corner of the coffin were (2) remains of an ostrich-shell painted red; in the east corner (3) a white calcite vase, Type 61; in front of the body (4) a

copper lamp of Type 115, badly broken; behind the hip (5) a copper knife, in very bad condition, and a whetstone, both of which had been suspended from the belt. Outside the coffin and against its side was (6) a bronze axe of Type A 4; at the foot of the coffin (7) a white calcite bowl, Type 19; (8) a clay offering-table. The floor of the shaft was littered with clay vessels, mostly in fragments, the bulk of which were saucers of Type 5, some pots of Type 108, and two of Type 102.

PG/1315.

The grave contained a wooden coffin measuring 1·90 m. by 0·60 m. and lying north-west by south-east. The body was on its right side with its head to the north-west. On the head was the full regalia of a court lady, consisting of a gold hair-ribbon, a wreath of gold leaf pendants hanging from a double rank of lapis-lazuli and carnelian beads, a silver 'comb' with three flower finials, the petals of which were inlaid with white and blue and red, two spiral gold wire hair-rings, a pair of large lunate gold ear-rings, and a number of necklaces including the normal 'dog-collar' of lapis-lazuli and gold triangles, a necklace of two ranks of gold and carnelian date-shaped beads, one of small lapis date-shaped beads and carnelian rings, agate date-shaped beads and gold fluted balls, from which hung gold filigree pendants, one of small gold date-shaped beads with pendants of silver filigree, one of four ranks of small lapis and gold balls, glazed rings and small gold wire-wound beads (*v.* Pl. 134). By the left ear was a single large rhomboid of lapis-lazuli. On each wrist was a bracelet or cuff of flat square gold beads and small lapis squares, on the fingers five gold rings. Over the breast were two pins of Type 3, (1) of silver with a lapis head, (2) of silver with a head of lapis capped with gold; (3) was a lapis-lazuli cylinder seal, U. 12258, Pl. 194; (4) were cockle-shells containing green paint; (5) was a copper bowl of Type 7, completely decayed; (6) a vase of white calcite, Type 90; (7) a white calcite bowl of Type 36; (8) another white calcite bowl, perhaps Type 36; (9) a broken clay pot of Type 61. All the objects from the grave are catalogued under the number U. 12258.

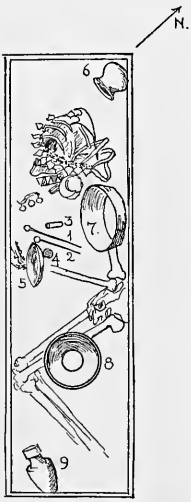


Fig. 49. PG/1315. $\frac{1}{25}$.

PG/1374.

The grave was a simple rectangular shaft measuring 1·40 m. by 0·50 m. and lying north-west by south-east; the bottom of it was lined with matting, and on this lay the body, on its left side, with the head to the north-west; it had been wrapped in matting.

On the head there were two hair-rings of spirally coiled gold wire, U. 12645; round the neck a necklace (U. 12646) formed of silver spacer-beads made of seven parallel horizontal tubes soldered together with carnelian rings and lapis cylinder beads between them; a second necklace (U. 12647) of small

gold and lapis long double conoids; by the feet was a copper pin of Type 1 with gold-capped lapis ball head, U. 12650; on the arm a silver wire bracelet to which was attached a silver wire coiled ring and a lapis cylinder seal, U. 12657–8, *v.* Pl. 192; in front of the face was a copper pin of Type 1 with lapis head and with it a lapis cylinder seal, U. 12654, Pl. 198.

Above the head (1) was a bronze axe, U. 12644, of Type A 3; by the hands (2) was a white calcite bowl, d. 0·20 m., U. 12648, broken; at (3) were fragments of a bone comb, U. 12652; in the corner of the grave (4) was a white calcite vase of Type 6, U. 12649; by it (5) a copper pan of Type 23 crushed and distorted; at (6) were three copper bowls and a strainer, all corroded together, U. 12651.

At each end of the grave proper there was a recess at a slightly different level in which were placed offerings. At the head of the grave were four examples of clay vessels of Type 100, one of which had incised on its shoulder the mark ⋀, (7–10), and (11) one of Type 129 with an incised mark ++. At the foot of the grave was a copper cauldron of Type 46, much crushed, and with it fragments of several vessels of Type 108 in red or drab clay and of eight or ten clay saucers of Type 5.

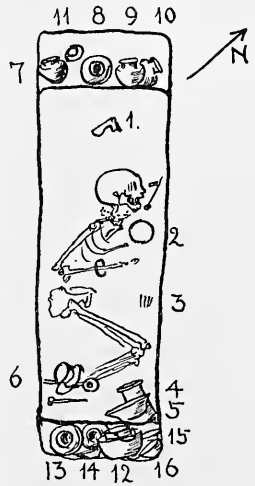


Fig. 50. PG/1374. $\frac{1}{25}$.

It should be remarked that the grave shaft was cut down into the stratum of heavy clay, apparently a floor, which stretched behind the brick-built offering-table above PG/1237; it was an intrusive grave definitely later in date than that death-pit, for the clay level, the offering-table, and the death-pit are contemporary.

PG/1400.

The grave was a simple rectangular pit lined with matting at the bottom measuring 1·40 m. by 0·50 m. and lying north-west by south-east. The body, wrapped in matting, lay on its right side with the head to the north-west, a space of nearly half a metre intervening between the skull and the north-west end of the pit. An unusual feature was that round the neck there was a torque of plain silver, a penannular ring with a diameter of 0·105 m.; like the rest of the personal ornaments from the grave it is catalogued under the number U. 12701. Also round the neck were two necklaces of beads, one a string of large date-shaped beads of gold and lapis-lazuli from which hung a small gold amulet in the shape of a frog, the other composed of three tiers of small ball beads of gold, lapis, and carnelian arranged in sets of three; in the ears were very small gold lunate ear-rings; on each wrist a plain silver bracelet, and attached by the corrosion of the metal to the bracelet on the left arm was a slender lapis-lazuli cylinder seal; on one hand was a small

silver finger-ring, plain; by the hand was a second lapis-lazuli cylinder seal, and across the chest lay a copper pin of Type 1 with a gold-capped lapis ball head. On the crushed bones of the skull there was a purple discoloration resulting from the decay of silver, and probably this was in the form of an oval frontlet worn across the forehead in the fashion usual at this period.

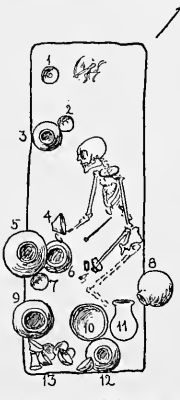


FIG. 51. PG/1400. $\frac{1}{25}$.

In the open space at the head end of the pit there lay (1) a clay saucer of Type 5 and by it a number of broken bones and teeth of a sheep or goat; at (2) was a second clay saucer and at (3) a (broken) clay pot of Type 108. (4) was a copper bowl of Type 4, crushed and decayed, which evidently had been held in the hands of the dead woman. Nos. (5) and (6) were drab clay pots of Type 108, (7) another saucer, (8) and (9) further examples of Type 108, (10) a white calcite bowl of Type 60 and (11) a white calcite vase of Type 20, both catalogued under U. 12701, (12) another clay pot of Type 108, and in the corner of the pit (13) eight more clay saucers.

The grave was undisturbed, and is quite typical of the fairly well-to-do grave of the period; the prevalent use of silver for personal ornaments is characteristic, and so is the repetition of a limited number of types of clay vessels. The animal bones did not seem to represent a complete beast such as would imply a sacrifice in the grave but rather a collection of joints prepared for food; judging by the analogy of other graves in which clay saucers and dishes are found containing one or two bones obviously from a portion of cooked meat, this also might be the piled remains of a funeral feast.

PG/1407.

The pit was of unusual size, measuring 3·60 m. by 1·30 m., lying north-west by south-east; it had been lined with matting. The body, lying on its left side with the head to the north-west, occupied the middle of the floor space with a clear area of 0·80 m. between the skull and the pit's end and below the feet a slightly sunken compartment which was filled with clay offering-pots. Round and above the body there were traces of matting which I interpreted as a wrapping, but there may have been a mat coffin crushed and almost completely decayed.

On the head were the remains of a *brîm* head-dress of a simple sort, two very slender cylindrical beads of carnelian and one of lapis-lazuli, which, since there were no metal chains, must have been completed by cords, and two hair-rings of spirally coiled silver wire; on the hands, which clasped a copper bowl (1) crushed but apparently of the oval type 7, were several plain silver finger-rings and, apparently, a bracelet made of carnelian ring beads. Under the copper bowl was (2) a bronze axe-head of Type A 2. In front of the body and clearly slung from a belt there were (3) the remains of a dagger with bronze or copper blade and silver hilt, and by it (4) a copper pin

of Type 1 with lapis-lazuli ball head against which lay a cylinder seal, much decayed, of red limestone, and a second cylinder seal of lapis hung on a silver wire loop. Close to these was (5) a straight-sided copper tumbler of Type 44, resting on a copper strainer of Type 96; (6) and (7) a set of three copper bowls of Type 4; all these copper objects were in very bad condition. A large copper pan, ht. 0·15 m. and diam. 0·30 m., lay (8) below the knees. Just in front of the forehead (9) was a straight-sided bowl of white calcite, Type 15, inside which was a copper lamp (10); behind the head was (11) a white calcite vase of Type 86, and beyond the head (12) a copper cauldron of Type 77, about 0·15 m. high. Besides these metal and stone objects there was a great number of clay vessels, all of two types, the jar Type 108 and the saucer Type 5; in the north corner of the pit there were two examples of the former and seven of the latter, at least nine saucers lined the north-east side of the pit, and in the sunken compartment at the south-east end there were innumerable fragments from which it was possible to recognize thirteen examples of Type 108 and a score or so of Type 5, U. 12707.

Fig. 52. PG/1407. $\frac{1}{50}$.

Against the south-east wall of the pit there were two small holdfasts of bent copper; it is probable that these were used to fasten together the ends of the strips of matting with which the sides of the pit were lined.

PG/1417.

The grave had been plundered in antiquity and there were left in it only a few clay pots of no intrinsic importance, but the original arrangement had been unusual and interesting.

The shaft was nearly square, measuring 2·05 m. by 1·45 m., and was very neatly cut; it had been dug down partly into the mud-brick base on which rested the 'date-press' offering-table attached to the death-pit PG/1237, and it was therefore later in date than that death-pit; the floor on which the body lay was 1·90 m. below the bitumen-covered floor of the offering-table.

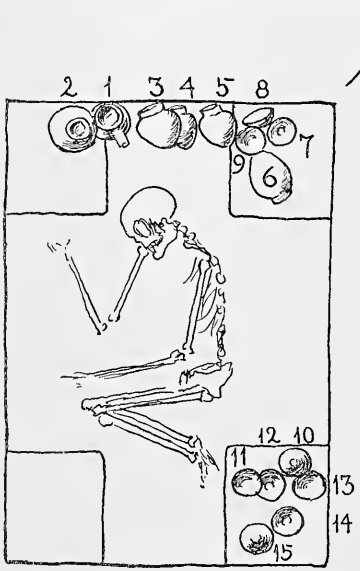


Fig. 53. PG/1417. $\frac{1}{25}$.

The body, of which the bones were relatively undisturbed, occupied the

middle of the pit, and in each corner there had been cut a rectangular hollow 0·20 m.–0·30 m. deep and about 0·50 m. square; these recall the holes which surround the coffin-depression in the chambers of PG/1236 and may have served the same purpose, but in this case three out of the four holes contained clay pots; but it is impossible to say whether the pots are in their original positions or were flung into the holes by the tomb robbers. Other pots were ranged along the north-west side of the pit above the head of the corpse.

Of the pots, (1) was of Type 209, (2), (3), and (4) of Type 108, (5) and (6) of Type 141, and the remainder, (7) to (15), of Type 5, the usual saucer of drab clay.

PG/1524.

The grave was very hard to follow and to understand. The shaft was rectangular, measuring 2·00 m. by about 2·50 m., and seemed to be approached by a *dromos* which entered it at the north corner, this being 0·80 m. wide. The whole shaft at the level at which it was first detected (3·40 m. from the modern surface) was covered by a platform consisting of two courses of mud bricks resting on a layer of unshaped lumps of stiff clay; on the south-west this was contained by a definite wall of which four courses remained, two courses laid herring-bone fashion over two horizontal courses, the brick-work again resting on two courses of large unshaped clay lumps; the bricks were slightly plano-convex and of two dimensions, one sort measuring 0·18 m. by 0·09 m. by 0·075 m. and the other 0·18 m. by 0·15 m. by 0·05 m.; the clay lumps were of varying sizes, but averaged about 0·20 m. by 0·165 m. by 0·12 m. The wall seemed to have run on originally considerably beyond the limits of the grave-shaft.

Below the 'platform', which was probably the top stratum of the filling of the shaft, there was soft soil. The north-west face of the shaft was covered with a smooth lime plaster of the same type as is found in the stone-built royal tomb chambers, and this again had been covered with matting of which the imprint was left on the plaster. The south-west face had been covered with a wooden panelling of which also the imprint was clear; the panels, starting from the west corner, measured in width 1·50 m., 1·00 m., 0·70 m., and 0·35 m. respectively—though it is likely that the apparently wide panels were really made up of planks about 0·35 m. in width, the divisions between which can no longer be distinguished. Of the remaining two faces of the shaft the south-east wall had been covered with matting; the north-east face could not be certainly recognized, and the limits of the pit in this direction could only be approximately fixed by cutting into the stratified rubbish of the pre-cemetery mounds.

At 0·70 m. below the top of the 'platform' there was a mud floor covered with reed matting; on this lay two bodies, A and B, and a number of offerings; these had been protected by a layer of mats spread over them; above this layer came the soft earth filling, below it was fairly hard soil mixed with rubbish.

With the body A there were no offerings, but just behind it (1) was a light

drab clay vase, Type 81, ht. 0·22 m., and broken fragments of other clay vessels. The body B had behind it (2) a bronze axe-head of Type A 3, U. 14068; the wooden handle had left its impress in the soil and had been 0·40 m. long. By the axe was a calcite cylinder seal completely decayed and corroded together, (3) a copper bowl, Type 7, l. 0·024 m., d. 0·11 m., and a copper colander, Type 88, d. 0·13 m., U. 14069, A and B, a second colander and a copper bowl, Type 4, d. 0·085 m.; at the neck were a few lapis-lazuli double conoid beads, U. 14073. The skull of the body rested in a steatite bowl of Type 50, U. 14071 (4).

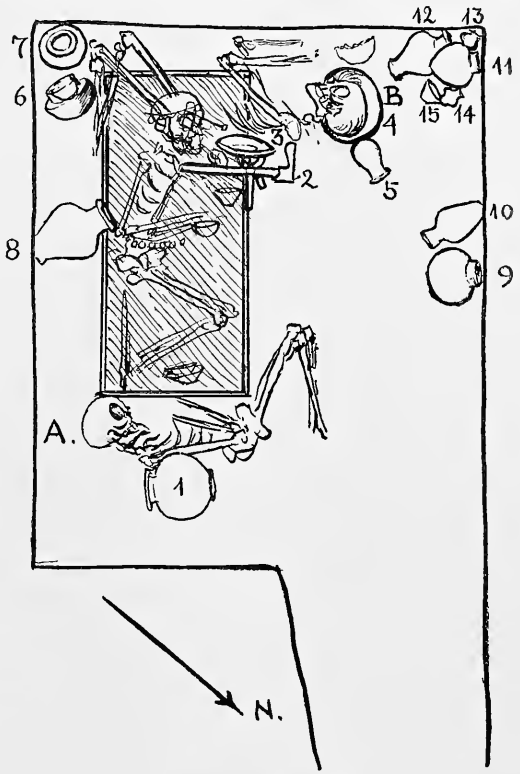


Fig. 54. PG/1524. $\frac{1}{25}$.

The other objects found on this floor were (5) a white calcite vase of Type 89, U. 14072; (6) a copper bucket, Type 50, ht. 0·18 m.; (7) a light drab clay pot of Type 81; (8) clay vase, Type 150, against which was part of a sheep's jaw; (9) drab clay vase, Type 108; (10) clay vase, Type 67, ht. 0·32 m.; (11) greenish-drab clay vase, Type 108, ht. 0·20 m.; (12) clay vase, Type 150, fragmentary; (13), (14), miniature vases of light drab clay, Type 136, ht. *c.* 0·09 m.; (15) cup of reddish-drab clay, Type 5, ht. 0·07 m. High up in the filling and just below the upper layer of mats was a snake's head roughly modelled in clay, baked, broken off at the neck, U. 14067: it probably does not belong to the grave but is accidentally present in the filling.

At a point 3·00 m. below the top of the brick 'platform' was a burial in a wooden coffin. Unfortunately it was impossible to trace the sides of the shaft down to this level with any degree of certainty, nor was there anything in the soil intervening between the burials on the mud floor already described and this coffin burial to prove that connexion between the two which seems to be implied by the position of the coffin in relation to the plan of the shaft as given by the upper levels and its precise agreement with the orientation of the shaft sides.

In the coffin was the body of a young girl lying in the normal attitude on

the left side with the head to the south-west. Across her forehead was a single band of silver ribbon, 1 cm. wide, and above this a double string of carnelian rings and lapis-lazuli cylindrical beads from which hung silver ring pendants (cf. Pl. 129); round the waist was a string of silver ring beads from which hung silver ring pendants like those on the head; the analogy for this is the row of gold rings attached to the fringe of the beaded cloak (?) of Queen Shub-ad, and it is probable that in this case also the silver rings were the trimming of a cloak. By the head was a silver pin of Type 1, plain; in front of the head were three small plain limestone bowls, Type 19, and one with a nicked rim, Type 17; by the feet were two clay cups of Type 5 and a bronze spear-head, Type 1, l. 0·45 m.

The wooden coffin burial, which was undisturbed, does not appear to be rich enough to make it the principal burial to which the upper shaft with the (disturbed) burials A and B was subordinate; I should be more inclined to suppose that there had been on the floor of the shaft, between the burials A and B, a principal body which had been completely removed together with its belongings by the robbers who disturbed the two remaining bodies, and that the coffin burial is wholly independent of the shaft.

CHAPTER VII

DETAILED DESCRIPTION OF SECOND DYNASTY GRAVES

PG/643.

The grave had been plundered, probably when PG/641 was dug, cutting down almost to the ground-level of the older grave; it is, however, of interest as illustrating the Second Dynasty type of grave-shaft.

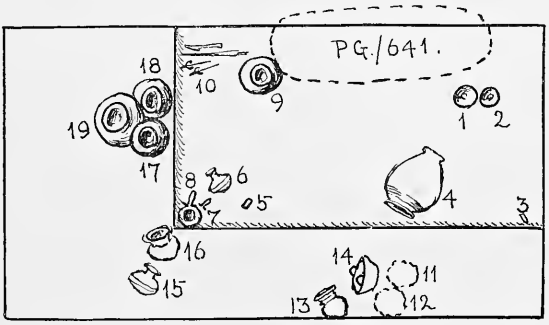


FIG. 55. PG/643. $\frac{1}{50}$.

The main shaft measured 4·40 m. by 2·70 m.; at the bottom of it in one corner was a secondary pit 0·50 m. deep and measuring 3·00 m. by 1·70 m.; this was lined with matting and was the grave proper. Judging from the size of the grave-pit there must have been a coffin, but of this no actual traces were found, but in the soil there were numerous holes, some vertical and some slanting, which probably represented the framework of a wickerwork coffin; there was no sign of the wood, and the holes ran in all directions (as would be natural if they resulted from a coffin which had been broken up by the tomb robbers), but the explanation of them given is probably correct. At about 0·30 m. above the floor of the grave, close to the coffin remains, there were two copper holdfasts, U. 9574, Pl. 226, and a third in the south corner of the subsidiary pit; they may have belonged to the coffin or have been used to fasten together the mats with which the pit was lined. Low down in the filling of the shaft there was found an inscribed clay tablet in very bad condition; it may of course have belonged to the grave, but more probably did not. Also in the filling were animal bones including part of the skull of a sheep.

Of the objects remaining, (1) and (2) were clay saucers of Type 4, (3) a decayed shell cylinder seal, U. 9568, (4) a clay pot of Type 199, ht. 0·38 m., (5) a large shell cylinder seal, U. 9567, Pl. 213, (6) a light drab clay pot of Type 50 with a haematite wash over the surface, (7) a drab clay pot of Type 156, ht. 0·29 m., (8) two copper holdfasts, perhaps used to fasten together the

mats of the wall-lining in the corner of the pit, and (9) two clay saucers of Type 4. At (10) was a group of weapons consisting of a copper harpoon, Type 4, U. 9571, a copper arrow-head of Type 8, l. 0·077 m., U. 9572, and two of Type 2, U. 9573.

On the bottom of the main shaft, which formed a ledge along two sides of the grave-pit, were (11), (12) two clay pots too broken to be typed, (13) a clay pot of Type 44, (14) a copper pan with loop handles, U. 9570, in bad condition, (15) a clay pot of whitish drab ware, Type 50, (16) a clay pot of Type 44, (17) a clay pot of Type 76, ht. 0·32 m., and (18), (19), clay pots of Type 58, both of drab ware and 0·32 m. high.

PG/735.

The shaft contained a coffin of wickerwork measuring 1·70 m. by 0·60 m. which lay north-west by south-east; the body inside, resting on its left side, had its head to the north-west.

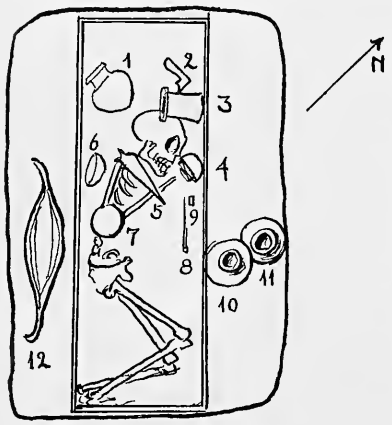


Fig. 56. PG/735. $\frac{1}{25}$.

On the skull was a single silver ear-ring of the small lunate type; at the neck a string of very small ring beads of silver, lapis-lazuli, and white paste; on one finger a copper ring. The objects other than these personal ornaments placed with the body were (1) a clay vase of Type 46, red ware with haematite wash; (2) a cast bronze axe, Type A 3, U. 9926; (3) a white calcite spill-vase, Type 5, ht. 0·11 m., U. 9924; (4) a copper situla, Type 39, ht. 0·08 m., U. 9929; (5) a copper knife-blade, l. 0·20 m., Type 7, U. 9927; (6) a saucer of drab clay, Type 5, d. 0·15 m.; (7) fragments of a clay pot of light drab ware, type doubtful; (8) copper pin, Type 1, with tang for a bead head which was missing, l. 0·255 m., U. 9929; (9) black steatite cylinder seal, U. 9923, Pl. 206; a copper ring and a small square fastener of bent copper wire were also in the grave and may have belonged to the coffin. Outside the coffin were two clay vessels, (10) Type 197, ht. 0·40 m., light reddish clay, and (11) Type 76, ht. 0·35 m., drab clay. On the other side of the coffin, between it and the earth-cut side of the grave-shaft, was a bitumen model of a boat 0·50 m. long; it lay 0·30 m. above the floor of the coffin, i.e. on the level of its lid, and was apparently put in after some of the earth had already been put back into the shaft.

PG/871.

A simple inhumation grave lying at 6·70 m. below the modern surface. The body was on its left side in the usual slightly flexed attitude with the head north-east.

Across the forehead was an oval diadem of thin gold with a border of repoussé dots, U. 10754, and over the top of this lay a narrow gold ribbon coiled into a spiral which reached from ear to ear (U. 10755); it had evidently been twisted round a lock of hair which passed horizontally across the front of the head. In each ear was an ear-ring consisting of two gold lunate-ended rings of different sizes linked together, cf. Pl. 219, U. 10758. Round the neck were three necklaces, the uppermost of minute barrel beads, alternately gold and lapis-lazuli, the second of larger beads, double conoids of gold and carnelian, the third also of double conoids in gold, lapis, and carnelian, U. 10753. Two gold bracelets, plain hoops of metal, U. 10756, were apparently worn one on each arm. Just above the shoulder there lay a silver pin of Type 1, with plain ball head, and against the centre of it a carnelian cylinder seal with gold caps, U. 10757, Pl. 211, which judging from its position had been attached to the pin by a string and had with it formed a toggle for fastening the cloak.

At the foot of the grave were a number of offerings. A copper cauldron of Type 49, 0·41 m. in diameter, was fixed by corrosion to a spouted copper vessel of Type 98, d. 0·32 m. (U. 10759, 10760); a copper bucket, Type 46, U. 10761, d. 0·19 m., two copper bowls of Type 4, U. 10773–4, formed a group over which had been laid three bone combs (cf. Pl. 219), U. 10775, all in very bad condition, and fragments of wood inlay, U. 10700, *v.* p. 386. A bowl of reddish-drab clay, Type 21, ht. 0·05 m., d. 0·12 m., and a vase of reddish-drab clay, Type 45, ht. 0·23 m., completed the furniture inside the grave, but a little way above the burial, in the filling of the shaft, was found the fine white calcite lamp decorated with a figure of a human-headed bull carved in relief, U. 10746, Pl. 182*a*. It is of course possible that the presence of such an object here was accidental, i.e. that it was in the soil which was excavated to make the grave and put back again to fill the shaft after the interment, in which case it would be older than the grave; but judging by its style it should not be much older, and it is not likely that a fairly valuable and unbroken object would have been thrown away: there were no traces of any earlier grave, disturbed by the diggers of PG/871, from which it might have come, nor was there any later grave in the immediate neighbourhood to which it could be assigned; it seems to have been an offering flung into the grave-shaft while that was being filled with earth—a practice of which we have several instances, and in that case it must be attributed to the Second Dynasty, a date with which its style is fully consistent.

PG/1420.

The pit measured about 2·00 m. by 1·00 m. and lay north-east by south-west. A wooden coffin measuring 1·60 m. by 0·70 m. was so placed in it as to leave a free space of some 0·30 m. at the south-east end for the reception of offerings.

Inside the coffin was the body lying on its right side with the head to the south-west. On the head there was a single hair-ring of spirally coiled silver wire, and by the neck but probably slipped from the forehead where it may

have been the ornament of an otherwise simple cord fastening the head-cloth (but this is merely a suggestion which does not admit of proof) were two silver and two carnelian long and slender date-shaped beads; a copper pin of Type 1 with carnelian ball head was by the shoulder, and at the waist, just below the left wrist, lay a copper reticule, U. 12719, and a lapis-lazuli cylinder seal, U. 12720, Pl. 196.

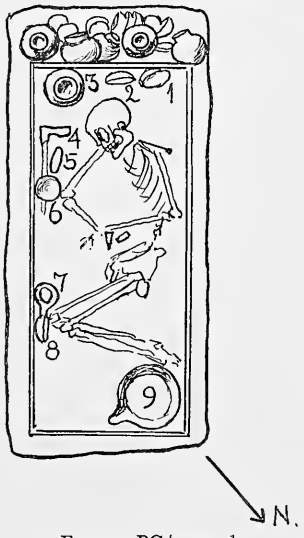


Fig. 57. PG/1420. $\frac{1}{25}$.

Apart from these personal ornaments there were in the coffin (1), (2), two saucers of drab clay, Type 5; (3) a white calcite spill-vase, Type 6, U. 12724; (4) a bronze axe-head of Type A 1, U. 12716, of which the wooden handle, unusually well preserved, had a total length of 0·40 m.; (5) a copper bowl of Type 7, U. 12723, l. 0·21 m.; (6) a bowl of dark steatite, Type 41, U. 12717; (7) a copper strainer, U. 12723, and (8) a copper bowl, much crushed; (9) a copper pan of Type 22, ht. 0·12 m., diam. 0·32 m., U. 12718.

In the space between the head of the coffin and the end of the pit there were closely packed ten saucers of plain drab clay (Type 5) and six examples of Type 108 also of drab ware.

PG/1422. (*Pl. 78*)

The positive depth of this grave, 9·50 m. below the present surface, is deceptive in that rubbish containing light-coloured bricks apparently of Third Dynasty type were here found at a depth of six metres, and the bottom of the shaft (which could be traced only below this level) was probably only about 3·50 m. below the contemporary ground-surface.

The bottom of the pit was lined with plano-convex mud bricks which had been concealed by a further lining of mats; so far as could be made out, the weave of the matting was unusual and produced a rectangular panel pattern. At the bottom of the pit, but not quite filling it, was a wooden coffin measuring 1·90 m. by 0·80 m. and 0·65 m. deep. The coffin lid was gabled, made of two planks of which one, 0·28 m. wide, was remarkably well preserved—that is, the impression and colour of it left in the soil was remarkably clear, *v.* Pl. 78*a*; the sides were strengthened with five external stays, 0·06 m. by 0·03 m. thick, one at each corner and the others at intervals of 0·40 m. In the coffin the body lay with its head to the north-west on its right side in the usual slightly flexed attitude; the skull was completely crushed by fallen earth; the body was that of a man.

On the head were six gold fillets, U. 12463, which clearly were all worn at the same time, apparently in tiers overlapping each other. Also on the head was a small lunate gold ear-ring, U. 12468, and slightly below this some twisted gold ribbon, U. 12465, originally wound round a lock of hair, but it

was impossible to say whether the lock had been fastened across the forehead in the fashion favoured by women or had hung down by the ear. In front of the fragments of the skull, mixed with the beads of the necklaces, were two larger gold lunate ear-rings of unusual type, *v.* Pl. 146, and one hair-ring of spirally coiled gold wire, U. 12466–7; the hair-ring was between the ear-rings, as if they had been tied together, and they were nearer to the hands than to the head; they were certainly not worn by the dead man but were offerings deposited in the coffin with him. Round the neck and in front of the fragments of the skull were numerous beads from four necklaces, which could for the most part be re-strung in the original order; a very long string of gold balls, plain and fluted, alternating with large beads of jasper, agate, chalcedony, sard, marble, and carnelian (U. 12474), seems to have gone round the neck two or three times; a string of small rectangular flat beads of banded sard, U. 12475; a string of small gold and carnelian balls, U. 12476; a string of flat diamonds of gold and carnelian with small ball beads of the same materials, U. 12477; some of the beads are illustrated on Pl. 132. With them was a gold amulet (U. 12469) in the form of a standing goat which must have been attached to one of the necklaces; it is a solid casting finished with the chisel, a fine and lively little statue, *v.* Pl. 142.

Fig. 58. PG/1422. $\frac{1}{25}$.

On the right shoulder was a small silver pin, U. 12480, of Type 1, l. 0·135 m., with a silver ring round it; it must have been a toggle fastening the cloak. On the right arm was a plain gold bracelet, U. 12472 A, and on the left arm three gold bracelets (U. 12472 B–D) and two plain silver bracelets, U. 12473; also worn apparently on the left arm was a large cylinder seal of lapis-lazuli with gold caps, U. 12470, Pl. 211. By the hands lay a silver bowl of Type 4, hopelessly decayed, and a silver vase, also much decayed, about 0·10 m. high; against the latter was a plain gold fillet, U. 12464, and a small cylinder seal of lapis-lazuli with gold caps, U. 12471, Pl. 211. By the waist was a copper dagger with gold mount and gold studs, U. 12479, Type 3, a silver axe of remarkable type, clearly a transition form between the bronze castings of the older cemetery and the hammered copper weapons of the Sargonid graves, U. 12478, Type A 8, Pl. 223 and p. 305; a copper axe and chopper, U. 12483–4, lay alongside the body, and with them were other

copper vessels, a much-crushed pan (?) of uncertain form, a vase 0·20 m. high of Type 10, too broken to be kept, a bowl of Type 20, ht. 0·07 m., d. 0·21 m., U. 12486, and a cylindrical box or jar, 0·08 m. high and d. 0·04 m., U. 12482. The last was found inside a wooden box about 0·35 m. square and 0·08 m. high which lay between or under the man's feet; above the box was a strip of thin sheet silver, *c.* 0·05 m. wide and traceable to a length of about 0·40 m. (it was in very bad condition and may have been considerably longer), in which we may perhaps see the remains of a belt, though it was certainly not worn round the waist. Three clay vases, one complete and two in fragments, all of Type 60, made of red clay with the surface washed with haematite and lightly burnished, ht. *c.* 0·19 m., completed the furniture inside the coffin.

On each side of the coffin, between it and the wall of the shaft, there was space which had been utilized for offerings. Against the south-west side was a curious ribbed tray of copper, d. 0·45 m., Type 31, Pl. 234, on which, corroded to it, were copper bowls and vases and a handled open pan ribbed horizontally like the tray, Types 4, 57, 66, 81, Pl. 184; by it was a small copper knife-blade, Type 7, l. 0·135 m., U. 12481, and an arrow-head of Type 3, l. 0·69 m. At the foot of the coffin was a large copper cauldron, Type 49, ht. 0·33 m., d. 0·46 m., U. 12487. At the head of the coffin was a row of clay pots, one, Type 60, of red clay but without the haematite wash which is common with this type, four complete and four broken examples of Type 44, all about 0·20 m. high, of red clay with haematite wash and burnished surface, and two examples of a variant of the same type in which the body is more elongated and egg-shaped so that with the same rim diameter the total height is 0·27 m.; these were of light-drab clay, unburnished. Above the pots, on the level of the lid of the coffin, was a copper arrow-head of the socketed 'poker' Type 3; there was a second a little way off, and a third against the south-west side of the coffin at its western end; along the coffin-head could be traced a number of holes running down into the soil, and at the bottom of each of these was a convex disk of copper with inturned edge which was the butt-end of a spear; some of the spear-heads therefore had disappeared, but originally a whole row of weapons had been planted head upwards at the grave's end, as in the case of Mes-kalam-dug. Against the north corner of the coffin stood a tall clay pot of Type 200 and one of Type 83; round the corner, at the north end of the north-east side, there were the complete skeletons of two sheep (or goats) laid one above the other, head to tail; the bones were in a very bad state. Towards the south end were four clay pots of Type 200, a pot of red clay, Type 44, ht. 0·13 m., and one, broken, of Type 76, of drab clay.

This was the first grave which, on internal evidence, we could confidently assign to a period intermediate between the early cemetery and that of the Sargonid age; *v.* p. 212. Even the Arab workmen recognized that it was in some way unlike any of the 1,400 graves previously dug, and were greatly interested in it. Their interpretation of some of its characteristics is perhaps worth putting on record: the unusual richness of his personal ornaments

meant that he was young as well as wealthy; the number of weapons in the grave and the great size of the spear-heads meant that he was a fighting man and a warrior of note; but when they saw the cauldron at the foot of the coffin, a cauldron very much larger than the norm, they agreed that he was the leader of a band of robbers or else the sheikh of a clan; for only one holding such a position and having numerous followers to feed would require so huge a cooking-pot.

PG/1845. (*Pl. 9*)

The grave, a large rectangular shaft with multiple burials, had been plundered in the time of the Third Dynasty. Starting a little above the (surviving) top of the north-west side of the shaft we encountered a mass of mud bricks, forming a fairly even stratum which sloped sharply down to the south-east (see the photograph on Pl. 9*b*), and at a depth of 2·00 m. below the top of the shaft gave place to a similarly sloping mass of large lumps of bitumen and fragments of burnt bricks; amongst the latter was one bearing the stamp of Bur-Sin. It was quite evident that the plundering took place when there were building operations going on in the neighbourhood, for the sloping stratum was composed entirely of builders' rubbish; the workmen had dug out the middle of the grave, where the richest finds were likely to reward their efforts, and had tipped their waste material back into the hole they had made: such being their method, they had missed a number of subsidiary burials which lay close against the sides of the shaft, but had made a clean sweep of whatever had been in the centre, and they had pushed their investigations so far to the south-east as to dig beyond the limits of the shaft into the soil in which it had been sunk; consequently the south-east side of the shaft we were not able to find.

The shaft measured 5·70 m. by rather more than 11·00 m., its longer axis lying north-west by south-east; the exact length is, as I have stated, uncertain owing to the destruction of the shaft's end. Its depth was 5·20 m., measuring from the floor to the top of the side as at present existing, but allowing for damage and denudation it was originally more like 6·00 m.

The first 'offering-level' was at 2·50 m. below the top of the sides, i.e. 2·70 m. above floor-level.

In the north corner, against the north-west wall, there was (A) a body wrapped in matting lying on its right side with the head south-west; by its side was a plain clay cup of Type 5. Against the south-west side (B) was a second body lying on its right side with the head south-east; there were no objects with it. Farther along the same side, between 7·00 m. and 8·00 m. from the west corner of the shaft, was a third body (C), also wrapped in matting, lying on its right side with the head north-west, and with no accompanying objects, and three metres farther along (D) there was a single skull, at the same level, and on a line with it, two metres away from the shaft side, a group (E) of three skulls and other human bones, tumbled together in confusion. On the other side of the pit, towards the north corner, there lay, also at the same level, three or four long wooden bars (possibly coffin-stays)

below which was a human skull and a pot of light-red clay with creamy slip, Type 50, ht. 0·11 m.; farther to the south-east was a hole in the soil left by the decay of wood. At (F), close to the body C, was a very similar mat-lined grave with the body lying on its right side, the head south-east; by the arm was a copper bowl, too decayed for the type to be fixed, on one arm a plain copper bracelet; a copper chisel, l. 0·24 m., and a copper axe of Type S 14, l. 0·12 m., were with the body, and also, by the feet, a clay saucer of Type 4 and a pot of light-red clay, badly smashed but apparently of Type 196.

The second 'offering-level' was between 3·70 m. and 4·00 m. from the top of the sides, i.e. 1·20 m. to 1·50 m. above the floor of the shaft. At this lower level there ran out from the south-west side of the shaft a screen wall of plano-convex mud brick, 2·15 m. long and about 1·00 m. high and 0·30 m. thick; against its north-west face there were traces of mud-brick paving. This apparently disconnected fragment of wall completely puzzled me at the time, but it evidently is of the same character as the low wall with niche and altar in PG/1847. On this level there was a burial (G) in the north corner of the shaft, the body lying on its left side with the head south-west; there were no objects with it. Against the south-west side (H), at a depth of 3·70 m. (with an earth floor a difference in level of 0·30 m. at different points is to be expected) there was a burial in a wickerwork coffin, the body lying on its left side with the head south-east. With it were a plain clay cup of Type 4, a clay vase of Type 44, light-drab clay with haematite wash, a small copper blade of Type S 16, l. 0·20 m., a copper ring on one finger, and a single faceted crystal bead resting on the right ear.

At the edge of the mud-brick paving on the north-west side of the screen wall but at a level nearly 0·50 m. lower down there was a group of four clay pots, two of Type 76 and one each of Types 44 and 108; at exactly the same level on the south-east side of the screen wall was a group of four clay pots all of Type 32. Probably these stood on an earth floor and the pavement against the screen was raised above that floor, so that the pots and the raised base and screen all belong really to one level or to one stage in the process of filling in the shaft.

The remaining graves were all at one level, resting on the bottom of the grave-shaft, 5·20 m. below the highest part of the sides now standing.

Burial J. Immediately behind the screen wall was a mat-lined burial, the body lying well on its left side, the head to the north-west. Across the forehead was a strip of spirally twisted narrow gold ribbon; in the ears were small lunate ear-rings, each formed of one gold and one silver hoop intertwined; round the neck were beads, a string of rather large agate and carnelian cylinders and one of smaller beads, balls and diamonds of lapis-lazuli, carnelian, and silver. On the hand were three rings, plain hoops of gold wire, and on the left wrist a bracelet of beads, carnelian rings, agate cylinders, and lapis-lazuli double conoids; with these was a cylinder seal of dark steatite, U. 15302, Pl. 211. A copper bowl in very bad condition, two copper pins (fragmentary), four examples of the clay vase Type 76, two in drab and two in light-red clay, all about 0·36 m. high, and two examples in drab clay, apparently of Type

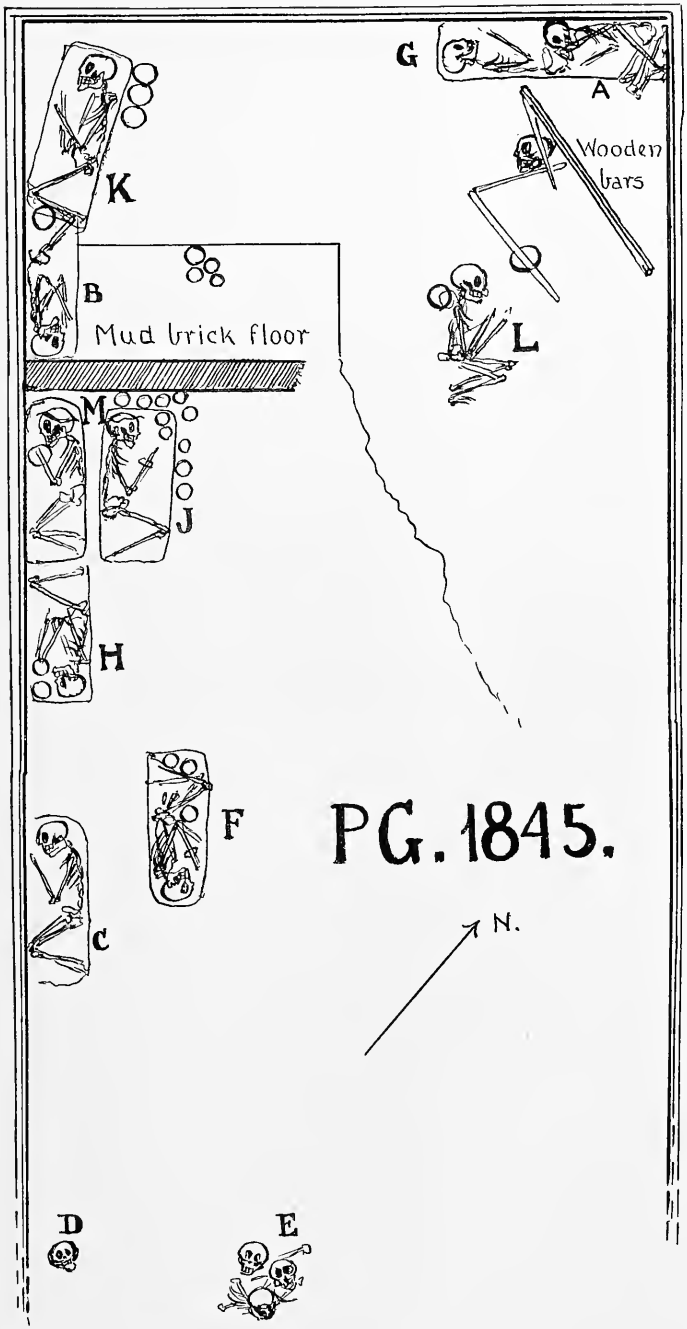


Fig. 59. Scale $\frac{1}{50}$.

171, completed the furniture of the grave. It was noted that the skull rested on a little heap of clean sand laid over the mat lining of the grave; at the present time it is the custom in some villages of northern Syria to put a basketful of clean sand brought from the bed of the Euphrates under the head of the dead man in the grave. (All objects under No. U. 15301.)

Burial K. The body lay either in a mat-lined grave or in a mat coffin on its right side with the head north-west. Across the forehead was a narrow gold ribbon, spirally twisted; round the neck was a string of mixed beads, gold, silver, carnelian, lapis-lazuli, steatite, agate, and haematite, and a second string of very small gold, silver, and lapis balls; on the left hand one gold, one silver, and two copper rings (*v.* U. 15310). By the left shoulder were two copper pins of Type 1, by the hands a copper bowl of Type 4, hopelessly decayed; on the left wrist a bracelet of small lapis and carnelian beads. At the foot of the grave was a large pot of drab clay, Type 200, ht. 0·30 m., and at the head end of the grave and against its north-east side three examples in drab clay of the vase Type 76. Two cylinder seals, U. 15308 and 15309, were found in the grave, but their exact position was not recorded. At the bottom of the shaft and close to the grave but not belonging to it was the head of a terra-cotta figurine moulded in relief.

Burial L. This was that of a child, lying on its left side with the head to the north-west. At the neck were a few beads of gold and lapis-lazuli, U. 15306, on the right arm a copper bracelet; by the body was a copper pin, Type 8, l. 0·12 m., and a cylinder seal, U. 15307, Pl. 211; also a drab clay pot of Type 76.

Burial M. A mat-lined burial, the body lying on its right side with the head north-west. Across the forehead was a gold fillet with oval centre and ribbon ends (cf. Pl. 219, Type 1), U. 15319; round the neck a string of large mixed beads, a lapis-lazuli cylinder, chalcedony date-shaped beads, carnelian balls, long double conoids of lapis and flat agate disks, and one carnelian with a bleached design of a cross, U. 15317; on the left arm a plain silver bangle, much decayed; a steatite cylinder seal, U. 15318, Pl. 211; also in the grave were a copper axe, Type S 6, l. 0·15 m., much decayed; a hemispherical copper bowl in very bad condition, d. 0·10 m.; and a set of four small copper objects, apparently hollow-shafted drills, a copper razor, of which the handle had been bound with gold and silver, and a copper knife of Type 10.

PG/1846.

The grave closely resembled PG/1847, q.v. It consisted of a rectangular shaft, 3·50 m. wide and of uncertain length; the workmen who had plundered PG/1845 had been even more destructive in the case of PG/1846; the upper part of the north-west wall had been dug away and immediately above it came the layer of builders' rubbish which sloped steeply down to the south-east; of the sides of the shaft less and less survived, and the south-east end of the shaft was entirely destroyed and we were unable to determine its limits in this direction. The rubbish was mostly composed of broken mud brick with a smaller admixture of bitumen than was found in

PG/1845; at the lower end of the slope there were fragments of burnt bricks and one of these bore the stamp of Ur-Nammu; the plundering of the two neighbouring graves therefore had, as one would expect, taken place at the same time.

In the north-west part of the shaft the original filling of uniformly clean and soft soil was undisturbed below the level of the sloped rubbish stratum; how small a part this represented of the original grave was shown by the fact that the floor of the shaft, made of trodden clay covered with matting, was only 3·30 m. below the rubbish and the highest standing part of the north-west wall, whereas the original depth must have been between 5 and 6 metres.

At 3·50 m. from the north-west side of the shaft, the face of which had been smoothed with a fine coat of mud plaster, there ran out from the north-east side a screen wall of plano-convex mud bricks which at a point 0·80 m. from the south-west side ended with a short return to the south-east; it was 0·25 m. thick, was preserved to a height of 1·00 m., and its foundations were 0·50 m. above the floor of the shaft; this must be all that is left of the 'niche and altar' screen (cf. PG/1847), and the principal burials ought to have been to the south-east of it, but here the plundering had been complete and the broken brick and rubble came down to floor-level.

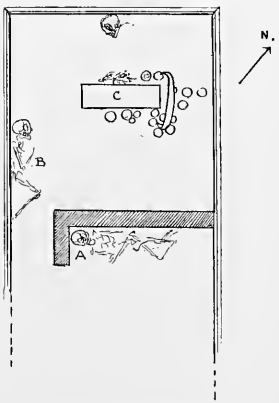


Fig. 60. PG/1846. $\frac{1}{50}$.

At 0·90 m. above floor-level a skull was found against the north-west side of the shaft; this was all that remained of the upper offerings. At floor-level a disturbed skeleton (A) lay in the angle of the screen wall; a second skeleton (B), undisturbed but with no accompanying objects, lay against the south-west side in the square space north-west of the screen, resting on the mat-covered clay floor. Towards the middle of the square a secondary shaft had been dug through the floor to a depth of 1·30 m. and in this was a wooden coffin lying north-east by south-west (C).

Round the head end of the coffin (the north-east end) were a number of clay pots and a bitumen boat, 1·10 m. long by 0·045 m. wide; the pots were of Types 38 (two), 76, 94, 108, 200.

Round the top of the coffin, at the corners and along the sides, there were ten twisted copper rings (U. 15316), each of which had been round a post with one end free to grip round or to be fixed into some other wooden object; they are probably the bands which held the covering-boards of the coffin to the stays of the frame. Against the side of the coffin were the bones of a sheep.

The body lay with its head to the north-east. On the forehead were two plain gold fillets, U. 15311, and in one ear a very small lunate gold ear-ring, U. 15311. At the neck were beads, gold balls alternating with ball, tubular, date-shaped, and barrel beads of carnelian, agate disks and limestone

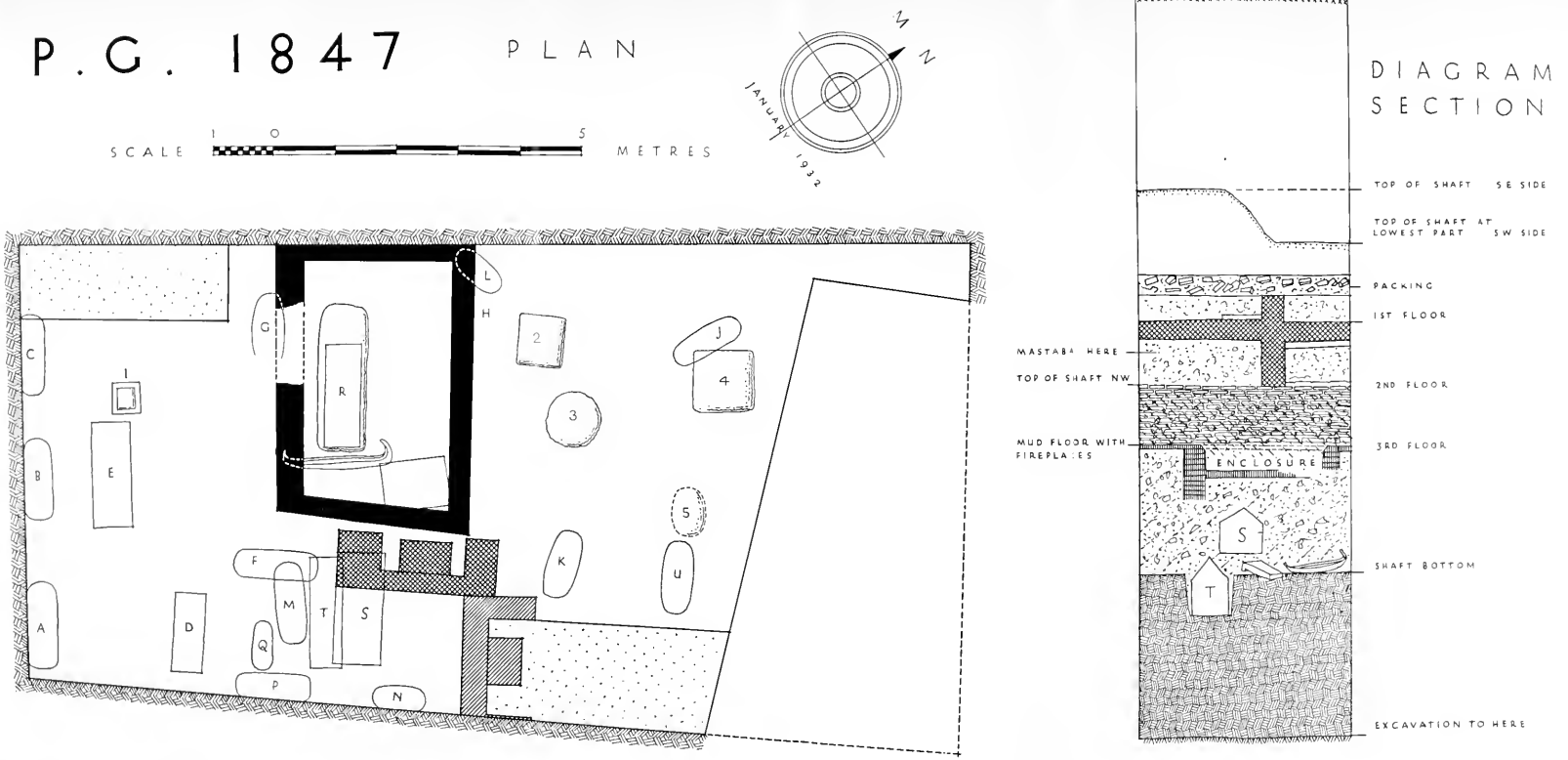
date-shaped, U. 15312. On the arms were two silver bracelets, badly decayed. A copper bowl of Type 11, d. 0·16 m., a copper axe of Type A 11, U. 15314, a two-pronged copper fork, l. 0·19 m., width 0·07 m., U. 15313, Pl. 230, a copper knife, Type 7, l. 0·17 m., a copper vase of Type 69, ht. 0·11 m., one of Type 64, ht. 0·085 m., a bowl too fragmentary to type, and a cauldron, Type 48, d. *c.* 0·20 m., completed the list of metal objects; the clay vessels were twelve examples of Type 76 and a strainer of Type 248.

PG/1847. (*Pls. 82–6*)

Of the series of shaft-graves PG/1845, 1846, 1847, 1849, 1850, 1851 which formed a row in front of the south-west wall of the Third Dynasty mausoleum this was the best preserved and the most instructive. The south-east side of the shaft was first detected at a depth of only 0·40 m. below the top of the offset in the Bur-Sin wall, and even allowing for denudation and perhaps the levelling down of the area in the time of the Third Dynasty it seems probable that this cannot be very different from the original top of the shaft; the footings of the plano-convex mud-brick wall which runs along the edge of PG/1850 and PG/1845 and probably continued along the south-west side of PG/1847 are at very much the same level. The south-west and north-west sides of the shaft had been more damaged and were found only at a rather lower level; the north-east end of the shaft ran under the Bur-Sin building.

The upper filling of the shaft was particularly dirty, mixed soil, ash, and pottery; in so far as it was stratified the strata sloped down from north-west to south-east, but at a very slight depth they became more horizontal. At 1·40 m. from the top of the shaft there was a packing of whole and broken mud bricks which had once extended over the whole shaft but was now broken up on the north-west side and extended only some 4·00 m. from the south-east face. It was in the rubbish which replaced the brick packing along the north-west part of the shaft, at a depth of 2·10 m. from the top of the shaft as preserved, that we found a steatite seal of Mohenjo-daro type and bearing an inscription in the Indus Valley characters, U. 17649, Pl. 211. It is not possible to assert definitely that the seal belongs to the grave; the soil here is admittedly disturbed, and while the seal may have been already in the soil when the disturbance took place, i.e. may have been an offering placed in the filling of the shaft, it may conceivably have been dropped here at the time of the disturbance and so be later in date than the grave. Hundreds of potsherds were collected from the soil in which the seal lay and were examined in the hopes that the rubbish might be dated definitely to one period or the other, but while some pieces were of types which do not seem to occur after the Sargonid age there were others which may be Sargonid but are more characteristic of the Third Dynasty of Ur; the results, therefore, were indecisive, but the probability is in favour of the seal being contemporary with and belonging to the grave.

Below the brick packing, at 1·70 m. from the top of the shaft, there ran out from the south-east side of the shaft a screen wall of mud brick 1·95 m. long


P.G. 1847
PLAN
SCALE 1 0 5 METRES
JANUARY 1932
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1
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DIAGRAM SECTION
EXISTING GROUND LEVEL
TOP OF SHAFT SE SIDE
TOP OF SHAFT AT LOWEST PART SW SIDE
PACKING
1ST FLOOR
MASTABA HERE
TOP OF SHAFT NW
2ND FLOOR
MUD FLOOR WITH FIREPLACES
3RD FLOOR
ENCLOSURE
SHAFT BOTTOM
EXCAVATION TO HERE

FIG. 60*a*

and 0·40 m. high with a return 0·75 m. long to the north-east, and corresponding to this a patch of carefully smoothed mud plaster against the south-east earth-cut face of the shaft's side; consequently there was here a niche or recess facing north-east; in it was a square brick block 0·10 m. high, carefully mud-plastered, resting on a mud-plastered platform; in front of the latter, at a slightly lower level, there stretched a rough floor of mud bricks about 0·30 m. thick. Below this was a mixed packing of dirty soil about 0·70 m. thick and then a fresh floor of mud bricks, some laid horizontally and some on edge leaning against one another. The mud bricks of the upper and lower floors of the screen wall were rectangular, flat, and measured 0·26 m. by 0·16 m. by 0·085 m. The lower floor was preserved over the entire area of the pit and really gave us its limits, for on the north-west side the upper part of the original cutting had been destroyed, or at least was not detected by us, until at a depth of nearly 2·50 m. below the top of the south-east side it was traced by the brickwork laid against it.

The back wall of the niche on the upper floor went down to this lower level and formed the north-east wing of a second niche which faces north-west instead of north-east like the first.[1] The niche wall was 0·60 m. high, its sides, like the floor and the little altar (0·10 m. high), carefully mud-plastered; in front of it stretched the brick packing or floor already described.

On the lower floor was found a circular clay 'school' tablet, U. 17653.

In the rubbish which on the north-west side of the shaft came down virtually to this floor-level there were found, close to the Mohenjo-daro seal, two more 'school' tablets and the shell cylinder seal, U. 17650, Pl. 211.

A patch of wood ash about a metre in diameter lay at 2·80 m. in front of the north-east wing of the niche. Set back 1·60 m. from the frontage line of the niche there was along the south-east wall a sort of bench 2·20 m. long and of about the same height as the screen wall of the niche. Between the south-west wall of the niche (which was only 0·25 m. thick) and the south-east side of the shaft there was a second bench or pedestal made of rubble carefully plastered, standing 0·30 m. above floor-level.

This floor was one metre thick. The surface was fairly smooth, but beneath it the bricks were for the most part merely tumbled in, and only along the north-west side of the shaft were they neatly laid on edge. The bricks rested on a very smooth mud floor. In the brick layer, at about 3·80 m. from the north-west side of the shaft, there were three human bodies lying in the normal slightly flexed attitude with their heads to the south-east; except for one fragmentary clay vase there was nothing with the bodies.

In the surface of the mud floor there were various fireplaces, 1 to 5 on the plan. Of these No. 3 was quite elaborate. A hole had apparently been made in the floor, and round this had been set bricks whereon rested a bitumen-lined basin or pot-base; the bricks were so arranged as to make a good central flue, which was found to be full of soot; below the bricks were quantities of wood ash; the earth round it was heavily burned. Fireplace No. 1 was

[1] Constructionally, of course, the process was the reverse of this; the side wall of the lower niche was carried up by the builders to form the back wall of the upper.

outlined with plano-convex bricks, the others were merely hollows in the floor filled with ash.

Also sunk into this floor, about the middle of the shaft, there was a roughly rectangular enclosure with mud-brick sides and a mud floor, 0·40 m. below the main floor; the sides continued for another 0·40 m. In this enclosure was sooty earth, and with this remains of matting, animal bones and teeth, and charred grain; the enclosure therefore must have been a place of offerings. A crudely modelled clay figurine of an animal, U. 17657, also found here, is of the type of those found in the archaic strata under the Royal Cemetery, but such probably continued to be made well into the historic periods.

All the burials, except for the three already mentioned, lay below the mud floor. Burial A was 1·00 m. above the bottom of the shaft, B was 1·40 m. above it, C 1·30 m., F 0·90 m., and the rest either on or sunk into the bottom. Below burial B was a patch of wood ash 2·40 m. long, at 1·15 m. above the bottom of the shaft, and there was a similar bed of ashes below burial C. In no case was it possible to detect any cutting of the grave down into the filling; it looked as if the graves had been made while the filling was in progress, i.e. the dead was laid out on whatever happened to be the surface at the moment, and then the earth was piled in above him; thus grave F lies right over the top of grave M and must have been set there after grave M was covered up. Certainly the mud floor has not been cut through to make the graves but has been laid down above the graves after they were already in position; similarly the enclosure wall, the foundations of which start some 1·00 m. above the bottom of the shaft and rest on mixed filling, can only have been built after the burials were complete; the burials, therefore, must all have taken place at about the same time, while the filling-in of the shaft was going on.

The most important of the graves, judging from position, was R, which lies virtually in the middle of the enclosure containing remains of sacrifice sunk in the floor above; next to this in importance should be graves S and T, which lie under the niche and altar of the second floor. They are the richest of the graves and must be described in full.

Burial R. In the bottom of the shaft a roughly rectangular depression about 0·60 m. deep had been cut to receive the coffin, and at the south-east end of it and almost at right angles to it a patch of higher ground had been left, and in it a shallow depression (about 0·30 m. deep from the top of the raised rim) had been dug. In the second depression, which was lined with matting, was a bitumen model of a boat 1·55 m. long, 0·35 m. wide amidships, and with a prow 0·50 m. high (the stern was broken away). By this was a red clay pot of Type 198, and under the prow was a second example of the same type and with it a broken clay jar of Type 80; the pots seemed to have slipped off from a 'table' which lay at the north-east end of the depression; the 'table' consisted of a rectangle, 0·95 m. by 0·70 m., made of reeds laid parallel and secured to a wooden frame and covered with a 0·025 m. thick coat of fine greenish clay, very smooth, *v.* Pl. 84*b*; there seemed to have been wooden legs at the corners of the rectangle. In the other depression, which was lined with matting, was the coffin, made of wood; in shape it resembled the coffin of

Burial S. The body lay virtually on its back with the legs nearly straight, the head to the north-west; the attitude seemed to be largely due to the collapse of the body, for whereas the trunk was against the north-east side of the coffin the skull lay in the west corner with the vertebral aperture uppermost.

On the head were three gold fillets, oval, with ribbon ends and a length of narrow gold ribbon which had been twisted round a lock of hair. Two spirally coiled gold hair-rings were found not on the head but on the chest about level with the elbow; it looked as if they had been attached to the ends of two long tresses which fell down in front over the shoulders. At the neck there were two strings of beads, one of very small gold and carnelian balls, one of large mixed beads, big gold balls, agate ovals, disks, date-shaped and cylinders, carnelian cylinders, cat's-eyes, carnelian barrels, marble and lapis date-shaped; one of the agate date-shaped beads had gold caps. On the left arm were four plain bracelets, one of gold, one of silver, and two of copper (all objects catalogued under U. 17813). Behind the head was a copper axe, welded, not cast, Type S 10, l. 0·18 m.; behind the knees (2) were the remains of a large copper vessel, apparently a cauldron, d. *c.* 0·35 m., in very bad condition; in front of the body, perhaps fallen from the hands, was (3) a copper bowl, d. 0·11 m., also much decayed; (4) and (5) were clay vessels, Type 44, of light drab clay, ht. 0·12 m.; at the foot of the coffin there lay in a row three copper vessels all fragmentary, (6) a bowl too far perished for type or measurements to be recognizable, (7) a vase of Type 68, ht. 0·11 m., (8) a situla, Type 50, with two rings on the rim for a suspension handle, ht. 0·13 m.

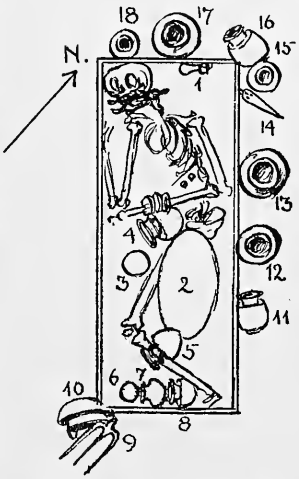


Fig. 61. PG/1847. Burial R. $\frac{1}{25}$.

Outside the coffin, in the mat-lined pit, there were further offerings. At the coffin's foot were (9) a copper trident, l. 0·35 m., width 0·20 m., U. 17926, Pl. 230; and (10) below this a copper cauldron, Type 49, ht. 0·23 m., in very bad condition. At (14) was a copper knife-blade, l. 0·23 m., Type 7; the remaining objects were all clay vases. Nos. (11), (15), (16), and (18) were of Type 76, all in fragments; Nos. (12), (13), (17) were examples in drab clay of Type 80, also all broken, the rim d. *c.* 0·13 m.

Burial S. The coffin, which lay below the second altar-niche, was above the level of the bottom of the shaft and actually overlapped by half its width Burial T, which was 1·00 m. lower down in the soil; the coffin, which was remarkably well preserved, *v.* Pls. 85, 86*a* and p. 137, was of light rods or withies fixed on a wooden frame and measured 1·75 m. by 0·70 m., was 0·75 m. high from floor to ridge-pole, and was further raised on feet 0·08 m. high.

The body, slightly flexed, lay on its right side with the head to the north-west. On the forehead were two gold frontlets, of the same type as those with

Burial R, U. 17816 (all objects under the same number); near the right side of the head was a single gold ear-ring; close to the hands and underneath the copper bowl held between the hands was a pair of gold ear-rings and a length of narrow gold ribbon twisted as if it had been round a long loose lock of hair; this might seem to agree with the position of the gold hair-rings found with Burial R as proving a somewhat different style of hairdressing than is usual in the Sargonid age, i.e. with long tresses hanging down over the shoulders; on the other hand the presence with the ribbon of the two ear-rings, which are certainly not in place as worn and are probably offerings put into the grave with the body but not on it, weakens the first argument. At the neck were three strings of beads, one of gold and carnelian diamonds, one of small gold and carnelian balls and short barrels, and one of larger beads, gold balls, carnelian cylinders and tubular beads, cat's-eyes, agate and steatite date-shaped, &c. A single shell ball bead was found by the pelvis. On one hand was a plain finger-ring of gold wire; close to the hands, probably worn as an amulet hanging on the breast, was a wolf's tooth; by the hands was a copper axe of Type S 11 (variant). The copper bowl, d. 0·14 m., held between the hands, was too perished for its type to be fixed.

Burial T. The body was in a coffin similar to that of Burial S but not so well preserved; it lay almost on its back but with the face turned to the right, the legs almost straight, the head to the north-west.

On the forehead were four gold frontlets of the same type as those in Burial R, and by the head was a length of narrow gold hair-ribbon; also close to the head were a gold finger-ring and two gold ear-rings, but these had been placed separately in the grave with the body and had not been worn by it, for the ear-rings, small lunate-ended coils of normal type, were twisted into the finger-ring. At the neck were three strings of beads, one of gold, lapis, and carnelian diamonds, one of small gold and carnelian balls or date-shaped beads, one of larger beads, gold balls, carnelian tubular and date-shaped, lapis date-shaped and agate barrels. On each arm was a plain silver bracelet; under the right shoulder a plain copper pin of Type 1, by the hip a white shell cylinder seal, U. 17815, Pl. 211 (all the objects catalogued under the same number, U. 17815). By the waist was a copper axe of the same type as that in Burial R (U. 17813), but hopelessly decayed; in front of the breast a copper bowl, Type 4, d. 0·105 m.; near this a copper vase of Type 62, ht. 0·10 m. and above the shoulder and behind the head two clay vessels, respectively Type 44, of reddish-drab clay, ht. 0·135 m., and Type 76, also of reddish-drab clay, ht. 0·24 m.

It will be observed that these three graves while richer than the rest are not so very different from them, and it is only when that rather greater wealth is taken in conjunction with their obviously superior position in the shaft that it becomes a valid argument for assigning the occupants of the three graves to a superior class.

Burial A. The body nearly straight, turned slightly to the left, head north-west, was in a coffin apparently made of several thicknesses of matting fixed over a frame of withies or light wood. The objects (*v.* U. 15305) were

a pair of small gold ear-rings, a necklace of large beads of mixed stones, a bracelet worn on the right wrist of five carnelian, agate, lapis, and steatite beads, a copper axe of Type S 19 and a copper bowl of Type 4, d. 0·14 m., a copper pin of Type 1, and clay pots of Types 44, 50, 76, 97.

Burial B. The body, wrapped in matting, lay with its head north-west; there were no objects with it.

Burial C. A mat-lined burial; the body, normally flexed, on its left side with the head south-east. On the head was one small gold lunate ear-ring, U. 15304, at the neck a string of small beads, gold, carnelian, and lapis balls, diamonds and date-shaped, U. 15304; a lapis cylinder seal, U. 15303, Pl. 211, was by the body, and a copper axe of Type S 16, l. 0·15 m., and a copper vase of Type 69, ht. 0·12 m. There were two examples of the clay vase, Type 76, one in red and one in drab clay, ht. *c.* 0·36 m., and one of Type 50 in red clay, ht. 0·105 m. Apparently connected with the grave but outside it was another example of the clay vase, Type 76, fragments of a vase with a burnished haematite wash over slip, and a copper axe-blade, Type S 6, U. 17802, l. 0·205 m.

Burial D. A mat coffin in which a body lying with head south-east. A copper pin of Type 1 and a finger-ring of two spiral coils of thin copper wire were the only objects with the body.

Burial E. Mat-lined burial, the body slightly flexed, on its right side, the head to the north-west. The objects (*v.* U. 17803) were a single small gold ear-ring of the hollow lunate-ended type, a necklace of very small carnelian balls alternating with fluted balls and double conoids of gold, a second necklace of flat lozenge-shaped beads of lapis and mother-of-pearl, a copper pin, Type 1, two finger-rings made of plain hoops of thin silver wire, four examples in red and drab clay of the vase Type 76 (all badly broken) and one in drab clay of the Type 199, ht. 0·41 m.

Burial F. Mat-lined burial. The objects (*v.* U. 17804) were, on the head a fillet of very thin and narrow gold ribbon, a pair of small lunate gold ear-rings, a necklace of mixed stone beads, rings, double conoids, date-shaped and tubular, in carnelian, sard, agate, haematite, lapis, and silver, a shell cylinder seal, completely decayed, a copper bangle on the right arm, a few beads, carnelian and gold balls, which formed a bracelet on the right wrist, on the right hand two gold finger-rings made of a strip of sheet metal with the edges curved upwards and inwards, on the right shoulder a copper pin of Type 1, a copper bowl, completely decayed, and a clay object like a double spinning whorl.

Burial G. Mat-lined burial; the body almost on its back but turned very slightly so as to look south-west, the legs slightly flexed, head to the north-west. The grave was underneath the mud-brick wall of the sunken enclosure in the third floor. The objects (*v.* U. 17800) were a very thin and narrow gold ribbon fillet worn on the forehead, a necklace of small gold and carnelian ball beads (some of the gold fluted), a plain copper ring on one finger, a copper pin, Type 1, with carnelian ball head, a drab clay pot of Type 198, ht. 0·34 m., and one of Type 76, ht. 0·24 m.

Burial H. The grave lay directly below C, separated from it by only a few centimetres of soil. A mat-lined burial, the body almost on its back but turned slightly to the left, the head south-east. The objects (*v.* U. 17812) were a pair of gold ear-rings, small hollow lunate type, a necklace of carnelian and gold balls, some of the latter fluted, a steatite cylinder seal, Pl. 211, remains of a copper knife and bowl, too decayed to be typed.

Burial J. Mat-lined burial, the body on its right side with the head to the south. At the wrist, square, date-shaped, and ball beads of gold, agate, chalcedony, lapis, crystal, and carnelian, U. 17808; two copper bracelets, clay vessels of Types 21, 161, and one too broken to be typed.

Burial K. Mat-lined burial, the body on its right side with the head to the north-west. The only object was a clay pot of Type 76.

Burial L. Mat-lined burial of a child, the body lying on its right side with the head to the east. The objects were, a copper pin, Type 1, a shell cylinder and a black stone date-shaped bead, a clay pot of Type 76, ht. 0·29 m., and a clay vase of Type 53; the former had been sealed with bitumen.

Burial M. Mat-lined burial, the body lying on its left side with the head to the north-west. The objects (*v.* U. 17807) were, on the forehead an oval frontlet of very thin gold, a length of narrow gold ribbon spirally twisted, two gold ear-rings, of the small hollow lunate type, intertwined so as to be worn as one, a necklace of very small gold and agate tubular beads strung alternately, a necklace of very small gold and carnelian diamonds strung alternately, a necklace of larger beads, cylinders of lapis and agate, a date-shaped crystal and a cat's-eye; two plain silver bracelets on the arms, two plain gold finger-rings on the hand, a copper pin, Type 1, and a copper bowl too crushed and decayed to type.

Burial N. The body of a child, wrapped in matting and lying crouched with its head to the south-west. By the head were four small clay vases of Type 34, all of drab clay, one with a hole in the base, ht. 0·065 m.; a vase of Type 110, pink clay with light drab water-smoothed surface; by the feet a spouted vase of drab clay, Type 209, ht. 0·22 m. Near the foot of the grave were teeth and fragments of the skull of an ox or cow.

Burial P. Mat-lined burial, the body lying on its left side with the head to the south-west. On the head was an oval gold frontlet of very thin metal, U. 17814, by the neck a single bead, a large faceted date-shaped lapis, on one wrist two copper bracelets and on the other wrist one, on the finger a plain silver finger-ring; a copper pin, Type 1, broken, l. 0·14 m., a pot of drab clay, Type 76, ht. 0·35 m., on the mouth of which was inverted a copper bowl, d. 0·09 m., a second example in red clay of the same type of pot, a (broken) example apparently of Type 79, in drab clay, one of Type 44 and two of Type 80, all of drab ware.

Burial Q. The body of a child wrapped in matting, lying on its right side with the head to the south-east. No objects.

Burial U. The body, wrapped in matting, lay on its left side with the head to the north-west. At the neck was a string of small beads, gold balls, steatite date-shaped, carnelian ball and lapis-lazuli fly amulet, U. 17817; a steatite

cylinder seal, U. 17817; a copper pin of Type 1, a copper axe-blade, Type S 8, l. 0·12 m.; by the head a clay pot, Type 76, drab ware, clay pot of Type 124, reddish-drab, ht. 0·20 m., and clay pot, Type 81, of drab ware, ht. 0·30 m.

PG/1850.

This was a shaft continuing the line of large shaft-graves PG/1845–PG/1849 and coming at the extreme south-east end of the row; PG/1851, which lay farther to the south-east, was a single grave of the same date but formally quite distinct from these big pits with their multiple burials.

The shaft measured about 8·50 m. by 4·70 m. Along the south-west side of it, built partly on the lip of the pit and partly on the filling inside it, was a wall of plano-convex mud bricks; the wall ran on in both directions far beyond the limits of PG/1850, but a branch wall from it went along the south-east edge of the shaft and on the north-west edge also there were faint signs of brickwork; the main south-west wall, therefore, though not peculiar to PG/1850, may have formed one side of a superstructure of which the other sides, less solidly built, have left few traces. On this wall and its importance for the dating of the graves see p. 211.

The wall foundations show that the edge of the shaft as traced by us is preserved to its original height, and as the ground-level all along the row of shaft-graves is virtually the same it would appear that there has been here comparatively little denudation and that except for any superstructures which may have existed and probably did exist, the vertical sections of the graves are complete and their original depth was very much what our present measurements would suggest.

At 1·40 m. below the top of the pit's sides there was a layer of matting spread over the whole area. Above this, towards the east corner of the pit, was a burial (3) in a coffin made of matting laid over a wooden frame; for a description of the coffin see p. 136. The body lay on its left side, the legs flexed in the normal way, the head to the north-west (*v.* Fig. 62). On the forehead was an oval gold frontlet, U. 17910, a pair of small lunate gold ear-rings, U. 17909, were on the skull, and at the neck a string of beads, 3 agate and 1 blue marble flattened barrels and a marble flattened date-shaped bead, U. 17908. A lapis-lazuli cylinder seal, U. 17904, Pl. 211, was with the body, a pair of copper bracelets on the arms. In the coffin were a copper bowl of Type 1, d. 0·14 m., a copper situla, d. 0·20 m., and clay vessels of Types 53, 221, and 223. By the feet were some bird's bones.

Underneath the coffin there were two layers of matting, not much larger than the coffin, separated by about 10 cm. of earth; in the earth were two copper spear-heads, two copper bracelets, remains of three copper bowls, a set of six large date-shaped beads of stalagmitic calcite, U. 17907, and a clay vase of Type 44 covered with pink slip, ht. 0·09 m. Slightly lower down in the shaft was Burial (1); it lay partly under the footings of the wall, and it looked at first as if it were of later date and the wall had been cut away to make room for it, but it was afterwards found that the wall stopped here and its foundations had

been laid over the filling and over the grave. It was a poor mat-lined burial containing only a clay jar of Type 198 and a clay saucer of Type 29; the bones had perished. Resting on the layer of matting was Burial (2); the body lay on its right side with the head to the south-west, and with it were clay pots of Types 191 (this 0·34 m. high with small holes in its shoulder), 83 (two examples), 97, and 42. Towards the east corner of the shaft there were, on the matting, two more clay pots, one of Type 126, ht. 0·08 m., with haematite wash, one of Type 41, ht. 0·09 m., with pink slip and haematite wash. All these offerings, including the relatively important grave (3), belong to the last stage in the filling-in of the shaft and are definitely separated by the mat layer from what lies below.

About 0·60 m. below the matting there came to light the top courses of a wall of plano-convex mud bricks; it was 1 m. thick, was built on the bottom of the shaft, stood to a height of 2·00 m., and running parallel with the north-east and south-west sides of the shaft divided its area into two equal compartments; it could not, however, be traced much beyond the middle of the shaft. The ordinary earth filling ran over the top of the wall and went down for about 0·50 m. below it, but from that level to within 0·30 m. of the bottom of the shaft all the filling was of earth heavily burnt, deep-red in colour, and mixed with ashes.

In the east corner of the shaft, 0·50 m. below the matting, was a group of six clay pots, four saucers of Type 23, pink ware with haematite wash, and two of Type 4, drab ware. At about the same level were two burials against the north-east side of the shaft; (6) was a burial in matting, the body lying on its right side with the head to the north-east; with it was a clay pot of Type 117, ht. 0·33 m.; (7) was a *reburial*, the bones, not in any order, wrapped up in matting; with it was a clay pot of Type 75, ht. 0·34 m. About 1·00 m. lower down, just above the burnt earth, there were scattered sheep's bones against the north-west side of the shaft. Burial (12) lay about 0·60 m. below the matting; the body, wrapped in matting, lay with the head to the south-west; with it were two copper bracelets, two copper finger-rings, a copper pin, Type 1, and a few beads.

On the other side of the partition wall, in the same stratum of soil between the mat layer and the burnt earth, was Burial (8), lying right up against the cut earth face of the shaft's side and therefore well underneath the brick wall which on the surface seemed to give the limits of the pit. The body, wrapped in matting, lay on its right side with the head to the north-east. The objects (*v.* U. 17911) were: on the head a gold frontlet, oval with ribbon ends, a length of narrow gold ribbon spirally twisted, a pair of small hollow lunate gold ear-rings; at the neck two necklaces, a string of small ribbed gold balls and date-shaped agates, and a string of larger beads of mixed shapes in various stones; four plain silver bracelets and a silver finger-ring of spirally coiled wire; a silver pin, Type 1, on the left breast; a second pair of gold ear-rings, U. 17913, of unusual form, was stolen from the Expedition house; a shell cylinder seal in hopelessly bad condition; two copper bowls and a copper spear-head (?).

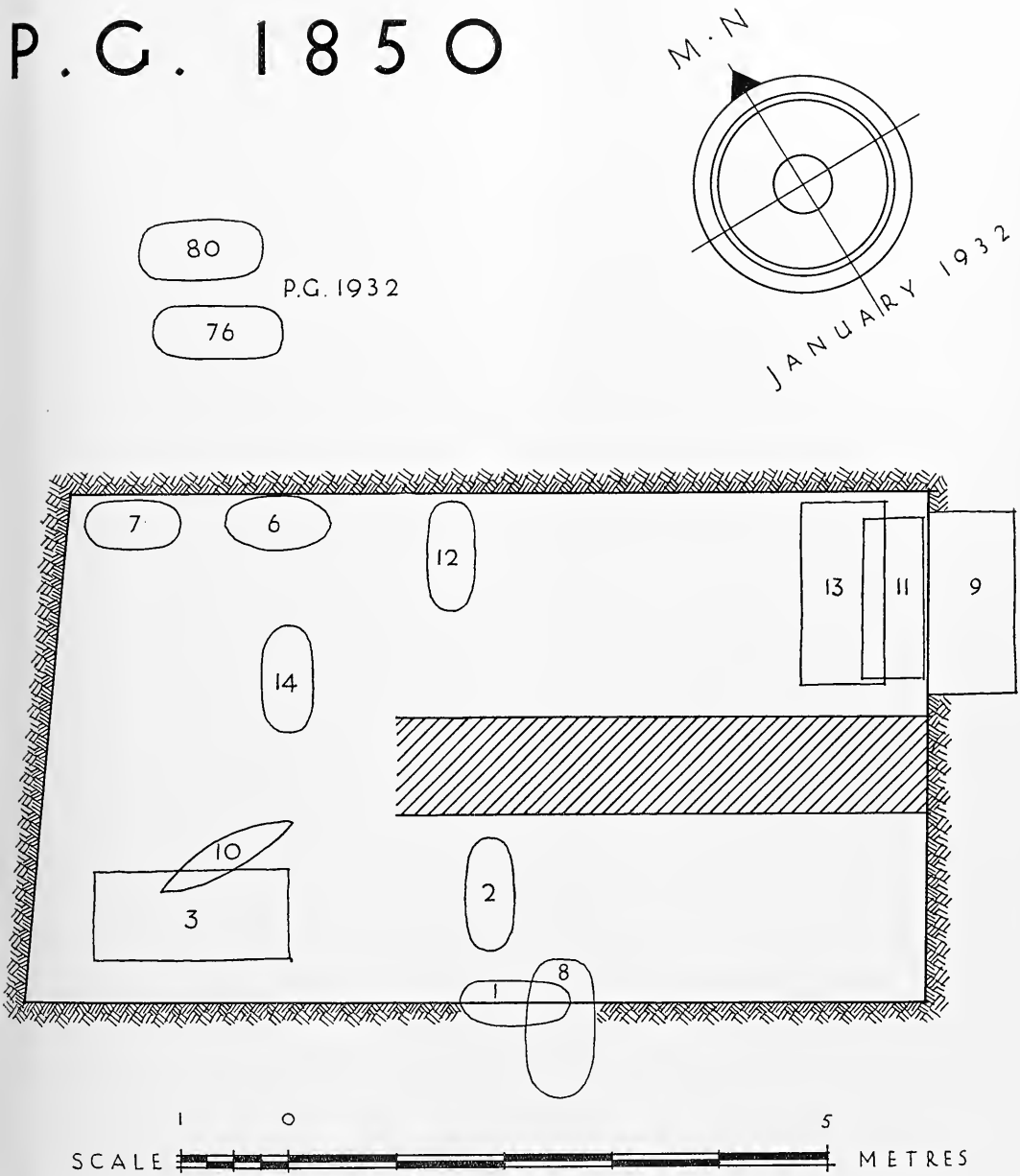


Fig. 62. Scale $\frac{1}{50}$.

Probably belonging to this grave, but perhaps placed here, on the same level in the filling and at a little distance from it, as an offering to the more important graves on the other side of the partition wall, was a group consisting of a bitumen model of a boat, 1·30 m. long by 0·35 m. wide, lying east by west, and three clay pots, two of Type 193, and one of Type 110, 0·17 m. and 0·22 m. high respectively.

The most important graves, those for which presumably the whole shaft was dug, were Nos. (9) and (13). Burial (9) was to some extent in a recess cut into the side of the shaft, but to what extent it was hard to say. The outline of the pit seemed to be defined sufficiently by the much-ruined brick wall which on the surface ran out to the north-east from the main (south-west) wall and was certainly intended to enclose the pit; but below the foundations of this the cut earth side of the shaft was extremely difficult to recognize and to trace; it lay farther back than the line of the wall, i.e. the latter had been built partly over the filling of the shaft, but the mixed soil in which the shaft had been cut would not yield a clean face, and the precise limits of the pit therefore could not be determined. The burials (9) and (13) were at the same level, rather more than half a metre below the top of the burnt earth, and at least half a metre above the bottom of that stratum and therefore more still above the true bottom of the shaft; Burial (11) was rather higher up and somewhat overlapped Burial (13).

Burial (9). The body lay in a coffin made of matting laid over a wooden frame, like that of Burial (3); on the top of the coffin was a large bitumen model boat, nearly 2 m. long, and above and behind the coffin was a copper trident (cf. Pl. 230 *a*), l. 0·56 m. On the near side of the coffin, under the grave (11), was a copper basin, Type 34, d. 0·17 m., and a cauldron, Type 49, ht. 0·22 m.; also a clay pot of Type 202, ht. 0·42 m., a clay pot of Type 44, ht. 0·14 m., with pink slip and haematite wash, and one of Type 98, with cable pattern in relief round the base of neck and shoulder and beneath the shoulder a scratched wavy line, one of the very few clay pots with any attempt at decoration found in the cemetery.

The body lay on its right side with the head to the south-west. On the forehead were two oval gold frontlets (for all objects *v.* U. 17912, also Pl. 147) and a single small lunate gold ear-ring; at the neck a string of large gold balls alternating with tubular, date-shaped, and ball beads, some very large, of carnelian, agate, and chalcedony; on each wrist were one gold and one silver plain hoop bracelets; a cylinder seal of lapis-lazuli, Pl. 211; at the feet an object of thin silver plate too decayed for identification. In the corner of the coffin above the shoulder was (1) a cast bronze axe of Type A 3 b; the copper vessels were (2) a bowl with ring-base of Type 72, d. 0·20 m., a bowl of Type 4, d. 0·11 m., a vase of Type 69, ht. 0·11 m., a clay strainer, l. 0·20 m. (the first of these was actually found outside the coffin limits but may originally have been inside); of clay there were three examples of Type 44, all with a haematite wash over a pink slip.

Burial (11). The body, wrapped in matting, lay with its head to the south-west. With it was a dagger-blade of Type 1, l. 0·35 m.

Burial (*13*). The body lay in a coffin made of matting over a wooden frame similar to that of Burial (3); it was almost on its back but turned slightly to the left, and its head was to the south-west. On the forehead were two oval gold frontlets with ribbon ends (for all objects *v.* U. 17917) and three lengths of very narrow and thin gold ribbon spirally twisted; a pair of small lunate gold ear-rings; a gold finger-ring on the right hand; four plain silver bracelets; two necklaces, one of small beads, gold diamonds and double conoids, carnelian date-shaped, cylinders, barrels and diamonds and agate barrels, the other of large beads, gold balls alternating with agate barrels and flattened date-shaped, carnelian tubular, &c. In the coffin were also copper vessels, a large spouted pan, Type 19, d. 0·16 m., a bowl of Type 7, d. 0·08 m., a vase of Type 69, ht. 0·12 m., and another of Type 65, ht. 0·08 m., and a tumbler of Type 38, ht. 0·075 m. At the foot of the coffin were two clay pots of Types 76 and 81 respectively. Immediately below the coffin, half under it and half under Burial (11), were four 'ferrules' forming a rectangle 0·46 m. by 0·30 m.; they were of copper, circular, with a diameter of 0·07 m., and were not unlike the ferrules or butt-ends of heavy spears such as we have occasionally found in graves; but here there were no spear-heads and the arrangement of the objects would rather imply that they served as shoes on the legs of some piece of wooden furniture, though why such should be found under the coffin it is difficult to explain.

Burial (*14*). Though not lying quite so deep as the burials (9) and (13) this was well down in the burnt earth stratum. The body, wrapped in matting, was on its back with the hands crossed over the chest and the head to the south-west. On the head was a length of narrow gold ribbon spirally twisted, a gold ear-ring of the small lunate type, two silver hair(?)-rings, and at the neck two necklaces, one string of shell and steatite rings and one of mixed beads, gold diamonds and ribbed balls, carnelian diamonds and barrels, agate and steatite date-shaped and carnelian balls; two copper bracelets, plain; between the hands a copper bowl, much decayed, d. 0·11 m.

Directly to the north-west of the coffin of Burial (13) and at about a metre's distance from it there were the skeletons of three goats lying one on the top of the other, and at the same level, on the south-west side of the partition wall, more goat skeletons were found. Below them the burnt stratum continued downwards and then came a belt of cleaner soil, not more than 0·30 m. thick, resting on the bottom of the shaft. The goat sacrifice and the purification by fire of the filling of the shaft (if that indeed be the explanation of the burnt earth) must have taken place before the coffins were placed in position.

CHAPTER VIII

DETAILED DESCRIPTION OF SOME IMPORTANT SARGONID GRAVES

PG/435.

The bottom of the shaft was entirely taken up by a coffin measuring 1·65 m. by 0·65 m. and 0·45 m. high; it had a framework of heavy untrimmed branches and sides of wickerwork; it lay north-west by south-east. The body was on its left side with the head south-east, the head resting on a row of three rectangular mud bricks measuring 0·20 m. × 0·175 m. In the graves of the Third Dynasty and Larsa periods such a 'pillow' is common, but in the Sargonid cemetery is very rare.

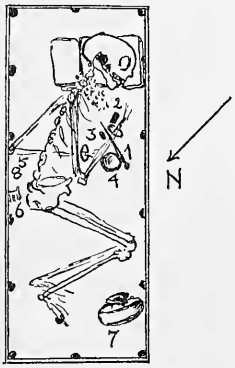


FIG. 63. PG/435. $\frac{1}{25}$.

On the head was a pair of silver ear-rings, U. 8922, at the neck four strings of beads, U. 8919, 8920, including copper ball beads plated with gold foil, and U. 8921, of carnelian and silver, and U. 8918 of gold and lapis-lazuli diamond-shaped beads. On each arm was a silver bracelet. Across the right wrist and pointing to the shoulder was (1) a copper pin of Type 1 with lapis and gold head, U. 8923; against this were (2), (3), two cylinder seals, U. 8917 and U. 8916, Pls. 214, 212; one or both may have been fastened to the pin; between the hands (4) was a copper bowl, completely decayed; behind the body (5) a pair of cockle-shells containing dark red paint and (6) the fragments of a bone or ivory comb; on one of the toes of the right foot was a rather thick copper ring. At (7) was a pot of Type 50 made of red clay with a thin haematite wash.

PG/627. (*Pl. 19*)

A good example of the bitumen model boat; this was 0·88 m. long, 0·30 m. wide, and the tip of the prow was 0·40 m. high. Two pots had been placed inside the boat and two alongside. The pots inside were both of the same sort, Type 117, of drab clay, average ht. 0·20 m.; of the other two, one was an example in drab clay of Type 83; inside it was a cylindrical clay strainer, ht. 0·55 m., d. 0·05 m.; the other was also of drab clay, Type 228, ht. 0·24 m.

About 0·50 m. higher up in the soil were three more clay pots probably connected with the grave, later offerings deposited in the shaft. These were (1) Type 201, drab clay, ht. 0·19 m.; (2) Type 81, light drab clay, distorted in firing, ht. 0·145 m.; (3) Type 32, dark drab clay, ht. 0·155 m.

The boat and its accompanying offerings could not be attributed with certainty to any one grave.

PG/659. (*Pl. 17*)

A larnax burial of which one end had been cut away by the workmen who built the Third Dynasty drain which bounds the cemetery site on the north-west (*v.* photograph, Pl. 17 *a*). The clay coffin itself was of unusual type, being rectangular, with vertical sides on which were ribs moulded in relief to imitate the wooden stays of a wickerwork coffin; *v.* p. 138. On the lid, part of which was preserved, there were two handle-like projections.

The inside of the coffin had been looted by the Third Dynasty workmen when they laid bare and broke away its north-west end; the offerings placed against the east corner of the coffin were in soil not disturbed by their excavation and so escaped them. Here there were numerous clay vessels. (1) Type 76, drab clay, ht. 0·28 m.; (2) another similar, drab clay, ht. 0·35 m.; (3) another similar, ht. 0·25 m.; (4) Type 37, drab clay, ht. 0·16 m.; (5), (6), (7), (8), drab clay examples of Type 198, all about 0·21 m. high; (9) Type 214, ht. 0·12 m.; (10) Type 26, of very dark grey, almost black clay; (11) a second, similar to (10), much broken; (12)—the one object left inside the coffin—Type 45, of red clay with burnished haematite wash.

PG/671. (*Pl. 18*)

The shaft measured 1·80 m. by 0·50 m. and lay roughly north-west by south-east (at 37°). In the bottom of it was the body wrapped in matting, lying on its right side with the head to the north-west.

Across the forehead was a narrow gold ribbon, U. 9636, which had been coiled spirally round a lock of hair; in each ear was a large lunate gold ear-ring, U. 9637; at the neck a string of beads, gold, silver, carnelian, lapis, and agate, U. 9639; on each arm two copper bracelets worn low down by the wrist, U. 9641; on the right hand a gold finger-ring, U. 9638. On each shoulder was a copper pin lying with the point upwards in the direction of the head. In front of the breast, possibly once hanging from a necklace, was a cylinder seal, U. 9642. In the left hand was a copper bowl, U. 9644, of Type 4, and in front of the face was a vase of drab clay, Type 44, ht. 0·11 m.

PG/848.

This was a simple inhumation burial, the body, wrapped in matting, being laid at the bottom of a rectangular pit measuring 2·00 m. by 0·75 m. and lying north-west by south-east. The body was on its left side with the head to the north-west.

In the ears were gold ear-rings, penannular with lunate ends, but the ends flat instead of being rounded and hollow, U. 10375, Pl. 219, 5; round the neck was a necklace consisting of two rows of very small gold balls and carnelian barrel beads, U. 10376; in front of the chest, probably slipped from the right shoulder, was (3) a copper pin of Type 1 with lapis-lazuli ball head, U. 10372; by the chest-bone was a copper bowl of Type 4, diam. 0·095 m., (4); a similar copper bowl was by the hands (5); and at (6) and (7) were two more examples of the same type, one 0·095 m. and one 0·055 m. in diameter; (8) was

a drab clay pot of Type 108; (9) a drab clay pot of Type 174, ht. 0·28 m., badly broken; (10) was a second example of the same type; (11) was a pot also of drab clay, of Type 201, just below the rim of which was the mark of a crescent incised before baking; it was 0·24 m. high; by the feet (12) were two cockle-shells containing blue and green paint respectively; a copper pin, U. 10373, of Type 1, lay also by the feet (13)—it might have been used to fasten the end of the piece of matting rolled round the corpse. In the corner of the pit was (14) a vase of Type 60, ht. 0·27 m., covered with a haematite wash and lightly burnished.

Fig. 64. PG/671. $\frac{1}{25}$.

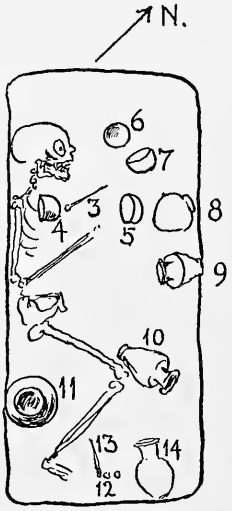


Fig. 65. PG/848. $\frac{1}{25}$.

PG/958.

A mat-lined trough grave of the simplest description, measuring 1·60 m. by 0·65 m. The body lay on its right side, the legs normally flexed, the head to the south-east. The grave had been slightly disturbed by the diggers of PG/975, which overlapped the east corner of the grave, but there had been no systematic plundering.

In the east corner of the shaft were two examples of the clay bottle Type 50, ht. 0·075 m. and 0·06 m. respectively, both of reddish-drab clay, (1) and (2); (3) was an example in red clay, too broken to measure, of Type 44; (4), (5), and (6) were clay vessels of Type 117, average ht. 0·18 m. to 0·20 m.

At (7) was a roundel of thin copper, d. 0·035 m., on the back of which were traces of coarse woollen cloth; this was perhaps connected with what gave to the grave its real interest. In front of the chest, clustered together as if they had all been in a bag which had decayed and left no trace of itself, were a number of objects which can only be explained as the working stock-in-trade of a bead-manufacturer. These (*v.* the sketch, Fig. 67) were as follows:

1 *a*, 1 *b*, two pieces of a broken palette (?) of white limestone; (2) pounder or rubber of white pebble; (3) flint flake to which is attached by corrosion a long strip of thin copper (broken), 0·013 m. wide; (4) a large flat chip of white

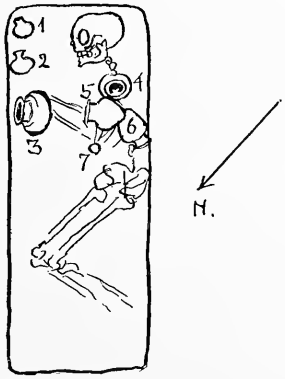


Fig. 66. PG/958. $\frac{1}{25}$.

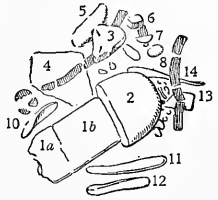


Fig. 67. PG/958.

limestone; (6) a roughly shaped cube of steatite; (7) fragment of alabaster, attached by corrosion to the strip copper; (8) flat oval pebble; (9) fragment of a rod of alabaster; (10), (11), (12), (13), flint-knives; (14) underlying most of the above, some large flint chips; (15) a collection of small chips of carnelian and lapis-lazuli, all rough except one piece of lapis which has been roughly shaped as a ring bead and half pierced, some small flints, some lumps of red pigment (haematite), and fragments of a very small copper drill. U. 11414.

CHAPTER IX

THE DATING OF THE CEMETERIES

A POSITIVE chronology can be established only where written records of an historical character are available. The archaeologist as distinct from the historian, having as his material the products of ancient arts and crafts, the evidence of association, stratification, &c., may arrive at a sequence-dating which sets that material in its proper *cadre* and gives not only the character of a civilization at any one moment but also the stages of its development or decay, but he cannot produce figures: prehistory has to content itself with periods whose order is assured but whose duration is unknown and whose position in time cannot be expressed in numerals.

During the last ten years archaeology in Mesopotamia has made great advances, and for the south country at least the excavators in the field are in general agreement as to the sequence of periods of prehistory; a classification has been drawn up which is based on and approved by the results obtained from the different sites where work is being done, and although each year new evidence is and will be forthcoming to fill out and modify the accepted scheme, its main lines, the physical structure of the skeleton, so to speak, must be considered fixed. With this sequence the archaeologist would normally be satisfied, keeping strictly to his province, but there are two motives which impel him to a more hazardous experiment, first the urgent demands of comparative archaeology and secondly the desire to retain a reasonable perspective in the domestic field.

The known history of Sumer goes back so far that its prehistoric age must in some way be correlated with the beginnings of other very early civilizations; and when there are found, as we do find, indubitable signs of contact between those early cultures the question of priority in time becomes of vital importance. Did Sumer learn from Egypt or vice versa? Was Sumer or was Elam responsible for the arts common to both? In what centre did the civilization of the Near East begin? Such problems can be answered only if we can assign to the culture of one country or another a priority in time, and priority can be expressed only in terms of numbers—round numbers if you will, but just those numbers which purely archaeological evidence is least qualified to define.

The second motive is one really of defence. Scholars, not workers in the field, will put forward schemes of chronology which, though they may respect the archaeologist's sequence-dating, seem to him to do violence to the evidence on which the sequence was built up. He will find that a period which on his site is subdivided into a dozen sub-periods, each marked by buildings solid and probably long-lived and where between the first and the last there is pronounced development in the pottery and other arts, is in the proposed chronology reduced to the span of a generation or two; or he may

be confronted with whole centuries for which the actual remains provide virtually no content. He feels that the perspective has been falsified and thereby the historical value of his archaeological sequence has been impaired, and he is tempted to set matters right by expressing in figures the periods which otherwise he would have been content to leave as such.

In the case of Mesopotamia the question is further complicated. There are written records which purport to take history back very far indeed, but the value of some has been disputed—at least they cannot be taken literally—and the interpretation of others is doubtful: for the early dynasties of Sumer and Akkad there are nearly as many systems of chronology as there are writers on the subject. On certain general points there is agreement, especially on this, that whereas in the King-lists drawn up by Sumerian chroniclers about 2000 B.C. the various dynasties purport to be consecutive there was really a great deal of over-lapping and some may have been altogether contemporary; and the result of it is to reduce very much the enormously long periods which a literal acceptance of the King-lists would entail: but the extent of that reduction depends on the personal factor rather than on external evidence. On such a quagmire the layman must walk warily.

In my first published report dealing with the graves[1] I suggested as the time-limits of the early cemetery the dates 3500–3200 B.C. My object in giving figures was to establish what seemed to me the true relation between the cemetery and the First Dynasty of Ur, and for the First Dynasty I took the date 3100 B.C. What my figures were meant to show was (1) that the cemetery was older than the First Dynasty; (2) that it was separated from the First Dynasty by a short but definite time-gap; (3) that the *floruit* of the cemetery must cover a period of something like three centuries. My chronology has ever since that time been the subject of violent attack and each of the three facts which it was intended to embody has been denied. So far as the actual dates were concerned I have of course recognized that there was room for differences of opinion even though the arguments employed might not seem to me convincing; on the other three points nothing that has been urged by my critics has borne much relation to the facts; meanwhile new evidence has resulted from further excavation and I find my original views strengthened thereby.

It would be best to start the discussion by fixing the age of the latest cemetery, since here dates are less seriously in dispute, and so to work back from the relatively known to the more unknown and contentious.

To the late cemetery a positive date is given by two cylinder seals bearing the names of individuals who were officials in the household of Enḫedu-anna, the daughter of Sargon the Great of Akkad; she was High Priestess of the Moon god at Ur. Of the seals one, U. 8988, was found in the undisturbed grave PG/503, the other, U. 9178, in a plundered grave. There is nothing to show whether these graves come late or early in the cemetery period; the contents do not help us and the argument from depth is unreliable. All that can be done is to accept Sargon's reign as falling within the cemetery period

[1] *A.J.*, vol. viii, No. 1 (Jan. 1928), pp. 4–5.

and then to try to define the time-limits before and after his reign beyond which the use of the graveyard cannot have extended.

Here may be noted the different theories held as to the dates of the Third Dynasty of Ur, of the accession of Sargon, and of the rise of the First Dynasty of Ur, the three historical events which bear most on our subject.

Third Dynasty.	*Sargon.*	*First Dynasty.*	
2408 B.C.	2751 B.C.	3150 B.C.	Fotheringham: *The Venus Tablets, &c.*[1]
2350 B.C.	2725 B.C.	2950 B.C.	Contenau: in *Manuel d'archéologie orientale.*
2298 B.C.	2652 B.C.		Meyer: *Die ältere Chronologie, &c.*
2294 B.C.	2528 B.C.	2620 B.C.	Christian and Weidner: in *Archiv für Orientforschung*, 1929, pp. 139–50.
2294 B.C.	2637 B.C.		Dhorme: 'Les Amorrhéens', in *Revue biblique*, 1928.
2277 B.C.	2528 B.C.	3000–2900 B.C.	Sidney Smith: *Early History of Assyria.*

It will be seen that while for the Third Dynasty we have a divergence of 130 years, this increases to 220 years in the case of Sargon; for the First Dynasty there is fairly general agreement except that Christian and Weidner subtract between three and four centuries from what is thought reasonable by others. In previous writings I had assumed for Sargon the date *c.* 2630 B.C., which until recently seemed most approved, and for Ur-Nammu 2278 B.C.; to the latter date I adhere, but for Sargon it seems best to follow Sidney Smith, Christian and Weidner, and to adopt the lowest dating of 2528 B.C.; on the whole this figure, arrived at by arguments into which it is not necessary for me to enter, agrees very well with the evidence of the graves, which do not require any long interval between Sargon and the Third Dynasty of Ur but do imply a considerable gap between him and the First Dynasty.[2]

Taking first the connexion between the Sargonid graves and the Third Dynasty, the archaeology of which is now fairly familiar to us after the excavation of many temples, houses, graves, and the tombs of the kings, we can observe points of similarity and of difference. The pottery of the Sargonid graves comprises a large number of types many of which persist into the Third Dynasty,[3] but the common element is no more than would be expected of two separate but not remote phases of the same civilization and there are enough changes to make strict continuity improbable. The manner of burial is more informative. The Sargonid graves form a cemetery set apart for the

[1] Prof. Fotheringham works out his results on the basis of the astronomical data of the Venus Tablets; Schoch, also using astronomical evidence, comes to very similar conclusions.

[2] Should Assyriologists subsequently decide to revert to something more like the old system of chronology which has now received the support of the astronomical researches of Fotheringham and Schoch, my arguments as to sequence and relative age would not, I think, be seriously modified and only the positive dates which I have suggested in round figures would have to be increased by a century or two. In adopting as a working hypothesis the minimum date given by Christian and Weidner for Sargon and making that my starting-point, I at least acquit myself of the charge which they and others have brought against me of wilfully trying to exaggerate the age of the Ur discoveries. Because exaggeration is easy a short chronology is apt to have a deceptive appearance of being more scientific; in fact a system which by its shortness does violence to the evidence is quite as unscientific as one which postulates a greater length of time than the evidence can justify; both are falsifications of history. The 'short chronology' of Christian and Weidner is attacked and the weakness of the arguments on which it is based as well as the illogicality of its conclusions are exposed by Landsberger, *Orientalistische Literaturzeitung*, xxxiv (1931), p. 115. Without committing himself to figures Landsberger adopts the sequence I have postulated and allows the antiquity of the Royal Graves.

[3] See the schematic table, Appendix C.

purpose and wholly distinct from the inhabited town area; under the Third Dynasty, as we have seen, the graves were made below the floors of the houses and such a thing as a separate cemetery was apparently unknown. In the Sargonid graves the body is either placed in a coffin of clay or basket-work or it is wrapped in cloth and matting and laid at the bottom of the earth shaft, and of the two systems inhumation is by far the most common: under the Third Dynasty the graves are of two types, and either the body is placed underneath an inverted clay coffin or it is wrapped in matting and laid on the floor of a brick-built corbel-vaulted tomb which was the family burial-vault constantly re-used; simple inhumation was not practised at all. This constitutes a revolution which in a sphere so conservative as that of burial customs and in a land so conservative as Mesopotamia would seem to require some external influence to introduce it and a certain lapse of time to effect its general adoption.

The dynasty of Sargon was brought to an end, apparently in the reign of his fifth successor, by the invasion of the Guti, and the period of chaos[1] which followed might well have seen changes in the habits of the ravaged and oppressed people, changes partly enforced by a foreign domination and partly due to the insecurity of life; it is even possible that the fear of marauding Guti bands first induced men to bury their dead within the town walls and therefore, because space was constricted, each in his own plot of land, which would mean beneath his own house-floor: necessity may have originated a custom which later became an article of faith, as it certainly was in the twenty-third century B.C. and later, when the ground-plan of a private house usually provided for a special chapel under whose floor was the family vault. Our two dated graves already take us into the generation after Sargon, say 2500 B.C., and we have no grounds for supposing that they are the latest in the cemetery; in fact the similarity of pottery types implies a shorter gap: if we assume that the cemetery continued as long as the Sargonid dynasty held its own we are brought down to the year 2370 B.C. according to the regnal figures in the King-lists or, allowing for the probability that the Guti raids were rife some time before Shargalisharri's nominal reign came to an inglorious end, to about 2400 B.C. From this date to 2278 B.C., the accession of Ur-Namu, is not too long a period to be consistent with the evidence of the pottery types; normally it would seem too short to allow of the revolution in burial customs, but the independent record of history does supply just that phase of upset and alien domination which can enforce and speed-up social changes. A *terminus ante quem* for the Sargonid cemetery of 2400 B.C. would satisfy all requirements.

I have remarked that the objects from the Sargonid graves are very uniform in type, showing no signs of progressive evolution and therefore implying that the total period of time illustrated by them was not of very long duration. In a country whose art was so static as that of Mesopotamia the argument from conservatism in art to shortness of time must always be used with

[1] 'Who was king? who was not king?' is the phrase in which the Sumerian chronicler sums up the situation.

caution, but it is worth remarking that the cylinder seals, for instance, all agree in cutting and design with what has been regarded as characteristically Sargonid art and tend to anticipate the style of the Third Dynasty rather than to hark back to that of Entemena and the early 'patesis' of Lagash. On the other hand, a certain length of time is demanded by the fact that the graves are very often superimposed—in many 'groups' they are from six to eight deep and in one there are as many as fourteen one above the other—and one must allow a decent interval between the burials; a total of two centuries for the *floruit* of the cemetery could certainly not be looked upon as an exaggeration. The Sargonid cemetery therefore dates from at least as early as 2600 B.C. to about 2400 B.C.

We must next deal with the small group of graves which in Chapter II, p. 30, was described as intermediate between the Early and the Sargonid cemeteries. A detailed account of them and of their contents appears in Ch. VII and need not be repeated here; it is only necessary to recall that the objects found in them proved by their character that the graves were very much closer in time to the Sargonid than to the Early Cemetery and that five of the graves were of a type entirely unknown in the Sargonid age but strongly reminiscent of certain royal tombs of the Early Cemetery, notably PG/1050 and PG/1054. Here we are concerned with their bearing on the chronology of the cemetery site.

From the south-east limits of our excavation (below the foundations of Nebuchadnezzar's Temenos wall) there was found a wall of mud brick running south-east by north-west with branch walls on its north-east side; the bricks of which it was constructed were of the plano-convex type, sharply rounded on the top, measuring 0·27 m. × 0·17 m. with a maximum thickness of 0·10 m. The wall ran along the edge of the shaft of PG/1850, partly on the solid earth in which the shaft was cut and partly on the filling of the shaft; a branch wall had run along the south-east edge of the shaft and also in part overhung it, and there were traces of another branch wall along the north-west edge. The main wall, which at its south-east end was standing to a height of 2·25 m., had strongly battered sides, and whereas at its highest point it had a width of 1·50 m. only, at its foundations it was 2·40 m. wide: its south-west face therefore overhung the shaft of PG/1422, which was divided from PG/1850 by only a narrow strip of undisturbed soil; it could be traced along the edge of PG/1846 and as far as the middle of the shaft of PG/1847; in all probability it had continued farther to the north-west so as to include the whole of the shaft-graves PG/1847 and PG/1849. Whatever was the purpose of the wall, whether it was intended to define the limits of the new cemetery area or was, with its branch walls, part of a superstructure common to all these carefully alined shafts, it was necessarily later than they—later, that is, in the sense that the shafts must have been filled in and levelled before the bricks of the wall could be laid. In the wall foundations there was found a hollow wherein lay piled one on the top of another five copper heads of bulls (U. 17887, Pl. 143). The heads had belonged either to animal statues, reliefs or figures in the round, such as decorated the front of the

First Dynasty temple of al-'Ubaid,[1] or to some such article of furniture as the lyres found in the Early Cemetery, but they had been broken off from whatever it was to which they had belonged and had been put here as fragments, isolated heads; presumably they were some kind of foundation-deposit. It will be noticed that in point of style the heads closely resemble those from al-'Ubaid and contrast strongly with the many animal heads from the cemetery; they have all the formed conventions of First Dynasty art and have altogether lost the naturalism of the predynastic sculptures; it is impossible to mistake their parentage. As regards date, we have no means of knowing how long the First Dynasty canons of art persisted, and the heads may be much later than A-anni-padda, but they cannot be much earlier.

The wall running above the shafts was of plano-convex bricks; inside the shaft of PG/1847 there were wall constructions some of which were of plano-convex bricks and others of rectangular bricks, flat-topped, measuring 0·26 m. × 0·16 m. × 0·085 m.; the shafts, therefore, must date to the time when the plano-convex type of brick was being superseded by the rectangular.

At Lagash (Tello)[2] it has been proved that plano-convex bricks were employed until the reign of Entemena and then went out of fashion. At Ur we have no such accurate dating, but it is reasonable to suppose that the change took place if not at quite the same time at least within a generation or so of Entemena's reform at Lagash; it might well be argued that as at Lagash the change occurs in the middle of a king's reign and not at the beginning of a new dynasty, and as Entemena was almost certainly overlord of Ur, he may have got his ideas from the subject city and that therefore the new type of brick is likely to have been in use at Ur some time before it was introduced at Lagash: that the change did not come later is proved by the archaeological considerations which follow.

Assuming, as the safest course, that the graves are of Entemena's time, the next thing is to fix if possible the date of Entemena. Until recently the orthodox view was that he came about 2800 B.C., he being the fourth in line of descent from Ur-Nina, who was put between 3000 and 2900 B.C.[3] Christian and Weidner would now put Entemena at about 2550 B.C. and would so make him virtually a contemporary of Sargon. Now the fifteen graves of our group contain seventeen pottery types which are never found in Sargonid graves as against thirty-four which are also Sargonid, they produce cast bronze weapons of the predynastic type which never[4] occur with Sargonid associations, and they are distinguished by the plano-convex bricks which in the Sargonid age are absolutely unknown; they cannot possibly be contemporary with Sargon and therefore the late date for Entemena must be wrong. But if the archaeological evidence demands a longer gap than that between 2528 and 2550 B.C. it does not compel us to put Entemena so far back as 2800 B.C.; indeed such a date might lead to difficulties in another direction, for these graves are certainly nearer in character to Sargon than to the First Dynasty

[1] *al-'Ubaid*, Pls. XXVI–XXX.

[2] De Sarzec and Heuzey, *Revue d'Assyriologie*, iv, 1898, p. 100.

[3] Such was the view, e.g., of Gadd, *History and Monuments of Ur*, p. 70.

[4] For the one apparent exception *v.* p. 27.

and time must be allowed for the cultural change which separates them from the earlier as well as from the later age. Sidney Smith[1] has suggested for Ur-Nina a date of about 2700 B.C. and therefore for Entemena one of about 2600 B.C.; his arguments are certainly more cogent in themselves than those of Christian and Weidner, and his conclusion is in far better agreement with the new evidence of the graves; a hundred years is perhaps the minimum sufficient, but it is sufficient, to allow of the changes to which they bear witness.

The *terminus ante quem* then for the group of graves is the reign of Entemena, and that must be placed about 2600 B.C.: I have suggested that a slightly earlier date might be actually preferable. One cannot suppose that they are all contemporary, and if they can be regarded as the royal graves of an impoverished line of kings (*v.* p. 31) they must needs be consecutive. Eannatum, the predecessor of Entemena on the throne of Lagash, claims to have conquered Ur, and it is tempting to assume (*a*) that in so doing he overthrew the Second Dynasty of Ur, which must have come somewhere about this time but of whose history nothing is known, and (*b*) that these graves are those of the Second Dynasty kings. In that case they would represent between them the term of a hundred years according to the King-lists.[2] The theory cannot possibly be proved, and in calling the graves 'the Second Dynasty Graves' I have not wished to beg the question but to imply that they come at about the right period for that dynasty and should illustrate its culture.

The supporters of a minimum date for the early antiquities of Mesopotamia might ask whether these graves could not be those of the kings of the First Dynasty of Ur, which Christian and Weidner place at 2620 B.C., or at any rate be of their time. The argument on which Christian and Weidner rely is largely epigraphical, and Sidney Smith has rightly urged that such cannot by itself be considered convincing; 'to assume that A-anni-padda and Entemena are not separated by any considerable space of time would necessitate a complete disregard of the King-lists. To disregard some of the figures assigned in those lists is reasonable; to jettison the names of the kings is to neglect the full weight of the evidence', and he concludes that the First Dynasty of Ur probably began to rule between 3000 and 2900 B.C. In part the two German scholars rely upon artistic criteria and here they seem to me simply to misinterpret the evidence, seeing resemblances where I see contrast and vice versa, and certainly run counter to the views of others than myself. How far they are led astray in their results is shown by one conclusive instance: they would put the grave PG/1422, as an early grave of the latest cemetery, not earlier than the middle of the Sargonid period; yet it lies under a wall of plano-convex bricks and therefore must, as they would admit, come well before the lifetime of Sargon himself; on their own system they are wrong by at least 120 years, and with their short chronology this would bring the

[1] *Early History of Assyria*, p. 40.

[2] On the other hand, we do not know how many more of these shaft-graves there may have been before the excavations for the mausolea of Dungi and Bur-Sin immediately to the north-east of those found by us destroyed all evidence of what had been there: and a large number of such graves would not suit the Second Dynasty, to which the King-lists assign four kings only.

grave almost as close to the First Dynasty of Ur as to Sargon, which would be a flat contradiction of the evidence. The fact that Christian and Weidner put the First Dynasty at a period which is more or less that of our 'Second Dynasty' graves does prima facie suggest that the graves might be of the house of or of the time of Mes-anni-padda, but their system must in any case be rejected and in the present instance its implications can be disproved. We have by now learnt a good deal about the archaeology of the First Dynasty. The forty-eight pottery types found in these graves do not include any of the most common and most characteristic First Dynasty types such as 7 and 62; the cylinder seals are entirely different in style and treatment from those of the First Dynasty (*v.* p. 326); some of the weapons could equally well be of the First Dynasty but the majority are definitely later. Even the copper heads of oxen found in the wall-foundations above the graves are evidence, though not so conclusive as the contents of the graves themselves, for they are most assuredly of the First Dynasty type (which may have persisted for quite a long time afterwards) but they belonged to objects which had been destroyed before the wall was built or the graves dug and were therefore already antiquities;[1] the graves must be later in date than the heads. Lastly there is the evidence of stratification. Above the shaft-graves all the soil has been turned over by later diggers from the time of the Third Dynasty onwards and the stratification has been destroyed, but above PG/1422 there has been less disturbance; some confusion has been caused by the levelling of the area by rubbish-dumping in the Third Dynasty period, but it does seem that the shaft was originally dug down through that stratum of rubbish which we termed 'the barren stratum' and were able to date by inscriptions to the reign of Mes-anni-padda, for the sides of the pit could be traced virtually up to the bottom of the Third Dynasty stratum, and the stratum of First Dynasty rubbish—though at this point it was not distinguished by datable material and was indeed not too easy to recognize—lies always well below the former and is usually separated from it by a fairly thick layer of later deposit. The stratigraphical evidence is not so clear that I would regard it as proof, especially when the conclusions to be drawn from it are so important and in a measure contentious, but it is very strong; indeed it is only the importance of the conclusions that now makes me put in this *caveat*, for at the time of excavation I judged it quite satisfactory.

To sum up then, the whole group of graves is older than the time of Entemena of Lagash, and he cannot be put later in date than 2600 B.C. and may be somewhat earlier; the first graves of the series should, therefore, come somewhere about 2700 B.C. and the latest before 2600 B.C.

The Predynastic or Royal Cemetery.

I have pointed out that the time gap between the 'Second Dynasty' graves and the Predynastic Cemetery must be very much longer than that between them and the Sargonid graves; if the latter is rather more than a century,

[1] The use of antique objects, or copies of antique objects, as foundation-deposits for buildings occurs all through Sumerian history.

then in a land so conservative as Sumer three or four centuries do not seem too much for so wholesale a change in fashions as that which distinguishes the 'Second Dynasty' from the Predynastic. Three hundred years would bring us to the date which most authorities are inclined to attribute to the First Dynasty of Ur and not unnaturally a good many writers have been tempted to assume that the royal tombs are those of the First Dynasty.[1] That they are not can, I think, be demonstrated, but before proceeding to the archaeological proofs it may be worth while to discuss some of the reasons which have induced this view.

The first reason is really a psychological one. The discovery of the temple built by A-anni-padda at al-'Ubaid proved that a dynasty generally considered mythical had an historical existence and that at a period more remote than any previously known to us Sumer enjoyed a civilization of surprising magnificence. In the face of written testimony the fact had to be accepted, but the new date was taken as a *ne plus ultra* and that a still higher civilization should be classed as older than A-anni-padda was unthinkable: that at least was the prejudice of many scholars, and few other than artists recognized in the art of al-'Ubaid the signs of decadence which mark the end of a phase. When the royal tombs were found it was almost a point of honour to make them out not earlier than the First Dynasty. The strongest argument employed was a comparison of certain details of style and treatment in the objects from the tombs with similar details in objects from Lagash dated to the time of Ur-Nina, who lived very little after the end of the First Dynasty of Ur; it was urged that such parallels proved the tombs to be not far from contemporary with Ur-Nina and therefore not earlier than the First Dynasty. Now these parallels do exist and are in a few cases strikingly close, but they are confined to a few details; between the art of the tomb objects taken as a whole and that of the curiously primitive Ur-Nina reliefs there is astonishingly little in common:[2] a real resemblance only comes in where the Ur artist fails to keep up to his usual standard and is guilty of some clumsiness,[3] and it is his weaknesses, not his merits, which are perpetuated in the crudities of the Lagash school. Again, it is true that the attitude of the men trampled by lions on the copper relief U. 10475, Pl. 169, recalls that of the dead on the magnificent stela of the Vultures of Eannatum, and the helmets, axes, chariot-pole, and rein-ring of the 'Standard' appear again on the same stela of Eannatum, but, as Contenau has pointed out, the weapons and dress of the warriors on that stela are in other respects entirely different from those of the fighting men

[1] So Contenau, *Manuel d'archéologie orientale*, iii, p. 1558; Moret, in *Revue des deux mondes*, xlix (7ième), p. 568, *Revue archéologique*, xxviii, p. 287. Gadd, *Hist. and Mon. of Ur*, p. 38, inclines to the same view while admitting that the tombs may be earlier.

[2] The one object which really does as a whole recall the Ur-Nina reliefs, namely the fragmentary limestone stela U. 8557, Pl. 181, cannot be said to belong to the cemetery; *v.* p. 377. It is worth remarking that there is something very curious about Ur-Nina; the style not only of his reliefs but of his inscriptions is far more crude and archaic than his date would warrant. Whether this is due to Lagash being a provincial city with a school of its own which was very much behind the times it is impossible to say.

[3] Such is the convention by which, on the 'Standard' (U. 11164), the heads of the three goats are spaced out decoratively without regard to their bodies; cf. a relief of Ur-Enlil in the Constantinople Museum.

on the 'Standard'; and a change of armament is, I think, a better criterion of date than is a detail of drawing. We must expect to find parallels between what are after all only different phases in the art of the same people; granted that it is the same art, the differences are more symptomatic than the points of resemblance.[1]

To establish the artistic relation of the tombs to the First Dynasty the safest course is to compare the contents of the former not so much with objects from other centres as with the dated objects of the First Dynasty from Ur itself. It is true that in the one case we have only tomb- or house-furniture and from al-'Ubaid architectural decoration,[2] but none the less there are useful points of comparison, especially in the animal sculpture in metal. I do not think that any one can fail to see the difference between the heads of cattle from the tombs and those from al-'Ubaid. The technique is identical, but in the one case there is an astonishing realism subjected to the demands of artistic style, in the other a convention which is definitely that of the 'school piece', splendid work, but lacking in just that freshness and love of nature which gives such charm to the silver head, U. 10916, on Pl. 120; even where the earlier artist has aimed at something other than truth to nature and is self-consciously stylistic, as in the golden head of a bearded bull, U. 12353, Pl. 115, there is in the flare of the nostrils and in the setting of the eye a spirit which the First Dynasty misses altogether. Just as in the case of the cylinder seals Legrain[3] decided that it was henceforth impossible to confuse the art of Shub-ad with that of the First Dynasty, so in the sculpture there is an essential difference of a sort which puts the priority of the cemetery beyond any doubt.

An argument of quite another sort is supplied by the names found in the royal tombs. That the tombs really are those of kings I have shown, I trust conclusively, in Chapter III; from them we have recovered a certain number

[1] The right relation was seen by E. Unger, *Archiv für Orientforschung*, N.F., iv, 1927, p. 213: 'Die Kultur der Ur-Nina-Zeit steht nicht im Anfang sondern im Niedergang der altsumerischen Kultur, die, . . . schon vor Ur-Nina zur Zeit des Mesannipadda und des Aannipadda von der I Dynastie von Ur eine höhere Vollendung und Ausbildung gehabt hat.' The difference was observed by Christian but completely misunderstood by him, *Zeitschrift für Assyriologie*, N.F., iv, p. 236: 'Dass in el-Obeid zur Zeit Aannipadda's eine entwickeltere Kunst am Werke war als in Lagasch unter Urnansche (Ur-Nina). Auch ein Vergleich mit den Weiheplatten diesers Herrschers ergibt wohl, dass die el Obeid-Figuren künstlerisch besser gelungen sind. Aber für ein höheres Alter der el-Obeid Erzeugnisse wird man diesen Unterschied . . . kaum geltend machen dürfen.'

[2] Dr. Frankfort (*Archeology and the Sumerian Problem*, p. 7) is quite wrong in holding that the objects from al 'Ubaid cannot be used as criteria for judging the art of the First Dynasty on the ground that 'they formed a foundation-deposit or dump of objects found in the precinct of a ruined sanctuary or anciently regarded as obsolete . . . and . . . it is obvious that such deposits can contain objects of different dates, as these might have been kept for any length of time in the temple before being put underground' (cf. my own note, p. 215 *supra*). In citing the late Dr. Hall as 'explaining in this way the bronzes, pillars, &c. which he found' he does Dr. Hall an injustice, reading into the word 'deposit' what the writer never intended; nor does his description of the objects as being 'neatly alined on the ground' agree with Dr. Hall's phrase 'lying in incomprehensible confusion'. The fact is that, as stated in the official report, the al 'Ubaid objects are not from a foundation-deposit. The frieze of copper bulls and the two mosaic friezes were found still attached by copper holdfasts to the masses of brickwork fallen from the temple façade and necessarily, therefore, contemporary with the building, which was dated by its inscribed dedication-stone; of the standing bulls one bore a duplicate of the dedication-inscription. The two stone statues from inside the temple may have been earlier or later than its foundation, but the architectural features were all of one age.

[3] *Gazette des Beaux-Arts*, vi. 2, 1931, p. 26.

of names some of which are and others may be those of the kings themselves; these are Mes-kalam-dug, A(?)-kalam-dug, (queen) Shub-ad, and perhaps Lugal-šag-padda, *A-BAR-GI*, and A-gig-[ḫuʔ]-ᵈim. The first two of these with the prefixes 'Mes-' and 'A-' recall the First Dynasty names Mes-anni-padda and A-anni-padda,[1] while, as Burrows points out, there is between these names and those found in the pre-First Dynasty tablets from Fara a remarkably close resemblance. But the names of the First Dynasty kings are all recorded in the King-lists and they include none of our tomb-inscription names; consequently Mes-kalam-dug, A-kalam-dug, and the rest do not belong to the First Dynasty of Ur, and since they cannot be later than that period they must needs be earlier, i.e. they must belong to the time of the First Dynasty of Erech, to which also we must refer the Fara tablets. This would mean that the lords of Ur were vassal kings subject to the suzerainty of Erech; and it may be asked whether such a position is consistent with their use of the title *lugal*, 'king'. The difficulty is not to my mind a serious one. The King-lists purport to give the names of those who were overlords of the whole land, the 'kings' *par excellence*, but it is generally agreed that many of these so-called 'royal' houses overlapped and some were strictly contemporary; consequently the overlordship was not always undisputed, and at various times there were two or three contemporary rulers all arrogating the title which has confused the compilers of the King-lists; probably not all got into the King-lists who in their lifetimes claimed the title, and it is extremely likely that at a time when the term *lugal* was not too severely restricted it may have been employed by the rich and prosperous lords of Ur even while they rendered homage to Erech. The fact remains that here we have at Ur men calling themselves kings who are not mentioned in the King-lists and who, therefore, cannot be of the First Dynasty, and a place has to be found for them earlier than that date.

All these arguments are confirmed by the evidence of stratification. Almost from the outset we had been able to distinguish in the earth a belt of soil or rubbish which divided the Early Cemetery from the Sargonid; its thickness varied at different points and so did its composition—most often it was grey in colour and was made up of decomposed mud brick; sometimes it contained pottery fragments and sometimes it was composed almost exclusively of potsherds, brick rubble, and lime; it represented the dumping of rubbish over the site (this modified by the subsequent action of wind and rain),[2] but of course the amount thrown would not be uniform over the whole area; the kind of rubbish thrown on to any one spot would be decided by the purest accident —a number of men carrying out waste lime would empty their baskets in one place, householders would tip their refuse in another, and so on. What was

[1] Christian and Weidner dispute this analogy (*Archiv für Orientforschung* vii, p. 101); but *v.* Burrows in Ch. XVI, p. 318, for further evidence.

[2] In my report for the season 1927–8 I stated that the grey stratum was 'apparently not dumped but brought down by rain and wind from the inhabited terrace area'; to this conclusion I was led by the uniformity of the deposit. As larger areas were cleared it became obvious that the original slope had not been abrupt enough for the whole stratum to have been formed as I had suggested, although weather erosion of the terrace may well have contributed to it. Most of the brick, &c., must have been dumped by man and subsequently levelled by rain and wind; that would account for all the phenomena.

uniform and invariable was this: that the graves of the older cemetery were below this stratum, the top of their shafts never coming above it but always being sealed by it, whereas the graves of the Sargonid cemetery might be dug into or even through the stratum but their shafts started above it, and sometimes the grave itself was altogether above its level. At different times we called this 'the grey stratum' or 'the barren stratum', and we came to look on it as a decisive proof of the date of a grave. It was not invariably easy to recognize; sometimes the Sargonid graves lay so thickly together that the whole of the soil had been turned over by the diggers and the stratum, lying then fairly close to the surface, had been obliterated and had to be deduced from the evidence in the less disturbed soil round about; sometimes it might lie over a stratum of similar colour and composition and one could not distinguish between the deposit of two different and possibly widely separated periods; but on the whole it could be followed out with reasonable certainty and very often it was startlingly clear. Above it there was sometimes a thick belt of mixed soil, sometimes it seemed to be succeeded almost immediately by the masses of broken brick and pottery put down for the levelling of the site in the Third Dynasty period, and the amount of accretion between the time when the 'grey stratum' was the ground-surface and the Third Dynasty was slight, and where this was the case the Sargonid graves went down more deeply through it; but in so far as it sealed up or was pierced by the grave shafts it remained good dating evidence. Christian and Weidner in their article in the *Archiv für Orientforschung*, vii, p. 100, urge certain inconsistencies in my accounts of this stratum in different numbers of the *Antiquaries Journal*. Some of these apparent inconsistencies are due to my reporting in successive seasons exactly what was found in that season, and appearances, as I have stated above, were not always uniform; so far from my later observations being coloured by theory, I was making no attempt to theorize but was simply stating the facts as fresh work revealed them; but it is true that we learnt more the more work we did. In one case an inconsistency is due to a faulty generalization.

The cases had best be answered in some detail.

At the extreme south-west end of the cemetery where the old mounds had been highest, later accretion slow, and denudation most active, the grey stratum did not show at all—possibly had never existed—and I reported that between the graves of different dates there was very little difference in depth (*A.J.* viii, p. 3). In the same report I stated that elsewhere 'the graves of the second and of the third series were separated by a stratum of "clean" soil from 2 m. to $3\frac{1}{2}$ m. thick'; the stratification is correctly described here but, misled by finding a seal of the First Dynasty, that of the wife of Mes-anni-padda, high up in the grey rubbish, I had supposed that the destroyed graves just above it were those of the First Dynasty 'broken up by the sextons of the later (Sargonid) cemetery' whereas they also were Sargonid, and the graves I had previously referred to as of the 'second series' dated by the character of the cylinder seals were in reality of the later 'Royal Cemetery' class. This mistake made in the first year of the work on the cemetery was expressly

corrected in *A.J.* viii, p. 418, where I reviewed the classification of the graves and eliminated any 'First Dynasty' class and stated that what I had described as a 'second series' was probably a continuation of the 'third'; i.e. I anticipated what the analysis of the tombs has since corroborated, the division into 'Early Cemetery A and B' and the Sargonid Cemetery. In the same report I said that 'the earliest graves [I should have said 'earlier', not 'earliest'] are dug down through the lower part of this grey deposit into the many-coloured strata of the earlier rubbish-dump': there is no contradiction here; the upper part of the grey belt ran over the tops of the grave-shafts and is therefore later than they are; it is the upper part which is the 'grey stratum' proper and the lower belt of the same colour must represent a different deposit, as described above. There was nothing to distinguish one from the other except the convincing fact that one was dug through by the shafts and the other ran unbroken above them.

That the rubbish forming this grey or 'barren' stratum could only have been deposited over the cemetery after the graves had been dug and filled in is an archaeological fact which admits of no dispute; it is a moral probability that such desecration of the old graveyard as is involved in the use of it as a rubbish-dump only took place after a decent interval since the date of the last interment: if we can date the stratum, the *terminus ante quem* for the cemetery must be earlier, and should probably be distinctly earlier, than that date.

In 1926–7 there was found, high up in the grey stratum,[1] the cylinder seal (U. 8981, Pl. 207) of Nin-Tur-Nin, the wife of Mes-anni-padda, founder of the First Dynasty of Ur: at the time I supposed that the seal belonged to and had filtered down from the stratum immediately above in which were ruined graves rather than to the 'barren' stratum itself, but in this deduction I was wrong and the facts must be taken as they stand. In 1928–9 I reported that it was safest to attribute the grey stratum to the First Dynasty of Ur, 'a date supported by such pottery as it contains'; in 1929–30 definite proof of this was forthcoming. In the south-east part of the cemetery site, below the foundations of the Temenos Wall of Nebuchadnezzar, the stratification was especially clear and informative. For the building of the Temenos Wall a level had been cut which destroyed the upper part of the stratification, but immediately below the wall foundations there began the steeply sloping lines of rubbish only covered (under the outer wall line) by the imported filling of the Larsa period. The section on Pl. 270 shows the strata conventionally distinguished, but thanks to their different colouring and texture they can be followed almost as easily in the actual photograph on Pl. 9 *a*; here indeed was history written for all who passed to read. The uppermost slanting strata, composed of mixed rubbish of varying composition, are in places pierced by the shallow shafts of the Sargonid age, sometimes sunk vertically, sometimes

[1] It was between 1·40 m. and 1·60 m. below the modern surface. The Sargonid graves at this point lay at anything between 1·00 m. and 2·00 m., but for the most part in the upper part of that stratum, i.e. they were above or dug down into the 'grey stratum', and the field notes state that 'many of the graves at this level' (1·40 m.–1·60 m. down) 'had been absolutely wrecked, and those noted are only a proportion of what had existed': it (the cylinder seal) certainly belongs to the period of these graves, unless it came from a grave destroyed when these were made, in which case it would be earlier.

driven obliquely into the mound's side. Then come two startlingly clear bands of white lime rubble from some building, separated by what is undoubtedly a contemporary deposit of rubbish of another sort, some broken brick but for the most part broken pottery, fragments both of cups and of large vessels, and with them lumps of mud, the stoppers of the jars, bearing seal impressions; the mouths of the jars were covered with cloth, which was tied down with string, and then the lump of mud was placed over this and modelled to a cone shape, its edges plastered down over the vessel's rim, and on the side of the cone was impressed the owner's seal. Amongst these jar-sealings were specimens inscribed with the names of Mes-anni-padda and of Nin-Tur-Nin. There was no question as to the identity of this coloured stratum with the grey stratum which overlay most of the cemetery; the change of composition is due to the accidents of the carting of rubbish which would naturally vary with the spot from which it was brought, but the patch of lime and broken pottery tailed off into the grey mass of decomposed mud brick and was obviously of the same date and due to the same process: and here too the graves of the older series lay beneath and their shafts were sealed by the overlying rubbish. In this part of the cemetery the stratum in which the older graves lie was not nearly so thick as in some places;[1] it was little more than three and a half metres from the under side of the rubbish stratum to another belt of red debris (see section) which underlay the graves and was reached but not really pierced by their shafts;[2] but all the graves are situated between the two very clearly defined red rubbish strata, and while the lower of these must be considerably older than the cemetery the upper must have been formed after the cemetery fell into disuse.

It would be difficult to obtain better dating evidence than this. The stratum which elsewhere was adjudged to belong to the First Dynasty of Ur on the strength of one cylinder seal and of potsherds found in it is here, where it directly overlies three royal tombs, composed largely of material dated by inscriptions to precisely that time. That the Early Cemetery therefore is older than the First Dynasty of Ur, which other arguments had rendered almost certain, is by this fact finally demonstrated.[3] It is of course true that the deposit may be somewhat later in date than the actual reign of Mes-anni-padda, for it might result from the subsequent destruction of a building erected by him, although even in that case it could scarcely be later than the downfall of the First Dynasty: but that assumption would not suffice to bring the cemetery within the limits of the First Dynasty, for there would still be

[1] In the cemetery period this was almost the highest point in the area, being the apex of the old rubbish-mounds; it looked as if there had been considerable denudation of its surface between the date of the royal tombs PG/1618, 1631, 1648 and the deposit of the rubbish forming SIS. I and II (this would account for the relatively shallow depth of those tombs as excavated by us). If this is so the fact would emphasize the gap in time between the tombs and the First Dynasty stratum.

[2] The small royal graves PG/1618 and PG/1631 are cut into this red stratum but do not go below it; the great tomb PG/1236 does go right through it, but PG/1236 lies rather more to the north-east.

[3] The validity of the proof is perhaps best shown by the straits to which Christian and Weidner are put in their anxiety to avoid the conclusion which it enforces. They have to assume that the Mes-anni-padda whose seal-impressions were found here was an otherwise unknown king of a different and much later period who had the same name as Mes-anni-padda of the First Dynasty, and by a strange coincidence married a wife having the same name, Nin-Tur-Nin, as the wife of his eponymous predecessor.

the difficulty of artistic style, inconsistent names, &c., and the argument that an interval must have elapsed between the use of the site as a graveyard and its desecration by rubbish would tend to account for the regnal period of the dynasty. Actually the rubbish does not look like the debris from a destroyed building; the two strata of fairly clean lime and the two strata of broken store jars and offering-cups are much more likely to result from the periodic clearing-out and redecorating of the store-chambers of a palace or temple and should therefore date from the lifetime of a building and not from its overthrow: the point does not admit of proof, nor is it of paramount importance; what does matter is that the Early Cemetery is covered by and antedates a stratum proved to belong to the First Dynasty of Ur.[1]

Can we then argue as to the length of time which the cemetery represents? i.e. as to the date of its earliest graves.

I have shown (p. 28) that the cemetery period is a long one in that we can distinguish within its limits considerable changes in the types of pottery, &c., found in the graves; moreover, the superimposition of the graves, which may lie as many as twenty deep one directly over the other, does imply a long interval between the first and the last burial;[2] further we have sixteen royal graves of which only two are certainly those of women, and assuming that these represent only ten kings and that the kings reigned on an average only fifteen years each we have a total of a century and a half, and as all the royal graves are relatively early and there was after their time a period during which great numbers of private graves were dug, many deep, into the royal shafts, we must add to the hundred and fifty years allotted to our kings at least a century for the later stage of the cemetery in which no kings appear.

The stratum of red rubbish which underlies the graves (in the section it is described as SIS. 3–5) has been traced uniformly over nearly the whole cemetery area; at the point shown on the section and elsewhere where we have dug into it it has produced masses of jar-stoppers with seal-impressions and inscribed tablets. The seal-impressions are very archaic and some of them bear inscriptions wholly or in part pictographic, the tablets must be placed on the ground of the character of the script between the Fara tablets and the older semi-pictographic tablets of Jemdet Nasr. They must be much older than the graves, because above the stratum which contains them there had to

[1] In the season 1928–9 there was found on the cemetery site a fragment of a calcite vase (U. 11675) bearing the remains of an inscription which can be restored so as to give the name of Mes-ki-ag-nun, king of Ur, who must be either identical with or the successor of the second king of the First Dynasty of Ur as given by the King-lists (*v.* p. 321). The fragment was found in the upper soil, above the level of the graves, but there is nothing to prove its connexion with the 'grey stratum': I have therefore not cited it as confirming my dating.

[2] Where the graves are thus superimposed the contrast between the contents of the highest and the lowest in the series proves that they are far from being contemporary, i.e. there was here no such practice as prevails in a crowded modern cemetery where a family buys a plot of ground and its members are buried one by one above another in the same shaft and perhaps in quick succession, so that the interval between the first and the last may be quite short. The fact that the diggers of the later grave so often dug down to and plundered the earlier shows that the position of the earlier grave had been forgotten and the piety due to it had evaporated. This again means a considerable lapse of time, a minimum of ten years between each burial, and it must be remembered that for every grave recorded by us there was at least one too ruined to note, so that the total interval where ten or so superimposed graves have been planned must amount to something like two centuries.

be formed the mass of deposit in which the graves are dug, a deposit varying in thickness from three and a half to more than five metres; the minimum lapse of time required for such accretion formed, as this was, in stages whose several strata contain material in ordered historic sequence, would be a century, but two centuries is much more likely. Burrows would assign the tablets to the first half of the fourth millennium B.C. and, tentatively, to about the middle of that period; they might be two hundred years or so later, but the most recent archaeological discoveries favour a long rather than a short chronology.

The suggestion which I first made in 1927 that the *floruit* of the cemetery was between 3500 and 3200 B.C. started from the assumption that the First Dynasty of Ur was to be dated to about 3100 B.C., the maximum date proposed by Gadd in his study of the inscriptions from al-'Ubaid:[1] Gadd had himself expressed a preference for a date nearer 3000 B.C., but he seemed to me to make scarcely sufficient allowance for the conservative character of Sumerian civilization, about which we have more evidence now than when he wrote, and I therefore disregarded his modified suggestion and adopted the longer period. I confess that I have seen no reason since to change this view, though I am by no means wedded to it; but I am sure that my original figures taken together do give an approximately correct perspective for the cemetery and the First Dynasty of Ur, which is all that is of immediate concern. To repeat what has before been said, written historical records are the only basis on which a positive chronology can be built up; archaeology can only be sure of periods and uses round numbers for its convenience but also at its peril. It would be perfectly easy, and venial, to make a mistake of fifty years in the age of a piece of fifteenth-century English furniture, or of the Wilton diptych, yet there we deal with a period both recent and well documented; when discussing the history of a country so strange to us as the Sumer of five thousand years ago we need not be ashamed of a margin of error amounting to a century. If 3000 B.C. be proved a more correct date for Mes-anni-padda's accession, then that for the Predynastic Cemetery will be between 3400 and 3100 B.C.

The champions of the short chronology have one more general argument to which they constantly refer as confuting my ideas both of the date and the duration of the cemetery period. The graves at Ur, and the similar but in some cases probably earlier graves at Kish, fall within the period when plano-convex bricks were used by the Sumerian builders, and the roof-bricks of tomb PG/789 are virtually flat. Now it is known that at Lagash plano-convex bricks were employed during the reigns of Ur-nina and Eannatum and were supplanted by flat bricks in the reign of Entemena, who according to the short chronology was almost a contemporary of Sargon of Akkad. The First Dynasty of Ur used plano-convex bricks and therefore must be contemporary with the Lagash rulers; the use of plano-convex bricks in the cemetery proves that it cannot be earlier then the First Dynasty of Ur, and the flat bricks in PG/789 must bring that tomb, and with it the tomb of Shub-ad, down to the reign of Entemena, *c.* 2550 B.C.; Q.E.D.

[1] *al-'Ubaid*, Ch. VII.

The weak point of this argument is that it assumes that the plano-convex brick period was necessarily very short: excavation has proved that it was remarkably long. Flat bricks were used in Mesopotamia from the earliest times until the close of the Jemdet Nasr age, when for some unaccountable reason the builders adopted the technically inferior plano-convex type. The round-topped brick continued to be used until the middle of the reign of Entemena (at least in Lagash), but the degree of roundness was not constant, and especially in the case of burnt bricks was sometimes reduced to a minimum. These broad facts have been proved true not only at Ur but on most of the southern sites, and the testimony of all the excavators is in harmony.

Jemdet Nasr is put by Langdon[1] at 4000 B.C., a date which most Assyriologists and archaeologists consider much too high, but even Christian and Weidner (who originally decided that the tablets and pottery were of the Akkadian time, somewhat later than Sargon) now allow them 'a relatively high antiquity'; on this showing therefore the plano-convex bricks were in fashion for at least some centuries. The best evidence derived from work at Ur on this point is given by the section on Pl. 272. In 1925–6 the high mound lying to the south-west of the cemetery site was excavated and the successive building-levels cleared; the First Dynasty level was identified and traced to where it ran out on the north-east face of the slope beyond which the ground had been hollowed out by water action and there was a low-lying area, extending as far as the cemetery, over which all historical remains had been destroyed. In 1929–30 work was undertaken in this low-lying area. The modern ground-surface was on an average 0·50 m. below the First Dynasty floor-levels as given by the neighbouring work on the mound and corresponded to what in 1925–6 we had termed 'the prehistoric terraces'. As soon as we began to dig we found the site honeycombed with vertical sepage drains made of terra-cotta ring pipes of which only the lower parts survived, the upper parts having been destroyed, together with the houses which they had served, by the denudation of the area. Such pipe-drains are found throughout the whole historic period and cannot in themselves be safely dated, but they are always surrounded by a packing of broken pottery intended to keep the earth from blocking the holes in the side of the rings by which the water escapes into the surrounding soil, and this pottery may afford a safe criterion of age: in a number of cases we were able to date the drains as not later than the First Dynasty of Ur.[2] The deepest of the drains did not go down more than about three metres from the modern surface, and as the normal length of such is from five to ten metres we can be sure that the room floors from which they started were at least two metres above what is now ground-surface, and may have been four; this agrees very well with the level of the First Dynasty buildings as given by the mound section. Our starting-point, therefore, lay about 1·80 m. below First Dynasty level, and that amount of accretion (since the vanished strata probably contained intermediate building levels) should

[1] *J.R.A.S.*, 1930, p. 609.

[2] The suggestion in *Archiv für Orientforschung*, vii, p. 104, that this dating is at fault and due to our ignorance of First Dynasty pottery types, is gratuitous.

denote a time-interval of at least a century. Immediately below the ground-surface we encountered buildings and these were succeeded by others, and in a depth of seven metres eight distinct levels of buildings were cleared, planned, and photographed: the three uppermost of these were shown by their pottery to be contemporary with the cemetery, and there were found in them burnt bricks of the type of those in the roof of PG/789 and PG/800 (the tomb of Shub-ad); the fourth level was doubtful but apparently earlier than the graves, the fifth, rich in pottery, was definitely earlier and most of the types were strange to the cemetery and were paralleled only by the graves of al-'Ubaid;[1] the seventh level produced a pottery type found both at Kish and at Warka immediately above the Jemdet Nasr strata, and the eighth contained the characteristic painted wares of Jemdet Nasr. The walls of the first five building-levels were made with plano-convex bricks, those of the last three with flat rectangular bricks; in the lower strata the walls were on an average a metre thick, but in the five upper strata they were much more solid and attained a thickness of four metres; buildings so constructed were no ephemeral things but must be credited with a lifetime of several human generations at least.

We have then our First Dynasty level well established and below it a void of 1·80 m. which, judging by the analogy of what comes underneath, may correspond to two building periods, and below that the material remains of five building periods to which we must needs attribute a reasonable longevity; all these fall within the 'plano-convex brick period'. Both the archaeological evidence and the evidence of a more literary sort as interpreted by nearly all Assyriologists demand a minimum interval of three hundred years between Entemena (with whom the plano-convex period comes to an end) and the First Dynasty of Ur; to this we have to add something like seven periods of solid construction, and to attribute to each of them an average life of fifty years is certainly not excessive; judging from what we know of mud-brick buildings of later date in other parts of the Ur site it is indeed far too moderate an estimate. There can be no precision in such an argument, but the thesis of Christian and Weidner is absolutely ruled out by it, and it does at any rate show that the duration of the period in which plano-convex bricks were in fashion is not inconsistent with the dates which I have ventured to assign to the cemetery.[2]

Assuming then that the First Dynasty of Ur began in 3100 B.C. or not

[1] The most characteristic of these is what we term 'Reserved slip ware'. For an example of this see *al-'Ubaid*, Pl. LIV, b. 1. The finished pot, after being taken from the wheel and dried, was dipped in a bath of liquid slip, a thin solution of fine clay much lighter and brighter in tone than the body clay of the vase; then part of the applied slip was wiped off so as to make a rough pattern—horizontal bands or radial lines—with the contrasting colours of the light slip and the exposed body-clay. The discovery of this ware in one stratum of a definite series necessitates the correction of an old error. In *al-'Ubaid*, p. 179, I argued that the later cemetery found there must be attributed to the First Dynasty of Ur, the probability being that it was contemporary with the neighbouring temple of A-anni-padda: with the evidence then available the conclusion was almost enforced. Now we can see that the al-'Ubaid graves, being contemporary with the fifth building level shown in the section, are older than the royal cemetery at Ur and very much older, therefore, than the First Dynasty. The same result is given by other sections at Ur and by the excavations at Warka and Tello.

[2] A preliminary report of the excavation here quoted appeared in *A.J.* x, p. 329. A full account will be published in a later volume of this series.

much later, I should date the Predynastic Cemetery between 3500 and 3200 B.C. The site would seem to have been abandoned as a burying-ground for the simple reason that it was over-full; it could not be used any more without disturbing graves which were too recent for their desecration to be tolerated. This conclusion, based on the actual condition of the upper strata of the soil, is supported by negative evidence of another sort, for everything shows that there was an interval in time but no cultural break[1] between the cemetery period and the First Dynasty just as there was no political disaster, so that there was no reason other than overcrowding why men should desert a graveyard sacred by use and association. The same sentiment which prevented them from disturbing the serried ranks of their dead would assuredly have stopped them from immediately heaping rubbish over the graves, and there must have intervened that decent interval for which I have already argued. But against this it might be urged that I have myself attributed to the First Dynasty a certain number of graves, the 'burnt burials' which are found at the south-west end of the cemetery and are clearly contemporary with the First Dynasty rubbish deposit. The exception seems to me as likely to support as to invalidate my argument, for if I am right in suggesting that these graves, so different from any others in the cemetery, were those of aliens and slaves (and the fact that they were put here while the dumping of rubbish was actually in progress shows that they were held in slight respect), then their intrusion is a sign that the royal cemetery had lost its sanctity and they no less than the rubbish-stratum itself imply a break in tradition and therefore a gap in time between the closing-down of the cemetery proper and the accession of Mes-anni-padda to the throne of Ur.

The history of the cemetery area can be summarized as follows.

Early in the fourth millennium B.C. the prehistoric rubbish-mounds extending north-east of the town were built over and we find two strata of house foundations which, being built with plano-convex mud bricks, must date from after the Jemdet Nasr age; they are poor and flimsy and the period of their habitation was probably quite short; then the town withdrew inside its old limits and the site was abandoned and again used as a rubbish dump. In the house ruins and in the layer of rubbish immediately above them (SIS. 4, 5, and 6 in the section on Pl. 270) there are found the tablets which date the stratum as not earlier than 3750 B.C. and probably rather later.

Between 3500 and 3200 B.C. the area, whose level had in the meantime risen by anything from three to five metres, was used as a burial-ground, the first interments being those of the local kings; private graves were grouped around these and later, after the royal burials had ceased, the whole site was used indiscriminately for private graves which were cut in successive tiers

[1] The evidence of the cylinder seals, *v.* p. 326, is that a marked development almost amounting to a revolution took place during the period of the old cemetery, so that the later seals from it approach much more closely to those of the Sargonid age than to those of the royal tombs; the glyptic art of the later predynastic cemetery culminates in that of Mes-anni-padda and is best understood by reference to it. This is a further argument for the length of the cemetery period as a whole; it also compels us to reduce so far as may be the time-gap between the end of the cemetery and the rise of the First Dynasty; but it does not make that gap impossible and other evidence speaks for its reality.

into the shafts of the kings' tombs. By about 3200 B.C. the cemetery was overfull and was abandoned. In the time of the First Dynasty of Ur, 3100–3000 B.C., rubbish was again emptied over the now forgotten graveyard and at the same time a part of it was used for the burying of slaves or foreigners of no importance whose shallow graves were burrowed into the fresh rubbish. By 2700 B.C. there began a new series of interments along the north-east edge of the old cemetery; these may belong to the kings of the Second Dynasty of Ur and in any case are of their time. The extent of the new cemetery cannot now be determined, but the graves which we have found must all be anterior to 2600 B.C. A short gap in time separates the Second Dynasty graves from the Sargonid cemetery, the earliest graves in which must come soon after 2600 B.C. This cemetery extended over the whole of the old cemetery area which had so long been lying derelict and had risen considerably in level owing to its regular use as a rubbish-dump; it flourished for the best part of two centuries and was abandoned about 2400 B.C. A century later Ur-Nammu, the founder of the Third Dynasty of Ur, included the cemetery area, whose sanctity had once more lapsed, in the development scheme of the city, now become an imperial capital. On the north-west the terrace foundations of his palace E-Ḫursag encroached on the burying-ground; on the north-east a part and perhaps the greater part of the Second Dynasty cemetery was plundered and destroyed for the construction of the mausolea of Dungi and Bur-Sin, and the latter king took over the central area as the site for a temple or other public building. Only when these monuments had been destroyed by the Elamites and private houses of the Larsa age began to be built over the Third Dynasty ruins was the soil of the ancient cemetery again opened up to receive the corbel-vaulted brick tombs of the twentieth-century families of Ur.

CHAPTER X

ARCHITECTURAL MATERIALS AND METHODS

IN a cemetery where funerary chapels or other superstructures have completely vanished even if they ever existed the material for the study of architecture is necessarily limited; indeed the private graves teach us in this respect virtually nothing, and all such information as we may gather is derived from the royal tombs. And in basing our ideas of the architecture of the period, or our ideas of its architectural possibilities, on the remains of the royal tombs we must not forget the limitations of our data. A building constructed at the bottom of a pit and intended to be buried almost as soon as it was completed is likely to be very different from one which the same builders would have put up above-ground; the tomb has a peculiar function and its plan and character will be influenced by that to an extent which may make it a poor guide to the architecture of the living; the material may have been adequate to its purpose in what was essentially a temporary structure, one never to be seen again, but different from what would have been employed for a palace; or again a material and a style perfectly adapted to the needs of the upper world might be affected in unexpected ways by the conditions of its burial during millennia; thus, as will be explained later, we had excavated a number of stone-built tombs before we had been able to get any true idea of what had been their original appearance. But in spite of the allowances that have to be made the tombs do give us new and startling facts about the methods and achievements of Sumerian architecture in the fourth millennium B.C.

The materials employed in the construction of the tombs are stone, burnt brick, crude brick, *terre pisée*; and for mortar, &c., cement, bitumen, clay, and mud.

The use of stone for building purposes was very much more common in the archaic periods of Sumerian history than was formerly supposed. The earliest examples yet known date back to the Uruk period which precedes that of Jemdet Nasr,[1] and throughout the 'plano-convex brick period' stone foundations were regularly employed for sacred buildings at Ur, but by the time of the First Dynasty of Ur the tradition was losing strength, for the apparently massive limestone foundations of that date are merely a sham, a single course of stone masking the brickwork which is the real substance of the wall. In older buildings the foundations are genuine foundations, of the thickness of the wall proper; in some of the royal tombs the entire wall is of stone; the farther we go back in time the more does stone seem to be the normal material for the builder. But it was never the normal building material for the country. In the alluvial silt of the Mesopotamian delta there is not a pebble to be found, much less such stone as the builder could use; the nearest quarries had to be sought in the high desert on either side of the river valley,

[1] A large temple at Warka and private houses at Ur, the latter not quite so early as the Warka building.

and that meant much extra labour and cost. Limestone of the sort used for the royal tombs and e.g. for the First Dynasty temple at al-'Ubaid, can be obtained at and must have been fetched from a distance of some thirty miles to the west where there is an outcrop cut through by a *wadi*; but though the distance is not great the country between, intersected as it must have been by innumerable canals running for the most part north by south, would have presented obstacles enough to make transport difficult and expensive: the stone used at Warka had to come, I believe, from a still more distant source.

It is a commonplace that the natural building-material of the riverine valley was brick; and brick was used before stone was introduced and supplanted stone altogether before 2700 B.C.; it seems most improbable that natives of the delta should have gone out of their way and against their natural habits to introduce building-stone, and its disappearance shows that its use was economically unsound; all this constitutes a strong argument for the stone-builders having come into the country from abroad, brought with them the customs of a land where stone was not the costly rarity it is in Southern Sumer, and having imposed them as a point of ritual on the local craftsmen. It is not necessary to suppose that foreign invasion changed the character of the population; all through Mesopotamian history the chain of tradition is too strong to allow of such sweeping theories; but all through that history the valley lands have been subject to penetration, peaceful or otherwise, by outsiders, not always of alien stock, who have introduced new customs and have modified old habits; the introduction of stone for building purposes and again that of plano-convex mud bricks as a substitute for the rectangular bricks of the older periods mark in all likelihood the arrival of new colonists related to the old but with a culture differently developed in different circumstances.

The stone employed is a coarse white limestone; the blocks are unshaped, simply split and broken in the quarry, and vary greatly in size, the largest being rather more than a metre in length. They are invariably laid in plain mud mortar.

Owing to the irregularity in the shape and size of the blocks laying could not be systematic and the result is best described as rough uncoursed rubble masonry. It was at first puzzling to find on the wall face small stones set in positions from which it seemed they would have been bound to fall out and into which it would have been difficult to set them. This point was solved by a study of the wall face in PG/777 where, low down and close to the floor, it was best preserved; on it could be distinctly seen the marks of horizontal planks against which the mud mortar had come up, forming with the stone a clean face. It must be remembered that we are here dealing with the outer walls of a tomb built in a pit and occupying the pit's whole area; the wall therefore could not be approached from both sides but had to be built from the front and from above against the slightly sloped face of the earth: the builder therefore had laid planks on edge parallel with the wall making with it and them a coffer into which, exactly like the modern builder in reinforced concrete, he poured his mixture of mud and stones (laying the larger stones

individually, of course, but mixing the smaller with his mortar) and rammed it down as, probably, he was accustomed to do with *terre pisée*, until it formed a solid and homogeneous mass with a smooth face to the front. Whether this coffer-dam method of construction was used for free-standing walls, i.e. the cross-walls of the tomb-chambers, there was not evidence to show, such walls being always too much ruined for their surfaces to preserve any traces of planking, but for walls against the pit sides it was generally employed.

No examples have been found of burnt brick being used for wall construction: walls were most commonly of bricks[1] and these are always of crude sun-dried mud. All bricks are plano-convex in shape, i.e. rectangular in plan, with straight sides and base, but with the top rounded like the top of a cake; the size is not strictly uniform,[2] and while some measured 0·27 m. by 0·17 m. by 0·10 m. in thickness in the centre, others were as small as 0·18 m. by 0·09 m. by 0·075 m.;[3] in the top of the brick are one or two depressions made with the finger to act as 'frogs' holding the mortar.

A characteristic of the mud-brick building of the 'plano-convex' period is the laying of bricks slanting and on edge, alternate courses as a rule slanting in opposite directions so as to produce on the wall face a herring-bone effect; usually two, or four, 'herring-bone' courses are succeeded by two flat courses, and so on. This custom, which was freely practised by Ur-Nammu in the case of very heavy brick constructions such as the Ziggurats of Ur and Erech or the terrace walls at Ur but not, so far as we know, for ordinary walls, died out in the time of the Third Dynasty—indeed, Ur-Nammu himself seems to have been the last to observe it; it is found all through the plano-convex period and may occur earlier, but earlier instances have not yet been recorded. Dr. Jordan[4] would connect this curious fashion of bricklaying with the even

[1] This is generally true of buildings, but most of the royal tomb structures were of stone.

[2] Exact uniformity must not be demanded of hand-moulded bricks. Even where the same mould is used a difference of consistency in the mud, a slightly greater proportion of water, will result in the brick settling and spreading as soon as the box-mould is lifted and make a difference of a centimetre or even more. The degree to which a brick is plano-convex, i.e. the curve of its upper surface, is equally variable even where the same batch is concerned, partly for the same reason of the 'settling' of the mud, partly because the heaping up and rounding-off of the mud on the top (above the edges of the box-mould) is strictly hand work and liable to all the vagaries of hand work.

[3] Brick measurements are very useful in helping to decide the dates of buildings, but our experience in the later historical periods shows that their evidence is not infallible and by no means always easy to use. Thus, apart from the accidental variations referred to in the previous note, Ur-Nammu alone has bricks of at least ten different dimensions. In the case of plano-convex bricks any theory as to the degree of convexity standing in relation to date is, in the present state of our knowledge, unfounded and arbitrary. Of the mud-brick measurements quoted above 0·27 m.×0·17 m.×0·10 m. is that of a late brick of the Second Dynasty period; 0·18 m.× 0·09 m.×0·075 m. is early (it is found in PG/1524) and contemporary with it is 0·18 m.× 0·15 m. × 0·05 m., and so is a slightly convex thick brick 0·19 m.×0·17 m.×0·10 m. A rectangular flat brick 0·26 m.×0·16 m.×0·085 m. comes from the Second Dynasty grave PG/1847; a rectangular flat brick 0·22 m. sq. comes from the older levels immediately beneath the cemetery. Of burnt bricks we have in PG/789 bricks 0·305 m. sq. and half-bricks 0·305 m. × 0·16 m. × 0·085 m., nearly flat; in the circular pavement illustrated on Pl. 69 *a*, the bricks, only slightly plano-convex, measure 0·28 m. × 0·18 m. × 0·05 m., and in a neighbouring square pavement 0·25 m. × 0·18 m. × 0·05 m. and are more strongly convex; the offering-basin over PG/1237 has bricks of the same size also moderately convex (Pl. 69 *b*); another pavement has 0·22 m.× 0·15 m.×*c.* 0·05 m., and a flat brick 0·33 m.×0·21 m. ×0·045 m. which may be an older brick re-used; at 3·50 m. below this pavement was another of plano-convex bricks 0·23 m.×0·125 m.×0·055 m.; *v.* p. 83.

[4] J. Jordan, in *Abhandlungen der Preussischen Akademie der Wissenschaften, Phil.-Hist. Klasse*, Berlin, 1931, Nr. 4, pp. 18, 51; 1932, Nr. 2, p. 10; report on the season 1930–31, 1933, p. 15.

more remarkable introduction of plano-convex bricks to replace the practical flat bricks of the Jemdet Nasr period, suggesting that both derive from building in stone rubble and are therefore the work of new-comers who in their original home had been accustomed to stone and in the Euphrates valley adapted the local material to their native methods; against this theory is the difficulty that stone building is already practised in the valley before the plano-convex brick period. At present all we can safely say is that herring-bone bricklaying is found throughout the period during which round-topped bricks were used and continued beyond that period for a few centuries, down to Ur-Nammu's time; instead of being, as I had at first supposed, a peculiarity of the Second Dynasty it is characteristic of an epoch.

Real *terre-pisée* construction does not occur in the cemetery itself, though it was employed in the cemetery period; but in one case, PG/1524, there was a walled platform built with unshaped lumps of clay which averaged in size 0·20 m. by 0·16 m. set in clay of much the same consistency (but of a different colour) as the lumps; the lumps are simply of a size convenient for carrying, and the method of construction must have been very similar to that used with the stone rubble, i.e. the mass must have been rammed down inside a plank coffer.

Wall surfaces, whatever the material employed in construction, were finished with plaster: a simple mud plaster is the rule in buildings of all kinds, but in some of the stone-built royal tomb-chambers and in one of the mud-brick tombs (PG/1524, p. 178) a fine white lime cement made from gypsum took the place of the mud. It was at first very difficult to judge the original appearance and quality of the tomb construction because so great changes had been wrought by time and decay. The tomb-chambers lay ten or more metres underground and the soil in which they were built was always damp; consequently the thick mud mortar between the stones never really dried and the enormous weight of the roof and of the earth above the roof, pressing on the walls, forced the stones together and the mortar oozed out on the face of the wall, breaking away the plaster, while the stones, if they did not fall out altogether, lost position and alinement; generally the wall when excavated looks like dry-stone building and very bad building at that. That this appearance is accidental and not true to the original style of construction was at length made clear when we unearthed the entrance-door of PG/1236. Because the pressure of the roof was inwards, not outwards, and the outer face of the door was, like that of the chamber walls, flush against the solid filling of earth which prevented the escape of the mud mortar and the dislodging of the stones, the entrance, ruined and distorted on the chamber side, is on the outside virtually intact. On Plate 63 can be seen the doorway as exposed when the sloped *dromos* was cleared of its filling of soil; the masonry of the jambs and arch is entirely hidden by a white cement plaster which yet retains a comparatively smooth and even face; the door had been walled up after the funeral and the blocking plastered with mud which also has kept its surface remarkably well. The entrance chamber of the same tomb preserved some at least of its wall plaster (see Pls. 65 and 68) though much had flaked away

and most even of what was left was now cracked and irregular; but the actual surface was excellent and the cement pavement, which was in the best condition of all, was as good as *opus signinum*, hard and almost lustrous. Obviously PG/1236 does not stand alone. The walls of the other tombs, often scarcely recognizable as masonry (*v.* Pls. 32, 66), cannot be judged by their present appearance but must be imagined, on the analogy of PG/1236, as well and truly built and smoothly faced; indeed, the walls of PG/779 retain enough of their cement plaster to make the analogy safe and so little of it as to prove that its complete disappearance is no argument for its never having been there.

Cement pavements were rare; generally men were content with a floor of beaten earth or hard clay; stiff green clay was also used for proofing the outside of a dome or vault, a thick coat of it being spread above the stonework to protect the mud mortar from the damp of the soil. Bitumen has not been found used as mortar in any of the tombs, but in the offering-basin set in the filling of the shaft of PG/1237 (*v.* Pl. 69 *b*) the inside was waterproofed with bitumen, showing that the material was employed by architects at least for secondary purposes. For somewhat similar constructions above PG/337 (Pl. 12 *a*) and PG/1236 cement was used.

When we excavated PG/777, the first of the stone-built tombs found by us, I was astonished to recognize in the tumbled stonework evidence of the chamber having been roofed with a vault; from the position in which the stones lay it seemed almost certain that this had been so, but it was none the less difficult to believe in so revolutionary a conclusion. The elaborate drawings and photographs taken of this fallen tomb, which appeared so important at the time, were made otiose by the subsequent discovery of better-preserved tombs which proved by standing examples that the Sumerian architects of the fourth millennium B.C. were familiar with the arch, the vault, the apse, and the dome.

In PG/1236 (*v.* Pl. 64 *b* and Pl. 65 *b*) we have an excellent illustration of corbel vaulting in stone. On the inside the soffit of the roof as outlined on the end wall by the cement plaster (Pl. 65 *a*) shows a gentle curve rather than the straight line which is characteristic of corbelling; it may be that the influence of the true arch is here making itself felt and that the builder is imitating the effect obtained by a method other than he was practising; but the stones (allowing for the sinkage due to weight and time) are laid flat, each overlapping that below, and so far from there being any keystone the two sloping sides of the roof never meet but leave between them a wide gap to be bridged by the cap-stone.

In PG/779 two of the chambers are vaulted and here (*v.* Pls. 24, 26, 27, 28), though the principle is still that of corbelling, there is a modification which marks a distinct structural advance, for while the stones of the successive courses do overlap they are laid not entirely flat but on a slope which grows more pronounced as the sides of the roof mount higher, and although in one case (Pl. 26 *a*) the flat capstone is fully in evidence, in another place (Pl. 27 *b*) the effect is practically that of a voussoir arch. The fully developed arch is

seen in PG/789, where the material is burnt brick instead of stone; the bricks (Pls. 31 *b*, 32 *a*) are laid in voussoir fashion with radial joints; small fragments of broken pottery or brick were inserted in the mud mortar at the top end of the joints so as to preserve the segmental form. The doorway of the same tomb-chamber (Pl. 32 *b*) is covered with a true arch similarly constructed in burnt brick.

Here, therefore, there are illustrated all the stages of development, from the pure corbel vault to the true voussoir arch. It is tempting to see in these stages evidence for a relative chronology, assuming that that which is structurally more primitive is necessarily the earlier in time; but such an assumption would be more than rash. We know that at a much later date, in the time of the Third Dynasty of Ur (*c.* 2300 B.C.), corbel vaulting was constantly used and used even for the tomb-chambers of the kings; for some reason or another it was deliberately preferred by the builders to the true arch with which they were none the less quite familiar. Here, too, the different methods of roofing may be contemporary or even, by accident, in the reverse order to that of natural development; but their existence side by side in the cemetery does show the variety of resource of the Sumerian builder of the time and does illustrate, even if only by survivals, the progress of invention. To some extent this progress must have been influenced by material. Just as the stone walls of the chambers tended to be coffer-built, so for the roofs an elaborate centering was employed. In PG/777 the holes left by the decayed wood were clearly to be seen in the upper stonework of the walls (Pl. 23 *b*, cf. Fig. 6) and the same was the case with the brick-vaulted chamber of PG/789, where the holes (0·14 m. sq.) came just above the line of bricks laid along the wall tops to give a level bedding for the springers; in PG/779 likewise there were timber-holes, and in PG/1236 they were preserved at regular distances of 1·20 m. along the whole length of chamber A. The cross-beams whose ends rested in these holes were covered with a regular ceiling of planks of which also traces could be found inside the chambers (cf. Pl. 56 *b*, PG/1054); in PG/789 when it was first cleared quantities of straw were found hanging from the roof, the ends stuck to the mud mortar between the bricks; it was obvious that over the planks there had been heaped light earth and straw to make a solid foundation on which the roofing material might rest in the course of construction. To some extent this may explain the difference in the different roofs. If the same method of construction were followed here as in the walls and a mixture of stone blocks and mud mortar was poured over the centering after the fashion of reinforced concrete, the stones being allowed to find their own level, then the result would be more like what we see in PG/779 than in PG/1236, for they would assume rather the arch form; the more care was taken in laying and coursing the stones against the slope of the centering the greater would be the tendency to produce a corbelled vault. In the case of the brickwork, however, regular laying and coursing is imposed by the nature of the material and there is no question of the form being accidental; though thanks to the pressure of the soil the arch has now lost its regularity of shape it was originally well and carefully built. For a corbel

vault the builders, judging by the later practice as exemplified in the Third Dynasty mausolea, would have erected a timber centering which would support the weight of the bricks during construction and secure evenness of overlap; the softer type of centering here employed for the ring arch had its drawbacks in that it afforded only partial support, and the builders therefore followed the practice of men constructing a barrel vault without centering and, starting work at either end, leaned each ring of bricks against that already in position; thus each ring, until the keystone has completed it and made it strong, derives support from its neighbour; the disadvantage is that to lean effectively it must stand higher than its neighbour and the roof-line of the vault rises to a hump in the middle; here the first ring consists of 14 bricks, the second of 17, and the third apparently of 20. Again, the brick roof is structurally different from the stone examples in that it resolves itself into a series of contiguous arches, each complete in itself and independent except in so far as one leans against the other; the stone vaults are more truly so called in that there are in them no vertical breaks of bond dividing them into units but a bonded construction uniform from end to end of the chamber.

In the case of PG/1236 the cement plaster on the walls is continued up to the apex of the roof; it follows therefore that the wooden centering of which traces remain in the masonry of the walls was removed as soon as the construction was complete and the vault was exposed. In PG/789 the straws still sticking to the mortar between the bricks of the vault imply that the centering was not removed but was left as a flat ceiling; in PG/1054 the decayed panelling which covered the bodies and objects in the tomb-chamber may have been a baldachin or canopy but may equally well have been the (collapsed) flat ceiling of the chamber whose primary purpose had been to support the centering for the dome; that centering was used is proved by the beam-holes which run right through the masonry at the base of the springers (Pl. 55). Probably there was no rule in the matter but the centering might be left as a ceiling or removed to expose the constructional roof as the owner preferred.

The photograph on Pl. 65 *a* shows that in this chamber the vault was carried up consistently to the line of the end wall; in another case (PG/779, see especially Pl. 27, *a* and *b*) the vault has an apsidal end, and the square corners of the chamber are resolved into a half-circle by the use of regular pendentives. In PG/789 (Pl. 31 *b*) the same has been done with the brick roof; a complete apse was built, presumably at either end, and only when the front of it had been brought to a vertical face were the ring arches of the barrel vault leaned against it. The change of material, from stone to brick on a definite horizontal line, tends to be misleading to the eye, but in fact the wall face is carried up in brick over the middle of the end wall and the construction of the pendentives is technically regular. What is true of the apse is true also of the dome. In the great four-chambered stone-built tombs PG/779 and PG/1236 the two middle chambers, being approximately square, were domed, and although the roofs had collapsed enough remained to illustrate their character (Pl. 67 *b*), but in the case of PG/1054 the domed chamber was discovered intact. The outside of the dome, a pudding-shaped lump of

rough stone plastered with green clay (Pl. 55) and pierced by the beam-holes, did not give evidence of any architectural skill, but it must be remembered that the chamber was to be buried out of sight as soon as it was occupied and the clay-covered dome (more regular in shape then than now when the stones have slipped out of position) was adequate to its purpose. But inside there is every proof of competence. The pendentives, although rough in (present) appearance, are clearly defined and technically correct; the main body of the dome, built over the circle formed out of the square of the chamber walls, is in ring courses carefully laid (Pl. 57 *a*) and in spite of crushing still very regular. The fact of the material being unhewn stone disguises somewhat the excellence of the construction but also makes that excellence the more praiseworthy by adding to its difficulties; actually the successive rings overhang by a fairly consistent amount (Pl. 57 *b*) and the tilt of the stones increases in proportion as the rings rise towards the cap; at the top there is left a very small hole lined by stones set nearly vertically and covered by a cap-stone which has indeed been let down into the hole and so might almost be called a keystone, but is not essential to the security of the dome and does not therefore perform a really structural function.

In the larger tombs there were doorways between the chambers which were in some cases arched, as were the entrance-doorways of PG/1236 and PG/789, but in others would seem to have been flat-topped and provided with wooden frames and lintels; thus in Pl. 66 *b* there can be seen the hole in the masonry left by the decay of a wooden upright which formed one jamb of the door, whereas the other photograph on the same plate gives evidence of an arched communicating doorway; as in private houses so in the tombs there was no need of any fixed rule.

That vault construction in mud brick was also practised by the Sumerian builders of the time was proved by the discovery of one completely plundered and empty grave over which part of the mud-brick vault stood intact; there may have been similar vaults in the case of PG/1100 and, less probably, PG/1050: at Kish several examples were found of much the same date. On the other hand, it is safe to assume that the commonest form of roofing, and the cheapest, was that which is normal in the country to-day, the flat roof composed of poplar-poles over which are spread layers of matting, reeds, matting, and earth; there is little doubt that a roof of this sort existed over the upper chamber in the shaft of PG/1050 (*v.* Pl. 46) and probably over that in PG/1054.

In the small rooms of the tomb buildings there was no place for columns, and we have therefore from the cemetery no evidence for their use, but that the column was known is amply proved by the discoveries at Warka,[1] where the magnificent mosaic-covered brick shafts are older in date than the royal tombs of Ur, as well as by the later mud-brick columns of the temple at Kish[2] and the wooden columns encased with copper or mosaic at al-'Ubaid.[3] It

[1] Dr. A. Nöldeke, in *Abhandlungen der Preussischen Akademie der Wissenschaften, Phil.-Hist. Klasse 1932*, Nr. 6, Taf. 8.

[2] Langdon, *Excavations at Kish*, vol. i, Pl. xi.

[3] *al-'Ubaid*, Pl. xxxv.

was astonishing to realize that the basic forms of all modern architecture, the column, the arch, the vault, the apse, and the dome were familiar to the Sumerian builders of the fourth millennium before Christ, yet concrete examples of all these are preserved to us. In the case of the column it is already abundantly clear that the knowledge and the use of it was never dropped in Mesopotamia, for we have extant examples dating from the Third Dynasty, the Larsa period, and the Kassite; for the arch, standing instances are known at Tell Asmar, dating to about 2500 B.C., and at Ur we have the arched doors of private houses of 1900 B.C. and an intact arch of the time of Kuri-Galzu (*c.* 1400 B.C.), with a neo-Babylonian arch at Babylon to complete the series; in spite of the prevalence of corbel-vaulting in the Third Dynasty[1] tombs it is obvious that the use of the true arch was never abandoned. With roofing methods the evidence is less satisfactory for the simple reason that roofs are so seldom preserved, but in the case of some of the temples the peculiarities of the ground-plans can only be reasonably explained by the assumption that vaults and domes were to be employed; we have definite proof of the existence of small domes over the compartments of a water cistern built on the Ziggurat terrace at Ur by Ur-Nammu.

In a country where the palm-tree is indigenous there is no need to look abroad for the origin of the column in architecture; the palm trunk supplies a ready-made shaft which no builder could overlook. The free-standing mud-brick columns which flank the door of Warad-Sin's fort at Ur[2] are decorated with a pattern of triangles in low relief which faithfully reproduces the surface of the palm trunk; the triangles of black and red stone and mother-of-pearl which make up the mosaic on the columns from al-'Ubaid must be derived from the same original, and the survival of the motive through the First Dynasty of Ur down to 1960 B.C. shows how conscious were the Sumerian architects of the origin of the column as part of their repertory. It would be absurd to claim as the exclusive property of one culture or of one period an invention at which so many must have arrived independently, but that in Sumer the column is autochthonous and not imported can safely be maintained. That the other architectural forms should have been developed independently in this country seems to me probable. The simplest and most endemic method of building is with reeds and reed mats and mud; these are the materials which the marshlands to-day and the wider marshes of the drying delta in antiquity furnish in abundance and almost exclusively. To-day the ordinary hut of the southern Iraqi peasant is made by planting in the ground in two parallel rows fascines of tall reeds, one immediately facing the other; the tops of two opposite fascines are bent inwards and tied together in an arch and over the row of arches are spread mats to form a tunnel;[3] here there is in genesis the barrel-vault supported by ring arches. There are many early reliefs showing huts similarly constructed. If such a hut were plastered

[1] For the column, *A.J.* x, Pl. XXXVI, xii, Pl. LXVI; Dr. John P. Peters, wrongly 'corrected' by Hilprecht in *Explorations in Bible Lands*, p. 338; for the arch, *Illustrated London News*, July 15, 1933, p. 100; *A.J.* vii, Pl. XLV, xi, Pl. XLIV, v, Pl. XLV; Koldewey, *Das wieder erstehende Babylon*, 4th ed., 1925, fig. 45; for corbelling, *A.J.* xi, Pl. XLIII.

[2] *A.J.* xii, Pl. LXVI.

[3] *V. al-'Ubaid*, Pl. XXXIX, 2 and 3.

thickly with mud, as they often were and are, there would result very much what we have in the case of some of the tombs where the method employed was that of coffer building, and it would at least be enough to facilitate the translation of the architectural form from one material to another. Actually we have found a little domed building of the time of the Third Dynasty wherein the walls are of burnt brick and there was a dome, but the latter seems to have been of basket-work covered with mud and bitumen;[1] this may be a late reversion to a primitive type; the reed fascines are the natural arch, the curved stiff mat takes the form of the vault, the woven basket, inverted, is a dome, and the mud plaster suggests more permanent building; the earliest and rudest constructions of Sumer have in them the germs of all architecture. And it cannot be shown that the Sumerians could have learnt the principles of architecture from any other people, because, so far as we know, no other people at anything like so early a date had evolved those principles. The earliest example of an arch found in Egypt dates from the early dynastic period and is therefore rather later than the royal tombs of Ur; incidentally it is almost an isolated case, and the arch was very seldom employed by later Egyptian builders, while the apse and the dome seem to have been entirely unknown in the Nile Valley until the Greek age: and apart from Egypt there is no civilization of the Near East that can rival the Mesopotamian in antiquity. Without excluding the possibility that some of these architectural forms may have been invented independently by other races and in other times, we must allow that they appear first, so far as we know, in Sumer and there had been evolved by the native genius of the Sumerians; they formed part of the consistent tradition of builders in Sumer and in the surrounding lands and later kingdoms which were influenced by Sumerian civilization, and there can be little doubt that when they were at last introduced from the Near East to Europe the architects of the West entered into the direct line of descent from those old masons who built the royal tombs at Ur. These discoveries must change completely our ideas of the early history of architecture, and they are the more striking because that subject had appeared so well established; but it is precisely in this field that we can trace most certainly across the centuries what is often so intangible, the influence exercised by the past on the present world.

[1] *A.J.* xiii, p. 371.

CHAPTER XI

DRESS AND PERSONAL ORNAMENTS

A. THE EARLY PERIOD

THE Royal Cemetery has contributed a great deal of fresh material on which to base our ideas of the dress and personal appearance of the early Sumerians. Other writers have dealt with this subject,[1] and here there is no need to go over the ground which they have covered, but only to point out what is new: on the one hand we have the representations of people on the 'Standard' (Pls. 91–3), on shell inlays (Pls. 99, 100, 105), on the stone stela (Pl. 181), on the gold diadem (Pl. 139), and on cylinder seals; on the other hand we have the actual remains found in the graves.

That the flounced skirt or kilt worn by the king in the top row of the banquet scene on the 'Standard' was made of a sheep's fleece and not, e.g., of leaves sewn on to a cloth basis, is, I think, finally proved by the fact that the fleece of the 'ram caught in a thicket' (Pl. 87) and the hair and beard of the gold and lapis bull's head (Pl. 107) are made of inlay carved in precisely the form of the tassels on the kilt; other locks of hair on the same animal sculptures reproduce as exactly the long wavy tufts which form the border of the plaids worn across their shoulders by some of the soldiers represented on the 'Standard'. On the same monument are shown other kilts the marked differences between which cannot be other than intentional; the skirt with very narrow straight fringe, that with a deeply scalloped edge, and that with a border whose pointed scallops are distinguished by a medial line or again by an internal V which unquestionably denotes the lock of hair, are conventional representations of what must be different things: to me it seems likely that while sometimes the leather skirt, with the fleece either worn inside or shaved off except along the edge, is meant, in other cases the garment was of cloth. It would be curious if no cloth garments were ever represented on these early monuments when we know for a fact that they were commonly worn.

In PG/357 there lay round the legs and feet of the skeleton a great quantity of cloth; it was all reduced to fine powder but did, so long as it was undisturbed, preserve the texture of the original sufficiently for three varieties of material to be distinguished. One stuff was rather coarse with a plain over-and-under right-angle weave; the second was a finely woven cloth with a diagonal rib; the third was a loosely woven right-angle weave fabric on one side of which were long threads forming either a very deep pile or else 'tassels' like those on the skirts of the figures represented on the monuments. This was the only case in which we found cloth that could have been a woven imitation of the fleece, but cloth of any kind was so seldom preserved that the single instance may well witness to a common custom.

[1] Cf. particularly E. D. van Buren in Liverpool *Annals of Archaeology and Anthropology*, xvii (1930), 39–56; also remarks on the same by Frankfort, *Archeology and the Sumerian Problem*, p. 12; Andrae, *Die archaischen Ischtar-Tempel in Assur*, p. 12; Opitz, in *Archiv für Orientforschung*, vi, p. 19.

In most graves were found the long copper or silver pins of which Type 1 is in vogue throughout the whole cemetery period and Type 7 is exclusively early; such were common also at Kish, in the 'A' cemetery, and Mackay,[1] remarking that 'in all cases the pins are found close to the head', describes them as hairpins and from them argues that the hair must have been worn long. At Ur such pins were occasionally found with the crushed fragments of the skull, but the normal position was against the upper arm or shoulder, where they lay parallel to the arm-bone and usually with the point upwards; there is no doubt that they were used as fasteners of a cloak which probably passed below one arm and was pinned together over the other shoulder. The military cloak worn by the soldiers on the 'Standard' was secured in front with a lace or toggle; judging from the way in which it falls, heavily and without folds, it may have been made of felt, like the shepherds' cloaks of modern Anatolia, which are stout enough to form a very good protection against such weapons as the Sumerians had to encounter. The round marks on the soldiers' cloaks might represent disks of metal (?) sewn on as ornaments. The use of a pin implies a cloak of lighter material (a copper pin is ill suited to either felt or leather); its length must mean that it was run several times backwards and forwards through the cloth so that the two parts of the cloak would not merely be caught together at one point but would be joined up to form a kind of sleeve hiding most of the upper arm. Such a cloak seems to have been almost universally worn.

In the case of two or three bodies in the Great Death-pit (PG/1237) a stray fragment of cloth was preserved under a cup or bowl, a thick but closely woven fabric the dust of which still retained a bright ochrous red colour. Very many of these same bodies had round their wrists beads of gold, carnelian, and lapis-lazuli which had not been strung together as loose bracelets but had been sewn on to the edges of the sleeves of a garment; it would appear that these women wore red jackets with fairly tight sleeves reaching to the wrist. In PG/1380 a woman who had beads at her wrist (but these may have been strung together, not sewn on) had also round the waist a row of shell rings; in PG/1130 (p. 166) there was round the waist a row of silver rings and lapis-lazuli 'buttons'; Queen Shub-ad had a row of gold rings pendant from a heavy band of beads which were sewn to a cloth background (*v.* Pl. 130 *b*); a similar bead belt was found in PG/1749; and shell rings recur in a number of other graves,[2] usually at the body's waist. It is possible that the rings were the ornaments of a separate belt, but their association in Queen Shub-ad's case with beads sewn on to cloth precisely as are the beads of the wristlets is very much in favour of their having been a fringe along the bottom of a short coat; it would seem, therefore, that the costume of ladies of the court, at least, included a coat reaching only to the waist and having long, rather tight sleeves; the cuffs and the bottom hem of the coat might be enriched with beads, or along the hem there might be a row of pendant rings in shell or metal; it is likely that the coat was fastened in front and the border with its ring pendants did not hang loose but formed a belt in one piece with the

[1] Mackay, *A Sumerian Palace and the 'A' Cemetery at Kish*, p. 170. [2] e.g. PG/895, PG/1380, &c.

garment. In a grave already quoted, PG/895, there lay in a row down the front of the body fifteen disks of glazed frit and of black steatite which seemed to have been sewn on to the front of the coat and may have served as buttons to fasten it; similar disks or buttons were found in a few other graves. The appliqué patterns in beadwork found by us in PG/381, *v.* Pl. 219, U. 8653, were probably on such a coat as this. Of skirts and under-garments no traces were discovered.

The elaborate head-dress of the women of the court is described in detail in the account of the tomb of Queen Shub-ad, p. 84. Hers was but a somewhat richer version of what was regularly worn, and examples almost as splendid were found in other graves; cf. Pl. 144. The hair-ribbon, sometimes of gold, sometimes of silver (*v.* Pl. 219, PG/635), had each of its ends coiled into a small loop through which a pin could be passed to fix it in position; very slender short silver pins were often found on the head (though never, as a matter of fact, in the loop of the ribbon), and may have served this purpose as well as that of ordinary hairpins. The ribbon was festooned on either side of the head, as can clearly be seen in Pl. 128, and the size of the festoons makes it evident that the hair was padded out to an exaggerated size, or else a wig was worn; nothing remains to prove that there were long locks hanging down in front of the shoulders, though this is probable; the back hair was gathered in a chignon which hid the fastenings of the 'wreaths' forming the next element in the head-dress. The wreaths consisted each of a double string of beads, carnelian rings and short cylinders of lapis-lazuli, from which hung pendants whose stems acted as spacers, keeping the ranks of beads in place; the most common form of pendant is the 'beech-leaf' (Pl. 135), plain rings are the next in favour, long leaves like those of the willow set in groups of three (Pl. 135) and disks of gold with lapis centres also occur, and the leaf-wreaths might be relieved by rosettes: both leaves and rings can be either in silver or in gold. The 'beech-leaf' wreath is an invariable part of the head-dress, the others are worn with, not in place of it, and as many as four wreaths may be worn at once, one above the other, though this is unusual, and the single wreath was generally deemed sufficient. Sometimes the gold rosettes were not attached to the wreath but were fixed as heads to slender silver pins which were stuck into the hair. Into the back of the hair was stuck a pin of a much more decorative sort, an upstanding ornament which reminds one of the 'Spanish combs' popular in England in the Victorian Age, the stem of the pin broadening out to a flat triangular plate from which rise points ending in flower rosettes. Queen Shub-ad's comb was of gold and had seven flowers; the ordinary comb, cf. Pl. 136, was of silver and had three (occasionally five) flowers whose petals were inlaid with gold, shell, lapis-lazuli, and red limestone; unique amongst them were a silver comb whose five points ended in round balls of lapis-lazuli (Pl. 137, U. 8212), and a squat example in which the balls, this time of silver, were soldered directly to the edge of the triangle instead of being at the ends of branches (Pl. 219, U. 14257). In one case, and one only, two pins seem to have been worn at the same time; this was in PG/159, where the silver comb just described (U. 8212) was found;

on the top of the skull were more fragments of silver, shapeless in themselves, and more lapis balls.[1] On the other hand, we do find worn with the 'comb' spatulate pins in gold or silver of Type 5; in these the top edge of the triangle is rolled over into a slender tube, and I have suggested that this is to take some ornament of different material, such as feathers (Pl. 159); the feather head-dress is commonly represented on archaic monuments.

The fashionable ear-rings of the royal tomb period, invariably worn with the elaborate court head-dress, were enormous double lunate rings in gold or silver (Pl. 138); the two crescent-shaped lobes, made of thin metal and hollow, were soldered together side by side; from the end of one crescent a curved pin reached across to fit into the tubular end of the second crescent; since the pin is reasonably thin it may have passed through the lobe of the ear, but in view of the weight of the ring (which in some cases was increased by the hollow metal being filled with bitumen) it is likely that it was in part at least supported by a lock of hair passed through it. A smaller type of lunate ear-ring was worn, but it is the large one which is characteristic of the early period; the miniature type, with its complications of two or three intertwined rings, is specially Sargonid, but though size changed, the tradition of the early times as regards form never died out altogether; an ornate example, U. 10409 on Pl. 138, comes from a larnax-burial of the Larsa period, and even in neo-Babylonian graves the lunate ear-ring is the most common of all types.

The most doubtful feature of the early head-dress is the 'hair-ring' (Pl. 219); this is almost always found on the head and usually close to the ears—examples have been found which were actually inside the big hollow lunate ear-rings—but as they occur together with ear-rings they would seem to have served a different purpose, and I imagine that as a rule they were twisted round a lock of hair; they have been found lying in front of the shoulder, as if confining a lock which hung down to the breast. In many cases, however, they appear where there are no ear-rings of the lunate type, sometimes lying close to the ear, e.g. PG/159, and then they may have been worn as ear-rings either in the lobe of the ear or suspended by a lock of hair just below it; for the same objects to be used in various ways does not offend the Near East's sense of propriety.

On body No. 12 in the grave of Queen Shub-ad (PG/800) the gold hair-ribbon, which was just over one metre long, showed on its under side the imprint of a very fine muslin; this can only have been a veil which was secured above the forehead by the ribbon; as the chances of the survival of such an imprint are very small this case, although unique in fact, can fairly be taken as typical, and we can assume that the veil was a regular part of the head-dress.

Occasionally we find in the Early Cemetery the type of head-dress which

[1] There was a wreath of silver ring pendants and one of silver disks with carnelian centres (in bad condition, only one identified), and no 'beech-leaf' pendants were recorded, but there was a quantity of decayed silver and a double string of carnelian rings and lapis cylinders which would be unaccounted for unless there had been a third wreath. With so much decayed metal the identification of the second comb is not certain, but it was noted as a probability.

was to become the rule in the later period; the woman buried in the royal tomb PG/1054 had on her head an oval gold frontlet secured by long wires, and a similar frontlet with a star rosette in the centre, also secured by gold wires, came from grave PG/389 (U. 8913): a silver frontlet was worn together with a wreath in PG/263 (p. 150). The diadem found by the side of Queen Shub-ad, formed of gold figures of animals, fruits, and flowers against a background of lapis-lazuli beads (Pl. 140), is not unique, for a poorer example of the same type came from PG/1130 (U. 11776, Pl. 142), and fragments of similar diadems from PG/777 and PG/1236, U. 12443: it will be noticed that three of the four are royal tombs, and therefore it would appear that the diadem with gold animals, &c., was *par excellence* a royal decoration.

Sometimes, but rarely, where there was no wreath, strings of beads were worn on the head either instead of a wreath or twisted in the hair; such was the case in PG/332 (U. 8497); in PG/717 a mass of very small ring beads of glazed frit covered the head, arranged in vertical lines and lying in a fine white powder the texture of which suggested that it had been a kind of muslin, so that here again there may be evidence for a veil hanging from a bead-embroidered cap. Queen Shub-ad had on her head a number of large lapis beads clustered round the stem of the 'Spanish comb' as if to steady it.

The necklaces, many and elaborate, are described in Chapter XVIII: in the Early Cemetery period the materials used are gold, silver, lapis-lazuli, and carnelian almost exclusively; Queen Shub-ad indeed had quantities of finely variegated agate beads (Pl. 131), but she was an exception; beads of glazed frit occur but are not common. Of shapes, the most distinctive is the 'dog-collar' of triangular gold and lapis beads (Pl. 144, &c.) peculiar to the old cemetery[1] and a constant feature of the court dress of the time.

Amulets (*v.* Pls. 142–3) were not very common, nor was their use confined to women. Only one phallic amulet occurred (U. 8904, Pl. 219). Occasionally plain metal armlets or bracelets were found and sometimes strings of beads on the upper arm or round the wrist. Rings on the fingers, of gold, silver, or copper, were very common; as many as four might be worn on one finger: simple hoops of wire were the most usual, either a single hoop or a spiral, but there were more elaborate forms with rare examples of inset stones (*v.* Pl. 138 and p. 297). In a few instances (e.g. PG/724, 840, 1276, 1351) a single toe-ring of plain copper was worn. Queen Shub-ad had just below the knees

[1] This is true of Ur. At Kish a single example of the 'dog-collar' has been found in a grave which Professor Langdon, in *Art and Archaeology*, xxvi. 5, p. 155, describes as lying in the 'red stratum' of which the upper part contains Sargonid objects and the lower is older. The 'red stratum' is separated from the Sargonid level by two building levels in which plano-convex bricks are used, so that the stratum itself should be considerably earlier than Sargon, though intrusive burials in its upper part may be late. Professor Langdon is not explicit on the point of the date of this grave with the 'dog-collar'; when Christian and Weidner state that these necklaces appear at Kish 'in graves of the early Akkad period' the attribution goes far beyond the published evidence. The Kish example may be an exception to the general rule as given by Ur, or it may not. At Tell Asmar near Baghdad a 'dog-collar' of silver and lapis has been found which Dr. Frankfort would date by its associations to the Sargonid period or not much earlier; the published statement (in *The Times*, 10 July 1933) is not sufficiently detailed to allow of discussion. There is no reason why isolated examples of a much older style should not persist for a long time, especially in the case of jewellery; eighteenth-century jewellery is not uncommonly worn at the present day.

strings of flat beads, lapis and carnelian, which looked like garters, and in two or three other cases beads were found in much the same position; obviously the rare occurrence of garters enriched with beadwork is no argument for the extent to which garters were worn.

The remains found in the graves have thrown little light on the dress fashions of men in the early period. Two points stand out. In a few instances a row of buttons lying in order down the front of the body seem to indicate a shirt or tunic open at the neck and secured by buttons; and in others a row of shell rings lying horizontally round the waist must mean (as in the case of the women) either a proper belt or a belt attached to and forming part of a short coat. That a belt was almost universally worn is proved by the position in which certain objects are found; the man's knife or dagger, his whetstone, often his cylinder seal and his little case of toilet instruments lie together against the thigh and were clearly suspended from a belt. In a few cases the actual belt was found, exceptionally preserved because of its exceptional nature; thus the gold dagger and toilet-case from PG/580 (Pl. 151) were attached to a belt or baldric made of a long strip of thin pliable silver sewn on to leather; we have the same thing in Mes-kalam-dug's grave (Pl. 21) and again in PG/337 (Pl. 13 *b*); the ordinary girdle may have been of leather or plaited cord—at any rate it was of a material which would perish and leave no trace of itself. In PG/1195 there lay on the waist-line a disk of gold filigree work resting on a decorated silver disk, U. 11968, Pl. 219; this was probably a buckle for a belt of some material which has disappeared.

Of the head-dress we can speak with more assurance and detail. Mes-kalam-dug's grave has of course given us the wonderful gold helmet (*Frontis.*) like that of Eannatum on the Stela of the Vultures, the casque of a prince going into battle; PG/789 has preserved originals of the copper morions shown as worn by the rank and file on the 'Standard'. The bearer of the 'Standard' wore a skull-cap (?) entirely covered with small lapis-lazuli beads, and in another royal tomb, PG/1236, there was found a similar mass of small lapis beads which was very likely from a similar cap; perhaps in this tomb also there had been a standard-bearer or kindred functionary whose uniform included the beaded head-dress. Such military or official headgear is, however, exceptional in the graves; the ordinary citizen in time of peace wore round his head something which strikingly resembles the *brîm* or *aqayl* of the modern Arab. The richest variety of *brîm* as worn by men at court consisted of three very large beads, one gold and two lapis, generally faceted date-shaped (Pl. 146 *c*), with four carnelian rings between and on either side of the large beads; these came over the forehead: attached to either end of the string lengths of gold chain passed round the head above the ears and must have been continued and secured by cords or ribbons tied together at the back. Of this gold *brîm* we have very numerous examples. In a poorer grave silver replaces gold for both bead and chain; in graves still poorer (e.g. PG/1407, 1420) the three large beads are there but all are of stone and there are no metal chains at all; in the poorest graves the beads too fail: it is reasonable to suppose that the cord which completed the gold chains of the rich and supported the beads of

the middle-class was used by itself by the very poor. The modern analogy favours the view that the wearers of this ancient *brîm* wore it over a head-cloth which by its weight or its tightness it would keep in place. In saying[1] that it was 'fairly certain that these head-bands took the place of the modern Arab *aqayl* and were worn over a head-cloth, from which one could deduce that the head, like that of the Arab of to-day, was clean shaven' I stated the case ill: some Arabs wear the *aqayl* on their long hair, without a head-cloth, and others wear the head-cloth without shaving their heads; the deduction from the use of the head-band alone would not be justified. But we know from Sumerian representations that amongst them the shaving of the head was very common (it used to be thought universal) and nobody would wear a heavy *brîm* of beads and gold balanced on a shaven skull, nor would anybody long affront the summer sun of southern Mesopotamia with his shaven head unprotected; in the same circumstances the Arab who does shave his head covers it with a head-cloth whose use necessitates just such a heavy head-band as we find was worn by the Sumerians. Sumerians are also represented as having long hair, but in that case they are never wearing a *brîm* but a plain fillet or ribbon (cf. the helmet of Mes-kalam-dug); in the royal tomb PG/1618 (pp. 129–30) there was found apart from the body a wig bound with a plain gold ribbon (compare with this the animal-diadem of Queen Shub-ad, which was placed apart from the body and almost certainly on a wig), whereas on the skull there were four gold *brîms*. The monuments do not show us any Sumerian wearing a head-cloth, but no more do they show any wearing the *brîm*, and yet that is the commonest form of head-dress. Most of the figures on the monuments, as Dr. Frankfort justly observes, are shown in some ceremonial act; others are engaged in war; the latter may have long hair, the former—at any rate the principal actors—are generally clean shaven. The most natural explanation is that the Sumerian of the upper class shaved his head, wore no covering indoors or for indoor ceremonies, used a wig for certain occasions and at other times wore out of doors a head-cloth kept in place by a *brîm*.

When a wig was worn, or when the natural hair was allowed to grow, the hair was confined by such a plain metal fillet as is seen on the helmet of Mes-kalam-dug. In the royal tomb PG/1618 just quoted the fillet on the wig was a plain gold ribbon 0·345 m. long and 0·025 m. wide with rounded and pierced ends, i.e. it was secured at the back of the head with a thread. In PG/495 (Pl. 218) the ribbon is a narrow one, only 0·007 m. wide, also with pierced ends; this may be a case of a man with long hair wearing the fillet, but the sex of the body is not certain, and the presence of two gold ear-rings is in favour of its being a woman.

There were in all ten graves in which the straight ribbon or fillet was found, and all of them belong to the old cemetery; since it is possible that some of these were the graves of women the number of cases in which the hair-ribbon forms part of the man's head-dress is perhaps even smaller than the actual figures show; the *brîm* is found in thirty-two graves, but as these include the royal tombs with their numerous victims the number of individuals found

[1] *A.J.* x, p. 324. Cf. Frankfort, *Archeology and the Sumerian Problem*, p. 15.

wearing the *brîm* was much greater than this. It must be remembered that we are able to speak only of those cases in which the head-dress was made of more or less precious material of a nature to resist decay; but making all necessary allowances it is fairly clear that the *brîm* was the more usual form.

Toilet.

Every woman's grave of the old cemetery seems originally to have contained cosmetics; such were an invariable part of the tomb furniture. The ordinary receptacle is a cockle-shell, or rather a pair of cockle-shells of which one is the receptacle proper and the other the lid; in many graves the shells were numerous, in that of Queen Shub-ad they were of abnormal size; imitation shells in copper, silver, and gold were found in richer graves (*v.* Pl. 165). Occasionally other forms were preferred; Queen Shub-ad had in addition to gold and silver and natural cockle-shells the exquisite silver box with inlaid shell lid, U. 10436 on Pl. 103; on the same plate is shown a very charming little box of mother of pearl and inlay from PG/1749, U. 14483 A. In all these were found remains of the actual cosmetics used, paints or powders now reduced to a hard paste: the colours are white, red, yellow, blue, green, and black, of which green and black are the most common.[1] With the cosmetics go the little toilet-sets of which the most elaborate is that from PG/580, U. 9340, Pls. 137, 151; the ordinary set consists of three, sometimes of four tools, tweezers, ear-pick, stiletto, and round-ended paint-stick, all of copper (but gold and silver examples are found, e.g. Pl. 159 *b*, U. 9362) inside a conical *étui* of copper which was sometimes and may always have been covered with leather; on one even the bright-red colour of the leather was in part preserved. These little reticules were extremely common in the early graves, though often in very bad condition, and were not confined to the graves of the women; whether the round-ended paint-stick, which is not always part of the set, was a peculiarity of the women's reticule I do not know, for in most cases the oxidization of the delicate little tools had gone too far for them to be separated and identified, but the other three tools are obviously suited to either sex. The objects which I have described as razors (Pl. 231) were also common to either sex; they were nearly always found in pairs, which is not, perhaps, in favour of their being razors, but I can find no other explanation for them; Queen Shub-ad's grooms had one apiece, and in PG/331 there did occur a single example, but it was heavier and of a shape more lop-sided than usual and might be a totally different implement; our foremen said that it was exactly like the tool used to-day by the Syrian Arab ploughman to scrape the mud off his ploughshare, except that the latter is socketed; but that identification does not seem to suit the pairs of more delicate instruments, and where shaving was so common a practice one may expect to find razors. Similarly it is not unreasonable to suppose that the cuttle-fish bones found in PG/55 were used as a depilatory.

[1] 'In Dhufar' the Arab women 'paint their faces red, black, and green on occasions of religious and other festivals'. Bertram Thomas, in *Journal of the Royal Anthropological Institute*, lix, p. 101.

B. THE SARGONID PERIOD

The principal change in costume between the time of the royal tombs and the Sargonid Cemetery, or rather that which is best illustrated by the material preserved, is in the head-dress of both sexes. In the late period the woman's elaborate head-dress with its festooned gold ribbons and wreaths of gold pendants set on strings of lapis and carnelian beads which was so common in the earlier time has completely disappeared and so has the *brîm* then usually worn by the men, and the straight fillet or ribbon worn on the man's wig, and entirely new fashions have come in.

In the case of a woman of the upper class an oval plate[1] of very thin gold or silver was tied across the forehead by threads passing through holes at the ends of the oval; a few examples of a similar decoration had occurred in the old cemetery, so that in this respect we can see the working of a consistent tradition. Then two pieces of very narrow gold ribbon, about 15 or 20 cm. long, were wound round two locks of hair which starting over the ears were brought one above the other horizontally across the forehead, just above the oval frontlet, and so pinned in position; or, occasionally, as in PG/871, a single length of ribbon long enough to reach from ear to ear was twisted round a single tress and pinned in the same way. In the ears were worn small lunate ear-rings (the exaggerated crescents of the royal tomb period had vanished) which might be of gold, silver, or copper; sometimes two or even three such were intertwined and worn together (*v.* Pl. 219); or on the head there may be found the 'hair-rings' of spirally coiled wire which are true to the old tradition, but whether they were always hair-rings worn close to the ears or were sometimes used in the ears as ear-rings could not be told. Apart from this there is no ornament—the crown and the back of the head produce nothing whatsoever—and it is tempting to argue from that fact that some kind of cap or head-covering was worn which hid all the hair except that which was dressed across the forehead and, probably, the long tresses falling over the breast.

Occasionally the head-dress is elaborated by having more than the two ribbons; thus in PG/703 (*v.* Pl. 218) there were no less than six separate lengths, each having a hole at either end for attachment, of which the two longest were 0·20 m. long and the shortest 0·13 m.; but from the way in which all lay directly over the oval frontlet it was evident that all had been worn in front, over the forehead. One of these ribbons showed on its under side the imprint of a very fine gauze-like net, so in this period also the veil must have been worn and was kept in position by the locks of hair round which the ribbon was wound, and by the frontlet, for in one or two cases similar imprints of material were found on the under side of the gold oval. In one case, PG/825, there was a frontlet of the oval type with ribbon-like ends (Pl. 219, Type 1) tied across the forehead, and below this was fixed a gold ribbon, 0·29 m. long and 0·022 m. wide with holes at the ends, which was not twisted round the hair but ran straight and flat as a second

[1] For the different forms of this *v.* Pl. 219.

fillet just above the eyebrows. In this grave also there was another unusual feature, for on the top of the head where as a rule no ornaments are found there were two flimsy roundels of thin gold set with lapis-lazuli in cloisonné work (U. 10795); they were not pins and had no obvious means of attachment, but were perhaps sewn to the cloth of a head-dress. Sometimes only the frontlet was found in a grave, sometimes only the ribbon, and it was not always twisted; so probably there were various modifications of the full head-dress as illustrated by the majority of the richer graves, but they were only modifications, not different styles.

The necklaces worn at this period were very numerous and were distinguished by a richer variety of stones than is usual in the early cemetery, a change which had come about by the time of the second Dynasty of Ur, cf. the beads from PG/1422, Pl. 132. Bead armlets (not sewn on to cloth but strung together) are more common, and metal bangles in gold, silver, and copper were habitually carried by the women and sometimes by the men. The cloak or shawl fastened over the shoulder was still the normal garment for both sexes, judging by the pins found against the upper arm; the old curved pin has gone out of fashion and only the straight pin survives; even more regularly than in the old cemetery it is used as a toggle, having a hole in its stem through which passes a string to the other end of which is attached sometimes a bead or a cylinder seal; in other cases the string may have been fastened to one edge of the garment and the pin would be put through the other edge; imprints of string were found on pins, e.g. in PG/193. In PG/694 a very small copper fastener was found by the foot of the body and suggests sandals with a copper loop through which passed the thong for the toe; if there had been a second such in the grave it had perished.

The men's head-dress in this period is the frontlet or fillet, a direct inheritance from the less common wear of the old cemetery age; a single ear-ring was often worn, never two,[1] of the same type as those worn, in pairs, by the women. The spirally coiled hair-rings are found on the heads of men in this as in the early period.

That a belt or girdle was part of the costume is shown by the position of such objects as knives and toilet reticules, which are found against the thigh and must have hung from the belt; but of the latter no material trace was found in any Sargonid grave. Sometimes a cylinder seal hangs from the belt, often there are more seals than one, and the position of them varies curiously. We have examples of the seal being attached to the bracelet, actually strung on the silver wire of which the bracelet was made, so that it is difficult to see how it can ever have been used as a seal; occasionally it is attached to a necklace; often it is at the waist, but most often it goes with the pin which fastens the cloak on the shoulder. If the seals were only used for the purpose for which they were apparently intended, i.e. for sealing documents, it is hard to explain why one man, or woman, might have more than one; yet both in the Royal Cemetery and in the Sargonid graves two cylinders together are not uncommon and instances of three occur; they may have been regarded

[1] This is the custom of many Arab tribes at the present day.

also as amulets (which would explain their being mounted on bracelets and necklaces) or they may have had other than personal significance. In the Early Cemetery where there are two cylinders one tends to be of the large sort (usually in shell) with a scene of wild animals being vanquished by a hunter, or of lions killing bulls; I am inclined to suggest that such seals might be distributed by a ruler to his officers after a victory or other event, just as scarabs were distributed in Egypt—in fact, that they correspond to medals; in the Sargonid age when the scene of the owner of the seal being introduced to the greater gods was a favourite, the amuletic use of a cylinder so engraved is likely. On the whole the seals of the Sargonid time are not so large and heavy as in the predynastic age and, as I have pointed out elsewhere,[1] it would be difficult to credit the Sumerian legend that as a result of a palace conspiracy king Rim-Sin of Akkad was murdered by his courtiers 'with their seals' unless we understand that the 'cylinder' used as a toggle could include the pin to which it was attached: the pins of the period, veritable stilettos 0·25 m. long, which as part of the ordinary dress could be carried without raising suspicion, were weapons as convenient for murder as were the pins worn by the women of Athens in the sixth century B.C.[2]

Analysis of Cosmetics.

Dr. A. Kenneth Graham analysed some of the actual paints found in the cockle-shells which served as cosmetic-palettes, with the following results.[3]

'One sample of what appeared to be a light blue clay was found to contain large quantities of aluminium phosphate, copper, lead and carbonate, with traces of iron, calcium and silica. One would conclude that this was powdered turquoise, a naturally occurring mineral consisting of hydrated aluminium phosphate with the usual copper impurity in sufficient quantity to colour it blue.

'A second example of black powder similar to antimony or "kohl" was found upon analysis to contain a large amount of manganese and lead, with small quantities of copper, aluminium phosphate, carbonate, silica and iron. The last six substances were evidently present as turquoise, as described above. The black colour could only be attributed to the manganese, the black oxide of which is a naturally occurring mineral, pyrolusite.

'The presence of lead and carbonate in both samples is quite unexpected, as they are not associated with either turquoise or pyrolusite in nature and must have been added purposely. The oxides of lead are coloured and when mixed with the above minerals in powdered form give attractive shades of brown, red and purple.

'The oxides of lead, if originally added for colour, may have been converted to carbonates in the ground, thus accounting for the presence of carbonate and the absence of colour due to its presence, the carbonates being white. Regardless of the form in which this element originally existed, its presence in the cosmetic was a serious health hazard.'

[1] *A.J.* viii, p. 13.
[2] Herodotos v. 37.
[3] In the *Museum Journal*, Philadelphia, September–December, 1929, p. 253.

CHAPTER XII

MUSICAL INSTRUMENTS

A. HARPS

TWO harps were found, one, U. 10412, in the grave of Queen Shub-ad, the second, a very fragmentary example, in PG/1130. The characteristic of the harp is that its outline is triangular; the strings do not lie across the sound-box but rise from it to a projecting arm springing from one end of it; on this arm are the tuning-pins.[1]

The manner of the discovery of Shub-ad's harp has been described on p. 74; we are here concerned rather with the object as restored. The cap of the upright and the six upper gold-headed nails had been removed before the nature of the discovery had been recognized, but the five lower nails, the gold band below them, and much of the bitumen 'shoe' were held together by the plaster of Paris poured into the hole in the ground which represented the upright, and this plaster has been kept untouched: consequently for this section there is no 'restoration' properly so called, and the intervals between the nails *in situ* in the plaster assure the position of those which had to be replaced; the interval between the top nail and the cap is arbitrary but unimportant. The rectangular outline of the sound-box is sufficiently guaranteed by the mosaic border, much of which was intact (*v.* Pls. 38 *a* and *b*); I imagined at first that the raking line of the front seen in the photographs was original, but this proved not to be the case—the top corner of the border on the left side of the instrument gave a true right angle (Pl. 108 *a*), and the slope was evidently due to the sagging of the decayed wood under the weight of the head. Part of the border had fallen to pieces and had to be replaced, and this proved a difficulty; it was composed of bits of shell cut in strips and inlaid with red paste and lapis-lazuli; the strips might be of any length between 0·01 m. and 0·06 m., and some of them were not straight but curved. These curved strips suggested, inevitably, a dip in the top of the sound-box such as there is in the lyres, but (*a*) the complete top border of mosaic has no such dip, (*b*) the curved pieces would in no wise combine to make such a curve as would be required, (*c*) they came from different parts of the border and seemed to be interspersed with straight pieces, and (*d*) a dip in the top of the sound-box was wholly inconsistent with the character of a harp. I found that the curves were not so pronounced as to show much if the pieces were merely fitted together in a straight line, and I came to the conclusion that the original maker used up some stock material which had perhaps been designed for the more common instrument, the lyre. To some extent this apparently rash conclusion may be borne out by the calf's head which decorates the sound-box; in the lyres the head springs from the

[1] I quote here, as I shall do constantly in the course of this and the following section, from an illuminating article on 'The Sumerian Harp of Ur', published by Canon F. W. Galpin in *Music and Letters*, vol. x, no. 2, April 1929.

front of the sound-box masking its junction with the front upright and is obviously in place; in fact the sound-box itself is a highly stylized—one might say 'cubist'—rendering of the animal's body, but here the head, whose position is correct beyond any doubt, for it was found attached to the border (*v.* Pl. 108 *a*), springs awkwardly from the top of the box and seems an excrescence not at all germane to the design: again it seems as if the maker were using stock material.

The shape of the shell plaques which decorate the front proves that the sound-box was wider at the top than at the bottom, the sides not being parallel. As the 'shoe' is wider than the lower plaques Galpin suggests that in the other direction also the sides were not parallel and that the sound-box was wider at the end from which the upright springs than at the front; for this he quotes a modern instrument from the Kamerun with rectangular sound-box with raked body and splayed sides; this cannot be proved, but in the remains as found there is nothing against it.

The bitumen of the 'shoe' is hollow, i.e. it surrounded a wooden upright which must have been fastened by a tenon to the lower part of the body: the curve by which it broadened out to meet that body and the line of its juncture are given by a narrow band of silver and lapis inlay which emphasized its contours, but of the lower part of the body nothing was found except a quantity of grey chloride, mostly in the form of powder, which represented a thin sheet of silver, and a number of minute silver nails whereby that sheet had been fixed to a wooden core; what the shape of that core had been there was nothing to show. In the restoration here illustrated I did not attempt to embody any theory; the simplest kind of stand consistent with the shape of the 'shoe' and the dimensions of the sound-box was provided and covered with silver so as to hint at the colour-scheme rather than the form of the original. In the article from which I have freely quoted Galpin suggests a boat-shaped body which is certainly more graceful and not unlikely.

The calf's head was not ill preserved; the beard, composed of a mosaic of lapis-lazuli set against a silver background, was bent but not broken, and the pieces of lapis, though some had started from their bedding, were not out of place; they had to be removed in order and relaid after the silver had been annealed and straightened. The gold mask, of thin metal which had been hammered over a wooden core, was slightly crushed and had to be heated and pushed out from the inside, and for this purpose the pieces of lapis adhering to it had to be temporarily removed, as had the shell and lapis eyes, but here too it was merely a question of replacing exactly what had been found in position. The hair of the head, on the other hand, did present difficulties; most of the small pieces of lapis of which it is composed had with the decay of the wooden core fallen through the hole in the top of the gold head and were found mixed up with the wood dust inside it, while some were separated altogether from the head and only a few were found still in place, adhering to the edges of the gold. In the reconstruction the top of the skull appears too flat; I found that the lapis mosaic was not sufficient to cover the larger area involved by raising the crown and was therefore obliged to keep it flat even

while feeling that the result was not altogether satisfactory. The double band of mosaic in lapis, shell, and red limestone forming the collar was in fair condition and required only a little repair; below it were some larger and shapeless pieces of lapis and shell which were more or less in position but gave no very definite design; these were simply kept *in situ*, loosely spaced against the bitumen background. The wood of the sound-box was left in its natural state. In the field I thought that at one point I could distinguish inside the area limited by the mosaic a surface of black paint relieved by a narrow red line close to the border and parallel to it, but the line was not too distinct and the film left by decayed wood is so often black that the identification of that colour as paint is by no means reliable; no account of this therefore was taken in the restoration.

Of the second harp very little was left, but enough to show that it had been of the same general type as that of Shub-ad. Really all that was found was the silver cap of the upright, shaped like the gold cap of Shub-ad's harp, and the row of fifteen copper nails and part of the 'shoe' with a band of silver binding above it; these gave for the upright a total length of 0·97 m. (*v.* Fig. 43, p. 167): there was but little mosaic border to the sound-box, and that all broken up, and no animal's head—the latter fact perhaps supporting my theory that the head is not an essential part of the harp and was only added to that of Shub-ad because the maker had the head by him and, influenced by the analogy of the lyre, wanted to make a particularly splendid instrument. This second harp was in any case a much simpler, not to say cheaper, thing.

In all essentials, except the lower part of the body, the restoration of Shub-ad's harp may be taken as correct. As the oldest example of a harp yet known it is of great interest, not least so because it is of an extremely advanced type. Galpin suggests that the sound-box and the lower part of the body were all one, made from a single piece of wood hollowed out within; this seems to me unlikely on account of the shape and size (it would have been far easier to build it out of boards) and in view of its marked differentiation into two parts by the border of the sound-box, which appears to make of that an independent entity, and the silver plating of the base; the latter might well have been solid, to give stability to the instrument while it was being played; judging from its size it was not held but rested on the ground. He also postulates sound-holes in the top of the sound-box, necessary too to permit of the knotting of the strings, and makes the point that the nails were not really keys as I had previously described them, i.e. were not tuning-pegs to which the strings were fastened, but rather guides or spacers for the strings, which would be wound round them and also round the upright to the tension required, the nail not turning but being fixed in the wood: in this he seems to me undoubtedly right.

On one of the cylinder seals of Queen Shub-ad, No. 18, Pl. 193, is represented a bow-shaped harp of an entirely different sort; it is a four-stringed instrument closely representing the Egyptian type. Nothing corresponding to this has been found in the tombs, but the representation is most interesting as adding to the range of musical instruments known to the early Sumerians.

B. LYRES

The lyre is defined as having a somewhat small and shallow body or sound-box from each end of which rises a post or arm joined together again at the top by a cross-bar. The strings are usually attached to the bottom of the body and pass across the table or front of the sound-box over a shallow bridge to the cross-bar, where they are tuned: in more developed examples they are fixed to a bridge bar on the table. The general outline of the whole instrument is rectangular.

To this definition correspond most of the stringed instruments found at Ur, viz. the 'gold lyre', Pl. 114, the 'silver lyre', Pl. 111, the 'boat lyre', Pl. 112, the 'plaster lyre', Pl. 118, and a number of incomplete instruments, e.g. that from the grave PG/789, Pls. 106, 107, whose character is clear, and others represented only by the animals' heads and shell plaques from their sound-boxes. The type is illustrated not only by these material examples but by engravings on shell, Pl. 91 and Pl. 105, and by cylinder seals, Pl. 193, No. 21, and Pl. 194, No. 22; later examples are figured, e.g. on a limestone relief of the Gudea period from Tello.[1]

I shall first describe the several instruments as preserved to-day in the Museums.

The Gold Lyre, U. 12353, from PG/1237. Pls. 76, 104, 113–15, 117.

As can be seen from the photographs of the lyre *in situ* it was extremely well preserved in spite of the total disappearance of the wood forming its body. The sound-box was defined by a broad border of mosaic in shell, lapis-lazuli, and red paste (or limestone; it was reduced to powder) of which the component parts lay in the soil in such good order that the whole could be removed in one nearly intact piece by the help of waxed cloth (Pl. 113 *b*). The shell plaques on the front of the sound-box were undisturbed, the massive gold head was slightly dented on one side and one horn was bent, but it was still attached to the body of the instrument. The uprights were entirely sheathed with bands of mosaic in shell, lapis, and red limestone separated by bands of sheet gold, the top metal band being carried round the cross-bar; these uprights were rectangular in section and with the decay of the wood and the pressure of the earth the skin of gold and mosaic had been flattened and distorted, but the metal preserved none the less the sharp lines of its original corners. Measurements could be taken with the utmost precision. The decoration was lifted in long strips (though a certain number of the tesserae, especially of those on the under side, were out of place and had to be collected separately) and new wooden uprights were made to measure; on them the mosaic was replaced, for the most part without separating the tesserae of each band from one another. Half of the cross-bar was represented by a tube of much-decayed silver; this was in position, held by the gold top band of the front upright, and had on its under side two gilt knobs; at the back end there was no sign of metal in the soil nor in the gold ring of the back upright: bad

[1] de Sarzec, *Découvertes en Chaldée*, 1893, Pl. 23.

as was the condition of the silver tube it was still possible to preserve it, and that it should have run on for the entire length of the cross-bar and the back part of it have perished so completely as to leave no trace at all is inconceivable; it follows necessarily that this end of the cross-bar was of plain wood. While, then, all the woodwork is modern, it is an exact reproduction of the original, guaranteed by the decoration; of the latter a few loose fragments have been replaced perhaps not precisely in their original company, but most of it is intact and there has been no possibility of error affecting the design. The only omission is that the instrument is not provided with legs. Of such no trace whatever survived, and they must therefore have been of wood unadorned, but the analogy of U. 12354 and of the drawings of lyres on the shell figures, Pls. 91 and 105, are sufficient evidence that legs did exist, though as I was anxious to avoid anything in the reconstruction for which there was not material evidence in the object itself they have not been replaced.

As to the stringing of the instrument, it will be noticed that in the mosaic of the bottom border, immediately under the middle of the curved hollow in the top of the sound-box, the pattern is interrupted; there is an actual blank, i.e. a hole in the wood, and above it seven red and eight white vertical bars. It was originally suggested to me that there was here a pedal to muffle the notes by pressing on the sound-box, but it is, I think, clear that here the strings were fixed, probably tied to a piece of wood which was passed through the slit and kept in place by tension against the inner face of the box; a bridge, loose or fixed, was against the middle of the table, and from it the strings were carried up and fastened to the wooden part of the cross-bar; the bridge can be seen on the lyre on the shell plaque, Pl. 105, and in the lyre on the 'Standard', Pl. 91, all the strings are attached to the back part of the cross-bar. It is perhaps not too fanciful to suggest that here the white vertical bars correspond to the strings and that there were eight of them, as on the donkey's lyre, see below, p. 280.

The Silver Lyre, U. 12354, from PG/1237. Pls. 75, 76, 104, 111.

The instrument was made of wood which had been entirely covered with thin sheet silver attached by small silver nails; down the front of the sound-box was a series of three shell plaques of which the lowest one was imperfect, attached to the front of the sound-box was a silver cow's head with inlaid eyes of shell and lapis, and round the edges of the sound-box ran a narrow border of shell and lapis strip inlay. As can be seen from the photographs on Pls. 75 and 76, the instrument as it lay in the ground appeared to be in good condition and the most accurate measurements of it could be taken. Its removal and restoration, however, presented serious problems. The metal sheath, reduced to silver chloride, was in brittle fragments or in powder, and the two sides of the body and the casing of the rectangular uprights had been crushed flat together. By the liberal use of wax and waxed cloth it was possible to lift it, but in this condition it could be neither kept nor exhibited. In the laboratory therefore the uprights were detached from the body and, since it was impossible to straighten the bent and twisted metal, they were left

virtually in their condition as found, but wooden rods were inserted in them and in the cross-bar and fixed together, and boiling wax was then poured round the rods until the mis-shapen tubes were filled; this was partly for strength, partly to prevent the further decay of the metal through exposure to the atmosphere. The two sides of the sound-box were then separated and strengthened from the inside (again waxed muslin was the only practicable medium) and a new wooden body was made to measure, the uprights fixed to it, and the silver casing replaced; the process entailed no disturbance of the shell plaques or of the head and very little reconstruction of the mosaic border, the position of which was in any case fixed by the groove left for it in the silver plate. The crushing of the instrument in the earth and the cutting of it open did result in the destruction of almost all the silver along the top and back edge of the sound-box; also the rejoining of the uprights to the body left a clumsy effect, principally because the silver along the top of the sound-box to which that of the uprights was attached had been bent out of the flat and with the distorted metal a clean joint was impossible. Some fragments of silver projecting under the back corner seemed to be the casing of a foot of the sound-box, and this was accordingly restored, with a front foot to match; that there were legs is, I think, certain; their original length must remain conjectural, but in this case they were made to the length of the silver plating that survived. The silver tubes (originally silver-plated rods) which were found attached by the corrosion of the metal to the cross-bar were not removed by us but preserved in their positions. The front end of the cross-bar is decorated with a shell roundel having a flower-rosette inlaid with red and blue.

The lower border of mosaic is continuous and shows no such aperture for the attachment of the strings as there is in the 'gold lyre', nor is there any hole in the silver plate of the table; on the other hand, on the right-hand table there are, starting from the bottom just above the border and immediately below the curve in the top of the sound-box, a number of white lines which diverge as they rise and can be traced for about half-way up the table. The silver plate generally preserves very clearly the impression of the matting with which it had been in contact in the grave, but between the point where the diverging lines break off and the upper mosaic border the mat-impression fails, as if something had here kept matting and silver apart. The white lines, of which eight can be distinguished, with more possible, must represent the strings, and it looks as if they had passed under the edge of the sound-box and been attached to its base; then they were taken across a bridge which for reasons of resonance must have been of wood and would have itself perished and, since it would have been loose, could scarcely have left any mark on the metal, but its presence is implied by the absence of the mat-impression. At any rate the position of the strings is assured by the lines of their decay and the method of stringing at the base of the instrument is in all likelihood correctly explained. But the cross-bar is most instructive. Against it there lie eleven short, slender, silver-plated rods, and approximately corresponding to them there are on the silver of the bar bands of black stain which when the

object first came to light showed in places the texture of a woven fabric of a rather coarse sort, like canvas; the bands, though not so distinct as at first (it was difficult to preserve them throughout the process of waxing and cleaning), are still quite visible. Now the rods appear on both the lyres on Pls. 91 and 105 as well as on that on the gold cylinder seal, Pl. 193, No. 21, and the seal, Pl. 194, No. 22; and on the donkey's lyre the strings seem to end at the top in something much broader and of a different texture. It would seem that the string was attached not directly to the cross-bar but to a canvas loop which passed round the cross-bar, and through this loop was put a rod which served for the fine tuning.[1] Here again we have an eleven-stringed instrument, and it would be interesting to know whether by the tension (instead of by the length) of the strings it would compass the same scale as the harp of Shub-ad: the lyre figured on the 'Standard' also has eleven strings.

The Boat Lyre, U. 12355, from PG/1237. Pls. 75, 76, 112.

As the photographs show, this is an entirely different instrument from the last, but in spite of its fanciful shape it does essentially conform to the definition of the lyre. The body is boat-shaped and on it stands an antlered stag supporting the front upright; the back upright is made by the high curved bow (?) of the boat; the whole thing was made of wood and covered with thin sheet silver (the junction of two sheets of metal can clearly be seen at the start of the curve of the bow, where they have sprung apart), including the figure of the stag, even the horns of which are of metal laid over wood in contrast to the animal heads on the other lyres, which are cast.[2] Only the long-stemmed water-plants, the crook in which supports the front feet of the stag, are different; they are of wrought copper. The problem of preserving this object was the same as in the case of the silver lyre U. 12354, and was met in the same way, i.e. wooden rods and wax were inserted in the uprights and the two sides of the sound-box were separated and relaid over a wooden model; the stag had to be treated in like fashion, and one side of his body was cut away, mounted on waxed muslin, and replaced after the body had been strengthened from the inside. The effect of crushing is even more disastrous here than in the case of the silver lyre, for here it is not merely a form of geometrical design but an example of sculpture in the round that has suffered; but though the stag is only a ghost of its former self no one can fail to be struck by the beauty of the composition and the excellence of what can be gathered as to the execution; as a work of art this is greatly superior to the conventional lyres, although their better condition or richer ornament may make them more striking. Owing to the flattening of the whole instrument there is no means of telling what was the original width of the boat-shaped sound-box, but this is scarcely essential to the understanding of the lyre as

[1] 'The method of fine tuning these lyres is very interesting, as it is also found on many of the lyres of Greece and Rome. After the string is drawn over the top bar at the approximate pitch the end is twisted over a small rod of wood: by pressing down the end of the rod the pitch is slightly raised; by pressing it up, it is flattened. This device is still used on the Abyssinian lyre.' Galpin, loc. cit., p. 109.

[2] Except the heads of the twin stags, U. 12356, Pl. 113 *a*; but these do not necessarily come from a lyre.

such; otherwise it is well preserved, nor has there been anything in the work of restoration to interfere with or modify its details.[1]

On the right-hand side of the lyre, directly below the hind feet of the stag and 0·03 m. above the bottom edge of the table, there is a rectangular slit cut horizontally through the metal casing; it measures 0·058 m. in length by 0·007 m. At a point on the silver plate 0·045 m. below this and almost exactly alined with it there is a second slit 0·065 m. long and decreasing in width from 0·02 m. at one end to 0·014 m. at the other; it is in that part of the plate which though now flattened out originally covered the (probably rounded) base of the instrument, and it is possible that it is accidental, due to the cracking and breaking away of a piece of the crushed metal. The upper slit is certainly original and gives the attachment of the strings to the table just as does the gap in the mosaic border of the 'gold' lyre. On the back half of the silver-plated cross-bar there are black marks resulting from the decay of the canvas loops at the ends of the strings which went round the bar; they are not so distinct as in the case of the 'silver' lyre, and the tuning-rods are missing, presumably because they were of plain wood, so that the exact number of the strings cannot be ascertained, though there may have been eleven. Since the strings were fastened at the back end of the cross-bar above and at the front end of the sound-box below they ran at a slope which was only partly corrected by the angle which the cross-bar makes with the uprights; both in the matter of its stringing and in its outline the instrument is rather a compromise between the harp and the lyre.

The Plaster Lyre, U. 12351, from PG/1151, Pls. 118–19.

The manner in which a plaster cast was made of this instrument, of which the woodwork had completely disappeared, has been described on p. 169; only the copper calf's head and shell plaque (which do not concern us here) are original, all the rest being the modern plaster; but as a mechanically faithful reproduction it is not less interesting than are those whose material has survived. In the photograph on Pl. 118 *a*, taken while the cast still rested in the ground against the cut face of the soil, the outline is less distinct because (*a*) large lumps of plaster remain at the tops of the uprights where it was poured in and the superfluous plaster congealed; (*b*) when the earth on the near side was cut away in order to expose the cast it was found that the plaster had not quite filled up the channel representing the cross-bar or the sound-box; consequently more plaster had to be applied from the face; this was trimmed off later, but no real cast was obtained of this side of either sound-box or cross-bar, though of the far side, seen in the lower photograph on the same plate, the impression was faithful; (*c*) the plaster reached and reproduced a piece of wood which stood against the lyre but had nothing to do with it, and this confuses the design.

Taking the better preserved side (Pl. 118 *b*), it will be seen that the uprights

[1] The photograph on Pl. 112 was taken immediately after the work of reconstruction; owing to the fragility of the object it has since been found advisable to frame it against a background of plaster into which it is partly sunk; only one side therefore is now visible.

are particularly slender; they are mortised into the sound-box presumably by tenons, and the lines of the joints are clearly visible. The sound-box has a flat top for about half its length which definitely overhangs the table, but this is less evident at the back where the strings were. The lower part of the sound-box has disappeared and the front half below the projecting rim is very rough—this seems to have nothing to do with the original but is due to the dry earth falling away from the face of the mould and leaving a depression which the plaster has reproduced in reverse. At the back end of the sound-box there is a raised ridge which may possibly be the bridge. When the soil between the uprights was cut back we were astonished to see very thin lines, none of them quite continuous but still recognizable, of very light white fibrous dust which were the remains of the actual strings; judging from the texture of the dust they had been of gut or sinew. There were ten of these. On the back half of the curved cross-bar there can be seen (in the lower photograph) ridges of plaster which preserve the impression left on the earth by the attachments of the strings; as they are much thicker than the strings they must have been in the nature of the canvas loops of which traces were found on the metal cross-bars of U. 12354 and 12355.

Other Lyres.

The royal grave PG/789 produced the lyre with the splendid blue-bearded bull's head, Pl. 107, and the remarkable series of shell plaques, Pl. 105. In the soil could be distinguished (Pl. 106) the impression of the sound-box and of the back upright, but there was nothing to throw further light on the character of the instrument; it had no mosaic or silver-work to define its frame. The lyre in PG/1332 which was decorated with the copper head and the shell plaques on Pl. 116 was in yet worse condition, and though the head and plaques retained their position in the soil and part of the outline of the sound-box could be traced, this was only sufficient to prove that the object had been a lyre and not something else. It is likely that all the other metal heads of animals found belonged to lyres with the exception of the two lionesses' heads found together against the wardrobe of Queen Shub-ad (U. 10465, Pl. 127 *a*) which may have been from a chair; where they were accompanied by shell plaques the identification is almost certain. These stray heads do not of course tell us anything more about the nature of the instruments, but their number does show that lyres were very common.

A few general points remain to be discussed. First as to the form of the instrument, the lyre carried by servants on the cylinder seal, Pl. 194, No. 22, has a sound-box which is definitely in the shape of a bull's body, legs and all, quite realistically treated; the donkey's lyre (Pl. 105) is more conventionalized but the bull's body is there and the animal is apparently represented as kneeling with its legs tucked beneath it; on the 'Standard' the legs are reduced to short pegs. The animal heads on the lyres, then, are not merely ornamental excrescences but are germane to the body of the sound-box which is in fact the body of the animal; it is highly conventionalized and, as has already been remarked, might stand as an example of cubist art, but the essentials of the

body, the shoulders and rump and the hollow of the back, are all retained, and the back upright might almost be a development of the tail; if the legs are added (which fail in most of our specimens, but accidentally) the figure as a piece of animal sculpture would be complete: the extent to which it is conventionalized is only a testimony to the strength and endurance of the tradition which prescribed this form. It can hardly have been merely by some artistic whim that the tradition started. Centuries later Gudea, dedicating to Nannar a harp (or lyre?) adorned with a golden head of a bull—and the 'bull of Heaven' is a synonym for the god—describes how the tone of the instrument is like the roaring of the bull:[1] the late text may explain the early custom; is not the lyre a sacred instrument, and as such may it not naturally take the form of the animal which symbolizes the god and is by preference sacrificed in his honour? Further, Gudea's great harp bears a bull's head and its tone is that of the bull's bellow—it is a deep-toned instrument. On our lyres we find the bearded bull, the cow, and the calf, and on an exceptional instrument the stag; do the tones here correspond to the typical voices of the different animals? Certainly the small and light 'plaster lyre', which has a calf's head, is not likely to have had the same tone as the great 'gold lyre' whereon is the head of a bearded bull; and the 'silver lyre', U. 12354, with its cow's head is different in size and might well be different in tone; if we have here bass, tenor, and alto harps, then we must allow for the possibility that Sumerian musicians possessed a knowledge of harmony very surprising at so early a date.

There is a surprising variety in the number of the strings. Of the harps, Shub-ad's has eleven strings, that from PG/1130 had apparently fifteen, that represented on the seal No. 18, Pl. 193, has only four. Of the lyres, the gold lyre probably had eight strings, the silver lyre had eleven, the boat lyre eleven(?), the plaster lyre ten (it is of course possible that one of the strings had altogether disappeared and that there were originally eleven), the donkey's lyre has eight, that on the 'Standard' eleven, that on the seal of Dumu-kisal (Pl. 194, No. 22) has five, that on the gold seal has six. It is of course quite possible that the artists who engraved the seals were not at pains to be meticulously accurate in detail; space was limited to accommodate the full number of strings and they were more concerned with representing an instrument as such than in imparting information to posterity: but the Egyptian analogy would go far to prove that the four-stringed harp at least is correctly drawn, and even if we eliminate as evidence the two lyres on the cylinder seals we are left with three types of harp and at least two types of lyre differing in the very important matter of the number of their strings. Can it be that the Greek 'modes' have a parallel if not a precedent in Sumer?

C. WIND INSTRUMENTS

In PG/333 there were found what seemed to be bars of silver wantonly twisted and bent. These were scientifically cleaned in the University Museum and proved to be of great interest. The apparently meaningless mass consists of silver tubing, with a total length of 0·408 m.; it is broken

[1] Thureau-Dangin, *S.A.K.I.*, pp. 120–1: Gudea, cylinder A, 28. 17.

into five pieces, but may originally have consisted of two parts each of an approximate length of 0·260 m. Along one side of each there are five (?) holes 0·006 m. in diameter placed at intervals of 0·025 m.; the last hole comes at 0·025 m. from the end of the tube, and the first at 0·14 m. from the unbroken end which may be the mouthpiece. At 0·07 m. from the (complete) end of one tube there is a double incised band, and a similar band on the second tube close to its broken end. U. 8605.

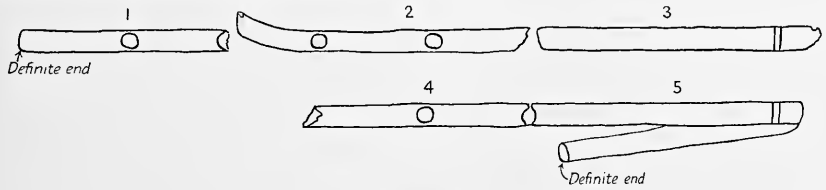


Fig. 68.

There can be no question but that we have here the remains of one of the double pipes figured on Sumerian carvings, e.g. to take a late instance, on the great stela of Ur-Nammu;[1] the slenderness of the pipe suggests that it is directly inspired by its original, the reed of the marshes; the intervals may help to throw light on Sumerian music as a whole.

D. OTHER INSTRUMENTS

I have sufficiently described elsewhere (p. 126 *et seq.*) the long copper cymbals found in the death-pit PG/1332; they were the only examples found in the Ur cemetery but were relatively common at Kish. Apart from these there are no objects of which we can say with assurance that they were musical instruments; nothing was found at all like the rectangular tabor played by the jackal on the shell engraving on Pl. 105, identified by Galpin with the modern Arab *Deff*, nor were there any signs of wind instruments, though we know that such were commonly in use. Two more or less precarious identifications may be put forward. In the grave of Mes-kalam-dug (PG/755) there were found against the coffin quantities of small objects, hollow cones made of sheet copper about 0·03 m. in diameter and 0·03 m. high; as they lay in the ground they formed an irregular or bent elipse some 0·70 m. long, the majority on the circumference and a fair number strewn over the interior; they had been fixed on to wood, but I thought that in the decayed matter which covered the area I could perhaps detect also traces of leather. At the time my only explanation was that this may have been a shield something like those represented on the 'Stela of the Vultures' of Eannatum of Lagash, now in the Louvre, adorned with bosses in relief; the shields on the stela (which are rectangular, not round, as this would seem to have been) bear no such bosses, but there was an analogy for them in the spots on the cloaks of the infantry soldiers on the 'Standard' (Pl. 92). I would now suggest that the remains are those of a drum. On the great stela of Ur-Nammu found at Ur[2] and again on a stela of the time of Gudea from Lagash[3] there are representations

[1] *A.J.* v, Pl. xlvii. [2] *A.J.* v (Jan. 1925), Pl. xlvi. [3] Cros, *Nouvelles fouilles de Tello.*

of a great drum standing as high as a man, the rims of which are thickly studded with small knobs. If these are the heads of nails fastening the leather or parchment to the rim of the drum the analogy with Mes-kalam-dug's grave falls to the ground, for the copper cones were not nail-heads; but the parchment on a drum of this size cannot have been nailed, for if so fixed it could not possibly be kept in tune; the knobs must be something else and may be simply decorative, and in that case what we found might well be the remains of a great drum—which in the grave of a warrior would seem not out of place. In the same general connexion attention might be drawn to the 'offering-tables' in stone, metal, and clay which were common in the early graves, (e.g. cf. Pl. 180); these have been variously interpreted (*v.* p. 388) and may have served various uses, but some at least of them may have been drums of the 'tom-tom' type. In Iraq to-day the tom-tom is made of wood or terra-cotta and the shape approximates to that of the early 'offering-table'; sometimes there is a carinated rim and a string tied round this secures the skin, which can be tautened by pulling down the projecting corners, or the rim is plain and laces passed through the edges of the skin are carried down the outside of the bowl and fastened round the stem; amongst the 'offering-tables' both types are found. While therefore in the text of this book I have kept to the now generally recognized term for these objects, I do not exclude the possibility that some at least of them may have been musical instruments.

There is a second possibility. The jackal on Pl. 105 is playing a sistrum. This, as Galpin points out, is not of the stirrup form common in ancient Egypt but a very early 'spur' form of which an example found at Assiut and dating to the Middle Kingdom is now in Berlin.[1] The picture is on so small a scale that its detail should not perhaps be unduly stressed, but it must be noticed that no cross-bars such as are characteristic of both types of sistrum in Egypt but only two uprights are represented. Undoubtedly the artist has had to suppress something, but one would expect him to emphasize the more obvious parts of the instrument, and if he had to choose between the bars and the small disk clappers strung on them (which are what these uprights must stand for if the sistrum is of normal type) to represent the bars and to omit the clappers. It seems to me therefore possible that we have here a representation of a sistrum with vertical instead of horizontal bars joined together at the top, presumably, by a wire, which would be played by an up-and-down instead of by a sideways movement.

That we have found actual remains of sistra is, I think, very likely. As the instrument would consist essentially of wood and copper wires with clappers on them, and as the wood would certainly have perished and the wires might well have done so too, only the parts of an instrument made of or decorated with some more durable material could be expected to survive, and identification is thereby the more hazardous. In one case there were found, loose in the earth and not definitely connected with any one grave, a handle consisting of alternate rings of shell and black shale strung on a copper rod (U. 8914) having a white steatite knob at one end, and at the other end traces of wood,

[1] Curt Sachs, *Die Musikinstrumente des alten Aegyptens*, Taf. IV. 51.

of no recognizable form, and with the wood ash thirteen shell disks, cone-shaped like spindle-whorls. In PG/800, the grave of Queen Shub-ad, there was a white shell handle-end, an almost flat roundel, and attached to it three rings, two of shell and one of shale, which had decorated a handle of which the main length must have been of plain wood; loose in the earth beyond it there were thirteen conical disks like spindle-whorls decorated with engraved concentric circles, U. 10881. In PG/449 (*v.* Pl. 221) there lay in the remains of a copper bowl two rods, originally of wood, on which were threaded rings of shell and steatite alternately, and at one end of each was a shell knob, mushroom-shaped, the convex top inlaid with a central dot of lapis-lazuli (Pl. 103, U. 8935); remains of a third rod with a similar top lay at right angles to and under the first; between the two best-preserved rods there lay six shell pieces shaped as figures of eight and pierced with two holes; five of them were in a pile with their flat sides together, one had fallen apart, and a seventh was found later at the end of one of the rods. In PG/250 a single figure-of-eight shell piece was found (this was a plundered grave).

In the first two cases the agreement is too close to be accidental; the decorated handles and the thirteen disks coming at the top of the handles, in one case in the remains of wood, must belong to similar objects; my first idea was that these might have been ritual flails, such as are represented on later terra-cottas, but for this there is no real evidence, and it cannot be shown that anything corresponding to the shell disks would be strung on a flail; but the disks are very much what, on Egyptian analogies, we should expect on a sistrum, and the decorated handle is also in keeping; for these two cases I have very little doubt that the sistrum is the right explanation. The more elaborate remains in PG/449 are less clear, and in any case must represent a somewhat different type of instrument. It is possible that the three decorated rods are the handle and the branches respectively of a 'horned type' sistrum, and the curious figure-of-eight pieces might be double clappers strung on two wires instead of having independent round clappers on each wire; but they are lighter than the cone-shaped clappers and less suited by their shape to be such because they would tend to bunch together, as they have done in the earth; on the whole the identification of the object as a sistrum is highly problematical.

CHAPTER XIII

SHELL INLAY AND ENGRAVING

FROM the earliest times mosaic had been a favourite method of decoration with the Sumerian craftsman. The oldest Ziggurat known to us, that on which rests the 'White Temple' of Erech,[1] was adorned in panels with clay jars built into its walls and facing outwards, so that one saw the light circles of their rims enclosing the black shadow-spots of their mouths. Later in time there are the wonderful walls and columns at Erech first discovered by Loftus in 1850 and now fully excavated by the German scientific mission, the whole surface of which is covered with a close-set mosaic of coloured clay cones embedded in the plaster;[2] later again there are the columns at al-'Ubaid sheathed in tesserae of red and black stone and mother-of-pearl, dating to the First Dynasty of Ur, and on the same building friezes wherein silhouetted figures of shell or limestone are inlaid against a background of black mosaic. And the same technique that was applied to the decoration of great buildings and wide surfaces was turned as freely to the adornment of small domestic things with that extra refinement of detail which the scale demanded; the mother-of-pearl-encrusted furniture with which the bazaars of Damascus are stocked to-day is the degenerate but direct descendant of an applied art brought to its highest pitch by the Sumerians of the fourth millennium B.C. The goat statuettes and the gaming-boards described below are complex examples of this art, in one case carried over into the province of the goldsmith and translated into sculpture in the round, in the other keeping more strictly to its *genus* as the enrichment of a flat and by preference a wooden surface; in the former case the separate pieces of encrustation are subordinate to the whole and have no individual value, and even in the gaming-boards it would, it seems, have been enough to differentiate the squares by mere numbers or colours as is done on Queen Shub-ad's board, but that immediate aim is in most instances far outstripped by the Sumerian's love of ornament; when he is working on a small scale it is not enough for him to attain a mere chequer-board variety but every square must have its own pattern and every tessera rank as a gem. It had been discovered that from the central column of the large conch-shells found in the Persian Gulf there could be cut flat plaques, limited indeed in size but big enough for the purposes of inlay, which had the colour and grain of ivory and a surface no less smooth and fine; it was an ideal medium for the engraver, and of it he took full advantage. Fortunately the material, though not indestructible, does generally resist well the action of the soil, and the cemetery at Ur has produced a great number of these engravings which more than any other kind of objects except those made of gold preserve the work of the ancient artist in the form in which it left his hand.

[1] Jordan, 'Uruk', in *Abhandlungen der Preussischen Akademie der Wissenschaften, Phil.-Hist. Klasse 1932*, Nr. 2, p. 20.

[2] Loftus, *Travels and Researches in Chaldaea and Susiana*, pp. 187 ff., and Jordan, op. cit., Pl. 1.

The simplest way in which the shell could be treated is illustrated, e.g., by the plaques U. 8915 A and B and U. 11862 on Pl. 100. On the square of polished shell the subject is engraved with a sharp chisel and the lines, deeply cut, are filled in with black and red paste, giving that polychrome effect which the Sumerians loved; if it is—as it so often is—a scene of animal life, the beast will generally be outlined in black and the conventional trees and landscape in red, *v.* Pl. 103, U. 9112. The gaming-pieces were generally treated this way (Pls. 96 *b*, 98 *a*, 99 *b*).

The second method was to engrave the subject and then to cut back the ground to a depth of a millimetre or so, leaving the figure standing out in slight relief; then the hollows were filled in with bitumen so that the subject seems to be silhouetted against a black background. The bituminous paste and the red paste used for internal detail have in time turned to powder and lost their adhesive qualities, and it was not always easy to preserve them; where the plaque happened to be lying face downwards it was for us a common and a sad experience to pick up a shell on which the engraving was entirely in white and to see the subject repeated on the smooth face of the soil from which the shell had been lifted in raised lines of vivid red and black which a touch or even a current of air would disperse. Where the engraving was uppermost some at least of the colour would remain in the hollows and engraved lines and could be secured by heated wax, but where it had gone altogether it could legitimately be replaced by pouring indiscriminately over the plaque a mixture of wax and bitumen or red powder and then cleaning away what was superfluous until the polished surface of the shell was exposed: on Pl. 100 the broken plaque U. 10917 B is illustrated in the condition in which it was found and again with the background thus restored.

The third method was to cut away the background altogether, leaving the figure in silhouette with the inner details engraved on its surface; the lines of the engraving would be filled in with black or red as usual but either the figure was set in plain bitumen or, more often, the field was built up of a mosaic of small irregularly shaped pieces of lapis-lazuli on a bitumen base: the fine heraldic group U. 10917 on Pl. 100 was probably set in bitumen; of the lapis mosaics the best examples are the Standard, Pls. 91–3, the toilet-box of Queen Shub-ad, Pl. 103, U. 10436, and the panel from a lyre on Pl. 116; the wardrobe of Shub-ad was in the same style but owing to the decay of the shell nearly all the detail has been lost (Pl. 94). An examination of the plates will show two points of detail in the technique of the inlay-worker. The lapis pieces were of all shapes and sizes and were not specially cut for the places they had to fill, so that a perfect fit was scarcely to be obtained; the worker relied on the black bitumen in which the tesserae were fixed to fill the gap and this, thanks to the deep colour of the lapis, it did effectually; but where the outlines of the figures were at all intricate a piece of lapis would be ground to shape if no ready-made piece would pass muster. Further, shell is a brittle substance and it would have been difficult to complete the silhouette by cutting away the ground between the legs, or between the arm and the body, and even if this had been successfully done there would have been a risk of the

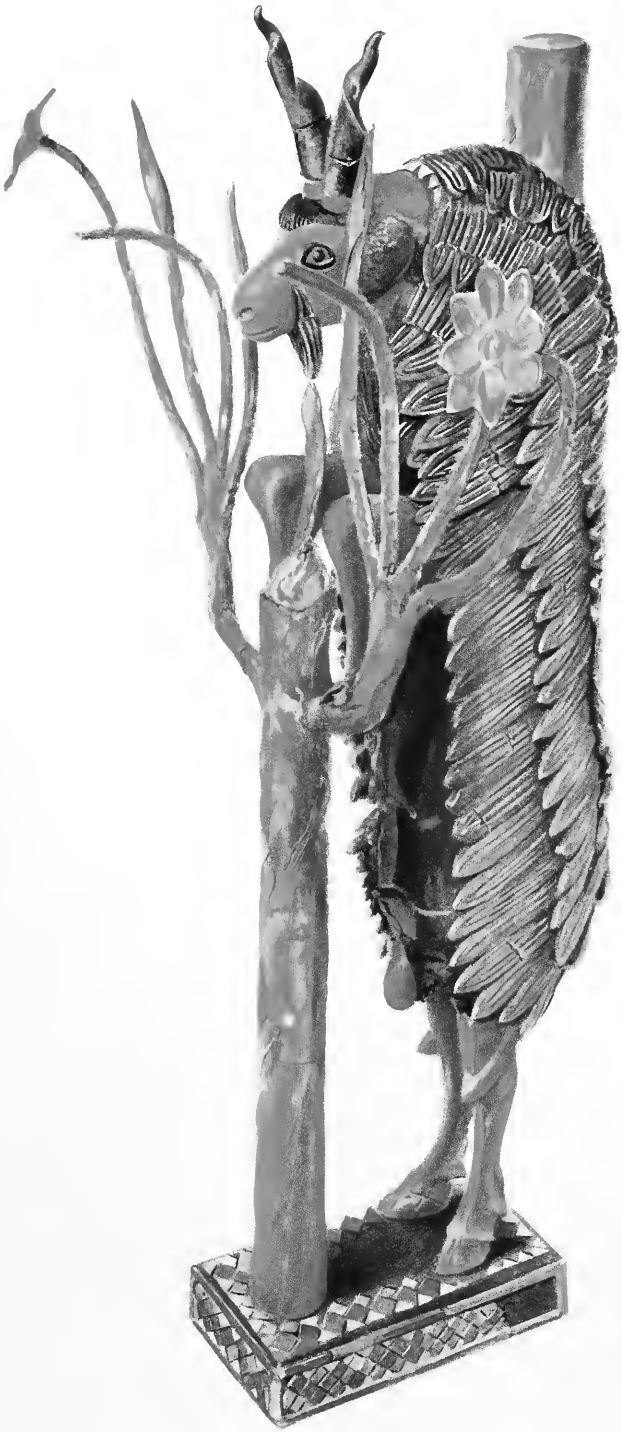
slender and projecting limb breaking when the figure was pressed into its background of bitumen. Consequently the worker fell back upon the second method and in these dangerous places merely cut back the surface of the shell, as was done on the plaques, and filled up the depression with black paste; thus between the legs of men and animals on the Standard there is no lapis at all. The contrast of colour is not so obvious as to constitute a serious blot on the whole.[1]

U. 12357, A, B. The Goat Statuettes. Pls. 87-90.

The two figures were found close one to the other in the great Death-pit PG/1237. As is described in the catalogue (*v.* U. 12357), one was broken in half across the body but preserved its roundness, the second was squashed flat (Pl. 90 *a*) but kept its contour; the work of restoration was therefore rendered much easier.

The whole body of the animal had been made of wood over which the gold of head and legs and the silver of the belly had been hammered and the separate locks of hair carved in shell and lapis-lazuli attached with bitumen. The method of attachment can be clearly seen on Pl. 90 *b*, which shows this mosaic from the inside. This figure, U. 12357 A, was that crushed flat by the weight of earth; to reconstruct it the gold parts were removed and the two flattened sides, secured by waxed muslin, were cut apart and the inner face cleaned so as to expose the roots, so to speak, of the locks of hair; then waxed muslin was applied to this inner face and it was gradually pressed out until it reproduced the curves of the broken but uncrushed figure U. 12357 B. The component parts of the fleece were therefore not moved from their original connexions. The gold was annealed and pushed out into shape. In the restored figure (Pl. 87) two of the flowers are missing, never having been found; part of the belly is new, as the silver was in very bad condition and crumbled away; the stand is incomplete owing to the loss of a number of the minute mosaic tesserae and part of its strip edging is new; otherwise nothing has been added or altered. The shell of the body had decayed somewhat and the surface of a good many of its pieces had perished and all were discoloured; the head was in very good condition and scarcely showed that it had been crushed, and only one of the gold legs had suffered at all severely. In the second figure, U. 12357 B, the whole of the silver from the belly had perished and no attempt was made to restore it or even to model the plastic wood to what might have been the original form. The gold of the head was extremely thin and had been not only crushed flat but broken into eighteen pieces, so that the shape was more difficult to recover and the damage is much more obvious than in the companion figure. The legs were in fairly good condition; the shell of the fleece was very well preserved and had its original whiteness and polish and the mosaic of the base was complete; the sides of the base had been covered with silver plate which had perished, and in the restoration this was replaced with paint. Where the body was broken in half

[1] The red-brown colour, e.g., between the chair-legs in the 'Peace' scene is due to the loss of most of the bitumen and the white shell showing through what is left of it.



U. 12357 A. 'THE RAM CAUGHT IN A THICKET'
One of the two goat statuettes from the Great Death-pit.
Scale *c.* ½ (ht. 0·50 m.) *v.* pp. 121, 264 *M. Louise Baker pinx.*

a few shell 'locks' were displaced and had to be put back: apart from this there was no restoration or addition.

Though a pair, the two figures show minor differences, as in the stands, all mosaic in the one case and partly silver in the other, and U. 12357 A is shorter than U. 12357 B, the heights being 0·465 m. and 0·51 m. respectively, including the stands which are 0·03 m. high: the feet of figure A rest on the crook of the branches of the tree whereas those of figure B come well above them; this might be thought to be due to a mistake in the restoration, but in B the branches, which are replaced where there were holes for them in the gold casing of the trunk, spring much lower down the trunk than do those in A, and if they had been restored in the same relative position (which could only have been done in defiance of the material evidence) the leaves and flowers would have risen much higher above the animal's head than they do in A and the disparity between the figures would have been no less marked. When found each animal had a silver bond, apparently a chain, round his front fetlocks attaching him to the branches of the tree (these were reduced to soft chloride and fell away), so that he was perhaps conceived as hobbled to the tree rather than resting against it, and the position of the hoofs in A might almost be accidental.

From the shoulder of each animal rises a gold tube which was the sheathing of a wooden upright; the figures therefore are not complete in themselves but are supports for something that has disappeared. What that was it is impossible to tell, but it must have been of some perishable substance such as wood; possibly it was no more than a little table-top on which might be stood a lamp or a pot of incense—nothing of any sort was found, but one suspects something small, because of the size of the stand, light, yet large enough to require that the flowers and leaves and the tips of the goat's horns should be approximately at the same level, and a circular table-top would seem a not unreasonable suggestion. The only importance of this is that it warns us not to regard the goat figures as independent works of art; they are applied art, the decoration of a piece of furniture, and must be judged as such, judged, that is, by a different and a somewhat lower standard than would be applied to a work of art created for its own sake; thus a certain stiffness of the body and the undoubted clumsiness of the shoulders is explained when the figure is looked upon as a support. But it would be difficult to overrate the technical qualities of the work and the extraordinarily skilful use of colour and the real sense of design. These are by far the finest examples yet found of that curious and refined Sumerian art of the goldsmith and lapidary which loved to combine in one object the richest materials and the strongest contrasts of colour and texture, to design in bold lines and to complicate that design with an almost morbid elaboration of detail, the sort of art that arises sometimes when inspiration has passed its zenith and invention loses itself in the baroque. At first sight these polychrome—one might almost say chryselephantine—statuettes seem strangely alien to the prehistoric world of the Near East; they would be more at home in Italy of the sixteenth century: but in fact they are perhaps of all the objects found in the Royal Cemetery the most characteristic of the civilization that produced them.

Inevitably the subject of the sculpture, a he-goat, 'a ram of the goats', chained to the branches of a bush, recalled the Old Testament story and the phrase 'a ram caught in a thicket'. It is obvious that the figures cannot be illustrations of an event which is claimed to have happened nearly fifteen centuries later, but the parallelism is not to be altogether overlooked.

In spite of the slight difference in size the two goats are a pair; they are in a sense subsidiary to something else, which has disappeared, and their relation to each other would be to some extent determined by the character of that missing something, but as a pair they would naturally front one another. Now the 'heraldic' composition of two animals facing each other and reared up on their hind legs against a bush or tree is a commonplace of Sumerian art at this period, e.g. Pl. 104 *a*, *c*, and *d* (in *b* the figures are back to back), Pls. 96–9, Pl. 100, U. 10917 A; the fact that here each animal has his tree is of course only due to each being a support for a separate object, so that the central feature of the normal composition had to be duplicated when the sides of it were made independent; properly speaking the group of the two mosaic goats is one of a series. The animals in the series are not always the same—the goat, the oryx, the stag, and the bull are all represented, but always with the tree between them. There are a certain number of engraved plaques with subjects which might fairly be classed as *genre*, e.g. Pl. 98, U. 13201, and Pl. 100, U. 8915 A and B and U. 11862, and those on Pl. 96 *b*, single figures which need not be other than pure ornament; but the grouped animal plaques are almost certainly symbolic, and on the harps and lyres they are associated with subjects which are definitely mythological such as the Gilgamish figures (Pl. 104 *a* and *c*) or the Im-dugud bird (Pl. 104 *b*); these groups are constantly repeated, and the repetition is due not to the poverty of the artists' imagination but to the limited range of legends or ideas for which their symbols had to stand. Some at least of these symbolic designs remained in vogue for a very long time—a terra-cotta relief with the two goats seems to date to about the time of the Third Dynasty of Ur—and they may have been familiar even as late as the second millennium. The story of Abraham's sacrifice may be much older than the time of which it is related, but whenever it took shape the account of the substitution of animal for human sacrifice may well have been recommended by linking it up with a symbolism already known.

U. 11164. The 'Standard'. Pls. 90–3.

The 'Standard of Ur', U. 11164, Pls. 90–3, is the most elaborate piece of mosaic and one of the most remarkable and important objects that the soil of Mesopotamia has preserved to us. What it really was it is hard to say. The long flat sides sloped together, the ends taking the form of truncated triangles, so that it is not likely to have been a box, though it apparently was hollow; it lay in the tomb against and above the right shoulder of a man as if it had been carried by him on a pole, and the suggestion that it was a sort of standard seemed the most reasonable. All four faces of the object were covered with mosaic, the top and the base were plain. Each face was divided horizontally into three registers framed by borders composed of shell strips with between

them bands of lapis squares and shell triangles or red limestone squares and lapis triangles, the alternate borders being of different colours; similar borders with red squares and lapis triangles enclose the panel at either end. Each register is occupied with shell figures set against a field of lapis mosaic; the inner details of the figures are filled in with black except for the chariots, which have a bright red paste, and for the two cattle, the middle section of whose bodies is cut out of red limestone.

The discovery of the object and the way in which it was lifted have been described on p. 61; I am here concerned with its present condition and the extent to which it has been restored. As it lay in the ground it was not in good condition. With the decay of the wood on which the mosaic had been built up, and the disintegration of the bitumen by which it was held in place, the upper face of the mosaic had collapsed inwards and except for a film of dirt the backs of the tesserae belonging to the two sides were in contact, while the triangular ends had been crushed together so that the pieces of shell and lapis were forced out of place and many of them had sprung to quite a distance. Large stones falling from the roof, apparently after the decay of the wood, had done much damage to one end of the Standard, scattering some of the tesserae, and the minute squares and triangles of the outer border had especially suffered; lastly, some of the shell was badly decayed.

(*a*) *The 'War' Scene.* Much of the outer border had perished and has been replaced, the old shell strips being used so far as they were preserved and strips of wood substituted for the missing pieces; vulcanite strips have taken the place of the missing mosaic; where there is square-and-triangle mosaic it is all original and in its original order, but along the lower edge of the panel some of the shell strips enclosing the border have been replaced. At the left-hand end of the border between the second and third registers there are some red squares where the design demands blue and white; these were not in position but lay on the surface of the panel alongside the hollow left by the disappearance of the minute tesserae between the strip edging, and they were pushed back into that hollow, but it is tolerably certain that this was a mistake and that they belong to the bottom border of the panel. In the top register the lapis background to the upper part of the figure of the man holding the reins of the chariot has gone. When the panel was cleaned it was found that the lapis above the donkeys' backs and the shell heads of the animals were missing; by a lucky accident the heads were found at the beginning of the following season (the fragment must have sprung to a distance and been overlooked by our workmen and thrown away before the existence of the Standard was known; it was found in the rubbish-dump) and they have been restored to their position. The surface of the shell in most of the figures in the right half of the register has perished and the detail of them is obliterated, but they are untouched and only two bits of lapis background are missing. In the second register nothing has been touched: where in the right half the figures are incomplete the shell is still there but deeply pitted by decay and hidden by the bitumen; the head of the second figure from the front was broken from the body but had scarcely

shifted its position. In the third register the warrior in the back chariot was bent up at right angles to the plane of the panel and the lapis from behind him was missing; the gap has been left: in front of the leading animals (the shell here is badly perished) I have replaced two pieces of lapis which seemed to belong.

(*b*) *The 'Peace' Scene.* For the missing parts of the border there have been substituted strips of wood and vulcanite; even where the original border is preserved some of the outer strip edging has been replaced and, along the bottom edge, wood substituted for the shell; the red squares in the vertical border on the left are restored, but did come from this border, judging from their position in the ground. The borders between the registers have been left as they were found except for a little patching at the right end of the blue-and-white border where some dislodged tesserae were replaced. The whole of the left end of the panel had been broken. Of the top register half of the last figure on the left and the lapis background belonging to it had gone and the missing fragment of shell was never found—judging by the state of the surviving piece it had decayed away; a piece of vulcanite has been put to fill the gap left here and under the figure: the remaining piece of shell was bent forwards but was otherwise in position, as was the strip of red sandstone inlay in front of it. The rest of the top register was intact. In the second register everything was missing up to the back of the second figure from the left; against the broken edge of the panel was found the much damaged figure which by reason of its position has been replaced here (together with some lapis background) but this was probably wrong; the figure seems rather to be that of an animal and in that case should belong to the middle register of the triangular panel, Pl. 93 *b*, to which its position in the soil would be almost equally suited. The third figure from the right had started out of its setting and was bent forwards at a sharp angle, and its head had disappeared. In the lowest register the lapis background to the last figure on the left (which was bent backwards at right angles) was missing, and two or three pieces along the bottom edge between the next figures had to be replaced, but for the former vulcanite was substituted. The three front figures had been broken right away from the panel, together with their lapis background; I replaced these in order according to the distance at which they lay from the panel's edge, but it was pointed out by Legrain[1] that they were incorrectly placed because the figure which by analogy with a precisely similar one in the same register must have been leading the donkeys was put at the head of the line and the animals were left unattended; I accordingly rearranged the three figures, putting in front that one which reproduces the leading figure in the register above; the whole corner therefore is a reconstruction.[2]

(*c*) *The Triangular Ends.* Of the end panel, Pl. 93 *a*, which comes at the left-hand end of the 'War' scene, only a few tesserae of the border remained, red squares and shell triangles, and enough of the inner strip edging to give, with the borders between the registers, the correct angle which made possible

[1] In *Museum Journal*, Philadelphia, Sept. 1928, p. 232.

[2] The original reconstruction was published in *A.J.* viii, Pl. LIX.

the reconstruction of the whole Standard. Of the top register there was left only half; the figure is in one piece with its background, not silhouetted, and the shell is not broken; one would expect a similar figure to balance it, but nothing of the sort was found; the mosaic background of the right side of the register is simply a patchwork and the shell upright is very likely wrong; it lay about in this position and was lifted in position with the 'War' panel, but everything here was so much broken up that reconstruction is little more than guesswork. In the middle register the two figures are in position, but practically all the lapis inlay has been restored. In the lowest register most of the pieces were in position, though much distorted; the semicircle had fallen out, but its place was of course beyond doubt, and the lapis along the base was dislodged, but the curved shell pieces and the animal figures were relatively correct; presumably the seated figure of the bull ought to be straight, but it has been kept as it was found. The other end triangle, Pl. 93 *b*, is almost entirely restored; all the pieces had started from their places and were found scattered; they have been arranged according to their positions, i.e. the figures in the top register lay highest up, the broken figure of a lion was about in the middle (probably with this should go the damaged figure at the left-hand end of the 'Peace' scene), and the composition of the bottom register was practically dictated by that of the similar figures in the other triangle; but there is no certainty elsewhere, and the top register is particularly unconvincing.[1] All the border had disappeared.

The two main scenes are probably connected. In one a Sumerian king is shown in battle, triumphing over his enemies, in the other he is celebrating his victory by a banquet; the two scenes are remarkable in their vividness and for the detail with which they illustrate the life of the time, but the 'War' scene is of particular interest because it gives in pictorial form the first record that we possess of the Sumerian army, its weapons and its organization. The part played by the Sumerians in the history of modern civilization is so considerable that everything about them deserves study; but since they won their position by force of arms, and by force of arms imposed their culture on the neighbouring peoples through whom its permanence was assured, the character of their fighting machine becomes a thing of the greatest importance. Here it is portrayed accurately and in detail.

In the 'War' picture the royal chariot, empty, is shown on the left of the top register, the reins held by an armed servant who walks behind; it is drawn by four asses harnessed abreast and is a long-bodied car with a wooden framework and low panelled sides which may be of wicker and a high front (shown, by faulty perspective, on the same plane as the side) above which rises a rail formed of two curved pieces of wood dipping in the centre, a shield to protect the driver. There are four solid wheels built up of two semicircles of wood fastened together by cross tenons with projecting hubs through which

[1] It is tempting to transpose the damaged animal figure and the upright pole in the top register of the other triangle; we should then have a pair of animals in one triangle and a man making libations in front of an emblem (?) in the other; but I do not see how fragments from opposite ends of the board could have got mixed, although considering the condition in which things were nothing is quite impossible.

comes the axle-end; judging from the remains found in PG/789 the axle was fixed and the wheel revolved on it, and the tyre might be of leather; at Kish a chariot was found whose wheels were fitted with copper tyres. The pole, as can be seen from the chariots in the bottom register, started from beneath the body of the car and was brought up in a curve to the level of the shoulders of the draught animals; to it was fixed the double ring of metal through which the reins passed (*v.* Pls. 166 and 167); no yoke is visible. The harness is simple; the reins are attached to the side straps of a head-stall, and there is a ring drawn in front of the beast's mouth which is presumably a rather clumsy convention for the bit; the oxen of the king's car in PG/789 were guided by a ring passed through the nostrils, and it is possible that the same is true of the asses here, but though the drawing favours that theory the bit in the mouth with the ring ends seems intrinsically more probable; if it is a nose-ring then it was used only for the leading-halter and has nothing to do with the harness of the chariot.[1] The whole motive power depends on the collar, a broad band of leather which might be covered with ornamental metalwork (*v.* PG/789 and PG/800) and was furnished with long tassels; it was fastened above with a ringed metal knob round which were tied the thongs securing it to the yoke or pole; as it passes round the neck above the shoulders the whole pull presses on the jugular vein which here comes immediately below the skin of the throat, and the animal cannot use fifty per cent. of its weight and strength; it is the uneconomic system of harnessing which was universal in the ancient world and was not reformed until the Middle Ages.[2]

In front of the animals stands a diminutive groom, then three men of the royal bodyguard wearing helmets and the long cloak thrown over the left shoulder and carrying axes and spears; then comes the king himself, distinguished by his superior height; in front of him naked captives with their arms bound behind them and sometimes with halters round their necks are brought up in charge of troopers of the light-armed division whose long cloaks have all the air of kilt and plaid. In the second register we have on the left the phalanx of the heavy-armed infantry with their metal helmets, kilts and capes of thick stiff felt, studded with what may be metal disks, and their short stabbing spears; they advance in close order and in front of them are the light infantry engaged with the naked enemy; some of the light-armed troops wear only the fringed kilt open in front and their weapon is the spear or, in one case, what seems to be a club. In the lowest register is the chariotry. In each car there is a driver, sometimes carrying a goad with double points,[3] and with him a fighting-man whose weapon is the axe and the light javelin, of which a set of four is kept in a quiver attached to the front of the car; the driver is protected by the high front of the chariot, the fighter stands at the

[1] Max Hilzheimer, 'Die Anschirrung bei den alten Sumerern', *Praehistorische Zeitschrift*, xxii, 1931, p. 1, rejects the bit theory and thinks the control was by the head-stall.

[2] Lefebvre des Noëttes, *La force animale à travers les âges*.

[3] The forked end reminds one of the forks for the throwing-cord at the butt end of the spears, *v.* p. 68; but the driver, not being the fighting-man, would not use the spear and in any case would not use it the wrong way round.

back where he is less shielded but has more freedom of movement. The chariots move forward across the battle-field, the rear car at a steady walk, the next, the animals of which are already passing over a dead body, at a faster pace; the asses of the leading cars gallop at full stretch over a field encumbered with corpses.[1]

In speaking of the animals as asses I am expressing an opinion which some writers have not shared. Until very recently it was generally held that the horse was unknown in Mesopotamia until about the beginning of the second millennium B.C., shortly before the time when it was introduced into Egypt from Syria, where too it was then a new arrival. Recent discoveries have cast some doubt on this. It is, for the history of civilization, a very important point, and though a final decision is not yet possible the different views and the evidence for them ought to be summarized. The evidence is partly literary but for the most part consists of representations which have been differently interpreted.

In later times the regular term for a horse is one which literally translated means 'the ass of the mountains'; this phrase has now been found on a pre-Sargonid document and the question is whether it already signifies 'horse' or whether it means what it says, and the phrase was revived a good many centuries later to describe an animal then introduced for the first time by people who did not know anything of its nature. The actual representations are those on the Standard, those on two stone reliefs found one at Ur and one at Khafaje (Pl. 181), several cylinder seals or seal-impressions, a drawing on a pictographic clay tablet from Warka, a painted clay pot from Khafaje,[2] and a painted sherd from Susa. Not all these monuments afford a safe basis for discussion. The seals and seal-impressions are on too small a scale for their details to be either clear or trustworthy (cf. Pl. 196, No. 54); moreover, the very point of dispute would condition the engraver's work—if the horse, the ass, and the mule were all known he might even in his minute drawing be at pains to differentiate that which he meant to represent, but if only one species were familiar to his public it would be enough for him if his creature were evidently that and not a bull or a goat, and the finer distinctions would not appeal to him. The same is true of the little pictograph on the clay tablet, and the painting on the vase is too crude and grotesque to be called seriously in evidence; it is only on the most careful and most detailed representations that a judgement can be based. The stone slabs from Ur and Khafaje certainly do not fall within this category. The bull in the second register of the Khafaje stone is so badly drawn that it is difficult to identify its genus, and to place any reliance on its details would be ludicrous; in the case of the 'asses' on the Ur fragment, the feet would seem to be quite definitely those of a carnivore and not hooves at all, and the long tails are hairless and pointed; the bodies are if anything leonine and only the heads, preserved on the Khafaje slab, might pass for those of ass or horse. The two decisive monuments are the Standard and the rein-ring from Queen Shub-ad's grave, Pl. 166; the

[1] This is a good piece of observation on the part of the artist; the ass, like the horse and mule, will get wildly excited if driven over dead bodies.

[2] *British Museum Quarterly*, viii, i, (July 1933), No. 39.

latter has this especial interest, that it was attached to the pole of a sledge-car drawn by two animals; the bones of these were too crushed and decayed to be removed, but the fragments of the lower jaw of one looked like an ass's jaw and were confidently hailed as such by the Arab workmen; in PG/789 where the draught animals were oxen the rein-rings were decorated with figures of oxen, and by analogy it can be argued that whatever the queen's rein-ring represents the skeletons were those of the same animal.

Hilzheimer[1] has no hesitation in declaring that the animal on the rein-ring is a *Maultier*, i.e. a mule by a stallion out of a she-ass, and that shown on the Standard is a *Maulesel*, i.e. a mule by a jackass out of a mare; in support of this he gives exact definitions of the distinctive features of these two crosses as well as of the horse and the ass. As Hilzheimer remarks, this identification leads to the surprising conclusion that the horse was known in hither Asia in the fourth millennium B.C.; this he would explain as due to the action of the Ice Age in extending the heimat of certain northern fauna, and he considers it much more surprising that the ass should have been known in that period since the true ass is a purely African animal and the Asiatic wild ass has never been domesticated; the horse might have been brought into Mesopotamia itself either by trade or as booty taken in war, but in neither case would its home be far away. Some other writers have adopted this interpretation of the monuments but in view of the literary difficulty have suggested that the horse was not actually introduced into the country but was known in other parts of the Near East and that the cross-breeding was carried on by some peoples beyond the Sumerian frontiers from whom the mule was obtained by the Sumerians; the explanation scarcely resolves the improbabilities of the original thesis.

The suggestion that the animals are horses is definitely ruled out by Hilzheimer's catalogue of characteristics, and indeed no one could maintain that the tail and ears of the beast on the rein-ring were those of a horse. But the tail is equally decisive against the identification as a *Maultier*, for that mule's tail has long hair starting from the rump, and so is the mane which Hilzheimer describes as hanging but which is in fact the short upstanding mane of the ass. Similarly Hilzheimer's definition of the *Maulesel* may be taken as correct, but it does not correspond to the features of the animals portrayed on the Standard—the tail which it desiderates is the contrary of that shown.

The animal on the rein-ring is a very realistic model of the onager, the wild ass which is native to Mesopotamia, and the animals on the Standard although less carefully characterized are without doubt of the same breed;[2] the distinguishing features are all faithfully reproduced. The statement that the Asiatic wild ass has never been domesticated really begs the question, for it could not be supported by positive evidence and is contradicted by the monuments themselves as soon as it is admitted that the animals pictured on them as harnessed to chariots are the onagers which they are clearly meant

[1] 'Die Anschirrung bei den alten Sumerern', *Praehistorische Zeitschrift*, xxii, p. 1.

[2] For this confirmation of my own view I am indebted to Messrs. M. A. C. Hinton and R. I. Pocock, F.R.S., &c., of the Natural History Museum, South Kensington; so also L. Adametz and O. Antonius, *v. Archiv f. Orientforschung*, v. 1929, p. 143, n. 3.

to be.[1] On the evidence available as yet we have no reason to reverse what was until recently the generally accepted view that the horse was not introduced into Mesopotamia until the close of the third millennium B.C., but we do learn that the domestic ass of a thousand years earlier was of the onager breed. When and to what extent the African ass was brought into the country and modified the native strain we do not know, but its importation from Egypt via Syria or Arabia would be a simple matter.

On the 'Peace' side of the Standard we have the actual feast shown in the top register. The king is distinguished by the many-flounced skirt which is the prerogative of royalty (*v.* p. 238); facing him are six other figures seated, all wearing the fringed skirt; since all are male and adults this is not a family party but the king is entertaining the captains of his host. Behind the last seated figure is a musician playing on the lyre and behind him stands a black-haired woman with her hands crossed on her breast in the conventional attitude of the singer. The broken figure on the extreme left seems also to have been seated but does not wear the royal costume; possibly it was a man with a great wine-jar such as we see in the banquet-scenes on cylinder seals (cf. Pl. 194). In the second and third registers men advancing to the right bring in food or spoil captured from the enemy. Two servants are followed by a man who with a rope attached to the beast's nose-ring leads in a bullock (the middle of its body is of red stone), while a second attendant guides it by the horn; then come three goats, the bodies of two of them cut out of a single piece of shell, the heads, made separately, arranged above the bodies with more regard to balance of the design than to truth to nature; a drover in charge of the goats is followed by a man carrying four fish; then comes a group like that at the head of the procession composed of three men and a bullock, then a hairy and bearded man who grips an oryx, another, apparently also bearded, who carries a gazelle, and a ruined figure probably here misplaced (*v. supra*, p. 268); the bearded figures with the wild animals may be hunters from the hills. In the bottom register the line is headed by a man with black hair and a feathered (?) cap followed by a clean-shaven servant and a second who leads four asses by a rope; the same ring that was observed in front of the nostrils of the chariot-animals reappears here and there is no head-stall, so that a bit, having nothing to keep it in the mouth, seems to be ruled out, yet the ring does not pass through the nostrils; perhaps it is not fair to the ancient artist to require of him over-strict accuracy in details. Following the beasts is a man with feathered (?) head-dress carrying a bundle on his shoulder; next comes a man carrying on his back a great bundle which like a modern Stambul porter he supports by a band across his forehead, next an attendant with feathered (?) head-dress and another man leading four asses with rope and ring; the end of the procession consists of two pairs of bundle-carriers identical with those behind the first team of asses separated by a single figure of a clean-shaven fringe-skirted Sumerian.

[1] Hilzheimer's mistake comes from not looking at the pictures, not from any error in defining the various species. Some of his arguments, e.g. that the ass cannot for long keep up a pace faster than a walk, are wrong in fact and in any case are beside the point since he is talking of the African ass.

The different human types represented on the Standard are very interesting. The king and his followers are in every way what we are accustomed to regard as characteristically Sumerian both in their dress and in their clean-shaven heads and beardless faces; the enemy encountered in the field are naked savages and bear on their breasts and thighs what appear to be tattoo-marks; they too are clean-shaven, but one man in the second register seems to have whiskers; the leading figure in the same row has the marks on his breast and head but wears a divided kilt and carries a spear—one is tempted to regard him as a soldier of the king and the marks as conventionalized wounds, but they occur too regularly for that and are more likely to be tribal cuts or brandings such as many Arab tribes inflict upon themselves to-day. Quite distinct from either of these are the shaggy bearded men who bring in the wild animals in the 'Peace' scene and reappear—again with a wild animal—on one of the end triangles of mosaic; they wear a head-dress which is rather lower than, but otherwise not unlike, that worn by the men in the bottom register who have close-cropped hair and no beards. The head-dress is certainly reminiscent of that on the mother-of-pearl and slate mosaic from Kish[1] and its association is therefore with the north where, as in the Kish mosaic and in the copper figures from Tell Asmar,[2] the heavy Sumerian type is replaced by one with slenderly built body and long beard. The victory of the Sumerian king which the Standard celebrates was gained, clearly, at the expense of a non-Sumerian enemy, probably one whose home was farther to the north and, if the oryx is to be taken as a witness, in a more mountainous land. The serious invasions of the lowlands have always come from the highlands of the North and East; to the success of some are probably due the innovations which modify though they do not altogether break the continuous development of Sumerian culture; the defeat of one is recorded on this astonishing monument.

It is difficult to establish any relation between the historical scenes on the sides of the Standard and the mythological or *genre* subjects on its triangular ends. The lowest register must have a meaning; the seated bull with the *Zu* bird on his back is definitely religious, but seems to have little in common with the two other animals or with the flower and the curious semicircle which looks like a round-topped cairn; the top register with the animal is conventional and, one would say, purely decorative; the middle scene might illustrate a legend but has nothing to do with battle-field or banquet; none of them seem related to the others.

Gaming-Boards.

In a number of graves of the early cemetery, chiefly the royal tombs, there were found inlaid gaming-boards; some were fragmentary, three were complete. All are alike in consisting of two rectangular parts joined by a narrow bridge; the two parts are of unequal size, the larger being divided into nine

[1] Langdon, *Kish*, Pl. xxxvi. Cf. the Philistine head-dress from Asia Minor.

[2] Frankfort, Jacobsen, and Preusser, *Tell Asmar and Khafaje*, *Oriental Institute of Chicago Communications*, No. 13, Fig. 33.

and the smaller into six squares of the same dimensions, while two squares form the bridge, making a continuous row of eight squares down the centre of the entire board. The board itself was hollow and in the form of a box on the lid of which the squares were inlaid; in the box were kept the pieces for playing the game. A detailed description of the surviving boards will be the best introduction to a study of their character.

U. 10478, Pl. 95 a; found in the grave of Queen Shub-ad. The board was of wood throughout; the vertical edges were closely encrusted with narrow strips of mother-of-pearl and red limestone alternately; the upper face, the real gaming-board, was divided into squares by narrow strips of shell inlaid with minute dots of red and blue (red limestone or paste and lapis lazuli); within four of these squares there were set shell rectangles, and in each of the others five little circular pieces of shell hollowed out cup-fashion and inlaid in their turn with tiny hemispheres of lapis and red.

The board lay face downwards in the earth and the woodwork of it had decayed completely away. Our first knowledge that it was there was gained when the workman's pick hit one corner of the larger section and destroyed it; then the strips of shell and red limestone forming the border were seen and followed until the outline of the object was clear. The investigation of the dirt inside brought to light the shell strips forming the squares and the little dots of white shell inside those; all were absolutely loose, resting in position on the smooth face of earth pressed down by the board where it was intact, but only kept in that position by the surrounding dust; they were so small and light that blowing upon them with the breath dislodged them before it shifted the dirt. In the end the squares were cleaned one by one with a camel's-hair brush and breathing, the dots being held down with the fingers in the meantime, and as each was cleaned a little liquid plaster of Paris was poured over it; this was not easy and some of the dots were moved and had to be pushed back so far as might be into their original positions. Finally plaster was poured over the whole thing so as to fill it up to the top of the strip border, and the board was then lifted in one piece. Much to our surprise and dismay the shell strips and dots came away safely with the plaster in which they were now embedded, but on the smooth face of the earth where the board had lain there remained all or nearly all of the minute red and blue spots of whose existence we had been unaware, and with them the coloured petals of the flowers on the shell squares. Fortunately most of them were in order, and it was possible, by holding the board alongside the bed from which it had been taken, to lift them one by one and replace them in their original holes: that is, it was possible to a certain extent. The red spots had been either tiny pieces of limestone or a paste made from powdered limestone; in either case many of them were now reduced to powder and could not be picked up, a few of the blue dots were lost, and several of the shell cups had perished completely, so that the board could not be perfect. In replacing the spots some mistakes may have been made. The edges of the board were of course distorted and one corner had been broken away; no attempt at restoration was made but the board was kept exactly as it came out of the ground

except for the replacing of the spots done on the field and the painting of the exposed face of the plaster black as a conventional substitute for the original wood. One of the four shell plaques was so decayed that its subject had disappeared.

U. 9000, Pl. 95 b, was found in PG/513, a grave of the early cemetery which actually overlapped the side wall of the royal tomb-chamber PG/777 and must therefore be of rather later date than it. It is the most striking example found. On the under side there had been inlaid in the wood a row of long triangles of red limestone and shell, the colours alternating and the triangles facing in opposite directions like those on a modern backgammon board; there were only a few of them, and they seemed to have come only at the back or outer end of the larger section of the board, but no reconstruction was possible on the evidence. The edges of the board were encrusted with vertical strips of shell and red limestone interspersed at intervals with shell squares on which is engraved an eye pattern. On the top there is round the edge a border of mosaic composed of very small shell squares and red limestone triangles; much of this had perished through the decay of the shell (which was often no thicker than paper) and the reduction to powder of the limestone. Inside the border the rectangular divisions were defined by strips of lapis-lazuli, and in the divisions were set square shell plaques; none of the wooden body of the box showed at all.

The board lay face upwards in the soil. With the decay of the wood the whole of the encrustation of the upper surface had sunk down into the void so left, while the strip-work along the sides remained sticking up above it; this collapse had resulted in the dislocation of much of the fine mosaic border, and the regularity of the surface was disturbed, the shell squares often lying at an angle and the lapis strips overlapping them; further, the end of the larger section had been broken and the three last plaques (all except the corner of that on the left, which was still attached) and the right-hand plaque of the next row lay separated from each other and half an inch or more away from the main board, and the border and edging here had been scattered. It was this broken end that we found first and probably some pieces of the strip edging were overlooked by us; when the presence of the object was recognized we worked along it a square or so at a time, pouring hot wax over it as we went, and finally the whole was secured with waxed cloth and lifted. It has not been taken to pieces and remade. The inside was cleaned and covered with waxed muslin and the cloth and wax removed from the face and then it was placed face downwards on a sheet of glass and by applying heat we were able to push the component parts down into their places; the three loose plaques were replaced in the order in which they were found, but nothing was done to restore the missing part of the border and edging. The red and blue spots inlaid in the shell plaques and petals of the flowers were loose in their sockets when found, but were fixed by the wax poured over them and very few of them have been disturbed and replaced.[1]

[1] A few floated up in the liquid wax but could be at once pushed down into their holes.

U. 10557, Pl. 96, found in the royal tomb-chamber PG/789. The top of the board is encrusted with shell plaques bordered and separated by strips of lapis-lazuli, the bridge has a special border of rather large square mother-of-pearl tesserae inlaid in the wood of the box (which showed only here), and the sides and base were covered with sheet silver. Some of the plaques with geometrical patterns are inlaid with minute dots of lapis, those with animal designs have the ground cut back and filled in with bituminous paste; the engraved lines were filled in with the same black or with red paste. All the shell was in poor condition and some of it so terribly decayed that the engraved subjects were unrecognizable. With the decay of the wood the plaques had sunk inwards and formed a very irregular surface and the tesserae round the bridge were more seriously disturbed. The board was waxed *in situ* and treated in the same way as the last, U. 9000, but to do this it was necessary to cut away the silver of the base; on removing it we found inside the box the complete set of 'men', &c., which will be described later (*v.* Pl. 221).

U. 11162, Pl. 97. The royal grave PG/779 produced fragments of a gaming-board very similar to the last, but it had been broken up by the tomb-robbers and the pieces of it were found scattered—most in chamber D and a few in chamber C; they were not enough to constitute the regulation board, so some must have been carried off with the rest of the spoil. In chamber D was found the board, i.e. the back of it, which had been covered with silver plate, and about half of this was preserved, but most of the face had been broken away. There were sticking to the silver plate, still in order, the top two rows of plaques as shown in the illustration on Pl. 97 and a fragment of the first plaque on the left of the third row; the missing fragment and the two other plaques in the third row lay close by and their position was tolerably certain, the others were scattered. In all there were thirteen plaques, of which eleven bore animal scenes and two rosettes.

U. 9776, Pl. 99. The royal grave PG/580 produced a number of shell plaques, together with strips of border, all scattered. The subjects represented in the engravings are so completely different from those on the boards from PG/789 and PG/779 that they might be supposed to come from some totally different object; but as there were found in the same grave what are quite definitely gaming-pieces it may be that it was merely a board of a different pattern—and the three intact examples prove that the pattern was not obligatory.

It will be noticed that in all the three intact boards there is a rosette pattern in the middle square nearest to the bridge in the larger section and there are similar rosettes in the corner squares nearest to the bridge in the smaller section; in nearly every case the designs on the two sides of the central line are in pairs opposite to each other, and so far as can be seen the same is true of the fragmentary board from PG/779: the exceptions are two only, one on the silver board where in the larger section the figures in the first row, on either side of the rosette, do not match, and on Queen Shub-ad's board where in the large section a (defaced) shell plaque corresponds to the normal five dots; but as we do not know what was on the plaque (it also may have had five dots)

the exception is not a positive one. Shub-ad's board as being the simplest should be the most informative; the sets of five dots are of two sorts, four blue with a red centre and four red with a blue centre, and these are in strict alternation so that nowhere do two of a kind come side by side. In board U. 9000 the number five is again prominent but in different patterns and two plaques have twenty dots, while five have four dots each and one has twelve; there are also two extra rosettes. In the silver board only three plaques have dots and twice in the central line of plaques two identical designs come next to each other; lastly, where in U. 9000 similar designs are repeated in different squares, in the silver board and in the fragment from PG/779 the corresponding squares show no such repetition, and where designs are repeated on the silver board there is no parallel repetition on the fragment.

From this lack of agreement one can only conclude that either the boards were intended for different games or if, as seems more likely, the game was the same, the three rosettes are the only things essential to the play and the other designs are purely decorative except perhaps in so far as they should generally be in pairs on either side of the central line. Certainly the arrangements do not seem to help towards an understanding of the rules.

When the silver back of the board U. 10557 was removed for restoration there were found in the hollow of the larger section a set of seven black shale squares (0·022 m. sq.) each inlaid with five white dots and a set of seven white shell squares of the same size each engraved with an animal scene (Pl. 96), six of these being (so far as could be seen, for the surface of the shell was perished) in pairs; the pieces lay one above the other as shown in Pl. 221. With them was a narrow strip of mother-of-pearl 0·08 m. long with a few engraved cross-lines and crosses on one side.

Under Queen Shub-ad's board[1] there were found at one end of it a pile of seven black shale squares each inlaid with five white dots and a pile of seven shell plaques with animal scenes, Pl. 98 *b*; at the other end were six solid triangles of white shell, two corners of each of which were inlaid with a lapis spot, and close by were four similar pieces of lapis inlaid with gold spots, Pl. 95. In PG/779 scattered about principally in chambers C and D there were found three slender bone rods 0·065 m. long with engraved lines on one side and concentric circles at each end of the other three sides, nine complete and one broken shell plaques with animal scenes, three shale disks inlaid with five white dots, one with lapis dots, six shale squares inlaid with five white dots, three lapis solid triangles each inlaid at the corners with two white dots, eight small lapis balls, and twenty-three small shell balls.

In the royal grave PG/580 there were found scattered, with the remains of the gaming-board, seven shell squares inlaid with five white dots and three black shale squares inlaid with five white dots. In PG/341 there was a set (U. 8632) of seven roundels of shale inlaid with five white dots and seven shell roundels inlaid with five lapis dots; these lay in a row, the colours alternating, as if

[1] These objects were certainly in a box and presumably the playing-board was inlaid on the box lid; yet the 'board' was face downwards in the soil and the objects were underneath it. It would seem that the sliding lid was reversible and had been slipped in to its grooves with the decorated face inwards.

they had been carefully arranged in a box; presumably this was the hollow gaming-board which was made of plain wood and had perished, leaving no trace. Close to them were (U. 8633) seven flattened spheres of shell marked with a cross and four solid triangles of shale each inlaid with two white dots at the corners. In PG/1326 there was found a set of seven shale squares each inlaid with one red dot and seven shell squares of which six bore the eye pattern and one an animal figure, and with these were two shell rods with incised lines on one side and two concentric circles at each end of the other three sides. Lastly, in PG/254 there were four square shell plaques with animal scenes and six shale disks inlaid with one white dot each, and fragments of a shell rod with incised lines on one side, Pls. 98, 221; and in PG/261 there were six shell plaques, one engraved, nine shale roundels, one plain, the rest inlaid with seven white dots each, and a bone (?) rod with incised lines on one side, Pl. 221.

Clearly we have here gaming-pieces which can be round or square indifferently, are in two sets coloured black and white respectively for the two players, and number seven a side. As on the boards so with the pieces the number five seems to be very important, and the alternative to it is an animal scene; but again the rule is not universal, for there are 'men' with one spot and 'men' with seven, and some are quite plain.

The little solid triangles with two dotted corners (Pl. 95) are perhaps dice; there should be a set for each player and apparently six make a set (assuming that two of Shub-ad's lapis pieces are lost), though in PG/341 too only four were found, but as these were not in a box but loose in the soil the evidence is not decisive. The shell rods, which seem to be an alternative for the triangles, might conceivably be used as dice. The balls of shell and lapis found in PG/779 need not have anything to do with the game, but if they have they were perhaps counters—twenty-three of a sort, and that not necessarily a complete set, would be difficult to explain otherwise.

U. 12435. Pl. 116. Here the banquet scene reappears with the king in his richly flounced *kaunakes* seated on his throne drinking and holding a fly-whisk and attended by three servants. The throne is not like those on the Standard with their straight legs and bull's feet in front but has rather elaborate cross-rungs and balusters; apart from this detail all is conventional and no description is necessary, though as an example of inlay the panel is one of the best found in the cemetery. The mosaic was extremely well preserved; one shell from the wide upper border had slipped out of place but the panels proper were quite undisturbed and needed no restoration whatsoever.

U. 10436, Pl. 103. This semicircular lid of the silver toilet-box found in Queen Shub-ad's grave is cut out of a piece of shell and the top inlaid with shell and lapis; the lapis is the usual mosaic of small bits, but the figure of the lion tearing the throat of the bull it has brought to earth is not merely silhouetted but also carved in low relief; the engraved lines are filled in with the normal red and black paint. It is the only example found in the cemetery of relief being employed to heighten the effect of inlay, and it anticipates the (much larger) wall friezes of al-'Ubaid, where again the two techniques are

combined. The al-'Ubaid reliefs are of the First Dynasty of Ur, but the same thing occurs in the somewhat earlier fragments from Warka of wall friezes with silhouetted figures in terra-cotta set against a background of small coloured cones.[1] The relief certainly does add much to the beauty of this exquisite little object; the skill with which the two animal figures are composed to fill the semicircular space, the sense of balance which so distributes the colours as to make one feel the weight of the lion pressing on his prey, the delicacy of the colours themselves, the vigour and at the same time the statuesque restraint of the design are all admirable, the work of a real artist.

U. 10556, Pl. 105. Of the shell engravings with the blackened background —it is like niello work in its effect—by far the most remarkable is the series of plaques which adorned the front of the sound-box of the lyre with the blue-bearded bull's head of gold and lapis-lazuli found in the royal tomb PG/789; they are illustrated on Pl. 105, U. 10556. As they came out of the ground they gave little promise of being anything of much value (*v.* Pl. 106 *b*), but this was only because they were thickly coated with wax and earth; they were in fact in excellent condition and required no restoration at all; even of the bitumen background, reduced by time to loose powder, most had been fixed again into its place by the wax and only the strip border had to be pushed back into position.

The artistic qualities of these plaques, the balance and proportion of the design, the mastery of clean line in the drawing, the skill in characterization, and the sense of humour are clear to any one who looks at the reproduction, but what differentiates them from all the others found is the nature of the subjects chosen by the artist. The top plaque is conventional, the naked hunter, 'Gilgamish', wrestling with two bulls, a favourite with the engravers of seals; but the rest are unique. In the second plaque a dog, with a dagger thrust into his belt, walks along carrying a light table on which are joints of meat, and behind him walks a lion carrying in one hand a shallow cup, in the other a tall vase in a wicker cover; in the third plaque a donkey, seated on the ground, plays a lyre, an eight-stringed instrument with the sound-box in the form of a bull, precisely like the real lyres discovered in the cemetery; in front of him a bear dances to the tune, and at the bear's feet is the little figure of a jackal who with one hand shakes the sistrum, with the other beats the tabor; in the fourth plaque a frankly mythological creature, half man and half scorpion, advances with raised hands in one of which he holds an object impossible to identify, and after him, erect on its hind legs, comes a gazelle holding two tall tumblers[1] like that in gold of Shub-ad which have been filled, probably, from the great jar standing at the back.

That these grotesque scenes belong to some religious cycle can scarcely be doubted, and it was a popular one. Comic animals playing on musical instru-

[1] Jordan, 'Uruk,' in *Abhandlungen der Preussischen Akademie der Wissenschaften, Phil.-Hist. Klasse 1930*, Nr. 4, figs. 25–30.

[2] Legrain, in *Gazette des Beaux-Arts*, vi. 2, 1931, p. 18, suggests that they may be castanets, but neither their shape nor the way in which they are held seems to support this.

ments occur on the impressions of seals found at Ur in strata which prove them to be considerably older than the royal cemetery,[1] and also on archaic seals from Fara.[2] At Tell Halaf[3] there were found two limestone slabs of different sizes but with very similar designs of an animal orchestra including a bear, a donkey, and perhaps a jackal, treated, it would seem, in a deliberately comic spirit, and here recurs also the figure of a gazelle carrying drink; the stones are of much later date than the shell engravings, but the connexion between their subjects is manifest; lastly, from Hierakonpolis in Egypt comes the well-known slate palette[4] on which a jackal is seen playing the flute.

In the literature of none of these countries is there preserved any legend or mythological allusion which such animal scenes could illustrate; only the Gilgamish story is familiar, but the fact that it figures here together with them is in itself strong evidence that at the back of them there is something which at least comes close to religion; moreover, the Hierakonpolis slate is certainly a votive object and many of the Tell Halaf reliefs are of a definitely religious character, and such consistent association is conclusive. Gadd,[5] remarking that all the animals have human hands, which is indeed necessary if they are to perform human functions, points out a line on the fore-arm of the lion carrying the wine-jar and interprets it as the edge of a skin which covers the arm but hangs down leaving the hand free, and concludes that all these 'animals' are in reality men wearing animal disguises; quoting the analogy of the 'fish-men', &c., of later times he infers that the common subject of all four plaques was a religious ceremony designed to expel demons from the proximity of the dead. If this view is correct, the disguise is extraordinarily skilful: the 'fish-men' are obviously men wearing cloaks which do not conceal their human nature, but here, apart from the hands, we have animals rendered with a realism not common in ancient art; and the engraved line above the wrist looks to me like a conventionally drawn muscle. It is much more likely that all four subjects are taken from a cycle of semi-mythological folk-lore, songs or stories which are deeply implanted in popular imagination but are not admitted into the orthodox religion and with difficulty find their way into literature, like the fairy-tales of northern Europe or the Brer Remus stories of the American negro; such might form the matter of the songs that would be sung to the lyre's accompaniment,[6] and such songs and tales might spread far beyond the frontiers of one country and find their illustrators wherever men loved whimsical humour.

On the plaques from the other harps (Pls. 100, 104, 119) the religious or semi-religious element is not prominent in the same way; Gilgamish reappears, and there is the Im-dugud bird grasping his prey—the heraldic figure which is supposed to have become the emblem of the city of Lagash—and the bull-footed creature who fights with two leopards may be meant for the hero Enkidu of the Gilgamish legend; but most of the scenes are of animals fight-

[1] Impressions from the strata SIS. 5–6, shown in the section on Pl. 270.
[2] E. Herzfeld, *Mittl.*, v, 2 (March 1933), p. 77.
[3] M. von Oppenheim, *Tell Halaf*, p. 179, Pl. xxxviii, English edition.
[4] J. E. Quibell, *Hierakonpolis*, ii, p. 41, Pl. xxviii.
[5] *History and Monuments of Ur*, p. 36.
[6] So Legrain, *loc. cit.*, and other writers.

ing together or schematically confronted and, like those on the gaming-boards, appear to be purely decorative; at most they would go with songs of hunting and of wild life. It is worth noting that most of the animals are northern species foreign to the plains of southern Mesopotamia—the antlered stag, the oryx, and the leopard were never at home in Ur, and even the bulls are not of the humped and straight-horned variety which is native to the marshes and appears almost exclusively in later art[1] but the more active crumpled-horned bulls of the highland pastures.

That the draughtsman was conscious of this seems to be proved by the carving on three fragments of shell from the round handle of some object (U. 9907, Pl. 99) where wild bulls are being caught by men who are, by exception, real men and not demi-monsters; the men are northerners, wearing that feathered head-dress which, on the Standard, is worn by the captives bringing in the spoil. For all that they lived in the low countries the Sumerian artists of this period looked back for their inspiration to the hills and to the old traditions of their race.

U. 7900. The engraved plaque U. 7900 on Pl. 102 *b* is remarkable for its size (0·974 m. by 0·049 m.) and also for its subject. A priest makes oblation before a post set upright on a stand supported by bulls' legs; the scene was continued on one or more other plaques and the post is incomplete—there must have been some emblem at the top of it from which hung down the ribbons whose ends are here visible—so that the object of the sacrifice remains unknown. The priest is clean-shaven and naked, according to the ancient ritual of purification, and holds a spouted metal jug of just that sort (Type 84) which we find in the tombs associated with a flat tray or paten and a set of drinking-tumblers (PG/800, PG/755, &c.); it is interesting to compare him with the priest offering libation on a limestone relief of about the First Dynasty period from Ur[2] and with another priest on a calcite disk dedicated to Nin-Gal by the daughter of Sargon when she was High Priestess at Ur.[3] Unfortunately the plaque was found loose in the surface soil and there was therefore no external evidence for its date; it may belong to the royal cemetery period or it may be somewhat later, as the rather dry style of the engraving would suggest.

Other Shell Objects. From Queen Shub-ad's tomb came the very charming knife-handle of nacrous shell or mother-of-pearl, U. 10437, Pl. 101; being quite thin it must have been mounted together with a similar piece against a central slip of wood or metal; it has a slightly convex surface and on the curved pommel is a little figure of a lion carved in the semi-round; with this may be compared the shell figure of a seated calf, U. 8033, Pl. 142, and the head of a leopard, U. 8642, Pl. 143. Shell knobs for the ends of handles or to decorate furniture, such as the tip of the cross-bar of a lyre, were not uncommon; sometimes they were richly inlaid with lapis-lazuli and red limestone, like the example figured on Pl. 103, U. 10988. A unique object was the little toilet-box U. 14483 A, illustrated on the same plate; the sides were plates of nacrous shell and panels of mosaic encrusted on a wooden box of which the

[1] Ch., xvii, pp. 326, 329. [2] *A.J.* vi, Pl. LIII *a*. [3] *A.J.* vi, Pl. LIV *b*.

substance had perished. It has been said that the plaques were obtained from the column of the large conch-shell; sometimes the shell itself was used and either cut simply to the required shape or itself enriched with mosaic. A rather comic example of this is U. 8313 on Pl. 102; the shell cut open and with the whorls removed serves as the body of a bird; the wings are of lapis and mother-of-pearl and red limestone mosaic attached with bitumen, and the head is carved in red limestone; what it was used for it is hard to say, but it constitutes a surprising lapse of taste on the part of the Sumerian maker. Somewhat in the same *genre* are the ostrich-shells cut open at the top so as to serve as cups or bowls and decorated with a band of mosaic round the rim and (usually) a disk of similar mosaic at the base, e.g. U. 9255, Pl. 156. Such shells were fairly common, though owing to the fragile nature of the material they were as a rule irrecoverably broken; one was found in fragments which had rising from the mosaic rim a tall neck and mouth of clay and a high clay foot both covered with mosaic. An elaboration of the common type was the gold imitation of an ostrich-shell, enriched with the usual mosaic rim and base, found in the royal tomb PG/779, U. 11154, Pl. 170: in the same tomb were similar imitations in silver, too broken and decayed for preservation.

In many graves there were found conch-shells with the natural orifice enlarged and usually with the whorls and column cut away so that the hollow shell might serve as a lamp; sometimes at the top of the hole or on a bar left across the mouth was carved the head of a bird of prey conventionally rendered and with the eye inlaid with lapis lazuli, cf. U. 8191, 8198, Pl. 101. A glance at Type 115 of the *Metal Vessels* (cf. Pl. 240) will show that these cut shells are the originals of the lamps of gold, silver, and copper which were so common in the cemetery. It must be admitted that the shell 'lamps' exhibited no sign of burning in the trough-like tip where the wick would naturally lie, and that this is against the identification of the metal vessels as lamps, but there is no reason to suppose that the lamps would necessarily be lighted in the tomb, nor that a used lamp would be a better offering than a new one; although the type might conceivably have been used for some kind of libation or for pouring unguents over the person, its shape does suggest a lamp rather than anything else, and pending proof positive the identification may be allowed to stand.

CHAPTER XIV

METALS AND METAL TECHNIQUE

By H. J. PLENDERLEITH

SINCE the summer of 1925 many hundreds of specimens from Ur have passed through the British Museum Laboratory to be cleaned, repaired, or reconstructed, and if these have formed the centre of archaeological interest they have no less attracted the attention and stirred the imagination of a wide range of scientific specialists and craftsmen. From the scientific point of view the most interesting specimens which have come down to us from this ancient civilization are of metallic origin, and with this group alone we have to deal in the present chapter. Gold and electrum, copper and its alloys, silver, iron, and lead are all represented, the latter two metals in fragmentary condition only.

The first questions that arise in connexion with a large and heterogeneous collection of antiquities of this sort are relative to the composition and the source of the metal, how the objects were manufactured, and what methods were adopted to produce results which in some cases compare favourably with the best which can be produced to-day. Certain of these matters have been the subject of inquiry by a committee appointed in 1927 by the British Association for the Advancement of Science to report on the probable source of copper used by the Sumerians. The various problems cannot be isolated, however, and the exhaustive series of analyses and metallurgical examinations conducted by Professor C. H. Desch, F.R.S., and his assistants on behalf of the Sumerian Committee upon which the present chapter is largely based is by no means confined to the study of copper alone or even to the bronzes and ores from the district or from adjacent lands. The scope of the investigation has been enlarged, inevitably, and many hundreds of ores, slags, and ancient metal implements have been examined from various sites in the Near East as well as from sources as remote as China and South Africa. Analytical and metallographic investigations of a few bronzes have been carried out by Dr. Constance Elam at Cambridge and by Mr. A. Edwards at Birmingham University; a number of fragments have been examined in the British Museum Laboratory and, through the kindness of Mr. J. R. Ogden of Harrogate, certain specimens have been assayed by Messrs. Johnson, Matthey & Co. Mr. Ogden has taken a special interest in the Ur specimens, and his generous and willing assistance is here gladly acknowledged. Without such assistance from an expert craftsman in metals, indeed, much of the evidence as to technique must have been lost, as prolonged decay had so often resulted in the concealment of significant tool-marks, &c., to all but the eye of the skilled technician.

We shall commence with a consideration of copper and its alloys as these form by far the largest percentage of the metals represented.

Decay of Copper Alloys and Chemical Analysis.

The corrosion of metals is influenced on the one hand by their nature and composition and on the other by the conditions to which they have been subject during decay. The prolonged action of oxygen and moisture has a disintegrating influence on most metals, and when much saline matter is present in the ground, as is the case at Ur, corrosion is greatly intensified. Pure metals are usually less corroded than alloys, and it is common knowledge, for example, that when objects of copper and of bronze are attacked under the same conditions the surface of the bronze becomes much more encrusted with disintegration products and is more intensively decayed than the copper; a stable patina may be formed which protects the underlying metal, approximating in composition to naturally occurring minerals, but when the metal has been subject to the action of chlorides and variations in humidity over long periods (the conditions which obtain at Ur) the corrosion products are generally loosely adherent and non-protective. Frequently the metal is greatly swollen, cracked, and fissured, and the outer surface covers pockets of stannic oxide; this takes the form of a powder and is charged with corrosive material which it has absorbed from the surroundings. (Chlorides are the most virulent of the corrosive salts in promoting the decay of metals because under electro-chemical action they give rise to chlorine which attacks metals with avidity.) An incrustation of selenite (calcium sulphate) is of frequent occurrence on the Ur materials, but this is more a disfigurement to metals than a source of destruction, although it may cause much damage to soft stones and pottery.

The first problem which faces the analyst in investigating the nature of corroded metal is to know what to analyse. The incrustation introduces a complication of such a serious nature that if care be not expended in choosing a suitable and representative sample, comparative analytical data cannot be obtained, because the constituents of corroded alloys do not decompose in the same manner or at the same rate and moreover some of the decomposition products may be washed away more readily than others. Professor Desch undertook subsidiary researches to investigate this matter in order that his analyses could be calculated back to the metal: Dr. Constance Elam was content with the figures as obtained, the difference between the sum of the percentages of the constituents and 100 being assumed to be entirely due to oxygen, carbonate, &c., and this deficiency gave an idea of the degree of corrosion of the metals examined.

Copper and 'Bronze'.

The excavation of material from an area such as Ur where the remains of successive civilizations are superimposed in the same burial-ground allows of a more or less straightforward classification of specimens in approximate historic sequence. The copper age was regarded as lying before 2700 B.C. Dr. H. R. Hall had been led from his experience with the material from al-'Ubaid to the conclusion that bronze was unknown to the Sumerians

c. 3000 B.C. (*al-'Ubaid*, p. 39). With the opening up of the Royal Cemetery at Ur metal artifacts were obtained which dated from a much earlier period (3500–3200 B.C.), many of which undoubtedly bore incrustations characteristic of tin bronze, a fact since proved by microscopic examination and by chemical and metallographic analysis. If at first this seemed a revolutionary idea, ample evidence was forthcoming to prove that copper alloys containing tin took precedence chronologically over those metals which were in use after the time of the First Dynasty of Ur; it seemed that the art of bronze manufacture had therefore died out about 2700 B.C. and it was of interest to speculate as to the reason for this.

Bronze is much easier to cast than is copper and its hardness and working qualities may be varied at will by varying the tin content, so that it would not be readily abandoned in favour of a metal such as copper, so manifestly inferior for the manufacture of weapons, &c. It can only be supposed that either the supplies of ore ran out or that reversion to copper took place at a time when the Sumerians were cut off from their sources of supply of tin.

From the metallurgical point of view it is incorrect to describe a copper alloy as bronze merely because it contains some tin irrespective of the quantity of this metal present. It is always a matter of difficulty to know where to draw the line between tin-contaminated copper and bronze low in tin, and although the analyses of certain of the specimens of the transition period form unquestionable examples of each group there are many intermediate specimens which defy classification. From the archaeological point of view we are interested in whether copper-tin alloys were formed intentionally. Dr. T. A. Rickard has defined bronze as 'an alloy of copper and tin purposefully made'.

Source of Copper.

Copper occurs naturally in metallic form, and it might be expected that the earliest copper artifacts would be of native copper just as the earliest iron implements are commonly found to be made from metallic iron of meteoric origin. The evidence as to origin in each case depends on the presence of certain characteristic impurities in the metal such as traces of other metals, sulphur, carbon, &c. It is not certain that native copper was employed at Ur, although this variety is sometimes difficult to recognize. The spear-head obtained from the stratum just above the Flood deposit described as the earliest metal object found (U. 14992) was analysed[1] and found to be practically pure copper (99·69 per cent.) containing traces of other metals as follows:

Iron . . .	0·01 per cent.
Arsenic . . .	0·16 ,,
Zinc . . .	0·12 ,,

Tin, nickel, lead, antimony, silver, and manganese were absent. Professor Desch found a specimen of native copper from Angora to be almost as pure. He concludes, however, that the entire absence of silver in the spear-head

[1] By the courtesy of the Director of the Museum of the University of Pennsylvania.

points to its being a metal obtained from a smelted ore of an oxidized type, possibly malachite.

From the absence of sulphur, &c., and the general character of the analyses of metals from the royal graves and the early dynasties Professor Desch considers that copper was obtained from such an ore as malachite, and this is the more likely because the characteristic appearance of this substance would allow of its being easily recognized. Having decided as to the general nature of the copper ore, the next stage was to try to identify its provenance by examination of the impurities contained in the metal. A big advance was made when it was discovered that nickel was almost invariably present, at least in traces, in copper and copper alloys from Ur (see Table I, p. 290), and hundreds of copper ores were then examined for the presence of nickel, the results being in almost all cases negative. Nickel was found at last in a copper ore from the state of Oman (Jabal al Ma'adan in Wadi Ahin, inland from Sohar). Later Dr. John Evans reported copper ores containing both nickel and manganese from Sinai. There is no suggestion that nickel was added intentionally to the metal; it is most likely to have occurred as a constituent of the copper ore. Another possibility remains to be considered, namely that copper and nickel ores may have occurred side by side as separate minerals so that nickel contamination of the copper would be inevitable. Professor Desch quotes the India Copper Corporation Ltd. as reporting a discovery of ancient workings in the copper-mines at Singbhum, where two minerals, chalcopyrite (copper pyrites) and pyrrhotite (magnetic iron pyrites), are intimately mixed, the latter being nickeliferous. Ores recently worked contain copper and nickel in the ratio 95 to 5, and a circular plate from the Masaboni mine described as obviously of ancient origin had the following analysis:

Copper . . .	94·44	per cent.
Nickel . . .	3·56	,,
Iron . . .	0·883	,,
Sulphur . . .	0·118	,,
Insoluble . . .	0·688	,,

The presence of sulphur differentiates this sharply from all the Ur metals which have been examined up to the present. Professor Desch adds, however, that 'it is probable that oxidized outcrops occurred above the deposits of sulphide ore, but have now been worked out', the suggestion being that the malachite or other oxidized ore which was used as a source of copper by the Sumerians may have come from some quarter where it is no longer to be recognized to-day, save by inference.

Source of Tin: Manufacture of 'Bronze'.

About the year 2700 B.C. 'bronze' began to be used less frequently. Pure copper presents difficulties in casting, yet the cast axes and adzes of the earlier period gradually gave place to hammered weapons of the same type and design which, while containing tin in insignificant amounts or not at all, were still found to contain recognizable quantities of nickel. Further light may be thrown on the (presumed) failure in the supply of tin by future

archaeological research; it may be that certain districts were cut off by war or for some other cause during the transition period, but beyond this we cannot go in the light of present knowledge.

If the provenance of the copper ore and nickel remains in doubt, the origin of the tin is even more puzzling, and this is the case, indeed, with all ancient bronze specimens of whatever source. Tin occurs quite exceptionally, if at all, as native metal, and so native tin as a source for the 'bronzes' may be ruled out. The commonest tin ore is cassiterite (tin oxide), and this is both difficult to recognize and to reduce to metal. Copper and tin ores do not usually occur together, and it is unlikely that the Sumerians were able to obtain mixed ores in the necessary quantities from a mineral source of which we have no record to-day. 'Such (mixed) minerals are always of a complex character and would not give rise to such pure alloys as the early bronzes are found to be.' It seems, therefore, that the early bronzes have been made by smelting malachite (or other oxidized copper ore) with cassiterite and that these ores were mixed together either accidentally or by design.

Dr. Rickard (who inclines to the mixed-ore theory) has expressed the opinion that the ores were not smelted at Ur at all—'a fluviatile region devoid of mineral resources'. He considers that the metal came from somewhere in the upper country of the Caucasian highlands. As regards the early 'bronzes', he considers that the variability in the tin content is so great as to indicate inadvertency, the inference being that tin was an accidental constituent of the ore smelted. The opposite view is taken by Dr. Constance Elam, who regards the making of bronze as the direct result of a discovery which was probably in the first instance accidental; she gives credit to the early metallurgist for adding tin, in whatever form, with intention and knowledge of what he wanted to produce. 'Traces of tin might be inadvertent but scarcely as much as 11 per cent.'[1] In seven of the sixteen bronzes which have been analysed dating from 3500–3000 B.C. the quantity of tin lies over 10 per cent.

As forming a basis for comparison with the analyses which have been obtained from the Ur metals it may be of interest to consider some of the physical properties of the various alloys which can be manufactured by adding tin in increasing amounts to copper. The best bronzes contain 10–15 per cent. of tin, higher quantities of tin resulting in increased hardness and brittleness until alloys are obtained which are pale yellow or white (speculum metal, 25–30 per cent. tin) which are used in the Far East for the manufacture of mirrors. Percentages of tin lower than 10 and in diminishing amount to 1 per cent. or less yield alloys which are eminently suitable for domestic wear and ornaments but are not so reliable for the fashioning of weapons; they are all better adapted to casting, however, than copper alone. Speculum metal has not so far been found at Ur.

The various percentages of tin which have been found in the Ur metals may be taken as evidence that, in the predynastic period at all events, the art of bronze-making was still in the experimental stage. Many of the early specimens have been found to contain just enough tin to allow of clean casting

[1] Tin has since been found present to the extent of 20·2 per cent. in a dagger, No. 88, B.M.L. II, Table I.

while being insufficient to justify to the metal the appellation of bronze, and it is inconceivable in the present author's opinion that metal-workers who were so advanced as craftsmen could be blind to the cause of the variation in quality of their materials. The obvious conclusion seems the much more likely, namely, that they were alive to the possibilities which were open to them of varying the composition and quality of the alloy to the work in hand, always assuming that mixed ores were not then available of which we have no cognizance to-day. To obtain results by the smelting of a mixed ore which could in any way compare with those obtained at Ur, it would be necessary that the ore should be mainly copper in an oxidized form such as malachite containing widely varying amounts of tin, more than a trace of nickel, variable small quantities of lead and iron, but no sulphur, phosphorus, &c.; that such a mixed ore was available in quantity to the Sumerians or ever existed in the East is at present entirely a matter of speculation.

Having regard to all the evidence it is probable that cassiterite was recognized as a substance which, when added to malachite before smelting, possessed the virtue of improving the quality of the product ('bronze'), making it more amenable to clean casting and the fashioning of tools and weapons.

Smelting and Metal-working.

Metallographic examination is of value in giving an indication of how the metal was won from its ores and of the processes which were adopted in the manufacture of implements, vessels, and ornaments. Mr. Edwards, Dr. Elam, and Professor Desch have independently given attention to this aspect of the subject, working on material which dates from 3500 B.C.

When copper is melted and freely exposed to the air it absorbs oxygen. A certain amount of cuprous oxide is formed which renders the product brittle to a degree depending on the oxidation. In cast metal, slag may also be present. This is shown when the metal is suitably polished and etched, and a definite structure can thus be developed. When studied under the microscope this tells the experienced metallurgist something of the past history of the specimen, e.g. whether it has been cast or hammered or both, and whether it has been annealed.

Mr. Edwards found an early piece of copper free from slag and almost entirely free from cuprous oxide; it bore definite evidence of having been hammered. He quotes a theory put forward by Dr. Rickard to account for these facts. This supposes that the furnace was a hole in the ground and that the molten copper was allowed to solidify in this hole, the floating layer of slag preventing oxidation. 'When the metal was just solid, but hot and brittle, it would be taken out and broken up into fragments. Such a fragment, if hammered cold, and annealed at a low temperature, such as would be found in the ashes of the copper furnace, would give the exact structure of the specimen examined, as segregation would have taken place in the ingot, yet no casting would have been made.' Dr. Elam found several definite castings among the specimens she analysed, some of which bore evidence of cold working after annealing. There can be no doubt that both processes were well known and in common

TABLE I

ANALYSES OF EARLY COPPER ALLOYS FROM UR

Period and Date (approx.)	*al-'Ubaid Pre-3500* B.C.	*Royal Cemetery 3500* B.C.–*3200* B.C.											*Pre-3000* B.C.					*Sumerian 3200* B.C.–*2700* B.C.						*Sargonid 2700* B.C.–*2500* B.C.					*Sumerian revival c. 2500* B.C.
Constituents:																												
Copper	99·69	84·18	85·13	85·01	8·3	20·2	5·8	70·24	79·46	97·2	87·9	1·64	—	15·1	1·45	tr	8·8	—	—	—	—	14·3	14·3	72·19	94·41	92·89	92·95	—	95·22
Tin	—	12	11·78	14·52				11·1	8·1	0·56	11·65	1·0												2·4	—	1·0	0·1		0·22
Iron	0·01	—	1·71	—		tr	tr	0·15	0·15	tr	tr	1·0												tr	0·03	0·5	0·02		0·40
Nickel	—	2·2	0·25	tr	0·51	0·7	tr	0·59	1·29	1·36	0·20	0·21	0·165	1·11	0·34	0·35	0·27	tr	0·84	1·61	tr	0·1	—	0·12	1·77	1·45	1·43	0·44	0·67
Sulphur		—	—	—				—	tr															—	tr	tr	—		
Lead	—	1·62	1·13	0·47		—	tr	0·43	tr	tr	0·22	tr	—	tr	—	tr	tr	—	tr	—	—	—	tr	tr	tr	—	0·04	—	0·36
Arsenic	0·16																												
Antimony	—																												
Silver	—																												
Zinc	0·12																												
Manganese	—																												
Identification Numbers and Description	64. Spear-head. U. 14992	11. 1st Grave	12. 1st Grave	13. 1st Grave	37. Shub-ad bowl	88. B.M.L. II. Dagger	90. B.M.L. XIV. U. 12483	107. Axe-head	108. Axe-head	105. B.M.L. III. U. 12239	106. B.M.L. XVI. U. 12098	89. B.M.L. XIII. U. 11475	52. U. 11886	53. Axe	54. U. 12229	55. Bowl	56. U. 12672	59. Plates and Nail	60. Pot and Lamp	61. Trowel	62. Bowl [possibly Sumerian]	58. Bowl [date uncertain]	63. Fragments [probably post-Sumerian]	109. Dagger	110. Square pin	111. Round pin	112. Scarf-pin	57. Axe. U. 11436	Copper Bar. B.M. 113897
Analyst	A	D	D	D	D	D	D	E	E	D	D	D	D	D	D	D	D	D	D	D	D	D	D	E	E	E	E	D	P

All figures are stated as percentages: blank signifies 'not estimated', minus sign equals 'absent', and tr indicates that the metal was identified but that an extremely small quantity only was present.
Analysts: A = Museum of the University of Pennsylvania, Philadelphia; D = Professor C. H. Desch, F.R.S.; E = Dr. Constance Elam; P = Dr. H. J. Plenderleith.

TABLE II

ANALYSES OF EARLY COPPER ALLOYS FROM REGIONS ADJACENT TO UR

Site	*al-'Ubaid*						*Iraq*	*Nineveh*			*Susa*							*Khafaje*	*Kish*									*Bahrein Is.*				
Period or approx. Date	*Pre-3500* B.C.	*1st Dynasty*					*2000* B.C.					*Hammurabi*	*Sargon I*					*3500–3200* B.C.							*3000* B.C.	*Nebuchadnezzar*						
Constituents:																																
Copper	99·69				98·81	99·21	88·6				100						1·63	0·63	12·2	11·0	13·2	3·0	7·4	6·1	3·27	94·01	88·16		89·07	87·76	94·69	77·33	82·16
Tin	—	—	—	7·95	tr	0·16	9·77				tr						0·88	tr								0·43	4·65		9·6	11·7	3·18	19·27	16·57
Iron	0·01				0·98	0·25	0·28				2·9	1·34	0·96	1·6	1·05	0·88	0·35	—								1·31	6·16		0·53	0·54	0·44	0·94	0·75
Nickel	—	0·109	tr	—	0·12	0·23	—	0·18	0·30	0·20	tr	0·45	0·12	tr	0·30	tr	tr	—	0·07	0·09	0·21	0·1	0·03	0·006	0·54	3·34	tr	5–15	—	tr	0·27	0·52	—
Sulphur					0·09	0·12	0·17																			0·17	0·42		0·53	—	0·47	1·4	0·52
Lead	—			tr	—	—	0·68					—	—	—	—	tr	tr	tr								0·58	0·15	0·006–0·21	0·27				tr
Arsenic	0·16				—	0·02	tr					tr	tr													—	—						
Antimony	—						—					tr	tr																				
Silver	—											—	tr																				
Gold																										tr							
Zinc	0·12																																
Description of Specimens	64. Spear-head. U. 14992	49. Nail	50. Lion fragment	51. Plate	22. Bull frieze	23. Nail	24. Nail	33. Three fragments of different specimens			9. Axe	92. Axe (cast)	93. Hoe (hammered)	94.	95.	96.	97.	91. Statue (cast)	14.	15.	16.	17.	18.	19.	40.	20.	21.	39. Six fragments of different specimens. Maximum and minimum figures only stated.	25.	26.	27.	28.	29.
Analyst	A	D	D	D	D	D	D	D			D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D

A = University of Pennsylvania, Philadelphia; D = Professor C. H. Desch, F.R.S.

practice from 3500 B.C., when it is considered in what variety of forms the metal could be fashioned: sheets for covering wood, for making cases for manicure sets and for razors, flat tools and daggers, rounded forms such as scarf-pins, &c., thin bowls and lamps, and the heavier axes, adzes, spear-heads, cooking-vessels, and water-pots.

Gold and Silver.

As was to be expected, the objects of gold found so plentifully in the Royal Cemetery have proved to be of varying composition, some being of high carat and others much debased by silver as well as by comparatively small quantities of copper.

It is not always the case that the principal objects are made from the finest gold, though generally speaking fine gold was used for ceremonial equipment and for objects of personal adornment. Table III (p. 294) shows the results of a series of analyses of such objects. In less important pieces such as inlays, small beads, &c., the absence of uniformity in composition is sufficiently striking to indicate that scraps of gold alloys irrespective of composition were made use of for decorative purposes. The differences in the quality of the metal emerged during cleaning operations. Some of the hair ornaments in leaf form were found to be easily blanched and to contain much less gold and more silver than the gold ribbons from the same head-dress, although beforehand the two alloys seemed equally rich in colour. It was only possible to determine the approximate quality of the gold after it had been washed and rubbed. The Mes-kalam-dug helmet, for example, appeared very rich and yet when compared by rubbing on a test-stone with the donkey (described as electrum) the two were found of similar quality, the helmet containing actually the smaller quantity of gold (see Table III). These facts might be accounted for by the prolonged action of salts in the soil which gradually dissolve the baser metals from the surface, thus enriching the appearance, but it is doubtful whether this explanation is sufficient in the case of smooth burnished metal.

The spear-head (U. 9122, Pl. 227) throws some light on this question. This specimen had been broken in two by an unfortunate accident, having received a knock during excavation; the fractured surfaces were white, granular, and crystalline, whilst the surface of the object was such a rich yellow as to suggest that it was gold of a high carat. The metal proved on analysis to contain only 30 per cent. of gold with about twice as much silver, the remainder being copper. The blade was highly burnished and under low magnifications appeared non-porous; the tang, however, bore traces of hammer marks and had an imbricated structure in certain parts. Blade and tang appeared identical in colour, suggesting that the entire surface was free from silver but that the hammered portion had been etched to a much greater extent than the surface left by casting and polishing. Further reference will be made to these points later.

In order to avoid destroying the appearance of the gold in cleaning it was necessary to use chemical agents with great care, and in the end these were

abandoned almost entirely in favour of a jet of steam which facilitated the removal of mud, &c., without greatly altering the surface-quality of the metal.

During the cleaning of an encrusted 'nest' of copper lamps, a silver lamp was found embedded in the mass of corrosion products. Electro-chemical action in the soil had caused the silver to be preserved at the expense of its baser neighbours. It was only with the greatest difficulty that the remains of the copper could be dissolved away, but when this was at length accomplished the silver, although extremely brittle, was found to be entirely uncorroded and, to the naked eye, even unetched after formic acid treatment, indicating its high purity. Indeed, the silver is generally of good quality and is rarely coloured green in the manner of silver which contains much copper. The great increase in volume, however, which is the inevitable result when silver becomes much corroded and converted into silver chloride, has resulted in warping and deformity in many cases, and damage of this nature cannot be removed even after reduction in the laboratory. The reason is that reduction only affects the surface-layers, whereas a rather brittle layer of horn silver (silver chloride) remains beneath. Reduction causes the object to become a little thinner, but the silver is always still decidedly thicker than when it left the craftsman's hands. The gold donkey referred to above (see also Table III) was mounted upon a silver rein-ring, for the analysis of which we are indebted to Mr. J. R. Ogden:

Silver	93·5 per cent.
Copper	6·10 ,,
Gold	0·08 ,,
Zinc	0·15 ,,

Traces of gold are commonly found in the silver from Ur.

Iron and Lead.

Extraordinary interest attaches to the discovery of isolated specimens of iron in an age preceding that in which it became the paramount metal. The few outstanding and well-authenticated examples which are known from Egypt and from other early civilizations have been found to be of meteoric origin. The determination of the source of the metal has depended largely upon the nickel content which, in the case of celestial iron, has been found to average 5 per cent. or more. Nickel rarely occurs in combination with iron in specimens of terrestrial origin unless, perhaps, in the New World; it has not to our knowledge been recorded in specimens from the Near East save in the case of meteorites or objects fashioned from them.

Professor Desch examined an ancient fragment of iron from al-'Ubaid and found it to be 'from a meteorite forged at a comparatively low temperature'.

The same author examined an early Sumerian specimen of lead and found it to be composed as follows:

Lead	98·29 per cent.
Copper	nil
Tin	1·30 per cent.
Iron	0·41 ,,
Silver	Trace
Gold	nil

TABLE III

ANALYSES OF GOLD AND ELECTRUM FROM UR

Object	*Spear-head*	*Donkey*	*Mes-kalam-dug Helmet*	*Beaker (plain)*	*Beaker (fluted)*	*Bowl (round)*	*Bowl (oval)*	*Bowl (fluted) (Lapis handle)*	*Lamp*	*Dagger*	*Head-dress decorations:*									
											Leaf	*Ribbon*	*Hair-ribbons from various head-dresses*							
Identification Number	U. 9122	U. 10439	U. 10000	U. 10452	U. 10453	U. 10002	U. 10001	U. 10003	U. 10004	U. 10020		PG/1237 U. 12388								
Gold	30·30	65·60		75·62	73·48	58·16	60·63	72·56	60·00	91·11	67·17	77·84	75·11	77·77	77·44	77·77	70·91	77·44	71·36	83·95	76·98
Silver	59·37	31·45		23·34	24·73	40·04	37·07	25·44	38·60	7·69	32·38	21·74	24·57	21·16	22·06	21·16	27·52	22·06	27·86	13·95	20·72
Copper	10·35	2·65		1·04	1·79	1·80	2·30	2·00	1·40	1·20	0·45	0·42	0·32	1·07	0·50	1·07	1·57	0·50	0·81	2·10	2·30
Approx. carat	7	16	15	18	18	14	15	17	14	22	16	19	18	19	18	19	17	18	17	20	18
Analyst	P	J.M.		Assayed by Mr. E. C. Padgham, British Museum Laboratory.																	

P = Dr. H. J. Plenderleith; J.M. = Johnson, Matthey & Co.

and this result compares with that obtained by Dr. Alexander Scott, F.R.S., for the 'solder' which was found on the Im-dugud relief from al-'Ubaid. Mr. E. C. Padgham also obtained results in agreement in two assays of a leaden tumbler from a grave of Jemdet Nasr date, which each gave a quantity of silver amounting to 0·07 per cent. The same worker made the interesting observation that a 50-gramme sample of lead of the Cemetery period, from PG/55, contained an unweighable amount of silver.

Metal Technique.

The nobler metals provide a fruitful source of evidence for technical methods of manufacture. This, unfortunately, is often denied to us in the case of copper and its alloys, which are ravaged by corrosion to such an extent as to hide all trace of tool marks unless in exceptional cases.

Sheet metal-working in copper, silver, and gold was frequently resorted to for the strengthening and decoration of wooden objects. Columns were lined with copper and the structural members of harps with gold and silver, the latter metals being invariably employed with taste and discrimination. As silver and above all gold lends itself to the fabrication of very thin sheets these metals were employed in this form to enrich the heads of copper scarf-pins and to decorate beads. Beads of bituminous shale, wood, &c., have been found covered with gold which is so thin that when removed and held by one end it hangs down, possessing insufficient rigidity to remain horizontal. Could gold have been beaten so fine without the aid of goldbeater's skin? Whether we are justified in crediting the Ur craftsmen with knowledge of a technique which even to-day inspires the admiration of the layman is open to question, but it may be mentioned incidentally that the properties of gut were well known and utilized in the manufacture of strings for the harp and this substance might just as well have found practical use in the workshop for gold-beating. Such a supposition is entirely unsupported by direct evidence, however, and the balance of expert opinion favours the more probable explanation that the gold was beaten on flat hard stones. 'In view of the great malleability of gold small rents that might appear in the initial stages of the lamination would be welded up later on' (Mr. E. A. Smith,[1] private communication). Mr. Ogden, indeed, has identified what is almost certainly a small goldsmith's hammer or burnisher which might have been used for preparing such thin leaf. In appearance it is like a tiny pestle, slightly bulbous at one end and measuring only 19 mm. in length. The material is haematite. The bulbous end shows unmistakable signs of having been used as a rubber.

Gold sheet was moulded into shape as a rule by rubbing the metal over a model of the object to be made, constructed from wood or bitumen, and the results are seen in the various gold heads from the harps and in the goat figures U. 12357 A and B.

The skill of the Sumerian goldsmith in hammering up metal is well shown by the silver jug, U. 9334, Pl. 171, which has been beaten up in one piece, and

[1] Ernest A. Smith, Esq., A.R.S.M., M.Inst.M., research metallurgist of Messrs. Oakes, Turner & Co., Ltd., Sheffield.

by various silver dagger handles only the remains of which have been preserved. The best example in gold, or rather electrum, is the helmet, U. 10000, Pl. 1, which also has been beaten from sheet metal.

The joining of metals was done either by sweating or by soldering the seams, depending on the type of work. (See E. A. Smith, 'Solders used by Goldsmiths of Ur', *Discovery*, Jan. 1930.) Such processes were common; the bowls of Type 7, for instance, were made from a sheet of gold or silver cut to shape and with a triangular piece cut away from either end; the hammering up of the vessel brought the edges of the segmental cuts together and they were sweated and strengthened with a rib disguising the join; similar types in copper may have been raised entirely from the sheet by beating on a bitumen core; they were finished with end ribs which gave the objects shape and strength. A good cherry-red heat was necessary both for sweating (which required incipient fusion of the metal) and for soldering proper. The flame from an oil lamp would be directed on the spot by means of a mouth blowpipe, probably a reed covered with clay to prevent it from burning. The highly decorated beads like U. 9779, Pl. 138, are generally sweated, i.e. the filigree or granulations are attached to the background by carefully controlled heat without the extraneous medium of solder; but the flat disk beads made from two thicknesses of metal joined together so as to leave a hole for the thread through the centre were apparently soldered, Type 16, Fig. 70. Apparently the gold beads of tubular form, either barrel-shaped or in the form of two cones, base to base, all have a longitudinal soldered seam; the solder used would be either a thin strip of the same gold (autogenous soldering) or of an alloy richer in silver and consequently of lower melting-point than the gold.

Soldering was also employed for the finger-rings made of coiled gold wire. This 'wire' was not drawn but was evidently cut from thin plates of metal (Exodus xxxix. 3) and was square in section. A length sufficient for the purpose required was taken and the middle part of it was twisted on itself, leaving at either end enough plain untwisted wire to form a hoop; the whole was then wound in a coil with the strands touching, and gold solder was applied to the inside of the ring to hold the strands together. Further twisting, winding, and soldering might be done, so that eventually a wide ring resulted, having smooth borders and cable-pattern centre (such as U. 10943, Pl. 138), and the method of manufacture was difficult to detect. One example which had become unsoldered (U. 10599) served to explain the technique. A curious instance of this love of securing an effect by what might be called illegitimate means is given by the head-ornament U. 8693; this is a *brîm* of ordinary type apparently, consisting of two lengths of gold chain and three large beads of gold and lapis divided by carnelian rings; but whereas the chains seem to have interlocking links giving a square section of traditional form (loop-in-loop), they are not really chains at all, nor even flexible, but lengths of cut wire twisted on themselves and soldered together into an imitation which without careful examination would pass muster as the genuine thing.

The finer decoration of a metal object seems generally to have been done

by chasing, seldom by engraving. The most elaborate example of the former is the diadem U. 8173, Pl. 139, where all the outlines of the figures are impressed by hammering the flat edge of the chasing tool or die on the gold; the decoration of the silver vessel U. 9364, Pl. 170, is similarly done, and so are the minutely fine lines of the hair on the gold helmet. One of the very few instances of real engraving is the gold bowl U. 10003, Pl. 160, from the grave of Mes-kalam-dug, where the fluting has been touched up by the engraver whereas the pattern round rim and foot is chased. Ornamental repoussé work in gold is best illustrated by the helmet and in silver by the bowl U. 11794, Pl. 167; strictly speaking, it is rare in the cemetery, for the small gold figures of animals (e.g. Pl. 141 *b*) and the details of the goat statuettes are not hammered up from behind but are made by pressing and hammering the gold on to a wooden core already carved to the required form.

Electrum was employed in decoration not merely as a substitute for true gold; it had its value in adding to the range of colours at the disposal of the goldsmith. Thus in the case of a silver bowl, U. 10891, Pl. 173, the bowl itself is of silver, there are very slight vertical grooves in its sides, and in them strips of electrum have been fixed either by sweating or by lapping the silver over the edge of the inlaid metal. The tubular handle-rings of such bowls are not infrequently of electrum (e.g. U. 11871, Pl. 173). A decorative use of the alloy is also made in the case of the brooch, U. 8007, Pl. 219, where the filigree background of silver wire contrasts strongly with the smooth electrum bosses in the centre. In scarcely any object found in the old cemetery are gold and silver brought into direct juxtaposition;[1] they are used together, but there is always some other material to separate them. This particular contrast seems not to have been to Sumerian taste, the employment of the paler metal being apparently the result of deliberate preference.

The Sumerians are the first people we know to have shown skill in filigree and granulated work. A fine example of minute craftsmanship in the latter technique is afforded by a gold ring measuring only 2 mm. in diameter and composed of six gold balls sweated together. The filigree was occasionally enlivened by inlay *à jour*, as in the case of Shub-ad's pendant (Pl. 128), or the roundels U. 11806, Pl. 138. Only one piece of this inlay is preserved in the latter case, but it must have been general. True cloisonné work was also practised, the wires for the cloisons being soldered or sweated on to the background and the stone inlaid, e.g. the finger-ring U. 9778, Pl. 138, and the two roundels shown on Pl. 133.

The more or less uniform size of certain objects such as ear-rings raises the question whether they could not have been used as a commercial medium with a recognized value (cf. Genesis xxiv. 22); in PG/789 with body 10 there were found all together eleven short pieces of gold cut from a hair ribbon, each folded into a tight wad, and their combined weights came to exactly one shekel (*v.* Catalogue, U. 10801); the complete ribbons might have served in

[1] The only exception seems to be given by the goat figures U. 12357 A and B, Pls. 91–3; in them the legs and genitals are of gold and the belly of silver; but here the long shell locks of the fleece overhang so far that the point of junction is little noticed.

the same way, or a definite length of ribbon might have had its known value. Two similar discoveries lend probability to the idea that the little gold wads were a recognized means of exchange; in PG/1413 a set (U. 12712) of seven haematite weights, two pebble weights, and some of copper (decayed) were found, and these had clearly been together in a bag, while apart from these were also some fragments of lead which may have been weights; in another grave, PG/1609, were a number of calcite pebbles not carefully shaped but almost certainly weights. It seems likely, therefore, that the gold wads fall in the same category; if used as currency the varying quality of the alloy is admittedly difficult to understand.

All the gold is apparently alluvial, and a natural admixture of a certain proportion of silver is to be expected, but the range of proportions is astonishing—from almost pure gold to an alloy in which gold forms less than 30 per cent. As it was not possible for the Sumerian goldsmiths to remove silver from gold when they were once alloyed together it is perhaps natural that a fair quantity of metal of the electrum type should be found, but what is strange is that the difference in colour to-day at all events is not nearly so obvious to the eye as might be imagined. When the gold objects were being cleaned in the laboratory there were several instances where hair-ribbons which seemed to be of good 'red' gold turned to a yellowish white or brass colour under the influence of heat. Reference has already been made to the electrum spear-head, U. 9122, which showed internally an almost white crystalline formation whilst the surface (though it faded later) was found of a deep colour which promised pure metal. This has been explained as due to saline action over a long period of time. It should be added, in conclusion, that such a surface amelioration of gold alloys has been practised deliberately by the modern goldsmith from the beginning of the nineteenth century; he dissolves the silver from the immediate surface, leaving a spongy gold which can be burnished down so that soldered joints, &c., are concealed beneath a casing of pure metal. We have no evidence that the Sumerian goldsmith was unacquainted with a similar technique and in the circumstances it may be that the uniform richness of his work is not entirely attributable to natural causes.

References to the published papers not yet mentioned are appended: (1) 'Sumerian Copper', by Professor C. H. Desch, F.R.S., in *British Association for the Advancement of Science: Report of the 96th Meeting, 1928*, p. 437. 1929; *Report of the 97th meeting, 1929*, p. 264. 1930; *Report of the 98th meeting, 1930*, p. 267. 1931; *Report of the centenary meeting, 1931*, p. 269. 1932. (2) 'Some Bronze Specimens from the Royal Graves at Ur', by Constance Elam, in *Journal of the Institute of Metals*, xlviii, pp. 97–108. 1932. (3) 'Scientific Notes on the Finds from Ur', by A. Kenneth Graham, in *Mus. J.*, xx, 1929, p. 246. 1930. (4) 'The Nomenclature of Copper and its Alloys', by T. A. Rickard, in *Journal of the Royal Anthropological Institute*, lxix, p. 281. 1932.

In conclusion I wish to add to the acknowledgements in the text my appreciation and thanks to Mr. Woolley for the help he has afforded me in compiling this record.

CHAPTER XV

METAL OBJECTS

U. 8173, Pl. 139. This gold fillet, which was tied round the head by strings passed through the holes at either end, was unique in having an elaborate design covering its whole surface. The figures are not beaten up from behind, but their outline has been impressed from above in the thin soft metal. Unfortunately the gold contained a proportion of silver sufficient to make it very brittle when the latter had been transformed into crystals of chloride by the action of time; it was broken into a number of fragments and some of these had disintegrated to powder or minute flakes which it was impossible to reconstruct or even to collect; there are therefore gaps in the metal of which one seriously affects the design. The word 'design' is really not quite appropriate, for the different subjects are all independent, arranged at haphazard, and do not illustrate any consistent theme. The eight-petalled star-like flowers at either end are made, apparently, with a chisel-edge pressed on the gold, but the other figures would seem to have been done each in one piece by means of a matrix of steatite or metal (matrices of this sort, but of later date, have been found at Ur), and it certainly looks as if the maker had simply drawn upon his stock of patterns and used them at random; their different sizes and the varying level of the base-lines by which he has tried to counteract the difference support this. The impressions were often very weak and the crushing of the metal has gone far to confuse or obliterate them; on the photograph the lines had to be strengthened in Indian ink to make reproduction possible.

The animal figures are for the most part conventional, those of men are much more crudely drawn but much more interesting. From left to right we have a bull cropping the leaves of a tall bush, a goat, a headless animal which may be a bison, judging by its hooves and shaggy mane, and then a man who is either controlling the bison with a rope or attacking it with a spear while he kneels on one knee; then comes a second bearded bull or bison, a calf, and then a goat, turned the other way and rearing up with his front feet on the stem of a flowering shrub; the change of direction marks the centre of the fillet, and the antlered stag which comes next faces to the right—in spite of the absence of spots he is probably the fallow-deer. The next subject is a group of two men who face each other and hold between them what may be a rope or lasso; they are hunters back from the chase and the man on the left carries on his back a goat tied up in a net. Then there is a naked man riding on a donkey and in front of him a curious animal which I take to be a mastiff, similar in breed to the modern Kurdish sheep-dog. All the men have long straight beards and on their heads are lines which represent either long hair or a (feather?) head-dress; they should be akin to the bearded hunters on the 'Standard' who bring in the wild animals from the hill country.

The grave, PG/153, in which the fillet was found was unplundered; it contained no weapons, but on the body were three necklaces and a pin, together with a cylinder seal (U. 8169, Pl. 203) having a design of cattle and birds: it is practically certain that the body was that of a woman, and this point is of interest in view of the fact that the only objects remotely resembling the gold fillet with its frieze of animals were the second diadem of Queen Shub-ad (U. 10948, Pl. 141) on which again we find figures of bulls, domestic rams, gazelles, and fallow-deer, and with them rosettes of gold, golden plants, as well as the bunches of pomegranates and ears of corn which have no counterpart on the gold fillet, and the fragmentary figures from similar diadems found in two other graves (Pl. 142, U. 11776, and 143, U. 8269). Having regard to this resemblance we might argue that the haphazard nature of the ornament on the gold fillet is confined to the arrangement, but that the selection of subjects was determined by some probably religious tradition. The combination of domestic and wild animals and the fruits of the earth (it is even possible that the pendants of twisted gold wire which hang from the edge of Shub-ad's diadem are highly stylized date-clusters, and in that case the staple products of Mesopotamia would all be represented) does suggest a 'fertility charm'. If so, the animals are not chosen because of their reproductive power as amulets suitable for a man, but the result of fecundity in all its branches is associated rather with the woman: but it must be remembered that amulets tend to lose their original significance and to become mere ornaments, and what was a charm to promote fertility may change to a symbol for the multitude of possessions.

The exquisitely delicate animals of Shub-ad's diadem are made of thin gold worked over a core apparently of wood covered with bitumen; in the same technique are other gold amulets shown on Plate 142, the two gazelles whose bodies are ingeniously combined in one, U. 10943, the fish U. 10944 (also from Shub-ad's tomb), the fine bearded bull U. 8269, and the birds U. 9078 and U. 8005, though in the latter case while the fruit which the bird pecks is hollow the minute figure of the bird itself is solid; as an instance of solid casting we have the magnificent little monkey, U. 10010, Pl. 165, from the grave of Mes-kalam-dug. From the Sargonid period onwards monkey amulets are fairly common; they are usually made of glazed frit and always show the beast seated in the same attitude as in this early gold example; in the Larsa period (2000 B.C.) we find terra-cotta reliefs of a man carrying one monkey and leading another by a string which anticipate the late Assyrian reliefs in stone; the monkey was therefore always known, but it would be difficult to assign to it any religious significance—probably the people liked monkeys and were amused by them. Mes-kalam-dug's is the oldest yet found, and it is the best; working on a miniature scale no one could better render the character of the beast, and the details of eyes and ears and hair are extraordinarily faithful.

Casting, even by the *cire-perdue* process, was obviously too wasteful a method where work of any size had to be carried out in gold, and therefore the bulls' and lions' heads on Shub-ad's chariot and the gold heads on her

harp and on the 'gold lyre' from PG/1237, as well as the goat figures from that death-pit (U. 12357) are all of metal hammered over a core; in the case of the bull's head from the gold lyre U. 12353, Pl. 115, the gold is heavy and thick, but in all the rest it is very thin. The same process was employed with silver for the statue of a stag on the lyre, U. 12355, Pl. 112, and for copper on the double statue, U. 12356, Pl. 113; but generally where these metals were concerned the animal heads which adorned musical instruments or furniture were cast, and how admirably the process was utilized is shown by the figures on the Plates 116, 117, 119, 120. The silver cow's head, U. 10916, Pl. 120, has been hailed as the finest piece of animal sculpture preserved to us from antiquity; it is perfectly true to nature but at the same time an abstract from nature in which the individual is altogether lost. There is something of the same high art in the heads of lionesses, U. 10465, Pl. 127; other heads are more conventional (U. 10577, Pl. 120, &c.) but they preserve plenty of life and fire and are quite unlike the stereotyped creatures belonging to the First Dynasty. It is curious that the gold figures are generally much more conventional than those in silver or copper, and nowhere does convention go farther than in the heads of bearded bulls. It has been suggested that whereas the cattle of the country were of the aurochs breed such as is splendidly represented by the silver figure from the rein-ring (U. 10551, Pl. 167) of the king buried in PG/789, and that therefore the artist had his models constantly before his eyes, the heavy and shaggy bison had by this time become a creature of legend and tradition. In the little figure U. 8269, Pl. 143, the beard is no part of the animal at all but is tied under the chin by a string which can clearly be seen crossing over the top of the nose, and I put forward the theory[1] that this *postiche* was a symbol dedicating to the god the beast which was to be sacrificed to him and really transforming it by the added emblem of divinity into the god himself, the 'great bull of heaven': the other bearded bull heads do not show any actual string, but the beard none the less looks like an addition and a rather awkward one, though this may be merely because the artist meaning to represent a bison which he had not seen could not conceive how a beard would naturally grow on a bull. The possibility that an artificial beard was intended is perhaps strengthened by the evolution of the human-headed bull which can be traced in the cylinder seals; there it is evident that from the beginning something more than the natural bull was meant, although the human element becomes prominent only later: the same amalgamation of human and bestial elements differently combined is given by the unique casting U. 11798 on Pl. 121. The head was found loose in disturbed soil and there is nothing to show to what it had belonged; it is a god or demon, but instead of being purely human and wearing the horned head-dress which is the regular attribute of divinity it has real horns which sprout from the human skull.

One very beautiful object must be described here. In PG/55 there was found a tangled mass of silver which seemed to consist of two or more bracelets and a lump of metal to which was attached a cockle-shell (Pl. 168 *a*).

[1] *A.J.* viii, p. 22.

When this was cleaned in the laboratory at Philadelphia one of the bracelets became detached and the other resolved itself into the rounded horns of a silver gazelle's head, one of the most exquisite heads of animals found in the cemetery (Pl. 168 *b*). The cockle-shell was lying in the circle of the horns and may have belonged there, the head acting as a stand for a toilet palette, in which case the neck must have been fixed in a wooden base; but there is no certainty of this and the presence of the shell may be accidental.

Metal Vessels.

The metal vessels do not call for much comment. The magnificent vases of gold and silver speak for themselves. Most of the vessels are beaten up from one piece of sheet metal, but some of the larger types are riveted, and where, as in Types 13, 18, 19, 26, the base is raised above the ground the general method has been to bend the bottom edge of the walls inwards and upwards and then to splay it out so as to make a ring-ledge to which the base, a disk cut separately, is fixed by soldering: in some cases, e.g. Type 9, a disk has been soldered or sweated directly on to the hammered base so as to strengthen it where the metal was thinnest; an elaborate example of riveting is Type 77, which was made in three pieces, the edge of the base being bent up so as to fit round the bottom of the sides. Types 13, 14, and 15 are large cooking-pots; Type 16, curious in that the base is almost a square with rounded corners whereas the rim is circular, is found as a large cooking-pot in copper but also as a very small gold pot, U. 11551, Pl. 165. Type 17 is the only one of which the handles are in one piece with the body, all the rest of the fixed handles being riveted to the rim as in Types 19, 49, &c., unless the little curved strip of metal in Type 41 counts as a handle; it was probably meant to have a cord put through it. Type 18 has a peculiarly long and narrow spout and is without the horizontal handle found in Type 19. Type 24 has short legs in the form of bulls' legs which were soldered or sweated on to the base. The curious ribbed form Type 31, cf. Pl. 184, is perhaps derived from a basket. Swing handles are common in the larger pots of the cauldron sort (Types 45–8, 50, 51); bottle types are rare and many of them are represented only by a single example each; the grotesque spouted pots Types 80 and 81 also occur only once. Of the jugs, Type 84 is the regular vessel for libations (cf. Pl. 102 *b*) and is always associated with a paten (Type 32) and with tumblers of Types 42–3, which are generally found nested in sets of six or more (*v.* PG/775, 800, 1054, &c.). Type 86 is represented by one silver example, Type 88 occurs in copper as well as in gold, and Type 89 in silver only. The strainers, Types 96–7, are common. Type 104, which was of copper, suggests a brazier, Types 105 and 106 I do not understand. Type 109 is a silver toilet-pot from PG/845, Types 108–12 are boxes; the situla, Type 113, is closely connected with Type 114, of copper bound with twisted silver wire; a more slender variant of the type all in silver had a stopper attached to it by silver wire. Type 115 is the standard form of lamp.

Tools and Weapons.

The helmet of Mes-kalam-dug has been described elsewhere (Catalogue, U. 10000): on Pls. 148 and 218 are figured copper helmets worn by the soldiers in PG/789; they are of slightly different shapes, but the differences may have been unduly emphasized by the flattening of the metal; in one case (Pl. 218, fig. *b*) there was in front of the man's face a curved bar of silver, slender and thinning towards the ends, which were curled round as if for attachment; it somewhat resembled a torque[1] but might have been a chin-strap belonging to the helmet. One helmet is precisely like those on the Standard, but two appear to have cheek-pieces; there is no ornament such as that on the gold helmet; they are of moderately heavy metal, quite thick enough for purposes of protection, and presumably were lined with some sort of quilted cloth, but of this no trace could be seen. No other form of defensive armour was found, with the possible exception of the remarkable copper relief U. 10475, Pl. 169, which may have been from a shield (*v.* p. 69), but of weapons there was a great variety.

A number of tools and weapons made of gold and silver were found in the graves of the old cemetery. In PG/789 there were sets of spears in gold and silver, the shafts of which were also decorated with bands of the same metals; in Mes-kalam-dug's grave there were golden axes and a gold dagger; in PG/580 a gold spear and a gold dagger; gold daggers were found in PG/755, 1054, 1618; silver axes were found in several graves, e.g. PG/250, 560. A silver axe came from the Second Dynasty grave PG/1422, but otherwise no weapons in precious metal came from the later cemeteries.

These are of course State or 'parade' weapons such as would be carried by the king himself, possibly by his bodyguard, and by officers of high rank for whom they would serve as insignia; their use is not surprising nor is it without later echoes in the courts of the Near East,[2] and equally we should not expect to find them in the Sargonid period when Ur was a vassal city. Much more curious are the golden tools, the saw and chisels from Shub-ad's tomb and the chisel, awl, and adze from PG/580. Are these the attributes of a king as 'Master Craftsman' of an industrial city? or, like the presentation trowels and keys of modern times, were they symbols of the function of royalty to found and inaugurate the temples of the gods?

Spears, Pl. 227. None of the spear types are found in Sargonid graves and very few in graves of the Second Dynasty; the late spear types are therefore still unknown. Type 1, the 'poker spear', is really a pike-head, long and heavy, fastened to a thick shaft the end of which was sometimes bound with copper to prevent it splitting; a variant of the type, not illustrated, has the angles bevelled off so as to give an octagonal section. The blade varies much in length. A variant of the type was found in the Second Dynasty grave PG/1422: this was 0·69 m. long but was hollow-socketed, simply a large edition of Arrow Type 3. Some of the 'poker' spears had their shafts shod with a copper concave disk (*v.* Pl. 226, PG/1263). Type 2, of which the finest

[1] A silver torque was found in PG/1400.

[2] Cf. the gold-knobbed spears of the 'Immortals'.

specimens are the gold and silver examples from PG/580 and PG/789, is the most elegant of all the spears; it is the light javelin or throwing-spear carried in sets of four by the chariot-men on the Standard, and it was in sets of four that they were found in PG/789. From the position in the soil in that grave of the gold and silver bands which decorated the shafts it was possible to ascertain the total lengths; the gold-headed spears were altogether 1·065 m. long, the bronze-headed spears 1·46 m. (*v.* Pl. 153).[1] In each set of weapons two had plain butts, two were fitted with bronze forks secured by precious-metal bindings (*v.* Fig. 9, p. 68, and Pl. 149 *b*) which are notches for the throwing-string; these, having a greater range, would be discharged first, and the other two would be used at closer quarters. This type persists into the Second Dynasty and then seems to disappear; both it and Type 1 are found in North Syria and Type 2 made its way into central Europe. Spears of the first three types are occasionally engraved with what are presumably owner's marks; those carried by the soldiers on guard at the entrance of PG/789 bear a bull's leg (Pl. 189), one (*BM.* 120731) has a very realistic cheetah (Pl. 190) and one a bird (? cf. the mark on the gold dagger); the bull's leg recurs on a socketed axe also (Pl. 190); the very indifferent blades of Type 5 are never so distinguished. Type 7, the only socketed form, is represented by a single example and is perhaps too small to be a spear, although for an arrow it would seem too heavy; Type 6, with its curious incurved blade and the rings round the tang which may be derived from the ring strengthening the end of the shaft, is also unique and has a distinctly foreign look. Type 8 is the blade of the spear which first told us of the existence of Meskalam-dug's grave; to the slender shaft it was attached by three rivets set closely together, and the joint must have been too weak to make of it an effective weapon; the elaborate ribbing of the blade, not paralleled elsewhere, and the gold casing of the reed shaft (Pl. 154, U. 10023), suggest that it is a ceremonial spear and not intended for fighting.

Arrows, Pl. 227. Types 1 and 2, of which the first is hollow-socketed and the second has a solid tang driven into the shaft, are generally remarkable for the exaggerated length of the rounded point above the clumsy barb; occasionally as in 2 *a* and 2 *c* this is reduced to more reasonable proportions, but in most cases one purpose at least of the barb, that of sticking in the wound and making it more difficult to extract the weapon, would appear to have been defeated, for the point would hardly penetrate far enough for the barb to be involved, and its only effect would be to steady the arrow in its flight. It is noticeable that the socketed type is almost peculiar to the Early Cemetery whereas the dated examples of the solid tanged type come from Sargonid graves; this is in accordance with the general rule that the technique of the armourer—and of the metal-worker—degenerates before the Sargonid period. The early arrow-head is usually cast and finished by hammering; the socket was made in the casting but was sometimes open down one side and the metal

[1] In the reconstruction the silver heads were fixed to the shafts properly belonging to the bronze heads; the shafts of the silver spears were bound with silver only and were not restored, but were of the same length as those of the bronze.

was hammered round the top of the shaft, but in some cases the socket was cast complete. Type 2 b is unduly large for an arrow and may be a spear. Type 3, an old cemetery type, is also hollow-socketed and consists of a long point with no barb at all. The harpoon, Type 4, which is much like the Egyptian, differs from that in being socketed; it survives into the Sargonid age but it is possible that in the Sargonid examples the socket is wrought, not cast: in two cases, PG/1078 and PG/1114, one harpoon and two other arrows formed a set. The string-notches from the butt ends of arrows illustrated on Pl. 227 were associated in one instance with arrow-heads of Type 5; their rarity makes it probable that the notch was normally cut in the wood of the shaft, and the metal notch would only be required where the shaft was of reed or bamboo and would be likely to split if notched; on the tang of one notch was the impression of the core of the shaft, preserved by the bitumen which had secured it, and the grain was that of bamboo.

Socketed Axes, Pls. 223 and 224. These weapons, magnificently cast in bronze, illustrate as well as almost anything found in the cemetery the technical ability of the Sumerians; they are characteristic of the Royal Cemetery period, are still found in the Second Dynasty graves, but disappear before the time of Sargon;[1] they probably set an example to the Caucasus and central Europe. The flange at the back which distinguishes the types A 1 and A 2 is probably due in the first case to the axe being cast in a two-piece mould, but what was really an imperfection has been seized upon and exaggerated purposely to give weight and strength; in the other types it has been eliminated altogether; but the collar at the top and bottom of the socket is intentional and is always present.

For a weapon of war the axe is curiously light, but it is well balanced, and the cutting-edge, confined to the front part of the curved lobe, was probably quite sharp. It is the regular weapon of the infantry on the Standard. The haft (Pl. 153) was 0·47 m. long, slightly curved, and thickened towards the base; the example illustrated, from PG/580, was made of wood coated with a kind of gesso which was painted red and bound and shod with gold; the wood had perished but the painted gesso allowed of a reconstruction. Several examples were found in which the impression of the wood in the soil was clear enough to give accurate measurements, and in one case (shown as Type A 2 b) some of the actual wood remained hardened by the oxidization of the bronze.

The different types call for little comment. In Type A 5 the cutting-edge is shifted rather to the front of the blade so that it approximates to the heavy and clumsy Type A 10, which might almost be classed with the hatchets on Plate 224; U. 8559 of Type A 5 a is small enough to be a toy, and the miniature U. 11932 is so clearly a toy and not a weapon that it has been given a type to itself (A 6). U. 12478, the sole representative of Type A 8, is in silver and comes from the Second Dynasty grave PG/1422; U. 12739, Type A 7, is also a clumsy piece of casting and seems to mark the downfall of the art. U. 15314, Type A 11, is the simplest form of all and though

[1] For the apparent exception *v.* p. 27.

itself cast might be a prototype for the wrought axes of the Sargonid age. Type A 12, Pl. 224, a halberd rather than an axe, is hammered, not cast; as shown by the figure on a shell mosaic found at Kish[1] it was fixed to a curved and curiously angular handle which was slotted to take the back of the blade; the latter was secured by a rivet driven through it at either end and by a band of gold which passed round the handle and was riveted to the centre of the blade. This halberd, one of two found in Shub-ad's tomb, is an ancient weapon the memory of which was to be perpetuated on countless terra-cotta reliefs of gods. It is clearly the more primitive form of which Type A 13 is a later development; one specimen only, ornamented with chased lines, was found in the cemetery;[2] the form is known in Egypt in the Middle Kingdom but is certainly not native there; it is found later in Asia Minor and it may well prove to be of Anatolian origin. Type A 14 is a cast open-socketed axe which seems to be a further development of the last type; where it originated we do not yet know, for though it has been found in both north and south Syria that country was not so much given to the early working of metal as to have invented the form; it again is so far unique at Ur. U. 10018, a weapon cast in electrum found in Mes-kalam-dug's grave, is the only example of Type A 15 actually found, but it is represented on the stone relief U. 8557 on Pl. 181; if my suggestion (*v.* p. 377) that the relief is of northern origin and of later date be correct this would explain the rarity of the type at Ur in the period earlier than the relief. Type A 16 has no exact parallel so far as I know, but it is very reminiscent of the axe carried by the Hittite king in the gateway relief at Bogazkeui; it is not an axe at all, for it has no cutting-edge but a point; in this it is like the miniature example U. 10307 figured at the bottom of the Plate. U. 10307, though a poor blade, was obviously valued, for its wooden handle, about 0·40 m. long, had the butt end decorated with shell inlay; this had fallen out of place, but consisted of leaf-shaped pieces, which must have been arranged as the petals of a flower, a perforated conical centre-piece 0·012 m. in diameter and 0·006 m. high, and two shell nail-heads. The two heavy straight-edged hatchets U. 11881 and U. 12484 seem with their stark and utilitarian lines to be tools rather than weapons, though their connexion with Type A 10 cannot be overlooked.

On the same Plate 224 is figured the unique bronze mace-head U. 9137; the form recurs in Hungary and therefore affords another link between the cultures of central Europe and Sumer. The two socketed spikes U. 9963 are probably the butt ends of pikes; in the second illustration the overlapping of the metal to make the socket and the rivet that secures it are shown.

Wrought Axes, Pls. 225 and 226. The hammered axes are of many types and within each type scarcely two examples are identical, the natural result of their all being worked by hand with no mould to control the form; it is indeed doubtful whether the name 'axe' is rightly applied to all of them, but so difficult is it to draw the line that all have here been classed together for illustration and description.

[1] Langdon, *Kish*, vol. i, Pl. xxxvi.
[2] But it occurs also at Kish, cf. Mackay, *The 'A' cemetery at Kish*, Pl. xvii, 8.

As can be seen from the tabulated list in Appendix C, the dated examples of all the hand-made axes with the exception of Types S 19 and S 20 (which are the least axe-like of the series) are almost uniformly of late date. A single example each of Types S 6 and S 14 occurred in graves belonging to the first half of the Royal Cemetery period, five types were represented by a total of nine examples in the second part of that period, the few graves of the Second Dynasty produced twelve examples divided between nine types, and the remainder, sixty-three examples of eighteen types, all were Sargonid. In every way these weapons are inferior to those of the preceding age. In the first place they are of copper instead of bronze, a fact which, as stated previously, explains the different method of manufacture, copper being more malleable than bronze and much less ductile; they have lost all beauty of form, and they are very much less serviceable, being easily bent and far less heavy than the cast axes. That they started as imitations of the old types is clear, and Type S 1 is a very fair copy, and some of the others, especially S 5, 6, and 8, still preserve something of the shape of the cast blade though the socket weakens and disappears; it is in such types as S 16 and 17 that the coppersmith seems to have been most guided by the genius of his material and to have worked out a form natural to it, and actually these are amongst the shapes most numerously represented. The influence of the old models is clearly seen in the case of Type S 2, where the edge of the blade close to the shaft has been folded over so as to strengthen the slender neck and at the same time to reproduce something of the traditional blade contour; and Types S 3, 5, and 6, all common types, both by the shape of the blade and the method of hafting whereby the metal is bent round the wood in a complete ring, follow the tradition of the bronze-caster, but it is precisely in the hafting that degeneration becomes most manifest. In the majority of the types the hafting end of the blade was narrowed down to a tongue; a slot was cut through the handle near the top, and the end of the blade was put through it and the tongue hammered round the wood on one side to make it fast (*v.* Fig. 28, p. 150); in the specimens from which the drawings for S 12, 17, and 19 were made the traces of the wood were visible on the metal and the position of the handle is shown. In one grave, PG/1698, enough of the wood remained for measurements to be made; from the blade to the base of the handle the length was 0·38 m., the handle was 0·035 m. in diameter but was thickened to 0·04 m. at the head, curving out in a shoulder at the back. Type S 4 is the only one with a tang, and it may be a knife and not an axe, though the shape of the tang is unlike that of any type of knife; S 19, 20, and 21 have the cutting-edge only in front (S 21 is very much of the chisel shape) and must therefore have been differently used; these are the types which occur side by side with the cast bronze axes in the older cemetery.

Knives and Daggers, Pl. 228. The main distinctions of the blades were in the edge contour, i.e. according as they are leaf-shaped, straight-sided, or concave, and in the surface, according as it was ribbed, ridged, or flat. As is to be expected, very few blades conform strictly to type and there are infinite varieties in such matters as the proportion of length to width, in size of blade,

and in the shape and riveting of the tang, but the examples illustrated cover all the main variations.

Type 1 is a coarse and rough blade, thick and heavy, which might be either a knife or a spear-head; in any case it stands apart from the general run. Type 2 with its multiple ribbing is limited to one example, a dagger with a wooden handle furnished with a gold guard and decorated with gold studs at the pommel which was found in PG/1422: it is therefore a Second Dynasty type. Type 3, with a single rib, is the standard type for the best daggers, including most of the gold examples (Pls. 152, 155, 157, 190); the specimen illustrated has a bronze guard, made in a separate piece and socketed to take the wooden handle, which was a more slender variant of that shown with Type 7.

The ribbed types of blade are then, with the exception of Type 2, definitely early, in accordance with the general rule that the best technique belongs to the earlier period. In Type 3 the sides of the blade are not always quite so uniformly curved as in the example illustrated but tend to be straighter towards the upper end (cf. U. 10014, Pl. 152), but it remains distinct from Type 4, where the edges are straight throughout. Type 5, with incurved edges, is mostly found in the early graves. Of the flat-bladed types, 6 is a short and broad type which is probably not a weapon but a working knife—one example was fitted with a bitumen handle; the long-bladed Type 7 is by far the commonest and is found at all periods and gold examples of it came from PG/789 (U. 10553) and PG/1618 (U. 13788, Pl. 157 *a*). In Type 8 the bevelled sides of the blade meet either in a curve which is almost a rib, as in (a), or in a clean line, as in (b); Type 9 is probably a working knife and is very similar to Type 6 but more sharply pointed; the miniature variant U. 11495 is certainly not a weapon.

The handles of the daggers were mostly of one pattern; there is a curved guard slightly wider than the blade and a handle with a slender grip swelling out to a pear-shaped pommel; in most cases this was of wood, sometimes it was plated with silver; the guard might be plain or of copper, silver, or gold; the end of the pommel was often enriched with studs of copper, silver, or gold, and similar studs might decorate the guard; in one case (U. 10553) the guard was of gold and the studs of lapis-lazuli; the dagger U. 10014 had a handle covered with silver of unusual shape, with a distinct pommel (it was terribly decayed, but a restoration of it is shown on Pl. 152), and the famous 'Gold Dagger' from PG/580 has its handle made from one piece of finely coloured lapis-lazuli studded with gold. Often there was a hole through the handle lined with a metal tube through which would be passed a lanyard or, possibly, 'peace-strings' fastening the dagger to its sheath. In Mes-kalam-dug's grave there were two daggers with handles of unusual form; U. 10020, Pl. 152, has a gold crescent handle resembling a Twelfth Dynasty type from Egypt (Dashur), and U. 10022 had a silver handle of which the grip and pommel were normal but the guard bent back in two horns above the edges of the blade: it was in too bad condition to be preserved. The only dagger sheath preserved intact is the splendid gold sheath from PG/580, Pl. 151; the back of this is plain except for two lines of beading made by soldering twisted gold wire on to the

smooth metal, but the front is elaborately cast and chased in an open-work design which is manifestly derived from woven straw or cane. That the dagger-sheaths of ordinary folk were made of such woven work is clear; in a number of cases the blades bore in their oxidized surface the imprint of something of the sort, and one blade, U. 8246, of which a drawing is given on Pl. 224, preserved a fair amount of the pattern, and its similarity with that of the gold sheath puts the origin of the latter beyond question. Some of the gold daggers, e.g. that worn by Mes-kalam-dug, Pl. 155 *a*, had silver sheaths, but these were too far decayed for it to be said whether they had been plain or decorated; wooden sheaths were very likely used also, but of them no trace would normally survive.

Other Tools, Pls. 229, 230. The *Adzes*, as one would expect of well-made socketed instruments, are cast in bronze and all belong to the Early Cemetery; the finest of them, Type 5, which approximates closely to the axe types, is represented by the gold example from PG/580, U. 9339, Pl. 165, and Type 2 with its upper and lower collar is also axe-like. Type 4 has only one representative, and the common Type 3 is very heavy and utilitarian.

The *Chisels* fall into four easily distinguished groups. Type 1 is thicker at the handle end, diminishes towards the point, and is hammered out to a wider cutting-edge shaped more or less as a truncated triangle; Type 2 has a pyramidal top and widens steadily to the straight cutting-edge; Type 3 has a flat or rounded top and widens steadily to a cutting-edge which is curved instead of straight; Type 4 is of the same width throughout and is then cut down to a cutting-edge at right angles to the width of the shaft. Gold examples of all the types were found. As regards handles, a complete handle in bitumen attached to a blade of Type 1 was found, U. 8783, and another, U. 8307, had been fixed with bitumen in a wooden handle; they are mounted exactly like the modern chisel or awl. An example of Type 2 preserved enough of the imprint of wood to show hafting of a different sort; the grain of the wood runs diagonally to the length of the blade, so that the latter was let into the handle in the position and at the angle of an adze blade but with the cutting-edge vertical instead of horizontal as in the case of the adze. On one chisel was found the incised mark .

The *Saws* are all early. The best example was the gold saw from Shub-ad's tomb, U. 10428, Pl. 158, but all were of the same type and differed only in length; the teeth are very small and are not 'set' as in the modern tool, but the rather rough nicking would help to give them better cutting power than straight teeth would normally possess. The handle was evidently on the line of the blade, like that of the modern fret-saw, not vertical to it as in the ordinary saw.

Of the other tools Type 1 is probably a leather-cutter's knife; Type 2 I cannot explain, a flat oval of metal, quite thin and with no obvious cutting edge; Type 4 is an ordinary knife of late date.

The *Tridents* on Pl. 230 were hailed by our workmen as fish-spears and do indeed closely resemble those still in use, so that I should be inclined to accept the identification. The same might be true of the bident U. 15313 on the same plate, but scarcely so of U. 9005, for which I can suggest no purpose.

A few fish-hooks were found, *v.* Pl. 230, U. 8672 and U. 8967; they are always barbed and the butt is flattened into a triangle for attachment—in fact, the type is precisely the modern one.

The tool of which three variants, U. 12740, 11494, and 12696, are shown on Pl. 230 is curious; in each case there were found oxidized on to the flat blade three very small and slender chisels or bradawls; as they would hardly have kept their position otherwise it would seem that the four tools had been together in a tightly fitting bag. What they are I do not know. The thin-handled disks, U. 11453 and U. 11484, it is tempting to regard as mirrors.

Pins, Pl. 231. In Type 1 the shaft is round and the head is made of some other material such as lapis-lazuli, carnelian, or glaze; the shaft is in most cases (but not in all) pierced at the upper end and sometimes a ring of metal has been put into the hole; more often a string was attached, and on this might be either beads or a cylinder seal, though usually the mere string sufficed. Such pins in gold and silver were common; the ball head was usually capped with gold, silver, or copper and might be plain or fluted.

In Type 2 the shaft is rectangular in section; the head was made of a ball of some other material (missing in the examples drawn). In Type 3 the shaft and the head are in one piece. Type 4, with a head made by flattening and coiling the end of the shaft, and Type 5, where the head is expanded to a large triangle of which the base is curled over in a tube, are both interesting for their connexion with central Europe and with the Caucasus regions; Type 6, with decorated metal head, is represented by two examples only at Ur but is common at Kish in the 'A' cemetery. Type 7 is the characteristic type of the Early Cemetery; the shaft, round at the point, is flattened or brought to a square above and pierced, then thins down again and is curved over at about right angles and ends in a head either made in one piece with the shaft (variant c) or of some different material (the absence of any head in variant a may be accidental). The finest example of the type was U. 11903, of gold with a carnelian head, from the royal tomb PG/1054. Type 8 is the simplest of all, a mere skewer with rounded top.

Of the *Toilet Instruments, Pl. 231*, 1 and 2 are doubtfully classed as such. No. 3, tweezers made by splitting one end of a metal rod, is a very large variant of those found in the toilet-cases. The spatulae, 4 and 5, were probably used for eye-paint, &c. The little toilet-cases, 6, were very common in the graves of both men and women. They consist of a conical case of copper which was covered with leather (remains of the leather coloured bright red have been found), or the case might be of silver or gold. The instruments were of gold, silver, or copper; the full set (that from the gold case U. 9340, Pl. 151) is illustrated on Pl. 159, but some smaller sets were found consisting of three or even of two instruments, e.g. U. 8510, Pl. 218.

The razors, of which three slight variants are shown, are most common in the Early Cemetery but continue in use through the Sargonid age. The type is one that I do not know elsewhere, but that it is a razor can scarcely be doubted. Needles are rare, probably because they were out of place in a grave; U. 9181 is properly eyeleted, U. 9206 has its end thinned and bent over to make the eye.

CHAPTER XVI

INSCRIBED MATERIAL

By Eric Burrows

A CHAPTER by Dr. Legrain deals with the seal-cylinders in general. The majority of the inscriptions on clay from the cemetery excavation are the subject of a volume in preparation, referred to below as *Archaic Texts*.

The present chapter is concerned with the inscribed material as an indication of the history and chronology of the cemetery. I abstract generally from such material as came from the top soil of the site, or from grave-shafts or grave-robbers' pits, and from undated inscriptions found loose in the soil of the cemetery: see p. 315 n. 3, p. 316 n. 1, and p. 320. We shall concentrate attention firstly on (1) inscriptions naming Sargon, which date the upper cemetery, (2) inscriptions of the First Dynasty of Ur, from the stratum above the lower cemetery, (3) inscriptions from beneath the lower cemetery—and so obtain a chronological frame; and secondly on those inscribed seals or other objects which are assigned to particular graves. Thirdly, in conclusion, the duration of the cemetery is estimated.

For the inscriptions transcribed in this chapter, unless another indication is given, see Pl. 191.

I

THE CHRONOLOGICAL FRAME

(1) In *Ur: Royal Inscriptions* 271 was published

en-ḫé-du₇-an-na
dumu šar-ru-kēnu
AN-ŠI-[ ]
URI-ni

(U. 8988) from a cylinder found in PG/503; and ibid. 272

ad-da
PA-é
en-ḫé-du₇-an-na

(U. 9178) from a cylinder found loose 3·7 m. down in the cemetery, from a plundered grave. With these may be mentioned—though it is not an object from a grave—a seal-impression found in the cemetery in 1928/9 (U. 11684):

[*en-ḫ*]*é-*[*du₇-a*]*n-na*
[*dumu šar*]*-ru-kēnu*
[ ]*-ki-ku-dùg*[1]
[*dub-s*]*ar*
[*arad-da-n*]*i*

[1] Restore according to Lugal-ku-ki-dù(g) (A. Deimel, *Inschriften von Fara. III. Wirtschaftstexte aus Fara*, 41*)?

We have therefore three inscriptions naming members of the household of Enḫeduanna (already known to have been priestess of Nannar at Ur: *Ur: Royal Inscr.* 23): her URI, perhaps an officer of the harem,[1] her major-domo, and her scribe; and proof that the upper part of the cemetery was in use during, or a little after, the lifetime of this daughter of Sargon.[2]

(2) In *Ur: Royal Inscr.* 268 was published the inscription which I should now transcribe

nin-TUR nin
dam mes-an-ni-pàd-da,

i.e. 'the lady NIN-TUR,[3] wife of Mesannipadda'; from a seal (U. 8981) found loose in the stratum between the Sargonid and the older part of the cemetery. Mesannipadda is naturally assumed to be the king of that name who founded the First Dynasty. In 1928/9 it appeared that a stratum of rubbish was laid down above the older cemetery during (probably) the First Dynasty. In 1929/30 the stratum SIS I was discovered and named, and determined by the excavator to be, together with SIS II, continuous with the dividing stratum that elsewhere divides the lower cemetery from the upper. In SIS I was a seal-impression containing the inscription

[me]s-an-ni-pàd-da
lugal kiš^{ki}
dam-nu-gig[4]

[1] Cf. what is said of ^{d}*URI-zi*, F. Thureau-Dangin, *Die Sumerischen u. Akkadischen Königsinschriften*, 130. 9. 6–14; G. Cros, *Nouvelles fouilles de Tello*, p. 175, n. 5. Another view, Deimel, *Sumerisches Lexikon*, i, 1925, 359, 1, 4: Zügelhalter, Rossenlenker.

[2] U. 8416—*lugal-TÚG dumu lugal-AB*—may be noticed here, as the inscription may be thought to have historical significance, and was included in *Ur: Royal Inscr.* (no. 269) in view of this possibility. The interpretation 'King TUG son of the King of Uruk' has been suggested, with the conjectural ascription of TUG to the Second Dynasty of Ur, near the time of the sovereignty over Ur of the Third Dynasty of Uruk (*A.J.* viii, p. 25). The date is satisfactory for the seal is of Sargonid type, but the writing still non-cuneiform, so perhaps a little pre-Sargonid (cf. p. 319). But the obvious interpretation of the legend—Lugal-TUG son of Lugal-Abba—is probable. Lugal-ab-ba is not an uncommon name (E. Huber, *Personennamen*, p. 128); and at the time of Uruk III the normal orthography of *Uruk* was, as one would expect, *unug-ki* (H. V. Hilprecht, *Old Babylonian Inscriptions*, 87). (On *lugal* in the names of private persons *v. inf.*, p. 317, n. 6.)

[3] The second *nin* is probably a title: cf. U. 9943, U. 10939 (p. 316). *Nin* could denote a priestess (*ēntum*) or (probably) a queen. The equation *nin* = *šarratum*, queen, is not actually documented; but it seems that Sumerian possessed only words more generic than *šarratum*. *gašan* is sometimes translated *šarratu*, but is hardly more specific than *nin*; and the sign *gašan* with the meaning 'lady' or 'queen' scarcely occurs in archaic texts (cf. Deimel, *Sum. Lex.* 350). That *nin* served to denote a 'queen' is seen in the Drehem texts, where the word is a feminine counterpart to *lugal* (N. Schneider, in *Orientalia*, 45/46, p. 36): *nin-mu* followed by *lugal-mu* in U. 14731 (*Archaic Texts*) is possibly another example of the use.—If *nin* as title of the wife of Mesannipadda signified specifically 'priestess', we might expect the fuller form *nin-dingir*, which occurs on U. 9315 (p. 316). The question is complicated, however, by evidence that at Ur royal ladies were often in fact also priestesses: so Sargon's daughter, as already seen, and the daughters of Kudurmabug and of Nabonidus (A. T. Clay, *Miscellaneous Inscriptions*, 45). Now two of our seal-inscriptions suggest that the custom in question goes back to an earlier time in which the king's *wife* was chief priestess. U. 13607 gives to the wife of Mesannipadda the title of *nu-gig* (cf. next note); and according to a probable interpretation of U. 11825 (p. 316) the name or title of the wife of A(?)-kalam-dug has a hieratic signification.—Nin-TUR in the present inscription is perhaps as much a title as a personal name. Kudurmabug's daughter as priestess at Ur bore a name similar to that of Sargon's daughter: Nin-TUR may have been an official name of priestesses in earlier times. In this way might be explained the earlier occurrence of Nin-TUR in U. 10081 (*infra*, p. 316) and a later instance of the same in *Ur: Royal Inscr.* 3: *nam-ti Nin-TUR-šè nam-ti Lugal-kisal-[si?-šè?]*. The pronunciation may be Nin-banda (cf. Huber, *Personennamen*, pp. 148 a, 178 b), like that of the goddess-name Nin-ban-da and of Lugal-ban-da.

[4] *nu-gig* is elsewhere equivalent to *qadištum*, *ištaritum*, *zermasītum*, all approximately meaning

(U. 13607); and not far distant a seal-impression (U. 13686) containing the inscription

nin-TUR nin.

The impression of the first sign on U. 13607 is broken, but the remains permit the restoration *mes*; and in spite of the unexpected *lugal-Kiš*^{ki} the king is presumably no other than Mesannipadda, the husband of Nin-TUR.

Besides these seal-impressions, all of the few tablets and fragments that are definitely assigned by the excavation records to SIS I/II can, so far as I see, be dated approximately to the time of the First Dynasty. The writing, indeed, has not a very early character—it is not much dissimilar from that of the Sargonid age; but the undoubtedly First Dynasty tablets of al-'Ubaid are also less archaic than might have been expected. See further *Archaic Texts*.

The *terminus ante quem* of the older cemetery is therefore fixed, according to the excavator's conclusions from the stratification, by a stratum which is epigraphically characterized by, and apparently constituted by, First Dynasty remains.

(3) The *terminus post quem* is given by the stratum of rubbish, SIS IV, in which the lowest graves were made. This contained more than 300 tablets and fragments. Publication in *Archaic Texts* will prove that they represent a stage of epigraphy next *before* that of the Fara tablets. Now the writing of SIS I/II and of the First Dynasty is certainly later than that of the Fara tablets. Consequently the Fara period must synchronize either with part of the lower cemetery, or with the interval that elapsed between the deposit of SIS IV and the construction of the graves therein.

We have in fact one tablet, U. 8825 (2) (*Archaic Texts*), which represents this Fara period. General appearance, characteristic details in the writing, and the proper names date it to about the end of the period represented by Deimel's *Wirtschaftstexte aus Fara*. The tablet was found in the last of the trial trenches at the beginning of the excavation of the cemetery, at about the same time as the first discovered tablets of the type subsequently known to belong to SIS IV. It probably came either from filling in the lower part of the cemetery, or from the top of SIS IV, or from one of the houses whose remains were found about the same time between the rubbish-stratum and the cemetery.

A similar tablet was found at Kish in 1924/5.[1] The find-place being beneath a platform in a chamber of the 'Sumerian Palace' of Mound A, the

hierodule. Here the term must denote the king's wife. In *Ur: Royal Inscr.* 23 Sargon's daughter is called 'Wife of Nannar': this shows, perhaps, in what sense a queen could be entitled *nu-gig*. *mesannipadda* is separated from *lugal-kiš-ki* by a line; *lugal-kiš-ki* from *dam-nu-gig* by an 'emblem'. Are we to make the principal division after the first or after the second? In the former case *dam-nu-gig* would continue the title of the king: 'husband of the nu-gig'. There would then seem to be a suggestion that he owed his authority in some degree to his marriage to the nu-gig. The precedence of Nin-TUR over Lugal-kisal[-si] in *Ur: Royal Inscr.* 3 might be claimed as confirmation. But it is less risky to suppose, according to the analogy of U. 11825 (p. 316), that the seal belonged to two persons: the king (lines 1 and 2), and '(his) wife the nu-gig', or perhaps rather, because of the order of the words and the absence of *ni*, 'the nu-gig wife', i.e. votaress wife of Nannar and of the king his representative.

[1] E. Mackay, *A Sumerian Palace*, ii, pp. 91, 105, and plate xxxvi. [The photograph does not show all the significant details (e.g. *an-gu*$_2$+*šu*$_3$ at the top left of fig. 10). A new collation, and consultation with P. Deimel, convince me that the tablet is of Fara epigraphic period at latest.]

site occupied considerably later by Cemetery A, the tablet indicates a useful synchronism with Ur. At Kish—Fara tablet: interval: Cemetery A; at Ur—Fara tablet: interval: Royal Cemetery. This is satisfactory, as it is agreed that Cemetery A synchronizes with Ur Royal Cemetery (or the later part of it). If the respective find-places be taken to indicate an interval between tablet and cemetery greater at Kish than at Ur, it may be observed that the Kish tablet could be rather older than those of the normal Fara type,[1] and the Ur tablet rather younger.[2]

The chronological frame is therefore taken, provisionally at least, to be as follows: (1) beginning of the lower series of graves in the epigraphic period synchronizing with, or next after, Fara; (2) end of this series near to—probably a little before—the First Dynasty; (3) beginning of the upper series of graves after the First Dynasty; (4) duration of this series at least to the generation after Sargon. It remains to consider how far there is agreement with the palaeography of the seals from individual graves within the two series, and from these to obtain, if possible, further precision.

II

From the palaeographical point of view these inscriptions may be divided into (*a*) the cuneiform, and (*b*) the linear (without 'heads' to the signs).

(*a*) The following are (at least in part) cuneiform:

U. 7953	*ur-ḪUR qa-ab-DI*[3] | *[d]ninni-ka* (!?) Ur-ḪUR, . . . -priest of Ninni	PG/35
U. 9010	*ur-igi-gál*	PG/496
U. 9310	*ur-[d]nidaba*	PG/563
U. 9567	*gimil-i-li-su* | *šangū [ilu]gišrinnim*[4] Gimil-ilišu, priest of Gišrinnum	PG/643
U. 9681	*nin-nin* | *agrig. [d]utu-sib* Nin-nin, temple-administrator. Utu-sib	PG/689
U. 9844	*en-men-an-na* | *ur-SI* | *ni-du*$_8$ | *arad-da-ni* Enmenanna. Ur-SI, porter, his servant	PG/719
U. 10367	*a-[d]en-zu-gim* | *qa-šu-du*$_8$ A-zuen-gim, cup-bearer (?)	PG/903
U. 11107	*é-zi* | *dub-sar* Ezi, scribe	PG/861
U. 11136	*á-ni-ta* (?)	PG/827
U. 11442	*qì-šum* | *qa-šu-du*$_8$ Qišum, cup-bearer (?)	PG/991
U. 11452	*en-[d]utu*	PG/986

[1] The shape of *si* is more like that of *si* in *Archaic Texts*.

[2] Christian and Weidner, in *Archiv f. Orientforschung*, vii, p. 107, derive an argument *against* our chronology from the Kish tablet, dating it to the time of Eannatum.

[3] Presumably a religious office: cf. qá-ab$_4$ [of Nannar or Ningal?], *Ur: Royal Inscr.* 107; qa-ab of Ningal, ibid. 240; qa-ab-ba (of Nin-Mar[ki]), Clay, *Misc. Inscr.* 29, 14; cf. *S.A.K.I.* 227, 11, b.

[4] *Giš-rín* = *gišrinnum* = balance (*Br.* 8143). Not otherwise known as name of a god. Reading therefore questionable. Last sign possibly incomplete.

U. 11457 *ad-da* | *ni-du*$_8$ PG/1003
Adda, porter
U. 11590 *lugal-šà-sir*[1] | *dumu inim-ma* PG/1092
Lugal-ša-sir, son of Inimma
U. 11596 *en-an-ki-da* PG/1084
U. 11990 *ùg-íl* | *rá-GAB* PG/1200
Ug-il, messenger (?)

The script of the following, with slight or doubtful 'heads', is harder to classify:

U. 7927 *ba*(??)-*a-a* | . . . *a-gír* . . . PG/26
U. 9661 . . . | *mu* | *lugal-giš* PG/692
. . . cook or baker of Lugal-Giš
U. 11443 *sag-*^{d}*utu* | . . . PG/991
U. 11456 *si-na*[2] PG/1002
U. 11725 [*lu*]*gal-*?*-la-ni* | *dub-sar* PG/1118[3]
Lugal-?-la-ni, scribe

Cuneiform script on stone begins with Entemena at Lagash, but linear script also continued to be used for a time. The seal-legends of Lugalanda and his contemporaries are linear; those of Naram-Sin and Šargališarri may be considered fully cuneiform; and those of Sargon and the household of Sargon's daughter at Ur as transitional. From this point of view, therefore, the series of well-developed cuneiform inscriptions from the seals of the upper cemetery probably indicates that this was in use until well after the period of Sargon's daughter.

In the content of these inscriptions the following indications of date may be considered:

U. 9567: *gimil-ì-lí-su* contains *su* for *šu*, characteristic of the Agade period.

U. 9844: *enmenanna*, an antique name like that of the prediluvian kings, may here designate a pontiff. Cf. the same name on a gate-socket, *Ur: Royal Inscr.* 69, where the inscription is classified among those of the Third Dynasty. However, such a name or title may, like perhaps the name of the chief priestess, have remained in use for many generations.

U. 11990: both *ùg-íl* and *rá-GAB* are professional names characteristic of the texts of the Third Dynasty of Ur (Deimel, *Sum. Lex.* 313, 14; 206, 65). (I assume that the first is here used as a personal name; see thirteen examples of Ùg-íl(-la) in Huber, *Personennamen*, pp. 55, 56.)

[1] For the value of 𒀭𒌷𒀀𒀀 here cf. Deimel, *Wirtschaftstexte aus Fara*, p. 41*: *Lugal-šà-sir* (𒀭𒈾).

[2] If the marks in question are script-signs, which seems quite doubtful.

[3] Also many of the following inscribed seals found loose, especially in the upper part of the cemetery, may come from destroyed graves: U. 8999, U. 9501, U. 9502 (cuneiform); and U. 11670, U. 11671, U. 12559 (slight or doubtful 'heads'). See Catalogue, and Plate 191.

(*b*) The following may be classified as purely linear: (i) from ordinary graves:

U. 8513 *^{d}gig-ḫu-lugal* (or *gig-ḫu ^{d}lugal*) PG/261
Gig-ḫu-lugal (or Gig-ḫu, king) [*Ur: Royal Inscr.* 270]

U. 9764 *en-ki-en-du* | *dub-sar* PG/697

U. 9765 *en-ki-en-du* | *dub-sar* | . . . *ki* (?) PG/697
En-ki-en-du, scribe of . . .

U. 9943 *^{d}šara-GÁ* (*men*?) | *dub-sar nin* PG/743
Šara . . . , scribe of the Lady

U. 11418 *ur-^{d}giš-bíl-ga-mes* | *dub-sar* | *dumu ur-^{d}KA-DI* PG/968[1]
Ur-Gilgames, scribe, son of Ur-KA-DI

and (ii) all those from 'royal graves':

U. 9315 *ḫe-kun-sig* | *nin-dingir* | *^{d}pa-bíl-giš-sag* PG/580
Ḫe-kun-sig, 'lady of the god' of Pabilsag

U. 10939 *ŠUB*[2]*-ad* | *nin* [see p. 312 n. 3] PG/800

U. 10530 *lugal-šà-pàd-da* With the groom of ŠUB-ad

U. 10448 *A-BÁR-GI* Loose in the same burial

U. 11174 *é-zi* PG/779, chamber D

U. 11751 *mes-kalam-dùg* | *lugal* Construction above PG/1054
Mes-kalam-dug, king

U. 11825 *a*(?)*-kalam-dùg* | *lugal-urí a*(?)*-šu-sikil*(?)*-AN dam-ni* [but see note [3]] PG/1050, B

U. 12330 *en-šà*(?)*-gan* (?) PG/1236

U. 12461 *a-gig-*[*ḫu*?]*-^{d}im* PG/1236, chamber D

U. 12374 *dumu-kisal* Body 7 of the 'Death-pit', PG/1237 [but see note [4]].

There are also the following inscriptions on vessels from the cemetery:

U. 7840 . . . *-nanna* PG/33. Pl. 176

U. 10001, 10002, 10004 *mes-kalam-dùg* PG/755. Pl. 163

U. 10081 *mes-kalam-dùg* PG/755. Pl. 190

U. 10081 *nin-TUR nin* PG/755. Pl. 190

[1] With these may be classed U. 8416, U. 11604, U. 13888, found loose. See Catalogue, and Plate 191; and for the first, p. 312 n. 2.

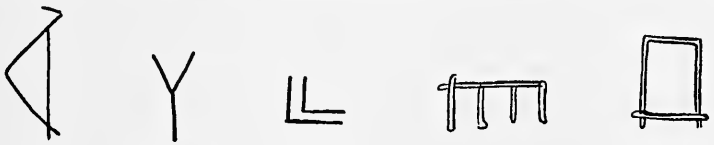
[2] For this sign, KA+hand, the transcription *šub* will serve provisionally, being one of some seven that are possible (cf. Deimel, *Sum. Lex.* 26; *Ur: Royal Inscr.* 144, 37 note).

[3] The parallel lines transcribed *a-* before each name could probably be merely a border to the inscription. The name Kalam-dùg occurs elsewhere (U. 10081); and it is easier to translate Šu-sikil-AN without *-a*. There is an ambiguity also in the direction of the inscription. If the columns are read in the usual way from right to left we have: A(?)-šu-sikil-AN king of Ur; A(?)-kalam-dug his wife. We should, however, have expected A(?)-kalam-dug to be a *king's* name; and Šu-sikil-dingir might well be the name of a royal priestess. Cf. p. 312 n. 3. For *šu-sikil* as a religious term cf. *šu-luḫ*, of pure hands, pure, and an official designation; *šu-sikil-la ki-ag-ga*, said of a goddess, *Ur: Royal Inscr.* 62; *me šu-sikil*, *S.A.K.I.*, 204, 16; *šu-sikil* = *elliš*, *Beit. z. Ass.* v. 638, 13. If the columns of our text be read, so to say, backwards, we can obtain: Kalam-dùg, king of Ur; Šu-sikil-dingir, his wife. In any case some archaic disorder in the arrangement of the signs must be recognized; and the backward order of the columns would not be a greater carelessness than the inverted signs on two of the seals from the royal graves, U. 11174, U. 10448. An objection to the proposed reading is the dividing line between *kalam-dùg* and *lugal-urí*, which seems to connect *lugal-urí* with *šu-sikil-dingir*; but cf. U. 13607, where a line separates *mesannipadda* from *lugal-kiški dam-nu-gig*.

[4] So read by Legrain (No. 22), who suggests the interpretation 'daughter of the court'. It is possible, however, to take the supposed signs as part of the design—two pots on a table, the table being held by one of the figures.

The additional sign on U. 7840 and after *mes-kalam-dùg* on U. 10081 is the bull's leg which appears also on the pot U. 8135, Pl. 177, and probably no script-sign: cf. also U. 10554, Pl. 171, and Pl. 189.

Nor do I include among the inscriptions the sign on the gold dagger, U. 9361, Pl. 190. It has been explained by Unger[1] as the (hypothetical) primitive form of the sign *NU*, and by Frank[2] as *SES*; but more probably it is no script-sign,[3]



U. 9361. U. 11902. U. 11967. U. 11631. U. 12555.

FIG. 69.

but rather a property mark. We have to compare U. 11902, on a gold vase from PG/1054; U. 11967, on a whetstone from PG/1195; U. 11631 and U. 12555 on pots. I have seen also on a chisel from the cemetery (1927/8) a sign like *sag*, but simpler.[4] Not all of these can be well explained as script; and in general they are such simple figures as might naturally be used for identification marks.

We turn to the true inscriptions. Since linear writing on stone was in use nearly until the Sargonid era, two periods of the cemetery may be represented by the linear series (*b*)—the predynastic and that from the First Dynasty until shortly before Sargon. Throughout the series, however, the form of the signs shows little change, and from a purely palaeographical point of view a definite demarcation between the two periods can hardly be attempted.

The chronological question must rather be posed thus: can the older inscriptions be dated, in accordance with our theory, to a period before the First Dynasty and proximate to that of the Fara tablets?

Among the older inscriptions will in any view be reckoned those from the 'royal tombs'. It will be necessary—and sufficient—to prove the possibility of such a date for these.[5]

(i) Since 1927/8 certain stone tombs have been designated 'royal'. There was at first no inscriptional proof—apart from the assumption that ŠUB-ad's title of Nin indicates a queen. In 1928/9 the inscriptions *mes-kalam-dùg lugal* and *a*(?)*-kalam-dùg lugal-urí* justified the claim to have found royal graves. Whether any other of the names on seals found in connexion with the royal graves are names of kings it is impossible to say.[6] In any case the

[1] E. Unger in *Archiv f. Orientforschung*, iv, p. 210f.

[2] C. Frank in *Orient. Literaturzeitung*, 1930, 443, Nr. 14. Questioned by Deimel, *Orientalia* 34/35, p. 127.

[3] Christian and Weidner in *Archiv f. Orientforschung*, v, p. 146, note.

[4] Cf. *sag*-like emblem, under a crescent on seal U. 11565 (No. 151, Pl. 204).

[5] On the inscriptions in list (*b*) (i) it will be enough to observe that two can hardly be later than some from the royal tombs—U. 8513 (itself a royal name if the alternative reading be adopted) and U. 9943; that U. 9764, U. 9765 would seem to belong to the late period of the linear script; that the inversion *bíl-giš* in U. 9315 is a sign of antiquity; but that the writing of *bíl* here, and in U. 11418, occurs elsewhere first in Eannatum, *pa-giš-bil-ga*, *S.A.K.I.*, 22. 8. 4—Fara names of this kind being always written with *bil* and separate *pap*.

[6] There is no indication of royalty in *é-zi* (cf. *é-zi*, name of a scribe, U. 11167), or in *a-^{d}im-gig^{bu}* considered in itself (but the *possible* royal name on U. 8513, ^{d}*gig^{bu}*, may be compared). *A-BÁR-GI* (son of the true divine chamber?) could be interpreted as a

existence of seven royal graves (including the 'Death-Pit', but excluding those of royal women), with their evidences of great wealth and power, must be taken to indicate a 'dynasty'. It is altogether improbable that this was the *Second* Dynasty of Ur, or some dynasty subsequent to the First Dynasty that was unknown to the compiler of the King-List. None of the certain or possible names of its kings correspond to those of the *First* Dynasty. The 'Kalam-dug Dynasty' (so to call it) must therefore be dated before the First Dynasty.

Although the names of the two dynasties in no instance coincide, an analogy has been observed. *Mes-* and *A*-kalam-dug (if so to be read) make an analogous pair (if related as father and son) with *Mes-* and *A*-anni-padda. The analogy becomes somewhat more significant in the light of another, pointed out to me by Mr. Gadd: Šar-kà-lì-šar-rì (King of all kings) and Bi-in-kà-lì-šar-rì (Son of all kings), the latter being designated *mār šarrim* (*S.A.K.I.*, p. 168), 'the king's son'. He suggests also comparison with U. 8513 and U. 12461: Lugal-^{d}gig-ḫu and A-^{d}im-gig-ḫu. It would seem that a convention by which a king's son might bear part of his father's name, with 'son' substituted for 'king' or the like, may have survived from early Sumerian times into the Agade period. The date of the Kalam-dug kings is hardly affected by the hypothesis: the question whether they inherited the custom from the Anni-padda kings, or vice versa, would remain intact.

(ii) Apart from whatever dynastic indications there may be in these inscriptions, the proper names are chronologically significant from a purely onomastic point of view. Nearly all have remarkable similarity to those of the Fara period. See Deimel, *Wirtschaftstexte aus Fara*, name-list. With *é-zi* cf. *é-zi*; with *lugal-šà-pàd-da* cf. *lugal-šà*(?)-*pàd* (?); with *a-*^{d}*im-gig*^{ḫu} cf. *a-*^{d}*gig*^{ḫu}, p. 19 and ^{d}*im-gig*^{ḫu} in numerous names; initial *a-* and *mes-* very frequent; *šub-* four times (KA+hand, p. 38* and 28* b);[1] *bár-gi* in *lugal-bár-gi-dùg* and *ama-bár-gi*(?); *kalam-dùg* in *en-kalam-dùg*, ^{d}*en-kalam-dùg*, *giš-pap-bil-kalam-dùg*, *kalam-dùg*.[2] Apart from *šu-sikil-AN*, every element in our list is common to the two nomenclatures.

significant dynastic name: cf. also En-men-bár-gi-si, name of a king of Kish (Dynasty I), perhaps nearly contemporary: but *BÁR-GI* is not an uncommon element in early proper names (cf. next paragraph). Similarly *lugal-šà-pàd-da* is *per se* a suitable name for a king (King called [by a god]), and it is a fact that lugal is the initial element in many early kings' names, e.g. at Uruk Lugal-banda, Lugal-kiagga, Lugal-kigubnilaḫ, Lugal-kisalsi, Lugal-zaggisi, and as many more at Kish): but such names were also very frequently born by commoners (Lugal-šà-pàd itself probably occurs: cf. next paragraph). Presumably the second element in these names had primarily a predicative sense: 'the king *is* called by god', or the like. If kings themselves rather frequently bear lugal-names, the explanation may be that such names were especially favoured in certain royal houses. Another class of lugal-names is the theophorous. Lugal-^{d}gig^{ḫu} may be an instance—the name occurs (*Wirtschaftstexte aus Fara*, Nr. 70, 12, 1); but ^{d}*gig*^{ḫu}, King, is a not impossible reading, and the name ^{d}*gig*^{ḫu} is common (ibid., p. 26*, s.v. *dugud*).

[1] By analogy with names of later times *šub* in *šub-ad* should be equivalent to some part of *karābu*, bless, and the second element would denote a god; and *ad* does not occur as a divine name in Fara. In Fara, however, the *šub*-names are not theophorous, and the same may be true of Šub-ad.

[2] *DÙG* in *mes-kalam-DÙG* may also be read *šár* (all), and Mr. Gadd has adopted this reading. The interpretations 'hero of the good land' and 'hero of all the land' are in fact equally satisfactory. But in favour of *dùg* is the name Kalam-dùg at Fara (two texts). 'The Land is good' is a possible translation, but *šár* would seem to be untranslatable. (The same conclusion may probably be derived from U. 11825, however it is to be read. If *a* (= either *abú*, father, or *riḫūtu*, offspring) is prefixed to the names, presumably it denotes *offspring* in the feminine name, and most likely therefore in both: but

(iii) The signs are neither pictographic nor semi-pictographic; that is to say, forms originally rounded have become angular. The characteristic ductus of Fara is absent. The signs do not, in general, differ notably from those used on stone by the First Dynasty or by Ur-Nina (Ur-Nanše), or even by Lugalzaggisi.

It does not follow that our inscriptions are not considerably older than all these. The lapidary style developed but slowly in the period subsequent to Ur I (see on this subject Gadd, *al-'Ubaid*, 135); so far as we know it may have remained almost static for a considerable time before Ur I.

Some details will show the state of the question. Probably more than half of the twenty-five exemplified by our nine inscriptions could be dated to any period of the regularized linear script that intervenes between the semi-pictographic and the lapidary cuneiform. The following are somewhat more significant. *LUGAL*: not very archaic, and differing from Fara; but paralleled in Ur I (SIS I and al-'Ubaid). *KA* (in *ŠUB*): like the *KA* of Gudea; also Lugalkigubnilaḫ, Hilprecht, *Old Bab. Inscr.*, pl. 37, var. to case 6. (It may be suggested that this form, with short lines *inside* the figure of the head, is a survival and not a late variation: it appears from the Jemdet Nasr sign-list, Langdon, *Oxford Edit. of Cun. Inscr.*, vii, nos. 165–7, that the oblique lines external to the figure of the head, and supposed by some to represent the beard, are not primitive, and that the original *KA* was but a variant of *SAG* with an additional *internal* line.) *KALAM*, *ŠEŠ* (in *URI*), and *DAM* have not the long line split or forked in the manner characteristic of Fara and more archaic writing: but the simpler forms of these signs occur already in Fara, and the Fara tablet of Ur (*supra*, p. 313) is almost without split lines. The end stroke of *DAM* is like that of the First Dynasty, U. 8981, U. 13607 (p. 312f.), U. 11675 (p. 321 n. 10). The pointed form of the first part of *KALAM* suggests a post-First Dynasty date inasmuch as it first occurs elsewhere in Lugalzaggisi, Hilprecht, *Old Bab. Inscr.* 87, i, 42 (cf. Christian and Weidner in *Archiv f. Orientforschung*, v, p. 146): but as it seems unlikely that the pointed form is a corruption of the square one, it may be much older than the earliest dated example. *MES* has two internal lines, as in Lugalzaggisi (cited by Christian and Weidner, loc. cit.). Contenau, in *Man. d'arch. orient.*, 1559, if I take his point rightly, argues that this is less primitive than the form with one internal line (*R.E.C.*, Sup. 363): but to judge by the *MES* of, e.g., *Archaic Texts*, which has many internal lines, the one-line form is not really primitive. In *DA*, *ŠU*, and the hand-sign in *ŠUB*, the full articulation of the thumb is absent. This suggests a date little before the Sargonid period: but that the script may be due merely to simplification is proved by the *DA* of the very early Hoffmann tablet, to which our *DA* is notably similar. *GI* is inverted, like that of U. 11675 (p. 321 n. 10), First Dynasty. For the rest it is linear stylization of the oldest *GI* of Ur (*Archaic Texts*): the difference from the characteristic *GI* of Fara may be due to a difference between southern and northern styles (Langdon, op. cit., no. 138). *ZI* also, as having the double series of parallel lines, is essentially like the *ZI* of *Archaic Texts*, and that of Utug, Hilprecht, *Old Bab. Inscr.*, p. 109, 3 (probably to be dated near Ur I).

It may be concluded that *from the point of view of the sign-forms* a date between Fara and Ur I is merely *possible*, and the nearer to Ur I the more probable.

(iv) The random arrangement of the signs, characteristic of the oldest writing, is exemplified in U. 11825 and U. 12461. These can hardly be later than Ur-Nina; and may well be earlier than the First Dynasty of Ur, and near in date to the Fara period.

(v) U. 11825 has *uri* without the determinative *ki*. As pointed out by Christian and Weidner, loc. cit. vii. 101, *Lagaš* is written without *ki* by Ur-Nina (and not only in the place cited, but regularly). Moreover *Kiš* is without

'offspring of the good land' is possible, and 'offspring of the whole land' impossible.) The same reasons would be against the transcription *ùg-šár* = all the people (as in 4 R. 12, 19 *ùg-šár-ra* = *kiššat nīši*).

For *KALAM* = *kalam* cf. the perhaps contemporary royal name in the King-List, Utul-kalam-ma (Uruk I). A synonym of 'good land' occurs in Igi-kalam-$ša_6$-ga, Huber, *Personennamen*, 53.

ki in the inscriptions of Mesilim, Lugaltarsi, and *Rev. d'Ass.* iv, p. 111. If, however, the comparison is made with the inscriptions of *Ur*, it is to be noted that under the First Dynasty *ki* seems always to have been used with the city names: al-'Ubaid, TO. 160, 5; TO. 286; BM. 114206; Ur, U. 13607; U. 11675 (ined.).[1] Again, therefore, the date suggested for our seal is—not later than Ur-Nina and very likely before the First Dynasty of Ur.

The relative chronology of the cemetery, therefore, appears according to the evidence of the inscribed material to be as follows:

1. Rubbish stratum (SIS IV), with pre-Fara tablets.
2. Interval: Fara period: house remains, and a tablet of Fara type.
3. Royal Cemetery: inscriptions intermediate between Fara and Ur I (apparently nearer to the latter term).
4. Stratum characterized by documents of Ur I.
5. Later cemetery:
   (*a*) inscriptions of period of Sargon's daughter;
   (*b*) inscriptions of later date, continuing probably till Ur III.

(Tablets and fragments of the Lugalanda-Urukagina and Agade period near the surface, and intruded into the cemetery by diggers, indicate—according to the evidence of the site—the dumping of rubbish during and after the Third Dynasty.)

III

The duration of the period is difficult to determine. The slight development of the lapidary linear script suggests a duration of the pre-Sargonid period of the cemetery as short as is consistent with other evidence. Our principal points of reference have been (i) the epigraphical period Fara and (ii) that of the First Dynasty of Ur. Can those Assyriologists be followed who date Fara and Ur I near together and near to Sargon?

(i) The Fara tablets have been dated by Unger,[2] Christian,[3] and Weidner[4] to the time of Urukagina; but by Deimel[5] to a little before Ur-Nina. A date more than a little before Ur-Nina is indicated, it seems to me, by the discovery at al-'Ubaid of clay tablets of Ur I which are considerably later in style than those of Fara, as also by the character of the tablets of the Ur I stratum at Ur (*supra*).[6]

(ii) In *al-'Ubaid* (p. 137) the First Dynasty was dated 'somewhat before, but not very long before' Ur-Nina. The same author has since written of the priority of the First Dynasty with even greater caution.[7] Christian and Weidner now put it later than Ur-Nina.[8] Here again, but for another

[1] The omission of *KI* in TO. 160, 3, cited by Christian and Weidner, loc. cit., proves nothing, as the line was unfinished (*al-'Ubaid*, p. 126).

[2] *Zeitschrift f. Assyriologie*, xxxiv, 198 f.

[3] *Mitteilungen d. Altorient. Ges.* iv, p. 9 f.

[4] *Archiv f. Orientforschung*, 1932, p. 79 n.

[5] *Wirtschaftstexte aus Fara*, 1 f; cf. *Orientalia* 34/35, p. 122.

[6] Conclusions from the new excavations at Fara (preliminary report by E. Schmidt, *Museum Journal*, xxii, p. 193 f.) would be inappropriate here. The find-place of the recently discovered tablets seems to favour a late date—Urukagina, according to Weidner, *Archiv f. Orientforschung*, loc. cit. Nevertheless the find-places of the Fara tablets of Ur and Kiš require a date far earlier.

[7] C. J. Gadd, *History and Monuments of Ur*, p. 71.

[8] *Archiv f. Orientforschung*, vii, p. 108; *Zeitschrift f. Ass.*, xxxviii, p. 232 f. (Christian).

reason, it appears that the higher date is preferable, and rather too low than too high.

Probably only nine reigns intervene at Lagaš between Ur-Nina and the reign of Sargon. The question is whether the King-List, correlated with some other documents (in part recent discoveries at Ur), allows us to fix the date of Mesannipadda at so short a distance from Sargon. The King-List gives twelve dynasties or forty-four kings between these kings. Unquestionably some of the dynasties synchronized; but there are limits to the use of this solution: contemporary kings of the same city cannot be supposed.

We may consider what, according to the records, was the probable number of kings (*a*) at Kiš, and (*b*) at Ur, during the period between Mesannipadda and Sargon.

(*a*) At Kiš there is firstly Kiš II, second dynasty after Ur I according to the King-List. Mesannipadda, according to U. 13607, was king of Kiš. His name does not appear in the list of Kiš II: presumably therefore he preceded Kiš II (and the same may well be true of some or all of his heirs). There also reigned before Sargon Kiš III (one ruler) and the first two kings of Kiš IV. Further, we happen to know the following kings of Kiš whose names are not in the dynastic list: Enbi-Ištar,[1] Al[ ],[2] Eannatum,[3] who certainly belong to our period, and Lugaltarsi,[4] Urzage,[5] and La[ ]si[6] who probably do so.[7] There is also Utug, 'patesi' of Kiš near the beginning of our period;[8] he could be dated to the time of the sovereignty of the kings of Ur I over Kiš. A dedication by (probably) another 'patesi' of Kiš, found at al-'Ubaid with the inscriptions of the First Dynasty,[9] may be explained in the same way.

Apparently, therefore, there elapsed at Kiš between Mesannipadda and Sargon a period equivalent to *eighteen* or more reigns.

(*b*) For Ur the result is the same. The list gives Ur I with four kings—a number known to fall short by at least one,[10] and Ur II with four kings. At least two of the kings of (probably) Uruk II, and Lugalzaggisi (Uruk III),[11] probably reigned at Ur in this period; so also some of the Lagashite princes—Ur-Nina,[12] Eannatum,[13] Enannatum, Entemena,[14] and most likely others. Further, in *Ur: Royal Inscr.* 12 is a dedication by a daughter of AN-BU.[15]

[1] F. Thureau-Dangin, *Die Sumerischen u. Akkadischen Königsinschriften*, p. 152 d.

[2] Ibid., p. 20.

[3] Ibid., p. 22, 6, 4.

[4] Ibid., p. 160.

[5] Ibid., p. 160.

[6] Langdon, *Kish*, i, p. 5.

[7] It is conceivable that in some cases *lugal-kiš*^{ki} (or *-kiš*, which is only a graphic variant: *v.* p. 319) is a title of pretence, motived by the prestige of that city, but not all can be so explained; of the non-canonical kings of Kish some are known from inscriptions at Kish itself (Langdon, op. cit. 4 f.), and some from inscriptions of enemies (Enbi-Ištar, Al[ ]). It is necessary to recognize that the King-list is quite incomplete.

[8] Hilprecht, *Old Bab. Inscr.*, p. 108.

[9] *al-'Ubaid*, p. 126, TO. 220.

[10] Perhaps by more than one. The second king according to the King-List is Mes-ki-ág-^{d}nanna, generally supposed to be the correct name, being confirmed by a Nippur inscription (cf. *al-'Ubaid*, p. 130). But in Poebel, *Historical Texts* 2, the name is Mes-ki-ág-nun-na; and on a vase fragment from Ur, U. 11675, ined., can be restored: [*mes-k*]*i-à*[*g*]*-nun, lugal-uri*^{ki}. Possibly tradition has confused not only A-annipadda with Mes-annipadda but also Meskiagnunna with Meskiagnanna. The conjecture has support from Chiera, *Lists of Personal Names from the Temple School at Nippur*, i, no. 25 obv., where a triad is made up thus: Mes-ki-ág-^{d}[ ], Mes-ki-ág-nun-na, Mes-an-ni-pád-da.

[11] *Ur: Royal Inscr.* 3; *S.A.K.I.*, 156, 3; 154, 2, 30.

[12] U. 17829 ined.

[13] *S.A.K.I.*, 20, 40, 8; &c.

[14] *Ur: Royal Inscr.* 2 and 1.

[15] Nin-me-ta-bar-rí, possibly a hieratic name, *nin-me*(*-ta*) being a counterpart to *en-me* in early

AN-BU is the name of the founder of the dynasty of Mari in the King-List; and on a mace at Ur, U. 11678 (Pl. 183), may be faintly discerned a dedication for *AN-BU* | *l*[*ugal*]. Thus one or more of the six kings of Mari probably reigned at Ur. Consequently at Ur the period between Mesannipadda and Sargon is represented by from sixteen to about twenty-one (say *eighteen*) or more reigns.

If this is approximately correct, it is certain that Mesannipadda cannot be dated after Ur-Nina, i.e. shortly before Sargon. Further, if some eighteen regnal periods intervene both at Kiš and at Ur between Mesannipadda and Sargon, and at Lagaš not more than nine between Ur-Nina and Sargon, the synchronism of Mesannipadda with Ur-Nina is not very probable. Rather there would be an interval between Mesannipadda and Ur-Nina about equal to that between Ur-Nina and Sargon.

Absolute chronology is not within the scope of this chapter. It will be enough to observe that if Sargon is dated at 2751,[1] and Ur-Nina consequently about 2900, the First Dynasty of Ur would begin (according to the above argument) about 3050; and—if the development of the script was as slow before as we suppose it to have been after Ur I—3300 would not be too high, at all events as a maximal date, for the earliest inscriptions from the cemetery.

Mr. Gadd has been so good as to read the manuscript of this chapter. I owe to his remarks thereon, or to conversations on various occasions, the interpretations of names implied in the transcriptions of U. 11136, 11990, 11442, and 10367 (*a* probably=*a-ba*, either by omission of *ba*, or *ba*>*wa*>*a*: thus 'Who is like Sin?' the order adopted in U. 11825; the doubts expressed in notes to U. 9567, 11456, 12374; in part the interpretation of U. 7953; and help with some transcriptions in the catalogue.

pontifical names—in which case here might be the first example of a king's daughter made priestess at Ur and representative in some sort of a non-resident king (cf. the daughters of Sargon, Kudur-mabug, Nabonidus).

[1] Langdon - Fotheringham - Schoch: too high according to many, but the latest estimate, 2725, is not far different (Contenau, *Man. d'arch. orient.*, 1931, p. 1616).

CHAPTER XVII

INTRODUCTORY NOTE ON THE CYLINDER SEALS

THE excavations in the cemetery produced over four hundred cylinder seals, of which two hundred and fifty were found in graves and the rest loose in the soil; thirty or so were so decayed as to be illegible, and no photographs of them are published here; the bulk figure on Plates 192 to 216.

The seals were not in the beginning employed as evidence for dating the graves. Whereas the clay, stone, and metal types and many of the tools and weapons conform to absolute types, individual examples of which recur more or less frequently and therefore afford reasonable grounds for associating the graves in which they are found, no two cylinders are exactly alike. It is true that they admit of classification, and the bases for such, form, material, subject, and style, are almost bewilderingly numerous, but the resultant grouping of them would be very largely subjective and certainly too arbitrary to be a safe guide for the dating of the graves. The earlier period represented was so far unknown that artistic criteria might well be misleading; sometimes, indeed, two seals found together in the same grave were so different in style as to show that *a priori* judgements were likely to go widely astray: the obvious course was to enlarge as much as possible the limits of positive knowledge by dating the cylinders by the graves, wherever that could be done, and so to obtain criteria for a more comprehensive survey. The argument from internal evidence was not of course necessarily fallacious, but, where the object was to establish a chronology, it was not sufficiently sure and was in any case difficult to prove. We did possess certain very useful starting-points in the seals of the servants of King Sargon's daughter, for the later period, and in those e.g. of Queen Shub-ad for the early, always assuming that the royal tombs, and Shub-ad's amongst them, were of definitely early date. On this basis Dr. Legrain, before the analysis of the graves had been made, published a preliminary study of a selection of the cylinder seals (*Museum Journal*, Sept.-Dec. 1929; *Gazette des Beaux-Arts*, vi. 2, 1931, pp. 22–5) in which he distinguished three periods, that of Shub-ad, that culminating in the First Dynasty of Ur, and that of Sargon, and assigned to one or other of these seals with which he had to deal. It is gratifying to find that his results, and the deductions to be drawn from them, are in close agreement, on the whole, with those given by the external evidence of the graves: each argument therefore strengthens the other, but the association of cylinders in the graves with pottery, stone, or other objects to which a relative date in the series can be assigned is, so far as it goes, the surest basis for classification and thereafter the internal evidence of subject, treatment, and style can be invoked to deal with the specimens which lack such association.

The first step in the ordering of the cylinders was a mechanical one. Three groups were formed of those found actually in graves. The first group comprised those from graves in the Royal Cemetery which were proved by

their contents to be definitely early—this, of course, including all the royal tombs. The second group comprised seals from graves which were proved by their contents to belong to the same predynastic cemetery but were not more closely defined than that; i.e. some might be early, though they did not happen to produce distinctively early objects, and the majority would probably belong to the latter part of the cemetery period. The third group comprised all the seals coming from graves containing objects of Sargonid date. Seals from graves not containing any other datable objects, and those found loose in the soil, were put aside for subsequent examination in the light of information to be derived from the groups.

Clearly the first group and the third were of most immediate value as establishing the two extremes of style. The second group would *ex hypothesi* be somewhat mixed in character and would contain specimens which would stylistically (though not necessarily in point of time) belong by rights to the first group; when once these were eliminated it would be extremely valuable as illustrating the development of style: and it was to be noted that while the first and second groups were conterminous, so that there was between them continuous development, the second and third groups were separated by a considerable time-gap, there was no possibility of confusion between them, and cases of close resemblance between seals belonging to the different groups would argue only for longevity of style in the gem-cutter's art. Only one *caveat* has to be borne in mind. A seal might be in use for a very long time. It might be handed down from father to son for several generations. This is not a fanciful supposition; the wear on a hard stone seal used to roll out its impression on soft clay would not be heavy, yet we find many seals so worn by use as to be completely defaced—smooth cylinders on which only the deepest lines of the engraving survive. In some cases, whereas the engraved scene is well preserved the inscription has been intentionally erased, and this again may be due to the continued employment of a seal as a family or business 'trade-mark' after the death of the original owner, implying again a use lasting through several generations. It is possible that a family seal, long employed and finally worn out, might be replaced by a copy; this is a supposition which cannot be proved, but we have found in the same grave seals which one would judge to be of very different dates, and yet the seemingly oldest was clean-cut and fresh.[1] Lastly, there is always the chance that at a quite late period an old cylinder was found and, with the antiquarian taste common in Sumer, taken back into use; nothing short of this would explain the finding in a well-dated Sargonid grave (PG/652) of a typically archaic seal with a banqueting-scene of people drinking through tubes (U. 9587. Pl. 212).

In our plates the three original groups of seals from dated graves are kept intact: the seals not dated by external evidence have been classified by Dr. Legrain in accordance with the principles laid down in his chapter. In the groups certain facts are strikingly obvious. Thus in the first group there are no less than twenty-five seals with banqueting-scenes; of these the royal tombs supply fourteen examples, and of the fourteen, seven show the feasters

[1] e.g. U.7955, found with U.7953, 7954, 7956, 7957 in PG/35.

drinking through tubes; in the second group there are only five such scenes, and these by their archaic cutting and style manifestly belong to the early series—it is only by accident that the graves in which they occurred were not more closely dated. There is a remarkable difference in the animal scenes of the first group between the bold treatment and fine deep cutting of some examples and the cramped composition and scratchy engraving of others. This might well seem to require a difference in date (and the period under consideration is not a short one, perhaps three hundred years), but there is no reason to suppose that such is the case; rather there are here two contemporary schools of engraving, both of which have exercised their influence on the art of the succeeding age. The third group shows very clearly a fresh development of thought in the fondness for ritual scenes; instead of the banquet we see the gods receiving their worshippers, or mythological subjects are illustrated; and the human hunter of the old world gives place to the legendary heroes Gilgamish and Enkidu. How good a foundation has been laid for the critical study of the older cylinder seals of Mesopotamia is shown in the following pages written by Dr. Legrain: as a result, we are now enabled to use the cylinder seals as dating evidence and so establish more completely the distinction and the order of the graves in the Great Cemetery.

C. L. W.

THE CYLINDER SEALS

By L. Legrain

INTRODUCTION

A study of the seals found in the Royal Cemetery will throw light on the artistic and historical growth of Ur in the fourth millennium B.C. and strengthen other chronological arguments. Some of the seals were found in graves and some loose in the soil. Some of the graves are well dated by their clay, stone, and metal material, by their tools and weapons, by their comparative levels. Some lack that evidence. Accordingly the collection of about four hundred seals from the Cemetery has been divided as follows:

A. Seals dated by external evidence to the earlier part of the Royal Cemetery period: Nos. 1–76.
A′. Seals assigned on internal evidence to the earlier part of the Royal Cemetery period: Nos. 77–128.
B. Seals dated by external evidence to the later part of the Royal Cemetery period: Nos. 129–201.
B′. Seals assigned on internal evidence to the later part of the Royal Cemetery period: Nos. 202–80.
Seals dated by external evidence to the Second Dynasty of Ur: Nos. 281–97.
C. Seals dated by external evidence to the Sargonid period: Nos. 298–366.
C′. Seals assigned on internal evidence to the Sargonid period: Nos. 367–94.

The three groups A–A′, B–B′, C–C′ may be roughly identified with the historical periods of Shub-ad, Mes-anni-padda, and Enḫedu-anna the daughter of

Sargon. Between the two last a small group of seals may represent the Second Dynasty of Ur.

We might expect the seals of the first two groups to have more in common than with the seals of the Sargonid period. But the change is surprisingly greater between the first group and the second, than between the second and the third. In fact, the first group, which bears the name of Queen Shub-ad, belongs to a complete and almost closed period which for beauty of engraving and originality of design is superior to the following periods; it preserves more than any of them a close connexion with the Elamite art of the second Susa style. This is the first historical period, with many names of Ur predynastic kings inscribed on their seals in linear characters.

The seals of the next group (about the time of Mes-anni-padda and Nin-Tur-Nin) keep up the artistic traditions of Shub-ad's time, but with attenuated originality. The old Elamite influence is waning before a new type of art and the growing power of Kish in the north. The first king of the first historical dynasty of Ur claims on his seal the title of king of Kish. And by a natural consequence this second group is more closely allied to the Akkadian art of Sargon than to the predynastic group of Shub-ad. It has notably in common with this later art two new motives, the water-buffalo, and a new type of hunter-hero, which have hitherto been considered characteristic of the true Sargonid art and period. The water-buffalo, the inhabitant of the marshland, is distinguished by its rugose crescent-shaped horns from the primitive wild bull and from the bearded bison of Elam. The hunter-hero with flat cap, long beard, and loin-cloth almost entirely replaces the nude beardless athlete with wild locks of hair so conspicuous on the seals of the first group; because of the style of his dress he is called here the Kish hero. Similar figures are found on the inlay panels of Kish at the time of Me-Silim, and later on the Sargon stela from Susa. Thus, the art of Sargon should be called the art of Kish and may prove pre-Sargonid.

The style of the seals is not strictly connected with and does not entirely change with each new dynasty. Thus the seals attributed to the second—and not very important—dynasty of Ur are scarcely to be distinguished from other seals found at a similar level and dated to the Sargonid period. Only the definite appearance and disappearance of motives of engraving in a large group of seals from one level constitute decisive evidence of a particular stage of art, and of a corresponding change in historical and ethnological conditions; one isolated seal has no convincing chronological value. The banquets of wine and the symposia so popular at the time of Queen Shub-ad almost disappear in the following period, but scenes of the worshipping of gods enthroned like kings and wearing horned mitres, quite unknown in her days —only one example occurs in group A—grow more and more important in groups B and C and become later the obligatory style for all the Babylonian gods. The problem of mixed races—Sumerians, Akkadians, and earlier indigenous populations—and of their religious traditions may be traced back to the time of Shub-ad and long before, through a study of the different types of burials, but we can only conjecture which racial influence accounts for the

various elements in art cult and ritual. The change from the Shub-ad to the Sargonid period is, in general, a change from a graceful sense of natural life and primitive animal mythology to pure heraldic convention and formal ritualism.

It must be noted that a seal of old design may always come out of a late grave; it may be an old seal buried after being kept for many generations, or —what is less probable—a copy from an ancient model. In neither case can it by itself constitute evidence of the age of the grave. The crossed lines, zigzags, and other geometrical motives, animal friezes, snakes, and scorpions, are represented by good examples in each of the three groups; but the origin of such motives is lost in the past, and they can be traced below the historical levels, through the copper age of painted pottery, back to the button seals of Neolithic times.

A short classification applied to the three groups will show the relative importance of each motive, and serve as an index to the catalogue.

GROUP A–A'

1. Geometrical motives, 1–3; 77–81.
   Animal friezes, 4–6; 82–4.
   Spread eagle, 7; 85–90.
   Ducks and fishes, 126.
   Scorpion, 9 [Indian seal]; 92.
   Bulls rampant and hill, 10 (gold-foil of Shub-ad).
2. Archaic nature mythology, 12.
   Harvesting of dates, 13.
   Offerings to seated deity, 93.
   Boats, 94–5.
   Chariots, 96–7.
3. Banquets of wine and symposia. Simple, 14, 15, 40.
   Classical scene of Shub-ad's time, with sideboards, pipes, jar-bearers, and musicians in two registers, 16–32; 98–102.
   Seal of *šub-ad nin*, 16.
   A-BAR-GI, 19.
   dumu-kisal, 22.
   ^{d}en-ša(g)-gan, 32.
   he-kun-sig nin-dingir ^{d}pa-(gi)bil-giš-sag, 98.
   The second register is filled by animal motives and hunters, 33–9; 103–6.
4. Hunting-scenes.
   a. Archaic hunters with bird-like heads and scalloped skirts; rampant animals; upturned goats; net; bull-man, &c., 41–53; 108–15.
   b. Classical royal hunters, nude beardless athletes with wild locks of hair; lions, leopards, stags, goats, bulls, bison, rampant, crossed, or upturned; net, 54–68; 116–23.
   Seal of *a-^{d}gig-[hu-^{d}im?]*, 54 [war scene and chariot].
   mes-kalam-dug lugal, 55.
   ^{d}šara-bar-a dub-sar nin, 57.
   ^{d}gig-hu-lugal, 60; 122.
   lugal-ša[g]-pad-da, 63.
   e-zi-da, 64.
   a-kalam-dug lugal-uri a-šu-silig-an dam-ni, 65.
   šara-bar-bar lu-igi, 121.
   an-mes-su lugal, 123 [from the Flood pit].
   c. Smaller scenes, crowded in two registers, 69–72.
   d. Hunters of more careless style, 73–5.
5. Ritual mythology. Solar heroes. Horned mitres, 76.
   Seal of *e-zid dub-sar*, 76.

Banquets and hunting-scenes are favourite motives on the seals of Shub-ad's time, many of which are cut in choice blue lapis. The figures are engraved in two registers and are sometimes covered with gold-foil. The king and queen, seated on elegant thrones, raise cups similar to the gold fluted tumblers of Shub-ad, while servants, butlers, fan-carriers bustle around; or they drink through pipes from a jar placed on a stand between them. There are in many cases four pipes instead of two, an additional central one being possibly an air-pipe. The sideboard, a movable piece of furniture, like a cane altar, mounted on copper feet, is laden with meat, loaves, and alabaster cups. The carriers bring large jars hanging on ropes from poles. The musicians, standing, sitting, or walking, play the harp or cymbals, while the singers clap their hands in cadence.

These are scenes borrowed from real life, without the solemnity of religious ceremonies, but they may have a deeper ritual meaning. The king and queen drinking a festival cup may also be the high priest and priestess of Ur, human representatives of the lunar deities, while the sideboard easily becomes an altar. But the naïve charm of these banquets is far removed from the court style and the scenes of adoration of anthropomorphic gods, even if they were originally the models for such. The Sumerian banquet of wine with music marks a date and disappears at the time of the First Dynasty. The divine horned mitre is not yet in use and the decorative motive of combs, wreaths, and diadems is still purely floral.

The seals are evidently inspired by larger works of art like the inlay mosaic standard. In both are found the same scenes, with the same episodic composition and picturesque details, i.e. the seats, the scalloped skirts, the bird-like heads, the servants and musicians, the shepherd bringing a sheep by its head and tail, the kid-carrier and the goat-herd with stick and whip, the goats with spiral or curved horns, the war scenes and charioteers, and finally the hunting-scenes.

Next to the bald-headed, shaven Sumerian, we may note on the mosaic standard another type of servant—probably an Akkadian—with short hair and beard. But usually the human face as cut in lapis is a poor example of the engraver's art; it is reduced to a circle, with a round hole for an eye and a sharp pointed nose of the so-called bird-like type. It is true that lapis, being soft, makes the rendering of fine details difficult, but as a rule primitive artists are much better at drawing animal figures than at sketching human forms and especially human faces.

Hunting-scenes may occupy one register of the seal as a pendant to the banqueting scene and are the exclusive motive of many royal seals. Animals rampant, crossed, upturned, couchant, dominated by a spread eagle, or attacked by a standing or a kneeling hunter, are an echo of the naturalistic hunting-scenes of Elam but here transformed by the more conventional Sumerian art. In the land of Nimrod legend and history are one. The heroic hunter Gilgamesh and his companion the bull-man Enkidu are a rich epic subject, from which are derived the illustrations of many a seal. Enkidu is already represented holding the curious buckled shaft.

The art of hunting is not quite the same in Sumer and Elam. The Elamite hunter hunts with a pack of dogs; he uses the axe, spear, bow and arrows, and may be standing or kneeling; his common game are the lion, the ibex, the wild boar. The Sumerian hero fights at close quarters; he is an inhabitant of the plain and his weapons are a short mace, a curved club, an adze, a dagger, and a lance. He is represented as a young athlete with head in profile, beardless, and crowned with wild locks, very different from the bearded Gilgamesh of the legends.

Seals, standard, and engraved shell plaques are decorated with the same motives borrowed from one common repertory and style, such as lion, leopard, deer, bull, bison, goat, ibex, antelope, gazelle, snake and scorpion, hills and bushes with spear-like leaves or buds and star flowers, also found in Elam.

The spread eagle, not flying but arresting its quarry, is a classical figure of complete possession and triumphant power, which needs no commentary in a country always famous for hunting with hawks, falcons, and golden eagles.

The kneeling hunter is a rare and interesting figure. In Elam he is armed with bow and arrows, and his position with one knee on the ground is clear. On our seals he seems to catch the animal from behind by tail and leg and is perhaps armed with a dagger or a snare. This would explain another nude figure kneeling rope in hand behind a tame crouching bull. Above the bull a gate between a pair of wings is clearly an emblem of the park closing on the cattle, as the eagle on its prey; one end of the rope is attached to the gate, as if to secure it, a second rope is held by a seated goddess, mistress of flocks and herds. Corrals and nets to capture wild animals are the origin of the farmer's parks and pens.

The graceful species of ibex and goat could be easily distinguished from gazelles, antelopes, and mountain sheep if the artist had always taken care to adorn their chin with the characteristic beard. As it is, the identification is in many cases dubious, and the name 'antelope' is used for want of a better; the antelope (oryx) is at least remarkable for its straight long horns. The name 'bull' is here applied to the *primigenius* wild bull with spreading horns; 'bison' is reserved for the bearded species with crescent horns, from which is derived the fabulous animal with a belt and human attitude in Elam, the so-called man-headed bull of Sumer, the legitimate ancestor of the bull-man Enkidu. Neither the water-buffalo nor the Indian humped bull is yet pictured on the seals of this group. Whether the divine horned mitre is derived from the legendary bison is very dubious, despite a few rare Elamite examples.

All the animal figures in Elam are still true to animal forms even when they assume fabulous characters and play the part of men. In Sumer the mythological imagination which gives them human attitudes gives them also human hands, or hangs a false beard below the bull's nose. The man-headed bull and the scorpion-man point the way towards a world of legendary creatures, half beast, half man, which survive all through Babylonian history, but only as servants and emblems of the major gods. We are still far from the gods in human form, enthroned like kings and queens and worshipped in court style.

The harp—or rather lyre—is the chief musical instrument. The sounding-

box is in the shape of a crouching or even standing bull. The player may be seated or squatted behind his instrument, or march, while playing, behind the harp carried by two small boy-servants. Another small crescent-shaped harp has only four strings and is played standing. The cymbals are curved metal pieces in imitation of bull's horns, which the player strikes against each other. The flute is rarely represented, and is played only by a squatting monkey of Elamite legend. Clapping hands in cadence is the eternal business of the oriental choir.

The banquets, hunting-scenes, and symmetrical heraldic compositions proper to the Sumerian art of the time of Shub-ad are clearly and deeply cut, and their artistic value is above that of the First Dynasty of Ur.

GROUP B–B′

1. Geometric motives, 129–30; 202–5.
   Animal friezes, 131–4; 206.
   Bulls rampant, trees, hills, 207.
   Snakes, scorpions, 135.
   Spread eagle, 136.
2. Archaic nature mythology, horned mitres, 137.
   Dairy scene, 208.
3. Symposium, 138.
   Animal scenes in second register, 139–40, 210.
   Simple symposia, 141–2, 209.
4. Archaic hunters 143–7.
   Classical royal hunters, 148–52.
   Transition type, 168; 212–15.
   Seal of [. . *m*]*u-ni* [. . *pa*]*d-de*, 212.
   [. .]-*gig-gal* (?) [. .]-*ga* (?) *mes-anni-padda*, 213.
   mes-anni-padda lugal kiš^{ki} *dam-nu-gig*, 214.
   nin-tur nin, 215.
   Small scenes crowded in two registers, 165–7, 216–18.
   Seal of *nin-tur nin dam mes-an-ni-pad-da*, 216.
   arad ^{d}*bau*, 166.
   Hunters of more careless style, 153–64; 219–23.

4 *bis*. The Kish hero, Gilgamesh, full face; bison, bull, &c., 169–76; 224–7; 230–5; 239.
   Seal of *en-ki-en-du dub-sar*, 169.
   mu lugal-giš, 171.
   a-ni-ta, 224.
   lugal-tug dumu lugal-ab, 235.
   The water-buffalo, 177–82; 228; 236–8; 240.
   Seal of *en-ki-en-du dub-sar*, 177.
   ur-ḫur qa-ab-di ^{d}*innina*, 178.
   ur-gub-ba dumu lu-maḫ, 181.
   a-ḫar-ru-um, 236.
   a-^{d}*sin-dim qa-šu-gab*, 228.
   na-bi [-^{d}*sin*?] *ur-ba-ba dumu . . . . arad-zu*, 237.
   Gilgamesh in profile, coarse type, 183–6; 229; 241–52.
   Seal of *šag-il du-gab*, 241.
5. Ritual mythology. Seated deities with or without horned mitres; processions, introductions, offerings, &c., 187–91; 260–5.
   Seal of *nin-nin iskim*, 190.
   Symposium, tree, star, crescent, 192–4; 253.
   Procession bringing offerings, 254–5.
   Offering table, 254; 256–7.

Ledge altar, 258.
Holding arrow points, 259.
Palm tree and snakes, 266.
Winged gate and bull, 267.
Gods of vegetation, plough, ears of corn, 195–8; 268.
Seal of *en-men-an-na ur-si ni-gab arad-da-ni*, 198.
Judge-deities, 269–71.
Solar heroes, 199–201; 272–7.
Seal of *ur-dnidaba*, 200.
nig-ga-ra-ni (*?*) *dub-sar*, 201.
Enki and the bird-man, 278.

The symposia of Shub-ad have almost disappeared. The hunting-scenes are still popular but transformed to a new style by the appearance of a new hunter—the Kish hero, and of a new animal—the water-buffalo. The legendary heroes of the Elamite hills recede into the past; in the plains of Mesopotamia, rich in cereals and palm trees, the city States, from Kish to Ur, are growing stronger, and their shrines more important.

The change is visible on three documents of the First Dynasty of Ur: a seal of Nin-Tur-Nin, a seal impression with her name, and a seal impression with the name of Mes-anni-padda, her husband, and the first king of Ur according to the royal lists. But on this seal impression Mes-anni-padda bears the title of king, not of Ur, but of Kish. Thus art and history join hands to establish the northern influence of Kish.

The large and beautiful hunting-scenes on the royal seals of Shub-ad's time are reduced on the seal of Nin-Tur-Nin to small figures crowded into two registers, a late and poor imitation: the young beardless hero with head in profile is still represented fighting deer and antelopes, but the classical Gilgamesh seen full face and with three locks of hair and a formal beard becomes his partner.

The same Gilgamesh is seen on the seal impressions both of Nin-Tur-Nin and of Mes-anni-padda. But on the seal impression of the latter, the figure of the hunter-hero and some details of engraving throw a curious light on the new style of the Kish school. The young athlete with head in profile who catches the lion by the tail and strikes it with his dagger is no longer beardless. His chin is adorned with a long, perhaps an artificial beard, and his wild locks are bound with a diadem which suggests the flat cap of Kish.

The clear composition of figures no longer crossed but standing alone and the sculptural relief of the bodies belong to the northern school just as much as do the strongly cut clear signs of a still linear writing. The religious votary, the *dam-nu-gig* of Kish, may be Nin-Tur-Nin herself, high priestess of Ur.

The Kish hero, dressed in the approved Kish style, wears a flat cap, a long beard, his hair short on the neck, a belt, and an embroidered loin-cloth opening at the side. At the time of Me-Silim of Kish, a contemporary of Shub-ad, the loin-cloth was a long pleated kilt, opening in front below a sporran; one corner could be raised and tucked into the belt by heroes in action. Servants with short hair and beard and a loin-cloth figure on the mosaic standard of Ur and on engraved shell plaques. The long pleated garment with sporran is not represented on the seals or is reduced to a short loin-cloth leaving the knees

bare and opening at the side, as worn again by the soldiers of Sargon on the stela from Susa. From Me-Silim to Sargon soldiers use the remarkable Kish battle-axe, made of a curved handle of wood to which a crescent-shaped copper blade is attached by bands and rivets. Similar blades were found at Ur (Pl. 224, Type A 12).

Complete nudity is henceforth reserved to the legendary Gilgamesh who becomes a frequent figure. He is seen full face with three rows of locks and a formal beard; at times he wears a triple belt, as do the human-headed, bearded bison and Enkidu, who belong to the same mythological cycle. There is a coarser Gilgamesh with head always in profile and short, untidy hair and beard, who belongs to a secondary provincial type perhaps of the time of the Second Dynasty of Ur. It is remarkable that the nude Sumerian libator is now replaced by a priest dressed in linen robes.

The most striking changes appear in the ritual, in which the gods enthroned with sceptre and horned mitre copy the court style of their human representatives, the king-priests. The joyous banquets and symposia of Shub-ad —like the famous wine feasts of Belshazzar, and of king Ahasuerus—are no longer represented. The sideboard, the cane altar laden with food and drink, disappears, or rather is invested with more precise ritual meaning by a ledge altar of clay or bricks, or by a small offering-table placed before the deity. On it are piled similar pieces of meat, cakes, and cups; worshippers bring full jars and a kid; the golden drinking tubes are discarded; the servants become priests, menials of the god; the libator pours a thin trickle of water on green palms and bunches of dates in an hour-glass-shaped vase before the god. A procession approaches the throne, the suppliants raising their hands in prayer; an assistant goddess, a priestess(?), repeats their gesture at the back; there are a crescent and other emblems in the sky and in the field. The scene has become stereotyped and official. The dresses are an expression of station and rank, from the loin-cloth of the servant to the fringed shawl of the worshipper, the pleated linen skirts and robes of the assistants, and the royal woollen *kaunakes* of the god.

Mythology follows in the footsteps of ritual, and a few mythological groups are added to the hunting-scenes, such as the sun-god rising over the mountains, the goddess of vegetation bristling with ears of wheat and barley, the hero Etana raised to heaven on the pinions of an eagle. In these a nature philosophy finds its poetical expressions which develop into ritual, epic recitals, and works of art in the various temples of the land from Sippara to Eridu. The myths of light and vegetation occupy a prominent place in the seal scenery.

'Shamash, the young hero of light, opening the gates of dawn, rising at morn over the Persian hills armed with his golden saw, the divine archer who pierces with his golden arrows the powers of darkness, the mists, and the stormy clouds brooding over the mountains, who breaks the backs of his enemies or their clubs, pulls off their crowns and their beards, the triumphant warrior who passes at noon the tops of the stage towers, the great divider between day and night, the supreme judge from whom nothing is hidden', is illustrated under these different aspects on more than one seal.

Grain and dates are the wealth of Babylonia. Nidaba the goddess of wheat and Ashnan the god of barley are picturesque figures dressed in *kaunakes* or pleated linen, hoary with ears of corn or seated on stacks of grain. The first ears are carried by the priestess, and a ceremonial plough by the chief priest of cultivation. We see men gathering the fruit of the palm-tree (often mistaken for a scene of paradise). Palms and bunches of dates are placed in a vase as offering; the gods drink a cup of palm wine; a procession approaches a seated figure, which takes its meaning from a palm-tree in the field. The crescent marks the beginning of the month and a star emblem may denote harvest time.

A rare seal shows the shepherd, whip in hand, leading his sheep and goats out of the pen; he is often followed by his dog. Strainers, pots and jars for storing cream and milk, and twelve round cheeses arranged on a wattle, complete the picture of a well-kept dairy.

SECOND DYNASTY OF UR

Archaic mythology. Libator. Spread eagle, 284.
Indian flat seal, 285.
Symposium. Second register has animal figures, 286.
Archaic hunting-scene, 287.
Seal of *sa-ad-pad-da arad* . . . . ., 287.
Secondary group. Crossed animals, 288.
Gilgamesh. Coarse type, 289–90.
Seated deity—with or without horned mitre—and worshippers, 291–4.

GROUP C–C′

1. Animal frieze, 298, 369.
   Indian seals, 367, 371, 372.
3. Symposium, 299.
4. Archaic hunter, 300.
   Classical royal hunter, 301.
   Secondary type of hunter, 302–5.
   Small figures in two registers, 306.

4 *bis*. Kish hero. Gilgamesh in profile, &c., 307–12.
   Seal of *ad-da pa-e en-ḫe-du-an-na*, 307.
   Seal impression of *en-ḫe-du-an-na dumu sarrugi* ^{d}*igi-du . . . dumu-ni*, 308.
   Seal impression of *en-ḫe-du-an-na dumu sarrugi* [. . .] *ki-ku-dug* [*dub*]*-sar* [*arad*]*-ni*, 309.
   Seal of *lugal-šag-sud dumu inim-ma*, 311.
   Kish hero. Gilgamesh seen full face, 313–16. Enkidu and Gilgamesh, 314.
   Seal of *ur-*^{d}*giš-*[*gi*]*bil-ga-meš dubsar*, 315.
   ur-^{d}*ka-di*, 316.
   The water-buffalo, 309, 317–21; 372–6.
   Seal of *adda ni-gab*, 317.
   gimil-ilišu sangu ^{d}*giš-ban*, 318.
   ur-igi-gal, 320.
   Gilgamesh in profile. Coarse type, 321–31; 379–82.
   Seal of *lugal-dug-ga dumu ud-da*, 379.
   nam(?)-bi . . . mu-^{d}*nannar dumu lugal-šu-ga . . .*, 381.
   Enkidu and a seated god, 332.
5. Ritual mythology. Seated gods. Processions.
   Two registers of figures, 333.
   Two seated at a symposium, 340.
   Goddess of vegetation, 341–6; 383. Bucket carriers, 348–9.

Seated goddess, 383–8.
Seal of *nin-^{d}igi . . .*, 384.
Bau and the goose, 386, 387.
Seal of *amat-um dumu um-ma-lu-na*, 386.
igi-^{d}lu-ab uku-uš lugal dumu zi-ku-li, 387.
Seated god.
Seal of *qišum qa-šu-gab*, 350.
Innina-Ishtar, 351.
Deity holding a club, 351–2.
Nidaba, 354–5.
Seal of *en-^{d}ki-da*, 354.
Winged dragon, 388.
Amorite idol, 389.
Crescent on pole, 390.
Palm and dates in a vase, 391.
Solar heroes, 356, 393–4.
Divine archer and Ishtar, 357, 359.
Hero with overflowing bottle, 360.
Divine bird and solar hero, 394.
Shamash stepping between gates, 361–3.
Seated or standing Shamash, 365, 366.
The three gods, Enki and Shamash, of two types, 364.

Sargon, founder of Agade and king of Kish, was the representative of the northern power of a largely Semitic city-state; he was master of Sumer and Akkad and his empire extended from the Taurus to the Persian Gulf. His own daughter, Enḫedu-anna, was high priestess of the Moon God at Ur, and naturally brought with her the style and the fashion of Kish. On a circular alabaster disk found in the court of the temple of Ningal she is represented presiding over a libation poured by a priest in front of a stepped pyramid. The scene belongs to the old Sumerian ritual but contains some new Akkadian notes. The shorn priest—no longer naked—holds the traditional spouted jug by its foot over a vase shaped like an hour-glass. The priestess wears a long robe of fleecy *kaunakes* instead of the shawl formerly thrown over one shoulder. Her hair hangs down her back, but three braids in the best Kish style play along her cheek and rest on her breast. Instead of the gold bands, gold combs, and gold crowns with flowers and rings of queen Shub-ad, she wears a simple scarf wound like a diadem about her hair, a mode which continued for many centuries. The stepped pyramid is a forerunner of the great stage tower erected centuries later by Ur-Nammu.

The whole composition has a simplicity and elegance which are the proper mark of the Sargonid style. Each figure is drawn separately with a complete value of its own on an open field, but is connected by gesture and attitude with a single religious action. The proportions are natural and lack the clumsiness of some of the later Gudea statues. We are far from the old mosaic standard and its Sumerian pageant with many figures crossed and crowding each other, but wonderfully alive and rich in detail. The new ideal of the gem-cutter, borrowed from the sculptor, is a few figures in strong relief.

The same Kish style, the same Kish hero and water-buffalo, are found again on three historical documents, one seal, and one seal impression of the servants of Enḫedu-anna, daughter of Sargon, and the seal of Adda, her

major-domo. All three help to fix the level of the cemetery and the style of art of the Sargonid period.

The heroic contest with wild animals survives but is transformed by the new ideal which avoids the crowding and crossing of figures. The heroes Gilgamesh and Enkidu are generally represented full face and have acquired a classical value. Their partner, the Kish hero, is a definite index of the time. The choice of animals betrays the inhabitant of the plain, unfamiliar with the Elamite hills. The figure of the bear—always rare—disappears entirely, as do those of the leopard and the spotted deer. Mountain sheep, goats, and ibexes are seldom represented, and then on a diminutive scale, while next to the legendary bison the water-buffalo grows daily more prominent. The human-headed bull vanishes, or is replaced by Enkidu seen full face; the old Enkidu used to fight the lion, the deer, and the bison, but the new Enkidu is always opposed to the lion alone.

The gods in court style now become the rule. The person of the god grows in importance with his city and shrine. Ashnan, Nidaba, Bau, Innina-Ishtar, Utu-Shamash, Nannar, Enki, are identified by names and attributes, and solar heroes and gods of vegetation reveal the religious nature-philosophy of the land. A few seals representing a winged dragon and an idol—or a libator—on a pedestal, may show Amorite influence and belong to a more recent period when Amorite rule succeeded the old Akkadian empire of Sargon.

The Indian seals found in the cemetery have been attributed to the Sargonid period, or to the Second Dynasty of Ur, which is contemporary with the former. They have been studied by C. J. Gadd—'Seals of Ancient Indian Style found at Ur', *Proceedings of the British Academy*, vol. xviii, 1933. One seal, No. 9, discovered in grave PG/791 is clearly dated by external evidence to the time of Shub-ad. The use of the Ancient Indian script and commercial relations between Mesopotamia and the Indus valley would accordingly go back to that early date.

The seals from the Royal Cemetery are only a portion of the whole collection of seals from Ur, but thanks to well-dated levels they furnish reliable material for a study of art and religion from the early days of Sumerian culture to the supremacy of Kish, and the Akkadian power in the north in the time of Sargon. They can claim age, beauty, and historical interest.

THE SEALS OF THE ROYAL CEMETERY AT UR

A. SEALS DATED BY EXTERNAL EVIDENCE TO THE EARLIER PART OF THE ROYAL CEMETERY PERIOD

1. Geometrical pattern. Zigzags. Two registers.
Lapis cyl., barrel shaped. 13×7 mm. U. 11110, with 11107, 11112. PG/861.

2. Idem. Chevrons and squares. Alternate deep cut and thin lines. Three registers.
Lapis cyl. 44×9 mm. U. 12658. PG/1374.

3. Idem. Squares, dots, cross-lines, chevrons form a woven pattern. Two registers.
Shell cyl. 51×8 mm. U. 12675, with 12674. PG/1382.

4. Frieze of water-birds.
Steatite cyl. 15×6 mm. U. 11182, with 11181. PG/791.

5. Frieze of crouching antelopes. Simple or double curved horns suggest two species. Two registers.
Lapis cyl. 34×5 mm. U. 12711. PG/1412.

6. Frieze of antelopes passant. They are opposed head to head in two registers. Double curved horns.
Shell (?) cyl. burnt. l. 53 mm. U. 8388. PG/227.

7. Frieze of animals. Two registers. Above, a spread eagle seizes two crouching ibexes. He has palm-like wings, and a lion's head seen full face. Below are two antelopes passant. An ear of barley suggests pasture land.
Lapis cyl. 39×13 mm. U. 12704 (F) with 12704 (G). PG/1403.

8. Wild animals and hunter. Two registers. Above, a hunter strikes from behind a lion attacking three goats who are in great confusion; one is rampant, two have fallen head first to the ground. Below, two crossed lions attack an ibex rampant, and a fallen goat. Between them a scorpion.
Crystal cyl. 31×13 mm. U. 8714. PG/362.

9. A scorpion and a sign of writing. This flat rectangular seal is probably of Indian origin. Cf. C. J. Gadd, *Seals of Ancient Indian style at Ur*, No. 11.
Steatite stamp. 14×11 mm. U. 11181, with 11182. PG/791.

10. Gold-foil bearing the impression of a cyl. seal found in the grave of Queen Shub-ad, near a decayed wooden chest—the wardrobe? Faint traces of ibexes among hills and bushes, of a spread eagle with a lion's head, and perhaps of an inscription are still visible. The Elamite style of the heraldic group, the imbricated hills, and the leaves in form of spear-heads is combined with the lion-headed eagle of good Sumerian tradition.
Ht. 40 mm. U. 10444. PG/800.

11. Gold-foil fragment with the impression of a second seal found with the above fragment in the grave of Shub-ad. There are traces of bulls rampant among hills and bushes of Elamite style, revealed especially in the leaves in form of spear-heads. The heavy tails of the bulls are seen again on another seal, U. 8169, No. 133.
Ht. 42 mm. U. 10444 A. PG/800.

12. Archaic nature mythology. Two registers full of figures of Elamite style. Here again is the same bush-covered hill with two bisons crouching on either side, touching it with a raised foreleg. Two strange monsters stand over them and attack them with beak and claws; one is the lion-headed eagle, the other the winged lion, the dragon. A stag crouches on the hills among high grass and star-flowers.

In the lower register the same hill, but this time it is covered with rich vegetation of vine, pomegranate, or fig-tree. There is a bird in the upper branches, and a squatting monkey plays the flute below. A bull crouches before the mystic hill, and is attacked by a lion standing over him, while a human-headed lion, strangely bearded, faces a goat rampant. A bird-man carries a branch, probably broken from the sacred tree. In the field above are a star, and a perfect picture of the old Sumerian plough; the central shaft above the share may be a seed-feeder.

This is the pure fable-land of Elamite tradition, rich in composite monsters, where animals play the part of men and the human figure is entirely missing. The fabulous character of these animals is already well established. There is the bison, bearded and seen full face, which becomes the human-headed bull; the lion-headed eagle which plays a prominent part in Sumerian heraldry; the winged dragon for centuries more the emblem of Enlil, the great Sumerian god of the heavens; the Zu-bird, the robber, the subject of many early Sumerian tales, which is finally caught and brought to judgement before Shamash or Enki; the monkey musician—also found on other seal impressions—belongs to that animal legend so richly illustrated on the royal harps. The astral character of the plough, the star and the crescent, shows the first efforts in the direction of the most prominent Babylonian science.
Lapis cyl. 36×23 mm. U. 11734. PG/1054.

13. Harvesting of dates and ritual feast, in two registers. A seated lady and her two servants. She is seated, cup in hand, a large vase filled with branches and bunches of dates placed before her. All have the archaic profile resembling a bird's head, and the old Sumerian scalloped skirt, of woollen material, called *kaunakes* from the name preserved by Greek tradition. A part of the offerings, which looks like a pile of sticks, is placed at the foot of the vase. The same detail may be observed on the stela of the vultures in connexion with funeral ritual; and on a limestone relief from Ur—U. 6831—where a nude priest pours a libation before the gate of a shrine. One of the servants brings more dates, and a cup. There is a crescent on high.

In the second register the plucking of dates and the storing of the fruits in jars is very realistic. There is no need to transform the simple picture into a scene in paradise, or the artificial fertilization of the palm tree.

Calcite (?) cyl. l. 39 mm. U. 10323. PG/822.

14. Ritual symposium. Man and woman with servants. They sit and drink through long pipes. A palm-tree suggests dates and palm wine. Archaic heads and skirts.

Lapis cyl. 28×15 mm. U. 12427. PG/1237.

15. Ritual symposium. Man and woman with male and female servants. The seated lady has a cup in her hand, her partner a round bottle. The women have their hair tied in a roll, and a shawl covering one shoulder, the males wear short skirts. The heads are better drawn than usual. A third servant holds a fan or a branch.

Lapis cyl. 16×9 mm. U. 11871. PG/1163.

16. The first seal of Queen Shub-ad, which has given her name inscribed in linear characters. The scene is a banquet and a symposium, in two registers. In the upper one the queen, attended by two female servants, raises a fluted gold tumbler, which the servant has filled from a silver jug. She sits on an elegant throne reinforced by straight rungs. Her male partner, cup in hand, seated on a similar throne between two servants, one holding a jug, the other a fan and a fly-whisk, may perhaps be the king-priest. His hair is short, the servants are shaven, the queen and her maids wear their hair tied in a roll. The males have short skirts, the females a shawl covering one shoulder.

In the second register a remarkable sideboard is loaded with flat pieces of bread, a leg of lamb, and a jar of wine. It is reinforced by cross-pieces, and rests on four bull's legs, probably of copper. It is like the cane altar carried by the dog-butcher on the shell reliefs decorating the king's harp. One servant attends to the sideboard and three to the two male guests seated cup in hand. All wear the Sumerian scalloped skirts, and have the archaic bird-like heads.

Lapis cyl. 48×25 mm. U. 10939. PG/800.

17. Second seal of Queen Shub-ad. Symposium and banqueting scene in two registers. Above, the queen and her partner are drinking through curved pipes from a jar placed on a stand between them. The two straight pipes perhaps admit air into the sealed jar. A guest is seated, cup in hand, attended by one servant.

Below, queen and king, cup in hand, are seated on either side of the cane board loaded with wine, bread, and meat. One servant attends to the board, one brings a spouted jar to the king. The maid helps the queen to her cup. Same style of heads, hair, shawls, skirts, and throne as above.

Lapis cyl. 44×23 mm. U. 10871. PG/800.

18. Third seal of Queen Shub-ad. The queen and friends at a banquet of wine with music. Two registers. Above, the queen and friend are seated cup in hand on elegant thrones. Three maids attend to them. One carries a fan, and a small jar with rope handle.

Below, the queen—or a female friend—sits alone by a board loaded with food and drink. She has called for her maids, her harp-player, and her two singers. One maid attends to the queen, one to the board, one brings a jar hanging from a rope and a cup. The player stands to play on a small semicircular harp with four strings and a round knob, found again on a seal impression in the hands of an animal musician. The singers clap their hands in cadence. Heads, hair, shawls, skirts, and seats as above.

Lapis cyl. 44×23 mm. U. 10872. PG/800.

19. The seal of *A-BAR-GI*. Found in Shub-ad's grave—perhaps a son? Banqueting scene in two registers. Above, the queen, attended by her maids, is facing a couple of guests—man and woman, a maid attending on the last. All raise a cup, but their different seats may mark a difference in rank.

The scene is repeated in the lower register where the three drinkers sit on either side of a board loaded with food. Same style of heads, hair, shawls, and skirts as above.

Lapis cyl. 40×25 mm. U. 10448a. PG/800.

20. Symposium. Two registers. All seated figures. Above, a man and a woman drinking through pipes from a jar on a stand. Extra tube in the neck of the jar. A guest raises a cup.

Below, the jar is resting on a high tripod, like an offering-table. There are four pipes in the jar, two used by the drinkers. Two guests raise their hands, holding a cup (?). Heads, dress, and seats of usual archaic style.

Lapis cyl. 30×12 mm. U. 14319. PG/1750.

21. Gold cylinder seal, made of foil on a core. Banqueting scene with music. Two registers. A man and a woman attended by servants are seated, cup in hand, on either side of a board loaded with loaves and jars. The 'quartet' below consists of one harp-player, two cymbalists, and one singer clapping hands in cadence. The harp-player—a man—is not standing or squatting, but seated behind his harp, the sounding-box of which is not only decorated with a bull's head, but is shaped like the standing animal. It has five strings; the keys attached at an angle to the upper bar probably turned in metal tubes; string fastens their upper end. The cymbals are horn-like curved pieces and may have been originally bull's horns; they are seen again in the hands of a woman on the Kish inlaid plaques. The scorpion-man and the kid on the shell relief of the royal harp hold flat blades. Horn-like flat copper blades, found at Fara—now in Pennsylvania University Museum—measure 35×4 cm. at the larger end.

Gold cyl. 40×17 mm. U. 11904. PG/1054.

22. The seal of *dumu-kisal*. Symposium with music. Two registers. The high-priestess (?) attended by one maid sits apart, cup in hand. Two men drink through pipes from a jar set on a stand and containing three extra pipes or air tubes. Bird heads and scalloped skirts as usual. The more elegant seat may mark the better rank. The female choir below, led by one man, staff in hand, consists of one harp-player, two cymbalists, and three singers clapping their hands. The cymbals have the horn-like shape. The five-string harp, of the type noted before, has a sounding-box shaped like a standing bull and is carried by two boys, each with an arm round its legs. Heads, hair, and shawls of archaic style.

Lapis cyl. 41×17 mm. U. 12374. PG/1237, body 7.

23. Man and woman seated at a banquet of wine, attended by one servant. The man raises a cup. The woman drinks through a tube from a jar set on a stand containing two extra pipes. Their seats are different. The sideboard below is richly loaded with legs of lamb, loaves, or jars. Two servants bring in a heavy jar swinging from a pole across their shoulders. A solid rope—or net—is tied around the jar. The crossed sticks above may be a stand. The same jar carriers are shown on a seal from Fara—VAB. 6576—but are replaced by animal carriers on a Persian seal—Herzfeld, *Mittl.*, March 1933, pp. 75–6.

Lapis cyl. 38×12 mm. U. 12387. PG/1237.

24. Man and woman, attended by one servant, are seated at a banquet of wine drinking through curved pipes from a jar set on a stand and containing two extra pipes. Seats are simple. Cups and flat cakes are piled on the sideboard below, near which a servant stands. Two others bring a jar swinging by a rope from a pole across their shoulders.

Limest. cyl. 32½×15 mm. U. 13499.

25. Man and woman attended by three servants are seated at a banquet of wine. She raises a cup while he drinks through a pipe from a jar set on a stand and containing two extra pipes, of which the central one looks like a sprouting twig. The man seated below is approached by a servant holding a spouted jug. A second draws wine in a dipper from a big jar on a stand to fill a tumbler. The butler stands by a sideboard loaded with cups and bread.

Calcite cyl. 36×16 mm. U. 14443. PG/1774.

26. Banquet and symposium. Two registers. Two men seated cup in hand. One servant, one sideboard with cups and loaves. Below, a woman raises a cup, while the two men drink through pipes from a jar set on a stand and containing two extra pipes and a central rod. Careless drawing.

Lapis cyl. 38×14 mm. U. 8119. PG/156.

27. Banquet of wine. Two registers. Above, three seated men—one holding a cup—and three servants. Same scene below. One servant holds his hand wide open, while one seated man seems about to take the leg of lamb from the sideboard on which flat cakes are piled.

Lapis cyl. l. 39 mm. U. 8615. PG/337.

28. Banquet of wine. Two registers. Above, two seated men, attended by two servants, raise a cup to their lips. Below, two women are seated cup in hand on either side of the loaded board by which stands a butler. A single tree suggests an orchard.

Lapis cyl. 40×13 mm. U. 11774, with 11773. PG/1130.

29. Banquet of wine. Two registers. Four seated figures, two raising a cup, two—a man and a woman—drinking through pipes from a jar set on a stand and containing two extra pipes. Same group of pipe drinkers below, and only one guest. A butler near the sideboard piled up with cakes and a leg of lamb.

Lapis cyl. l. 38 mm. U. 10823. PG/789.

30. Banquet of wine. Two registers. Seated man and woman, cup in hand, attended by two servants.

Same scene below, but only one servant standing by the board, on which are piled loaves, cups, and a string of fruit (pomegranates?). Thrones of three different types.

Lapis cyl. 39×14 mm. U. 12258. PG/1315.

31. Banquet of wine. Two registers. Man and woman drinking from cups; a servant and a male guest. Below, three pipe drinkers are drinking from two jars, the bigger of which has two extra pipes, the small one only one and a central rod.

Shell cyl. l. 32 mm. U. 12433. PG/1332.

32. Seal of *dEn-ša(g)-gan*. Banquet of wine with music (?). Two registers. Above, a seated man and a woman drinking from cups. Two servants. Below, a procession of four approach a seated man. Two are facing and clap their hands, while singing. One stands behind the throne.

Shell cyl. 29×13 mm. U. 12330. PG/1236.

33. Symposium and contest of wild animals. Two registers. Above, a man and a woman drinking through pipes from a jar set on a stand and containing two extra pipes. A male guest, cup in hand, is attended by a maid. The lower scene is our first example of a popular motive. Two lions crossed and rampant attack two bulls, which a nude hunter tries to protect. This is still the archaic hunter, with bird-like head. A second group of lions fills the field.

Lapis cyl. 36×15 mm. U. 12256. PG/1312.

34. Banquet of wine and pastoral scene. Two registers. Three seated guests and two servants, pipes in a jar on stand, and sideboard loaded with jars; meat and loaves as usual. Bird-like heads, and scalloped skirts of archaic style. Below, two bulls (?) crouch in the midst of bushes and high grass. One is being attacked by a lion, which the cowherd catches by the tail and strikes in the neck. A servant attends to a seated person, the master of the herd. Scorpions in the field.

Quartzite cyl. 44×23 mm. U. 8085. PG/37.

35. Banquet of wine and heraldic group. Two registers. Man and woman seated, cup in hand, attended by a servant and a maid. A spread eagle with a lion head seen full face and palm-like wings in the Sumerian style seizes two crouching antelopes (goats?).

Lapis cyl. 35×13 mm. U. 11773, with 11774. PG/1130.

36. Hunting scene and symposium. Two registers. Two lions crossed and rampant attack three hairy goats, one of which has fallen to the ground. Two hunters, one nude and kneeling, the other wearing the scalloped skirt, try to catch the goats. There are a scorpion, two snakes (?), and a dagger in the field. The kneeling hunter is close to the Elamite tradition. Three seated figures, attended by two servants, drink through a pipe from a jar or raise a cup. Simple sideboard with two small jars.

Lapis cyl. 34×19 mm. U. 10822. PG/789.

37. Symposium and heraldic group. Two registers. Two drinkers seated pipe in hand on either side of a jar on a stand. Spread eagle with lion's head seizing two crouching goats.

Lapis cyl. 35×10 mm. U. 14041. PG/1625.

38. Banquet of wine and hunting scene. Two registers. Man and woman attended by one servant are seated cup in hand. Their seats are different. Sideboard loaded with cakes, cups, and leg of lamb. A lion attacks a bull (?). He is crossed with two antelopes, one above, one below. A kneeling hunter catches another antelope (?).

Shell cyl. l. 42 mm. U. 8643. PG/357.

39. Banquet of wine and contest of animals. Two registers. Three women are seated cup in hand. A maid stands by a board loaded with more cups. Two crossed lions attack a herd of antelopes (goats?) and put them to flight. They are jumping, kneeling, and running with head turned.

Lapis cyl. 45×20 mm. U. 12380. PG/1237.

40. Symposium reduced to two seated archaic figures, two pipes, one jar on a stand. Extra pipe in the middle. One scorpion in the field.

White calcite cyl. l. 20 mm. U. 12371. PG/1237.

41. Crossed lions rampant. Small groups of crossed animals and seated figures; worn and indistinct.

Shell cyl. 29×14 mm. U. 14087. PG/1646.

42. Archaic scene, divided by double lines into two compartments. A man seated (?) staff in hand holds a bull by the horn. The bull is reduced to a triangular head and horns. A scutcheon-like wattled panel replaces its body. The man may be standing behind a reed enclosure and net —perhaps a byre and gate? This is the oldest version of 'taming the bull'—interpreted later as 'the crouching bull below the winged gate'. The next compartment has two more scutcheon-like panels below six mole-hills with markings hard to interpret.

Shell cyl. 28×17 mm. U. 8575. PG/313.

43. Hunting scene. Two nude hunters form a chain between goats (ibexes?) rampant. One has a bird-head profile. The second, full face, with crossed lines marking the eyes—and dots round the neck—is a first attempt at the Gilgamesh type. In the field, adze, dagger, and scorpions are symbols of catch and strike.
Lapis cyl. l. 30 mm. U. 12448. PG/1238.

44. Hunting scene. An antelope—or goat—falls head first between two lions which bite it in the hind-quarters. A nude hunter catches a lion by the tail and strikes it in the neck. There is a second goat (?) rampant.
Calcite cyl. 34×17 mm. U. 11528. PG/1054.

45. Hunting scene. Two nude hunters, one in profile, one full face, lift a lion (?) by tail and hind leg. One steps on the upturned head. Three more animals: leopard (?), goat, bull, crossed and rampant. In the field, a few lines perhaps represent a snake and a dagger.
Shell cyl. 37×19 mm. U. 14327. PG/1753.

46. Heroic hunters and rampant animals. One nude hero, full face, stands between two antelopes (goats?) attacked by two hunters whose heads in profile are crowned with wild locks, an improvement on the archaic bird-like type. His own head is decorated with bull's horns—usually an attribute of Enkidu and the origin of the divine mitre. Enkidu himself, the bull-man, with horns and long floating hair, holds a curious emblem, an elongated triangle with a dot, on a knotted stem, a compromise between a palm-tree and a scorpion. Is it an instrument or a post, the predecessor of the buckled shaft with handle at the top? A last nude hunter with head in profile attacks a leopard (?). In the field are a crescent, two crosses, and one small goat.
Shell cyl. 37×25 mm. U. 12707 (D) with 12707 (E). PG/1407.

47. Groups of crossed bulls and lions and nude hunters. Their heads are still of the bird-like type, with locks—or horns. They wear twin coiled belts.
Lapis cyl. l. 30 mm. U. 8228. PG/165.

48. Crossed lions attacking bulls rampant. Snake and scorpion in the field.
Green calcite cyl. (?). l. 40 mm. U. 8389. PG/227.

49. Crossed lions attacking ibexes. A tree.
Shell cyl. 25×14 mm. U. 8056. PG/69.

50. Animals rampant: bull, lion, leopard. . . .
Limest. cyl. 35×22 mm. U. 8056 *bis*. PG/69.

51. Crossed lions rampant attacking a bull and a deer. Nude hunter. Star sign between the lions.
Limest. cyl. 39×23 mm. U. 14013. PG/1627.

52. Crossed lions and gazelles. Palm-tree.
Blue and white marble cyl. 23×12 mm. U. 9878. PG/736.

53. Crossed lions and antelopes. Crescent.
Lapis cyl. 16×20 mm. U. 12720. PG/1420.

54. The seal of *ḫa-^{d}gig-*[*u-^{d}im?*], opens the series of royal seals. Heroic hunting and war scene. Two registers. The war scene directly borrowed from the famous mosaic standard may help to identify the owner of the seal. He is probably the king buried in the four-room grave where the standard was found. Both have the same four-wheel chariot and team of asses, the same details of wheels, curved pole, rein-rings surmounted by a mascot, splashboard, quiver, driver, and spear man, the fleece hanging from the collar of the animals, even the nude enemy prostrate on the ground. The same Sumerian soldiers with spear, adze, helmet, flounced skirt and shawl, drive the same stripped prisoner with hands bound behind his back. This is the royal triumph. More weapons are planted in the ground behind the chariot.
Above, the nude hero, full face, stands between two lions crossed with a stag and a bull. He has profuse locks of hair—in royal style—but no beard. The chain of four crossed lions intertwined is a new and bold motive. It is found again on the seal of Mes-anni-padda transformed into a chain of four armed men each catching the other's foot.
Shell cyl. 43×26 mm. U. 12461. PG/1236. Chamber D.

55. The seal of *mes-kalam-dug lugal*, the king of the gold helmet. Two crossed lions attack two bulls. Enkidu and a nude hunter in profile take part in the fight. Both are probably armed with daggers. There is a small nude hunter, full face with wild locks, below the cartouche. In the field a scorpion and a goat. The arched neck of the lions and the imbricated manes are in good royal style.
Shell cyl. 48×31 mm., with lapis core, d. 13 mm. U. 11751. PG/1054.

ERRATUM

PAGE 340. Cylinder seal No. **55.**

The description 'the king of the gold helmet' is incorrect; Mes-kalam-dug the king is not the same person as the Mes-kalam-dug buried in Grave PG/755.

56. Gold-foil remounted on a bitumen core. Crossed lions attacking an ibex and a bull. Horns, beard, and mane are carefully drawn. Two nude full-face hunters fighting bulls have the locks of hair and beard of Gilgamesh as an advance on the beardless hunter. Archaic tree with lance-shaped leaves or buds. There is probably a gap between the group of hunters and lions.
Gold cyl. on a core. 42×37 mm. U. 12457. PG/1236. Chamber C.

57. The seal of *dšara-bar-a dub-sar nin*, the scribe of the queen, perhaps Shub-ad. Three crossed lions attack a bull and an ibex. They bite the ibex in the hind-quarters, and the bull in the neck, a point showing good observation from nature on the part of the artist. All the figures are in the best royal style. The nude hunter pulls one lion by the tail and strikes it in the neck with his dagger. His young head in profile, crowned with wild locks, is finely modelled. Detail of cheeks, eyes, nose, lips, and chin are better than usual, as are the lions' heads seen from above. There are also small groups of animals, and below the cartouche, two crossed bison—the human-headed bulls—and a leopard and a lion attacking an ibex and a deer.
Shell cyl. 51×36 mm. U. 9943. PG/743.

58. Royal hunt. Two crossed lions and a leopard attack a bison and a bull. A nude hunter, curved club and dagger in hands, strikes at the leopard. He wears his locks tied with a band, and perhaps a beard below the chin (an unusual trait). In the field are a jumping ibex, a gazelle, a scorpion, a quiver full of arrows (?) or a torch, and a pictograph (?).
Shell cyl. 42×31 mm. U. 7992. PG/43.

59. Crossed lions attacking an upturned ibex and a bison. A nude hunter lifts a spotted deer—or perhaps a leopard—by the hind legs. Head in profile, beardless, and crowned with hair.
Shell cyl. 45×23 mm. U. 8141. PG/160.

60. Seal of *dgig-lu-lugal*, the king. The two lions biting an upturned ibex are of true royal style. They are crossed with a leopard. Small groups besides, and below the cartouche two crossed bulls, and a nude hunter, head in profile, long hair and no beard, lifting by the hind legs two lions caught in a net. Cf. the net on the Mycenae gold cups.
Shell cyl. 45×27 mm. U. 8513. PG/261.

61. The bison and the net.
Shell cyl. l. 14 mm. U. 11178. PG/779.

62. Three crossed lions attacking a wild goat and a bison. Same royal style. The nude hunter has caught the bison by the tail. His beardless head, seen full face, is framed by wild locks. In the field a snake, a scorpion, a dagger, and a gazelle's head.
Shell cyl. 17×10 mm. U. 11175 (B). PG/779.

63. The seal of *lugal-ša[g]-pad-da*, found in the tomb of Queen Shub-ad. He is probably a royal person. Two crossed lions attack an upturned ibex and a deer, while the nude hunter, dagger in hand, catches the deer by the antlers. His beardless profile head with wild locks is modelled in true royal style. A scorpion.
Shell cyl. 30×15 mm. U. 10530. PG/800.

64. The seal of *e-zi-da*. Same royal style. Two lions attack an upturned wild goat with spiral horns; they are crossed with an ibex. Also, below the cartouche, Enkidu holding a buckled shaft and an upturned lion.
Shell cyl. 37×20 mm. U. 11174. PG/779.

65. The seal of *a-kalam-dug lugal-uri a-šu-silig-an dam-ni*. A-kalam-dug is king of Ur, A-shu-silig-an his wife. Three crossed lions of royal style attack an upturned ibex and a bull. On the impression the lines of the inscription run towards the right, contrary to the usual order. They were probably added to the original seal as a dedication.
Lapis cyl. 35×19 mm. U. 11825. PG/1050.

66. Groups of nude hunters, and animals rampant but not crossed. Lion and bull, with a small eagle perched on its tail. Bearded nude hunter and spotted deer. Ibex (?) attacked by Enkidu and a leopard.
Lapis cyl. 35×25 mm. U. 12707 (E), with 12707 (D). PG/1407.

67. Three lions attack a bison, a stag, and a spotted deer. A star and a crescent with central dot.
Lapis cyl. 25½×15 mm. U. 12674, with 12675. PG/1382.

68. Crossed lions and bulls. Scorpion, star, crescent with dot.
Lapis cyl. 29×12½ mm. U. 12704 (G), with 12704 (F), PG/1403.

69. Enkidu between antelopes and lions or a leopard? A cartouche with a star flower and two frogs.
Lapis cyl. 24×11 mm. U. 11554. PG/1068.

70. Hunters and animals rampant. Small groups in two registers. Usual lions, leopard, bulls, ibexes, nude hunters in profile, with or without hair. Three dots.
Lapis cyl. 34×16½ mm. U. 12654. PG/1374.

71. Hunters and animals rampant. Small groups in two registers. Usual lions, bulls, antelopes, ibexes, nude hunter in profile, armed with spear or dagger.
Lapis cyl. 34×14 mm. U. 11938. PG/1178.

72. Hunters and animals rampant. Small groups in two registers. Usual lions, bulls, goats, ibexes, beardless nude hunters in profile. In the upper register is a curious group of antelopes fighting. One has fallen head down to the ground, the second has its head doubled against the body, the horns pointing towards the hunter. A table with crossed legs, a dot, and a bird in the field.
Lapis cyl. l. 35 mm. U. 12413. PG/1227.

73. Two bison, one attacked by a nude beardless hunter with wild locks, the second by a nude bearded Gilgamesh seen full face. Enkidu and a lion attack an antelope (or goat?). A snake and a scorpion.
Lapis cyl. 22×15½ mm. U. 11112, with 11110, 11107. PG/861.

74. Nude hunter between two antelopes attacked by two lions. His beardless head in profile is crowned with locks. Enkidu with an ibex.
Lapis cyl. 20×11 mm. U. 12701 (E), with 12701 (F). PG/1400.

75. Same nude hunter between antelopes and lions. Enkidu and a stag.
Shell cyl. 25×15 mm. U. 10708. PG/895.

76. The seal of *e-zid dub-sar*, the scribe. Shamash with arrow-shaped rays springing from his shoulders introduces his fighting servants to a god seated on tree-covered mountains—perhaps Enlil. All wear horned mitres. This is ritual mythology, and a departure from the previous style of hunters and animals. Gods in human form emulate the royal style of formal introduction scene. Ranks are marked by thrones, attributes, and a gradation of dresses from the royal shawl of *kaunakes* to the fringed shawl and the simple skirt or the loin-cloth. The horns become the exclusive attribute of divinity—or kings worshipped as gods. There are families of gods on the model of royal houses. Their palaces, the great sanctuaries of the Sumerian cities, have a large retinue of servant priests, lands, and cattle. King and queen, the earthly representatives of the gods, are high priest and priestess. This new style betrays so marked a religious and social evolution that it may well be traced to a growing racial influence from the north. Kish, the first organized kingdom after the Flood, always had a larger proportion of pre-Akkadian Semites than the south.

Shamash and Enlil wear fringed shawls covering one shoulder; the introduced person wears only a short skirt of *kaunakes* to the knee, the two servants wear theirs to the ankle. All are stripped and ready for action and carry the curved club with metal blade, an ancient Kish weapon. It is carried over the shoulder by the noble leader introduced to the god, and head down by his followers. The leader may be a king-priest and the scene a royal investiture. In the field is a three-pronged fork not unlike the war caduceus of Ishtar. The king is a legitimate ruler in the names of Enlil, Shamash, and Ishtar.
Marble cyl. 37½×25½ mm. U. 11107. PG/861.

A′. SEALS ASSIGNED ON INTERNAL EVIDENCE TO THE EARLIER PART OF THE ROYAL CEMETERY PERIOD

77. Cross lines roughly cut which perhaps represent a reed hut and a water carrier, like pictograph No. 190 of the old Indus script.
Baked clay cyl. 31×14 mm. U. 12087.

78. Wavy lines and alternate triangles in two registers.
Lapis cyl. 30×13 mm. U. 11899. PG/1172.

79. Chain of squares framing elliptical eyes. The squares and outside links are formed of double lines, suggesting necklace or embroidery.
Shell cyl. 24×18 mm. U. 10987. PG/865.

80. Alternate triangles with markings, and *torsade* in the second register.
Limest. cyl. 27×9 mm. U. 8662. PG/391.

81. Large lozenges cut and linked by smaller ones. The thicker lines are bordered by thin ones. The ground is filled with crosses and markings.
Steatite cyl. 47×11 mm. U. 12765.

82. Tree and animal, roughly cut.
Clay cyl. 30×18 mm. U. 9645.

83. Frieze of ibexes in two rows. Both ends of the seal are cut.
Grey st. cyl. l. 35 mm. U. 8910.

84. Ibexes and antelopes in two registers.
Lapis cyl. 40×10 mm. U. 11757.

85. Spread eagle and antelope divided by a large undulating line with markings which represents a mountain.
Steatite cyl. 24×12 mm. U. 9264.

86. Spread eagle between kneeling antelopes. In the field a small tree. The eagle has wings and head of Elamite style (*D.E.P.*, vol. xiii, Pl. xviii. 1–6).
Steatite cyl. l. 12 mm. U. 12350. PG/1336.

87. Spread eagle between kneeling ibexes. Same style.
Steatite cyl. 20×11 mm. U. 9513. PG/607.

88. Spread eagle between kneeling ibexes. Same style. Cross and crescent.
Limest. (?) cyl. 23×11 mm. U. 9051.

89. Spread eagle between kneeling ibexes. Crescent and small eagle.
Haematite cyl. 20×11 mm. U. 9618. PG/688.

90. Spread eagle among crouching antelopes. The animals are in two rows not divided by lines but by dots in the field. A scorpion (?).
Quartzite (?) cyl. 38×13 mm. U. 11957.

91. Heraldic groups in two registers. Two ibexes rampant on either side of a symbolic hill and tree. In the lower register, a stag is caught by a composite monster, a lion with human hands (?). Same types in Susa reliefs (*D.E.P.*, vol. xvi, Nos. 227, 228, 265, 266, 333, 334).
Greenish steatite cyl. 30×9 mm. U. 12112. PG/1249.

92. Two scorpions.
Limest. flat seal. 21×19×2 mm. U. 8424.

93. Archaic offering scene. Three worshippers approach a seated god. The leader pours a libation from a spouted jar (?), the second carries a kid (or lamb?), the third brings a jar hanging on ropes from a stick over his shoulder. A servant with clasped hands stands behind the god dressed in royal *kaunakes*. Behind his seat is his emblem, a goat rampant on a hill. All have bird-like heads and scalloped skirts.
Shell cyl. 26×16 mm. U. 12019.

94. Boat in the reeds. Two drinkers of archaic type are seated therein with a jar on a stand between them, each using a pipe. The third line in between may be a stopper or an air pipe. Both have bird-like heads and scalloped skirts. Below the boat is a chain of scorpions or water-turtles. The turtle is the emblem of Enki. Is this the Sumerian Noah?
Steatite cyl. 35×18 mm. U. 11401.

95. Crescent-shaped boat. Two boatmen are standing—or kneeling—paddle in hand on either side of a big jar. Their heads are of the bird-like type.
Flat shell seal. 33×19×5 mm. U. 14441.

96. Archaic Sumerian chariot. Two solid wheels support a box with long panelled sides and splash-board in front. The pole rises from below the box in a double curve and connects with the yoke across the neck of the animals. It is surmounted by a mascot like a dragon. Bulls or asses form the team. The driver walks in front, his whip hanging over his shoulder. A spread eagle.
Black steatite cyl. 29×14 mm. U. 15479.

97. Groom leading two teams of animals. A front view. The false horns are probably reins and rein-rings (?). Same disposition on toy clay chariots and terra-cotta plaques.
Glazed (?) pottery cyl. 20×12 mm. U. 11509.

98. The seal of *he-kun-sig nin-dingir* ^{d}*pa-*[*gi*]*bil-giš-sag*, priestess of the divine Gilgamesh. Banquet of wine. Two registers. Seated man and woman drinking from cups. Three servants. Elegant seats of Shub-ad's time with straight rungs reinforced by cross-pieces. A butler stands by the board loaded with cups, bread, and meat. Majors-domo with staff of office introduce choice drinks. A servant holds a spouted jug and a saucer. Two elegant jars. Usual bird-like heads and scalloped skirts. (The external evidence for the dating of this seal is probably conclusive. *V.* PG/580, ch. IV, p. 49.)
Lapis cyl. l. 39 mm. U. 9315.

99. Banquet of wine. Two registers. Seated man and woman drinking from cups. Their seats have straight or crossed rungs. Two servants carry cup, jar, and fan. Two pipe drinkers sit on either side of a jar resting on a stand in which are four pipes and a central twig. One servant is by the sideboard loaded with bread. The board, reinforced by cross pieces, rests on bull's legs. Usual scalloped skirts and bird's-head profiles.
Lapis cyl. 29×10 mm. U. 7985. PG/31.

100. Banquet. Two registers. Seated man and woman and three servants. Sideboard, seated man and three servants below. Usual heads and skirts.
Lapis cyl. 34×15 mm. U. 8053.

101. Banquet of wine. Two registers. Three seated drinkers and two servants. Below, two drinkers and two servants beside the board loaded with bread. Heads and dresses as above.
Lapis cyl. l. 28 mm. U. 7657. PG/15.

102. Banquet of wine. Two registers. Two seated men, two servants. One man holds a cup, the other drinks through a pipe from a jar set on a stand and containing two extra pipes. Sideboard, and servants bringing cup, fishes, spouted jar, and saucer. Usual heads and skirts.
. . . cyl. l. 39 mm. U. 14473 A. PG/1749.

103. Banquet of wine and heraldic group. Two registers. Two seated pipe drinkers with a jar between them. Three extra pipes. Sideboard. Same style of heads and skirts. Spread eagles between crouching goats.
Steatite cyl. 33½×12 mm. U. 8461.

104. Banquet of wine and heraldic group. Two registers. A seated man and a woman use pipes to drink out of a jar set on a stand and containing three extra pipes. One servant, and one seated guest drinking from a cup. Heads and skirts as usual. Spread eagle between goats, one standing, one half crouching. A tree.
Shell cyl. 37×15 mm. U. 13521.

105. Banquet of wine and hunting scene. Two registers. Seated man and woman and two servants. The woman uses one pipe out of five to drink from a jar on a stand. The man holds a cup. Same style of heads and skirts. Two lions rampant attack a bull and a wild goat. A hunter, and two more animals crossed and rampant. The hunter has the bird's-head profile and a skirt (?).
Lapis cyl. 42×18 mm. U. 8792.

106. Banquet and animal frieze. Two registers. Two guests seated one on either side of a loaded board. Usual heads, skirts, and seats. Antelopes passant.
Lapis cyl. 26×10 mm. U. 11828.

107. Banquet and animal figures in two registers. Two seated guests raise a hand. No pipes or cups are visible. The seats are scarcely indicated. Heads and skirts are roughly cut. Sideboard and table are reduced to a few crossed and curved lines. Same poor style in the animal figures, spread eagle and dubious four-legged creatures.
Lapis cyl. 33×18 mm. U. 8006. PG/55.

108. Two lions rampant attack two bulls. Gilgamesh, full face, axe in hand, catches a bull by the horn. A small seated person seems to protect the second bull. Seat, bird-like head, and scalloped skirt are borrowed from banqueting scenes. A scorpion.
Shell cyl. l. 36 mm. U. 15477.

109. Nude hunter and Enkidu attacking two lions rampant. The beardless hunter with wild locks is pre-Gilgamesh. He and Enkidu wear a triple belt. Second group of lions attacking a bull. Snakes and scorpion.
Shell cyl. l. 32 mm. U. 14270. PG/1720.

110. Nude hunter between antelopes attacked by two lions rampant. A second hunter ready to strike. A snake. Primitive work. Drilled holes joined by straight lines.
Shell cyl. 18×10 mm. U. 15476.

111. Nude hunter between lions rampant. Large dagger in the field. Nude hunter of the same type, with bird-like head, but the bull's legs of Enkidu, stands between two bulls attacked by a lion. A scorpion (?).
Steatite cyl. 34×24 mm. U. 11852.

112. Two lions crossed and rampant. A wild goat falling head first to the ground.
Shell (?) cyl. 25×10 mm. U. 12034.

113. Lion rampant attacking two wild goats. One has fallen head first to the ground while the

second is rearing. An archaic hunter catches the lion by the tail. He has bird-like head and scalloped skirt.
Shell (?) cyl. 31×18 mm. U. 11889.

114. Archaic hunters and goats (?) rampant. Bird-like heads and scalloped skirts.
Limest. cyl. 36×16 mm. U. 13515.

115. Lions rampant and wild goats. One has fallen head downwards. Small goat in the field.
Shell cyl. 24×10 mm. U. 9166.

116. Lions rampant and ibexes (or gazelles?). A nude hunter, dagger in hand, strikes one gazelle. Large snake.
Shell (?) cyl. 31×15 mm. U. 11978. PG/1194.

117. Hunters and wild animals rampant. A lion attacks a bull. A hunter, club and dagger in hand, strikes him from behind. A leopard attacks a deer. A second hunter has caught an ibex in his arms. Both hunters are nude, beardless, and with wild locks tied by a fillet.
Calcite cyl. 36×20 mm. U. 13516. PG/1462.

118. Bull and lion rampant. A hunter catches the lion by the tail and strikes it with a dagger. He is nude, beardless, and has wild locks. Bull and leopard rampant. Gilgamesh, full face, winds his arms about the bull. Enkidu catches the leopard by the tail and strikes it with a dagger. Fine engraved details.
Lapis cyl. 23×16 mm. U. 9023.

119. Bull, antelope, and ibex attacked by two lions rampant. A nude hunter armed with dagger has caught the antelope by the horns. Usual beardless type with wild locks.
Shell cyl. 29×15 mm. U. 8494. PG/326.

120. Two lions and one leopard rampant attack a deer and an ibex. Branch with arrow-head leaves.
Shell cyl. 32×18 mm. U. 12640. PG/1368.

121. The seal impression of *šara-bar-bar lu-igi* (?), the inspector (?). A lion, head down, is lifted by the hind legs by Enkidu and a nude hunter. Enkidu holds a dagger, the hunter a curved club made of split pieces tied with metal bands. He is of the beardless type, with wild locks of hair. A small lion attacks a bison rampant. A spread eagle with a lion's head seen full face seizes two crouching deer. A similar eagle is perched on the back of a crouching bull, as on the well-known al-'Ubaid relief. Scorpion, and star-like geometric design. (Cf. the seal of *dšara-bar-a*, scribe of the queen, U. 9943, No. 57.)
Impressions on fragments of clay sealings. U. 13865, 13815, 13854, 13863.

122. Two signs of writing, *an-gig* . . , on a fragment of clay sealing. May belong to the *dgig-lu-lugal* (U. 8513. Cf. U. 12330, 12461).
U. 13942.

123. The seal impression of *an-mes-su lugal*, on a fragment of clay sealing. Lion rampant attacking an ibex. Found not in the cemetery but in the 'Flood pit'.
U. 13679.

124. Zigzags, imitation of weaving or herring-bone construction.
Glazed frit cyl. 31×14 mm. U. 14090. PG/1650.

125. Festoons and chevrons in imitation of torsades. Two registers.
White shell. 28×7 mm. U. 11600. PG/1083.

125A. Geometrical pattern. Jar with stopper. A square inside. Small parallel lines outside in imitation of basket work (?). Alternate denticules.
Shell cyl. 38×9 mm. U. 8713.

126. Ducks, fishes, and scorpions in three registers. The last register is half cut. One dot.
Dark steatite cyl. l. 27 mm. U. 8673. PG/399.

127. Two lions rampant, two ibexes. A palm.
Shell cyl. 22×12 mm. U. 11490. PG/1015.

127A. Nude hunter, crossed lions and antelope rampant. The hunter is of the bird-head type, with wild locks of hair.
Shell cyl. 32×16 mm. U. 15483.

128. Diaper pattern of multiple squares with inset dots in relief.
Shell cyl. l. 3 mm. U. 14216. PG/1665.
This cylinder should have come in Section A, its age being vouched for by external evidence.

B. SEALS DATED BY EXTERNAL EVIDENCE TO THE LATER PART OF THE ROYAL CEMETERY PERIOD

129. Undulating lines, alternately large with markings, and thin. Two registers.
Lapis cyl. 30×9 mm. U. 11488. PG/1027.

130. Festoons and straight lines with markings, bordered by thin lines. Two registers. A good imitation of collars and necklaces.
Lapis cyl. 30×10 mm. U. 11973. PG/1197.

131. Frieze of antelopes (ibexes?) passant in high grass. Two registers.
Lapis cyl. 26×12 mm. U. 11868. PG/1162.

132. Frieze of animals. Bull passant and rampant on either side of hills with bushes and star flowers. Ibexes browsing leaves in similar landscape. Two registers.
Black steatite cyl. 44×10 mm. U. 11566, with 11565. PG/1081.

133. Bulls browsing leaves on either side of a hill. Heraldic group in Elamite landscape. Crescent, bird, and branches above.
Lapis cyl. l. 19 mm. U. 8169. PG/153.

134. Ibexes rampant among pine-trees. Heraldic group.
Lapis cyl. 21×11 mm. U. 8584. PG/323.

135. Scorpions and entwined snakes. Cf. the snakes on a bitumen relief from Susa, *D.E.P.*, vol. xiii, Pl. xxxvii, 8. Two registers.
Lapis cyl. 31×8 mm. U. 12011. PG/1216.

136. Spread eagle between antelopes (?) arrested and sinking on their knees. Long body and profile head of the eagle are archaic, close to the Elamite type.
Shell cyl. l. 23 mm. U. 8668. PG/397.

137. The living boat, a scene of archaic mythology. The boat is really the body of a hero paddling in front, and curves into a fish tail at the back. He wears the divine horns with central plume. A god wearing the same horned mitre is his passenger and sits at the back on an X-shaped stool holding the rudder. Both have the same long beard, floating hair, and bird-like head. The god wears the scalloped skirt and shawl of *kaunakes*.
The rest of the field is crowded with animal figures. A bison passant attacked by an eagle; a scorpion attacked by a smaller bird; two more scorpions, and two crossed lions attacking wild goats, one of which falls on its knees.
Shell cyl. 38×23 mm. U. 11533. PG/1079.

138. Banquet of wine. Two registers. Man and woman (?) seated on either side of a jar on a stand. He raises a cup. She drinks through a pipe from the jar, which contains two extra unused pipes. A servant holds a whisk or fan over her head, and a piece of cloth (?) in the other hand. Three servants attend on the man. The two behind hold a fan and a long spear (?).
The pipe drinking is repeated below. A servant attends to the drinkers; one watches the board loaded with cups and a leg of lamb, a third brings a sheep by neck and tail.
Lapis cyl. 42×22 mm. U. 8367. PG/221.

139. Heraldic group and banquet of wine. Two registers. Spread eagle seizing two crouching ibexes whose heads are doubled against their bodies. The shortening of proportions is Elamite in style, as are the wings and head of the eagle and the tree on the hills.
Two drinkers, cup in hand, attended by one servant. Scalloped skirts, and usual bird-like heads. The board looks like a gate, and has no victuals on it.
Lapis cyl. 37×12 mm. U. 8656. PG/381.

140. Banquet and heraldic group. Two registers. Two drinkers, cup in hand, and one servant. Usual heads and skirts. Crossed lines between the two sitters may represent a sideboard. A goat passant fills a gap in a poorly composed scene. A spread eagle seizes two crouching goats. The palm-like wings and badly drawn head also show poor workmanship.
Lapis cyl. 32×13 mm. U. 11952. PG/1187.

141. Pipe drinkers on either side of an unusually large jar in which are four pipes. In the field a crescent, a tree, and curious branches (?) issuing from a vase (?).
Lapis cyl. 22½×10½ mm. U. 12664. PG/1379.

142. Two ladies seated at a banquet of wine and drinking through pipes from a large-mouthed jar set on a stand. The style of dresses and hair has changed. Long pleated robes fall to the ankle and the long hair is tied in a V-shape on the neck. Simple X-shaped stools.
Shell cyl. l. 23 mm. U. 9117. PG/525.

143. Hunting scene. Hero and animals rampant. Two lions attack a goat, head down, and hind legs in the air. The hunter catches one lion by the tail and strikes it in the neck. He wears a scalloped skirt, and has wild locks. A bull rampant among bushes and flowers is attacked by a lion.
Shell cyl. 36×20 mm. U. 12678. PG/1385.

144. Archaic hunting scene. Antelope (?) between two lions rampant. The hunter has caught one lion by the tail. He is nude, and his head is of the bird-like type. A second hunter fights a wild bull (?).
Shell cyl. 29×17 mm. U. 12084. PG/1241.

145. Archaic nude hunter between oryxes (?) attacked by two lions. His head is of the bird-like type. Locks of hair crown the head of a second hunter. A tree and a snake in the field.
Steatite cyl. l. 28 mm. U. 10764, with 10765, 10766. PG/867.

146. Two lions rampant bite two antelopes—or goats—in the neck. They are crossed with two figures of Enkidu, the bull-man, who catch them by the tail and strike at their heads with daggers. Star and crescent between the bull-men, and spread eagle between the antelopes, link the well-balanced composition. The eagle has a lion's head of Sumerian style.
Lapis cyl. 29×16 mm. U. 12680. PG/1387.

147. Lions rampant attacking ibexes. Enkidu turns back, holding a buckled shaft in both hands. A mace is planted in the ground in front of him. The buckled shaft, never used as a weapon, is a post emblem of protection, marking the entrance to guarded park and safety.
Marble cyl. 26×14 mm. U. 12158, with 12157. PG/1276.

148. Lions rampant attacking ibexes. Two lines divide the field. A spread eagle seizes a crouching goat. A nude hunter on one knee in ambush behind a shield or a tree seems to catch an ibex by tail and leg, after the Elamite style. A dagger in the field between the lions.
Shell cyl. 40×18 mm. U. 8290. PG/168.

149. Lions rampant attacking wild goats, a replica of the previous seal, with a similar dagger between and a similar double line dividing the field. Crossed lions above, sheep rampant below.
Shell cyl. 35×16 mm. U. 12296, with 12297. PG/1322.

150. Lions rampant attacking a bull and an ibex (?). A leopard and a nude hunter, dagger in hand, close in at either end. The head of the hunter, crowned with wild locks, is no longer of the bird-like type, but is royal in style. Eye and mouth are better drawn below the pointed nose. The young athlete is beardless, and not to be confused with Gilgamesh. A scorpion replaces the dagger between the lions.
White calcite cyl. 40×23 mm. U. 13574. PG/1586.

151 Lions rampant attacking a bull and a bison. A leopard closes on the bull. Between the lions a crescent, above a sign *igi* or *sag* (?). A dagger near the leopard. The field is divided by three lines. Enkidu lifting two leopards by the hind legs above. An ibex rampant below.
Shell cyl. 42½×22 mm. U. 11565, with 11566. PG/1081.

152. Lions rampant attacking two antelopes. A leopard closes in from behind. A crescent on a short pole.
Shell cyl. 32×18 mm. U. 12053. PG/1227.

153. Lions rampant attacking two antelopes. Crescent.
Black steatite cyl. 32×19 mm. U. 8721. PG/347.

154. Lions rampant attacking two ibexes. Star.
Steatite cyl. 23×12 mm. U. 9028. PG/473.

155. Lions rampant attacking two ibexes. A crescent above. A spread eagle between the ibexes.
Limestone cyl. 15×7 mm. U. 9733. PG/708.

156. Nude hunter between antelopes attacked by a lion. Branches and tree. The whole is poorly drawn and balanced.
Lapis cyl. l. 18 mm. U. 7955. PG/35.

157. Nude hunter, his head crowned with wild locks, between bulls attacked by lions. Enkidu with an antelope on whose tail a bird of prey is perched.
Lapis cyl. 17×10 mm. U. 10766 (A), with 10765, 10769. PG/867.

158. Nude hunter between ibexes attacked by lions. A star on a support ending in an arrow point (?). A spread eagle. Dubious phallic lines, snakes (?).
Lapis cyl. 22×11 mm. U. 8464. PG/288.

159. Nude hunter, his head crowned with wild locks, between ibexes attacked by a lion and a

leopard. A second hunter with bird-like profile has caught the leopard by the tail and strikes it in the neck. A star on a shaft ending in an arrow point. A snake.

Lapis cyl. $17\frac{1}{2}\times 9$ mm. U. 10168. PG/780.

160. Nude hunter between ibexes attacked by lions. A second hunter attacks a lion from behind. Both have bird-like profiles.

Lapis cyl. 15×7 mm. U. 10303, with 10302. PG/796.

161. Nude hunter with wild locks between ibexes attacked by lions.

Lapis cyl. 17×6 mm. U. 11499. PG/1043.

162. Nude hunter between an ibex and a bison attacked by lions. He stands full face and has wild locks of hair. A second hunter of the same type, but in profile, attacks one lion from behind. A buckled shaft.

Lapis cyl. 21×10 mm. U. 9242. PG/482.

163. Nude hunter between an ibex and a bull attacked by a lion. A second ibex fights an animal or a hunter (now defaced).

Lapis cyl. 24×12 mm. U. 12157, with 12158. PG/1276.

164. Lion rampant attacking wild goats. Nude hunter with wild locks and a double belt fights one goat.

Shell cyl. l. 23 mm. U. 8646. PG/383.

165. Three registers of small figures, nude hunters, and animals rampant, lions, ibexes, gazelles. The animals are in turn crossed and not crossed. The hunters have bird-like profiles, crowned with hair or bareheaded.

Lapis cyl. l. 38 mm.; d. (at ends) 5 mm. Lentoid shape. U. 10153. PG/792.

166. Small figures of hunters and animals rampant. Two registers. Enkidu between bulls attacked by a lion. A second Enkidu holds a V-shaped emblem on a pole. Seal of *arad* ^{d}*bau*.

Two lions attack a bull and a deer. A nude hunter, his head crowned with wild locks, fights an ibex.

Lapis cyl. l. 39. U. 8359. PG/219.

167. Small figures of nude hunters and animals rampant. Two registers. A nude hunter between ibexes attacked by lions has caught one ibex in his arms. Second group of ibex, lion, and nude hunter with long tress of hair down his back.

Below, two ibexes attacked by three lions. The nude hunter, who pulls the tail of one lion, wears a long beard and flat cap in the Kish style. Crescent and scorpion.

Lapis cyl. 24×13 mm. U. 9082. PG/544.

168. Nude hunters and bison rampant. Enkidu and the lion. One hunter with head in profile, crowned with wild locks, is transformed by the addition of a beard. The second, full face, has the beard and locks of the Gilgamesh type. The animals are no longer crossed and the fighters are in single groups of two. The new style is perhaps due to the influence of the Kish school.

Lapis cyl. 22×13 mm. U. 10765, with 10764, 10766. PG/867.

169. The seal of *en-ki-en-du dub-sar*, the scribe. Two bison rampant attacked by two Kish heroes, dagger in hand (?). Enkidu and the lion. The Kish heroes wear the long hair and beard, loincloth, and flat caps so characteristic of this style. One is in profile, the second full face like Gilgamesh. The bison—so-called human-headed bulls—are mythological animals, and wear a triple belt like the Elamite bulls in human attitudes. A spread eagle seizes them by the tail. The bison's head is also the head of Enkidu. The engraving is particularly fine. The groups of two proclaim the new style. A dagger in the field.

Lapis cyl. 26×13 mm. U. 9764. PG/697.

170. Bison rampant attacked by a Kish hero, and Gilgamesh seen full face. Enkidu and the deer. A lion bites the Kish hero in the neck. A diminutive hunter, knife in hand, catches the deer by the tail and steps on its hind leg.

Haematite cyl. 27×17 mm. U. 9740. PG/724.

171. The seal of *mu lugal-giš*, perhaps a royal seal. Two oryxes attacked by two lions rampant, and two Kish heroes who pull down the long horns of the oryxes and strike them between the shoulders with their short adzes. A diminutive Kish hero, adze in hand, holds a deer.

Marble cyl. with concave face. 33×20 mm. U. 9661. PG/692.

172. Kish hero with the bison. Second Kish hero with the bull. Enkidu with the lion. A curved club in the field. Defaced inscription . . . ^{d}*nannar*.

Steatite cyl. 34×22 mm. U. 9283, with 9282. PG/559.

173. Kish heroes and bison. Enkidu alone.
Shell cyl. with concave face. 27×14 mm. U. 9808. PG/726.

174. Bison rampant and Kish heroes. One seems armed with a curved club. Two recumbent kids. Tree of archaic type.
Steatite cyl. with concave face. 31×22 mm. U. 7989. PG/33.

175. Kish hero between two gazelles (?) attacked by two lions. Enkidu and a wild goat. Diminutive servant with clasped hands below an empty cartouche.
Lapis cyl. l. 18 mm. U. 9150, with 9145, 9149, 9153. PG/543.

176. Kish hero between two ibexes attacked by two lions. Large arrow in the field.
Steatite cyl. 27×17 mm. U. 9083, with 9082. PG/544.

177. Second seal of *en-ki-en-du dub-sar*, the scribe (cf. No. 169), of Ur? The third line of the inscription is half-defaced. Two Gilgameshes, seen full face, step on the necks of two lions which they lift by the hind legs and rend apart. A spread eagle has caught them by the tails. Below the cartouche two small ibexes crossed and rampant. The symmetrical composition and beautifully engraved upturned heads of the roaring lions are in the best 'Sargonid' style, which is more likely the Kish style anterior to Sargon.
Shell cyl. l. 28 mm. U. 9765, with 9768, 9769. PG/697.

178. The seal of *ur-ḫur qa-ab-di* ^{d}*innina*, the libator (?) of Innina. Two Gilgameshes, seen full face, taming a lion and a buffalo. One, astride the buffalo, shows his superhuman strength by raising its front leg and tail, the other by arresting the lion by leg and tail. A small crouching ibex between.
Rock-crystal cyl. with concave face and two copper caps. 33×32 mm., with the caps 48 mm. U. 7953, with 7954, 7955, 7956. PG/35.

179. A duplicate of the preceding seal. Inscription illegible. Gilgameshes, seen full face, astride a lion and a buffalo. Small crouching ibex.
Crystal cyl. 30×21 mm. U. 7927. PG/26.

180. Gilgameshes seen full face and wearing a triple belt, overthrowing buffaloes, which they have caught by throat and hind leg. Inscription illegible. In the field two small mythological figures. The hero Etana is raised to heaven on the pinions of an eagle. Nidaba, goddess of agriculture, hoary with ears of barley and seated on a stack of grain, wears the best dress of *kaunakes*, a horned mitre, and long hair. Her extended hand shows that she is an isolated figure reproduced from the usual introduction scene.
Rock-crystal cyl. 36×25 mm. U. 9679, with 9681. PG/689.

181. The seal of *ur-gub-ba* son of *lu-maḫ*. Gilgamesh with the buffalo. Enkidu with the lion. Both heroes wear a triple belt.
Lapis cyl. with gold caps. l. 33 mm. U. 8666. PG/395.

182. Gilgamesh with the buffalo. Enkidu with the lion. Both wear a triple belt.
Lapis cyl. with two gold caps. 37×14 mm. U. 9183. PG/549.

183. Gilgamesh with the buffalo. Enkidu with the lion. Both wear a triple belt. An adze in the field.
Green st. cyl. l. 27 mm. U. 9145, with 9149, 9150, 9153. PG/543.

184. Nude heroes fighting a bull (?) and a lion.
Steatite cyl. 21×11 mm. U. 13552. PG/1533.

185. Two hunters attack a bull rampant, urinating from fright. One, in profile, nude, with short hair and beard, a provincial version of Gilgamesh, is armed with an adze, has caught the bull by the horn, and presses one knee on its back. The second hunter, who has caught the bull by leg and throat, wears a loin-cloth, a beard, and short hair tied with a fillet, and may be the local version of the Kish hero. Enkidu and the lion. Heavy style of engraving.
Steatite cyl. with concave face. 35½×24 mm. U. 9923. PG/735.

186. Nude hero between two ibexes (?) attacked by two lions. Same heavy style.
Steatite cyl. 24×15 mm. U. 9893. PG/751.

187. Ritual procession and worship. Two registers. A seated woman is approached by four servants, all raising a hand to give the Oriental salute and all wearing the long fringed shawl covering one shoulder and long hair tied in a loop.
Below, two servants stand on either side of what may be a palm-tree in the act of plucking dates (?). A third salutes with one hand up. Same style of head-dresses and shawls. Crescent on a pole.
Lapis cyl. 30×11 mm. U. 7954. PG/35.

188. Ritual libation and worship. Two registers. Crescent, star, and tree—of archaic form—suggest the beginning of the month, and the harvesting season. A priestess (?) wearing a fringed shawl pours from a tumbler into a cup placed on a ledge altar in front of a seated goddess. The cup is on the lower ledge facing the goddess and bread or meat is piled on the top. A divine assistant raises her hand at the back of the scene. She wears a horned mitre, and long tresses like the goddess, but a simpler pleated robe instead of the royal *kaunakes*. The empty cartouche may be the shrine door.

Below, a seated lady is approached by three female servants, greeting with one hand up. No divine horns. This is a human scene. The tree may represent an orchard, and the star a cool evening. Simple fringed robes, and hair tied in a roll.

Lapis cyl. 46×13 mm. U. 7956, with 7953, 7954, 7955. PG/35.

189. Ritual offering. A seated god (?) with long hair and beard and simple fringed robe is approached by three worshippers, two men and a woman. The first carries an hour-glass-shaped vase, the woman a cup and a basket or some light victuals she raises on high. The last man brings a kid and bunches of dates. All wear fringed shawls, and the woman her hair tied in a roll.

Steatite cyl. with concave face. 27×16 mm. U. 9282. PG/559.

190. The seal of *nin-nin iskim*, the diviner of the god Utu-sib. A seated god approached by two worshippers in fringed shawls and with hair tied in a roll.

Lapis cyl. 24×10 mm. U. 9681, with 9679. PG/689.

191. Seated god of solar type approached by three divine servants. A fourth stands behind the throne. All have pleated skirts, horned mitre, beard, and hair tied in a roll.

Grey marble cyl. 31×20 mm. U. 9829. PG/77.

192. Solemn banquet. Two seated figures attended by servants. The bearded man holds a cup. The woman (?) pours out a liquid fillet. Star and crescent. One servant wears the flat cap, short hair, and beard of the Kish style, the other servant wears a fringed shawl. The two seated persons wear the royal *kaunakes*, and all three have their hair tied behind in a roll.

Haematite cyl. with one copper cap. 29×19 mm. U. 9721. PG/681.

193. A seated person, short hair, no beard, is approached by two servants raising one hand in salute. All wear the simple fringed shawl. No horned mitre. One elongated crescent, one club in the field. The seated dignitary holds a cup in one hand, a flower (or ear of corn) in the other, and is attended by a servant.

Steatite cyl. with concave face. 28×18½ mm. U. 11476. PG/1035.

194. Solemn banquet. Man and woman, cup in hand, attended by a servant. Crescent, tree, star. Simple X-shaped seats, fringed shawls, hair short or tied with a fillet.

Shell (?) cyl. 27×15 mm. U. 9261. PG/573 A.

195. Solemn banquet. Two seated bearded male figures. One, a god wearing the horned mitre with central plume and the *kaunakes* robe, holds green branches or ears of corn. So does his divine servant dressed in the simpler fringed shawl. The man, seated cup in hand and wearing the royal kaunakes, is attended by a human servant in fringed shawl, and hair tied in a roll. A green plant grows in front of the man. Before the god is a small offering-table.

Dark steatite cyl. 36×25 mm. U. 11983. PG/1208.

196. Seated god of vegetation, palm in hand, a tree behind him, is approached by three divine servants with clasped hands. All wear horned mitres—one pair of horns—and hair tied in a roll. The god wears the *kaunakes*, the servants have fringed shawls.

Mottled steatite cyl. 30×21 mm. U. 11582. PG/1086.

197. Four standing figures with clasped hands, and fringed shawls. Three are men with bird-like profile, approaching a woman with long hair. A palm tree, and a large arrow.

Lapis cyl. 17×6 mm. U. 10766 (B), with 10764, 10765. PG/867.

198. Offering of the first ears to a god of vegetation. The inscription reads *en-men-an-na ur-si ni-gab arad-da-ni*. Enmenanna, Ursi the opener is his servant. Enmenanna is probably a high priest of Ur. His name was found on a door-socket in the shrine of the Moon-goddess—*Ur: Royal Inscr.*, No. 64. Ursi carrying the traditional plough of Sumer is probably the ritualistic opener of the first furrows. The plough with its ploughshare, and the two handles, has a long curved pole, with two tackles for yokes over two pair of oxen. The high priest leads the procession grasping his staff of honour. He is followed by the high-priestess carrying the ripe ears, and by Ursi himself with the symbolic plough. A flag on a tripod mounted on bull's legs flies the colours of the god and marks the approach of the shrine. A charming ibex and a star on high are the emblems of the god, who is seated in royal style, dressed in *kaunakes*, horned

mitre on head. His priestly servant has on only the pleated skirt, which on the priestess becomes a shawl covering one shoulder. All have the horned mitre, with only one pair of horns for the priestess and four for the men. Her long hair hangs down her back, while theirs is tied in a roll, and that of the god is bound in a reticule—same style on the great stela of Ur-nammu.

Green marble cyl. 31×21 mm. U. 9844. PG/719.

199. Solar heroes defeating their enemies. They are nude athletes armed with clubs, and wearing only a belt, but with sun-rays emanating from their bodies. The horned mitre has a large pair of horns and a central piece with three small pairs. They pull down the crowns and break the clubs of their enemies the clouds, the powers of darkness, and force them back on the mountains. The Sun-god is helped by his sister, the War-goddess Ishtar, who is armed with a club, and dressed in a fringed shawl. An adze in the field.

Steatite cyl. 26×14 mm. U. 11846. PG/1152.

200. Solar heroes defeating their enemies. The seal of *ur-^{d}nidaba*. The god with flaming wings pulls the beard of his enemy and forces him back on the mountains. His hand rests on a huge club. A second pair are wrestling. An adze in the field.

Calcite (?) cyl. 21×12 mm. U. 9310. PG/563 A.

201. Offerings to a fighting god; probably Shamash climbing over the mountains. But his usual saw or curved weapon is prolonged by lines above. The line below is connected with the inscription. The seal of a scribe, *nig-ga-ra-ni* (?). A male worshipper brings a kid. He is followed by a divine attendant (the high priestess?), and a female servant carrying a bucket. All raise their right hand. Deity and assistant wear horned mitre and pleated shawls, the human worshippers are bareheaded and dressed in fringed shawls.

Calcite (?) cyl. 20½×13 mm. U. 11725. PG/1118.

B′. SEALS ASSIGNED ON INTERNAL EVIDENCE TO THE LATER PART OF THE ROYAL CEMETERY PERIOD

202. Heavy festoons and straight lines with markings bordered by thin lines. Two registers. Groups of three and four dots inside the festoons. Imitation of beads and necklaces.

Lapis cyl. l. 44 mm. U. 8339. PG/209.

203. Idem.

Lapis cyl. 19×10 mm. U. 8420. PG/226.

204. Festoons and straight lines. Two registers. Heavy lines with markings bordered by thin ones (imitation of necklaces?).

Lapis cyl. l. 29 mm. U. 8681.

205. Idem.

Lapis cyl. 23×10 mm. U. 9263.

206. Ibexes or antelopes. One dot.

Lapis cyl. 18×9½ mm. U. 11895.

207. Bulls rampant on either side of two pine-trees on mountains. Heraldic group.

Lapis cyl. 32×12 mm. U. 11123. PG/859.

208. Dairy scene. Goats and sheep leave the pen. The shepherd—the long thong of his whip hanging over his shoulder—brings a thin jar with two handles, perhaps of the type used for milking. A dairyman seated outside churns the milk in a big jar. In the field and on a shelf are more jars, pails, buckets, and boxes. Twelve round cheeses on a reed wattle. A bird is perched on the gate. Shepherd and dairymen are dressed in fringed shawls with short hair and beard. This seal belongs to a small group, all of one style, of pastoral life, often mixed with mythological elements, such as Etana carried to heaven on the pinions of an eagle. Cf. Phil., *Museum Journal*, Sept. 1924, pp. 167–70. The god of shepherds, Lulimu, is often represented on terra-cotta reliefs, whip on shoulder, seated on a ram. Cf. the milking scene on the al-'Ubaid relief.

Shell cyl. l. 30 mm. U. 8385. PG/225.

209. Symposium. Two pipe drinkers and a jar. Usual heads and skirts. A scorpion.

Lapis cyl. 19×9 mm. U. 15473.

210. Banquet and heraldic group. Two registers. Usual pipe drinkers and a jar. Also a lion rampant, out of place in the scene. Spread eagle and crouching bulls. One is erased.

Limest. cyl. 30×12 mm. U. 11863.

211. Lion rampant biting a bull in the neck. He is crossed with a composite figure not unlike Enkidu, but with the hairy mane of the bison showing below the human arms. He pulls the lion by neck and tail. A nude hunter stands by. A spread eagle with lion head and two small figures in scalloped skirts fill the field.

Shell cyl. 33×14 mm. U. 12114.

212. Enkidu with a deer (?). Gilgamesh with another animal. Nude hunter with lion. He is close to the Kish style. Scorpion and small lion rampant. The defaced inscription may read, [. . *m*]*u-mi* [. . *pa*]*d-de*.

Impression on fragment of clay sealing. U. 13502.

213. Seal impression of *mes-anni-padda* on a fragment of clay sealing. The badly preserved inscription may read: [. .]-*gig-gal* (?) [. .]-*ga* (?) [*mes-an*]-*ni-pad-da*. A nude hunter has caught a young animal (heifer or antelope?) in his arms to protect it against the attack of a small lion. Gilgamesh, seen full face, pulls the lion by the tail and stabs it with his dagger. Second nude hunter in profile. Scorpion and huge snake.

U. 11690.

214. Seal impression of *mes-an-ni-pad-da lugal kiš*^{ki} *dam-nu-gig*: Mes-anni-padda, king of Kish, husband of the nu-gig. Impressions on fragments of clay sealings. The first king of the First Dynasty of Ur bears here the title of king of Kish. Nu-gig, the concubine, is probably the high-priestess. A great nu-gig of Ur is mentioned by name on a seal of the third dynasty of Ur, U. 7810 (R): *nin-uri-da nu-gig-gal uri*^{ki} *ma lugal-ḫa-ma-ti dubsar arad-zu*. Nude Gilgamesh seen full face, between bulls attacked by lions rampant. Only the right side of the group is preserved. A nude hero in profile catches a lion rampant by the tail and stabs it in the neck with a dagger. His wild locks of hair are tied with a fillet. He wears no loin-cloth, but has a magnificent beard, and seems half-way between the nude beardless hunter and the Kish hero, who besides the beard wears loin-cloth and flat cap. The king of Ur being also king of Kish, the introduction of the Kish style at this time in the south is a natural landmark in the evolution of seals.

Below the cartouche is a curious motive of four runners armed with daggers. They form a closed circle running and catching one another by the foot, which is very similar to the motive of four lions rampant and intertwined on the royal seal of *a-*^{d}*gig-*[*ḫu-dim ?*], U. 12461. The runners are nude, but have beards, and their long hair, tied with a fillet, hangs down their backs.

U. 13607, 13676.

215. Seal impression of *nin-tur nin*, on a fragment of clay sealing. Gilgamesh seen full face and an animal rampant. A nude hunter lifts by the foreleg a young gazelle (or heifer?) attacked by a small lion.

U. 13678, 13686, A and B.

216. The seal of *nin-tur nin dam mes-an-ni-pad-da:* Nin-Tur-Nin, the wife of Mes-anni-padda, first king of the First Dynasty of Ur, as recorded in the royal lists. Hunting scenes in two registers. Gilgamesh, full face, between a bull and an ibex attacked by two leopards. Two lions rampant attack an antelope and a deer. A nude hunter has caught the antelope by the horns. He is of the beardless type with wild locks of hair. The scene is copied from the old royal hunt, but on a diminutive scale.

Lapis cyl. 41×13 mm. U. 8981.

217. Nude hunters and animals rampant. Two registers. Bull and ibex attacked by two lions, with heads turned, roaring at each other. A hunter has caught an ibex in his arms. He is of the bird's-head type with no locks. Tree of Elamite style with arrow leaves. A dagger in the field.

Two crossed lions attack an ibex and an antelope. A hunter stands between a bull and a third lion. He is of the Kish type with flat cap, short hair and beard, but no loin-cloth.

Lapis cyl. 40×17 mm. U. 11897, with 11896. PG/1173.

218. Nude hunters and animals rampant, bulls, ibexes, spread eagle in two registers.

Lapis cyl. 24×6 mm. U. 12706. PG/1405.

219. Lion and bull rampant between two hunters. One, dagger in hand, has caught the lion by the tail. A third has caught an ibex in his arms. Beardless type with wild locks.

Calcite cyl. 20×11 mm. U. 12667, with 12666. PG/1381.

220. Nude hunter stands between bulls attacked by two lions. A second hunter pulls one lion by the tail, and stabs it in the neck. Snakes or scorpions (?).

Lapis cyl. 12×8 mm. U. 8345.

221. Hunter between ibexes attacked by a lion rampant. He seems to wear beard and cap of the Kish style.

Shell cyl. 23×10 mm. U. 12031.

222. Lions rampant and ibexes, Crescent. Star on support—or arrow?
Pebble cyl. 22×11 mm. U. 8911.

223. Nude hunter between antelopes attacked by lions.
Shell cyl. 19×12 mm. U. 9069. PG/526.

224. The seal of *a-ni-ta*. Four bison, Gilgamesh, Kish hero, and a lion. A crescent.
Shell cyl. 38×21 mm. U. 11136. PG/827.

225. Gilgamesh, Enkidu, and two bison. Kish hero, bull, and lion.
Calcite cyl. 33×20 mm. U. 11896, with 11897. PG/1173.

226. Kish hero between ibex and antelope rampant. The ibex has the rugose horns, beard, and tufts of hair at the knees characteristic of the type. A lion attacks a small bull. He is rampant and crossed with a bison. Goat rampant in the bush.
Lapis cyl. 23×11 mm. U. 9809.

227. Gilgamesh, two Kish heroes, and three bison, in three groups. A solar hero, only half of whom is seen, apparently leaning over a line of clouds on the top of the mountains, seems a new episode in solar mythology. His mitre has the central plume.
Lapis cyl. l. 22 mm. U. 9321.

228. The seal of *a-^{d}sin-dim qa-šu-gab*, the libator. Two heroes pull two buffaloes by tail and horn. They wear a woollen loin-cloth, hair falling on the neck, short beard, but no cap of Kish style.
Shell cyl. 25×16 mm. U. 10367. PG/903.

229. Bison rampant. Gilgamesh and a nude hunter, with head in profile, short hair and beard and no cap. Enkidu and the bull.
Shell cyl. with concave face. 27×16 mm. U. 9120. PG/529.

230. Lion attacking a bull. Enkidu, crossed with the lion, pulls its mane and tail. A Kish hero pulls the bull in the same way by horn and tail. Flat cap, beard, hair, and loin-cloth are true to type. A gazelle rampant eats the fruits of a very realistic palm-tree.
Breccia (?) cyl. 34×20 mm. U. 11496. PG/1046.

231. Bulls attacked by two lions. Two Kish heroes pull the lions by mane and tail. One arrow.
Steatite cyl. 42×27 mm. U. 11885. PG/1159.

232 Kish hero and Gilgamesh arresting two bison rampant. Enkidu carries the buckled shaft with handle at top. This is a mythological fight. Enkidu, Gilgamesh, and the bison wear a triple belt. Gilgamesh in profile has only short hair and beard. Arrow and curved club.
Steatite cyl. with concave face. 41×27 mm. U. 8993. PG/521.

233. Kish hero and Gilgamesh pulling apart by mane, horn, and legs a lion rampant and a bison. Gilgamesh is seen full face. Enkidu with the bull. Club and short inscription: *e-na*, or *uru-na* (?).
Breccia cyl. 36×23 mm. U. 11456. PG/1002.

234. Kish heroes, bison rampant and one lion. An arrow.
Haematite cyl. with concave face. 30×19 mm. U. 9330. PG/585.

235. The seal of *lugal-tug dumu lugal-ab*: the son of Lugal-ab. Gilgamesh and the lion. Duplicate groups on either side of the cartouche. Between the lions three arrow-like ears arising from green blades are usually an emblem of Nidaba, goddess of agriculture.
Mr. Woolley suggests a reading: Lugal-tug son of a king of Erech. 'One of the nameless kings of the second dynasty of Ur, which flourished perhaps just at this time (Lugal-zag-gi-si, B.C. 2662–2638) and was crushed by Sargon of Akkad.' *A.J.* viii. 1, p. 25.
Well-balanced groups of good Sargonid style and fine engraving, would fit a royal owner.
Jadeite cyl. with concave face. 32×20 mm. U. 8416.

236. The seal of *a-har-ru-um* (or *a-mur-ru-um*). Gilgamesh and the buffalo. Enkidu and the lion. Crescent, star, small seated dog.
Jadeite cyl. 30×18 mm. U. 9502.

237. The seal of *na-bi* [*-^{d}sin?*] *ur-ba-ba dumu . . . arad-zu*. The inscription is almost illegible. Gilgamesh and the buffalo. Enkidu and the lion.
Jadeite cyl. 30×21 mm. U. 11961.

238. Gilgamesh and urinating buffalo. Enkidu and the lion.
Shell cyl. 34×22 mm. U. 9551. PG/635.

239. Two Gilgameshes—one in profile, one full face—and two bison. Enkidu and the lion.
Lapis cyl. 30×11 mm. U. 12079.

240. Gilgamesh seen full face and buffalo. Gilgamesh in profile and lion.
Jadeite cyl. with concave face. 29×17 mm. U. 7641.

241. The seal of *šag-il du-gab*, the 'opener'. Nude hunters, lion and antelope (?). The hunters have short hair and beard and no cap.
Greenish-white calcite cyl. 26×15 mm. U. 11990. PG/1200.

242. Gilgamesh in profile between bull and antelope attacked by two lions rampant. He is the heavy type with short hair and beard. Crescent and huge arrow.
Marble cyl. 31×19 mm. U. 10364.

243. Kish hero and oryx. A second antelope of the same type is unfinished. Gilgamesh and the bull, also unfinished. Gilgamesh in profile has only short hair and beard.
Steatite cyl. 27×17 mm. U. 11745.

244. Antelope oryx attacked by a lion and a nude hunter. Second hunter and lion. Same heavy type. A huge club.
Steatite cyl. 15×9 mm. U. 9908.

245. Gilgamesh in profile holds an ibex (?) attacked by a lion. Heavy type with short hair and beard. Second ibex rampant and tree.
Steatite cyl. 24×17 mm. U. 9526.

246. Nude hunters, bull and lion. They have long hair and beard and a belt.
Lapis cyl. 25×15 mm. U. 8991. PG/505.

247. Gilgamesh and the bull. Same heavy type as above. Enkidu pulls the tail of a lion attacking a second bull.
Steatite cyl. 25×17 mm. U. 10302.

248. Enkidu and the lion. Gilgamesh, of the same heavy type as above, pulls the lion by tail and mane. A hunter-hero attacks a buffalo. He wears a short beard, hair tied in a roll, and possibly a loin-cloth, and may be a southern version of the Kish hero. Buckled shaft with handle at top.
Mottled marble cyl. 33×22 mm. U. 11150.

249. Two Kish heroes catching lions by tails and legs (?). They lift them and step on their necks. Two trees.
Jadeite cyl. with concave face. 25×16½ mm. U. 9298. PG/563.

250. Nude Gilgameshes in profile stepping on the necks of two lions which they lift by the hind legs. A star.
Steatite cyl. 24×13 mm. U. 9614.

251. Two hunter-heroes, same heavy style of heads, beards, loin-cloth (?), fight a bull and a lion.
Rock-crystal with concave face. 20×13 mm. U. 12086.

252. Nude hunters, bull and lion. The beardless heads with wild locks belong to the older style of Shub-ad's time.
Steatite cyl. 14×8 mm. U. 9056. PG/506.

253. Solemn banquet. Two seated women. Three servants. Two crescents. One of the guests raises a cup. Simple seat, dresses, hair tied in a roll, and no horned mitre. This is a human scene.
Lapis cyl. 15×7 mm. U. 8965. PG/345.

254. Seated god and divine attendant. The god wears *kaunakes*, the attendant a pleated skirt. Both have horned mitre, beard, and hair tied in a roll. A servant brings a cup and a jar hanging on a rope. An offering-table between two buckled posts on conical bases figures the shrine. Star and crescent.
Limest. cyl. 23×16 mm. U. 9858.

255. Seated man (?) and four servants. He holds a cup. One servant brings a jar by a rope handle. All have the same fringed shawl, and hair tied in a roll. Their short beard is so dubious that they may be feminine figures.
Steatite cyl. 27×15 mm. U. 8793. PG/481.

256. Seated goddess and worshipper led by a priestess. An offering-table. All have simple robes and hair tied in a roll.
Greenish-grey st. l. 20 mm. U. 8912.

257. Seated man drinking from a cup. He is approached by a worshipper. Hour-glass-shaped offering-table. A tree.
Steatite cyl. 18×9 mm. U. 12666, with 12667. PG/1381.

258. Seated goddess and worshipper pouring a libation on the altar placed before her. She is dressed in royal style, horned mitre, long hair, and *kaunakes*. The scorpions may be the emblems of Innina-Ishtar. A divine servant, wearing the sacred horns, intercedes for the worshipper; her dress is a pleated robe. The human worshipper has only a fringed shawl, and is bareheaded.

A rare brick altar with a ledge turned towards the goddess replaces the old sideboard, the Sumerian cane altar, and is built like a miniature house. Terra-cotta altars in the form of houses have been found in the temple of Ishtar in the old city of Assur. The small tripod offering-table and hour-glass-shaped vase with palm and bunches of dates are more usual in Sumer libation scenes.

Jadeite cyl. 22×12 mm. U. 11515. PG/1058.

259. Seated woman and servant. Both hold pointed objects—arrow-heads or daggers. Three similar points in the field, not unlike a sign of the Indian script of Mohenjo-daro (No. 119). They wear plain skirts, and hair tied in a V-shape.

Dark steatite cyl. with concave face. 18×10 mm. U. 11462. PG/1021.

260. Seated goddess and woman worshipper led by a priestess.

Marble cyl. 21×12 mm. U. 11405.

261. Introduction to a seated goddess. Unfinished.

Rock-crystal cyl. 32×20 mm. U. 11473.

262. Seated goddess and worshipper. One servant. Short hair and simple robes. No horned mitres.

Lapis cyl. 16×8 mm. U. 11438.

263. Seated goddess (?) and woman worshipper introduced by a priestess. Simple dresses. Rolled hair. No horned mitres. Crescent and tree.

Jadeite cyl. 26×13 mm. U. 9624.

264. Seated goddess and three women (?) worshippers. One leader and two with hands clasped. Fringed shawls. Rolled hair. No horned mitres. A tree.

Steatite cyl. l. 23 mm. U. 9186.

265. Seated goddess and two worshippers. Her long hair hangs down her back.

Green st. cyl. 17×9 mm. U. 12017.

266. Man and woman plucking dates from a palm-tree. Two snakes.

Lapis cyl. 9½×5 mm. U. 12032.

267. The crouching bull and the so-called winged gate. A goddess is seated before, and a nude Gilgamesh behind, the bull. As in other known examples he holds a rope across the closed gate. The goddess may be Nin-ḫursag, who guards pens and byres. A worshipper in pleated robe is scarcely visible below a roughly cut tree, a later addition.

Limest. cyl. 36×21 mm. U. 9266. PG/583.

268. Seated god and divine servants. He holds a sceptre. A club is planted behind his throne. One of the servants is Ashnan, hoary with ears of barley. All three have both hands extended, same mitre, beard, and tied hair, but they wear only the pleated skirt, and the god the robe of *kaunakes*. Star and crescent.

Steatite cyl. l. 31 mm. U. 9158. PG/541.

269. Seated god and divine assistants, three in front and one behind. One greets the god, two carry clubs, the last keeps his hands clasped. Mitres, beards, tied hair, pleated skirts, and *kaunakes* as above. Club or arrow in the field.

Steatite cyl. with concave face. 31×20 mm. U. 8342. PG/193.

270. Seated god and four divine assistants. The first introduces the procession and greets the god. The three followers have both hands extended. The god holds a club. An arrow is planted behind him. Three more clubs in the field. All have the same mitre, hair, beard, and pleated skirt.

Marble cyl. 31×21 mm. U. 9851. PG/709.

271. Seated god, perhaps Shamash, the judge, sceptre in hand. The culprit stands helpless before him. A divine servant pulls his hair—or mitre. A second stands by with hands clasped, and a club under his arm. Mitre, hair, beard, pleated skirt, and *kaunakes* as usual. A human assistant is bareheaded, and wears a fringed shawl, short beard and hair. He also has his hands clasped.

Steatite cyl. l. 32 mm. U. 9165B. PG/535.

272. Solar heroes and their enemy. They force his head down and pull his hair and beard. One holds a club. All are nude, one has a beard, one a fillet about his hair. A rare figure is the boar or pig in the foreground.

Shell cyl. 24×16 mm. U. 9620. PG/686.

273. Shamash and worshippers. The god climbs over mountains, club and saw (?) in hand. A divine assistant introduces a couple. The woman carries a bucket. The god has a loin-cloth, the worshippers a pleated skirt or fringed shawl.

Lapis cyl. 16×10 mm. U. 9326. PG/576.

274. Shamash climbing over the mountains. Usual flaming wings, saw, mitre, rolled hair, but only a short skirt. A divine assistant with long feminine hair opens the door of the shrine.
Jadeite cyl. 20×12 mm. U. 9262.

275. Fight of solar heroes, pulling mitres or breaking clubs. Between the two groups stands a Gilgamesh seen full face, dressed in the *kaunakes* and holding in both hands an overflowing bottle. A trickle of liquid falls over his shoulders to the ground.
Lapis cyl. 27×9 mm. U. 11402.

276. Seated Shamash and assistants. He has flaming wings and a saw in his hand. One assistant worships in front. The other keeps his hands clasped. Horned mitre, rolled hair, *kaunakes*, and pleated skirts as usual. The pine-tree is a reminder of the eastern mountains. A net below is the emblem of judgement that no one escapes.
Black steatite cyl. 34×13 mm. U. 12639.

277. Shamash seated in his shrine. Two assistants open the doors. Usual flaming wings, saw, horned mitre, and *kaunakes*. The assistants have long hair and beard and fringed shawls and are bareheaded.
Black marble cyl. with concave face. 35×21 mm. U. 9100.

278. The bird-man brought for judgement to Enki, the god of deep waters, a judge like Shamash, but distinguished by streams of water and fishes. The bird-man has his hands tied with a rope. A bifrons leads him by one end and introduces the cause. A divine assistant holds the other end. Mitres, *kaunakes*, and pleated skirts as usual. This is a classical episode from the myth of the Zubird.
Marble cyl. 31×20 mm. U. 12029.

279. Symposium. Two seated figures. One drinks through a pipe from a big jar placed before him, the other is attended by a servant. There are three more pipes in the mouth of the jar.
Baked clay cyl. 21×13 mm. U. 10192. PG/766.

279A. Animals rampant and hunter. Small figures crowded in two registers: lions, leopard, goats, ibexes, snake.
Lapis cyl. 30×7 mm. U. 12701 (F). PG/1400.

280. Nude hunter—bird's-head type—between ibexes and lions rampant. Second hunter and animal defaced.
Lapis cyl. 20×12 mm. U. 12705. PG/1404.

SEALS DATED BY EXTERNAL EVIDENCE TO THE SECOND DYNASTY OF UR

281. Introduction of a worshipper to a seated lady. The assistant priestess (?) leads him by the hand. No divine horned mitres. He is bareheaded. Both women have their hair tied in a roll. Simple seat of archaic form.
Dark steatite cyl. 20×12 mm. U. 15302. PG/1845. Burial *J*.

282. Worshipping a seated deity, probably a goddess. She wears the horned mitre with only one pair of horns. Her seat is remarkable for its high curved back. She has her hair tied in a roll on the neck and so have the worshipper and the servant. There is a large crescent in the field, also a conical tree with two horn-like branches, which may be an emblem resting on a small base.
Green steatite cyl. 30×16 mm. U. 15308. PG/1845. Burial *K*.

283. Worshipping a seated deity. She holds a conical tumbler. A ledge altar is placed before her. Branches (of dates?) or ears are deposited on the lower step. The worshipper gives the salute with one hand up. He is bareheaded and wears a fringed shawl. The goddess has a horned mitre, a shawl of *kaunakes*, and her hair tied in a roll.
Steatite cyl. 19×10 mm. U. 15318. PG/1845. Burial *M*.

284. Libation ritual (?). Standing female figure, and servant bringing a tall jar. Shorn and nude except for a belt, he may be a priest. The jar has a long neck and foot and no visible spout. The branch below may be a trickle of liquid. The woman has a simple robe, and her hair tied in a roll. Spread eagle of archaic style.
Steatite cyl. 12×24 mm. U. 17812. PG/1847. Burial *H*.

285. Indian seal. The bull—without the manger—and four signs of Indian writing. (Cf. C. J. Gadd, *Seals of Ancient Indian Style found at Ur*, No. 16.) Poor workmanship.
Flat round seal, with boss on the back, perforation, and incised line across the boss.
Glazed grey steatite. d. 22 mm. U. 17649. PG/1847.

286. Banquet and heraldic group. Two registers. A man and a woman are seated and probably raise cups. A servant holds a fan (?) above a low sideboard. Bird-like heads and scalloped skirts as usual. Spread eagle seizing crouching goats. Small tree.
Lapis cyl. 33×10 mm. U. 17656. PG/1847.

287. Lion and goats rampant. One goat falls head down to the ground. A nude hunter catches the lion by mane and tail. The seal of *sa-ad-pad-da arad . . .*?
Shell cyl. 24×12 mm. U. 17811. PG/1849. Burial *G.*

288. Lions rampant and goats. A nude hunter pulls one goat by head and tail. A tree of archaic style.
Shell cyl. 24×13 mm. U. 17650. PG/1847.

289. Lion rampant between two Gilgameshes of heavy type, in profile. Star and crescent.
Lapis cyl. 18×10 mm. U. 15303. PG/1847. Burial *C.*

290. Nude Gilgameshes, front face and profile, with lion and bull rampant. They pull them by horn, legs and tail. Inscription defaced.
Lapis cyl. with concave face. Two gold caps. 28×18 mm. U. 12470, with 12471. PG/1422.

291. Seated lady with baby in her lap. Three female servants bring a fruit (?), a bunch of dates, liquid in a jar. No horned mitre. This is a human scene. All wear their hair tied in a roll, and simple fringed shawls.
Carnelian seal with two gold caps. 19×10 mm. U. 10757. PG/871.

292. Seated lady approached by two female servants Same simple style of hair and dress.
Lapis seal with gold caps. 30×12 mm. U. 12471, with 12470. PG/1422.

293. Introduction to a seated goddess. The divine assistant leads the female worshipper by the hand. Horned mitres, or bare head, hair hanging down or rolled up, fringed shawl and pleated skirts mark the ranks as usual. Crescent and palm-tree.
Shell cyl. 31×19 mm. U. 17815. PG/1847. Burial *T.*

294. Introduction to a seated goddess. Same scene as above. Crescent.
Lapis cyl. 30×15 mm. U. 17912. PG/1850. Burial 9.

295. Introduction of a woman worshipper to a seated goddess, by an assistant deity. Mitres with four pairs of horns, hair-bands, necklaces, bracelets, robes, shawls, and throne, are engraved with minute details. Three lines of erased inscription.
Lapis cyl. 30×15 mm. U. 17904. PG/1850. Burial 3.

296. Man worshipping a standing deity (?). Two scorpions.
Steatite cyl. 18×10 mm. U. 15307. PG/1845. Burial *L.*

297. Presentation to a seated goddess.
Lapis cyl. 14×5 mm. U. 15309. PG/1845. Burial *K.*

C. SEALS DATED BY EXTERNAL EVIDENCE TO THE SARGONID PERIOD

298. Frieze of deers and ibexes passant in good Elamite style in a landscape of hills, bushes, and star-flowers. Excellent work.
Lapis cyl. 43×20 mm. U. 9751, with 9750. PG/699.

299. Two seated figures (man and woman?) drink through long pipes from a jar placed between them. Long fringed skirts. One nude servant. A tree symbolic of the orchard.
Jadeite cyl. 16×10 mm. U. 9587, with 9586. PG/652.

300. Archaic group of a lion rampant standing against a goat falling head first. Two hunters attack them. One has caught the lion by the tail. The other holds the goat by the hind legs. Scalloped skirts and lozenge heads belong to the old Sumerian type. A tree.
Shell cyl. 28×15 mm. U. 12679. PG/1386.

301. Upturned goat between a lion and a leopard rampant. This last is attacked by a nude beardless hunter with wild locks. In the field are a spread eagle, a scorpion, two crouching bulls, one attacked by a bird of prey.
Shell cyl. 38×20 mm. U. 11715. PG/1105.

302. A lion rampant attacks a bull, and a leopard attacks a bearded bison. The lion and bison are crossed. The young beardless hunter with wild locks catches the leopard by the tail and stabs it in the neck. In the field, a scorpion and a squatting monkey.
Lapis cyl. 27×14 mm. U. 9027. PG/576.

303. Bull and lion rampant. The bull is crossed with Enkidu who has caught it by tail and neck. In the field, a tree and a club.
Lapis cyl. 15×8 mm. U. 11581, with 11580. PG/1094.

304. Oryx passant. Animals crossed and rampant.
Calcite cyl. 18×10 mm. U. 12040. PG/1220.

305. Antelopes (?) attacked by a lion and a snake.
Steatite cyl. 19×9 mm. U. 11448. PG/1001.

306. Formal reception and hunting scene. Two registers. A seated lady is approached by three female servants. A crescent. No horned mitres. Simple robes and hair tied in a roll.
A nude hunter, full face, between two ibexes rampant. A second hunter in profile.
Lapis cyl. l. 24 mm. U. 8916. PG/435.

307. The seal of *ad-da pa-e*, major-domo of Enḫedu-anna daughter of king Sargon and high priestess of Ur. A bull attacked by a lion and a typical Kish hero armed with dagger. Enkidu, dagger in hand, and a bison. A second bison rampant. This is a mythological animal with the human face, splendid beard, and triple belt of Enkidu. Below the cartouche two small crossed lions. The Kish hero is a landmark in art. His flat cap, long hair and beard, and embroidered loin-cloth are here connected with the Sargonid period, but he is found before the time of Sargon, and is more properly traced back to the Pre-Akkadian school of Kish. The composition is simple and strong. Each figure is drawn separately on an open field.
Black and white granite cyl. l. 37 mm. U. 9178. *Ur: Royal Inscr.* 272.

308. Kish hero, lion rampant, bison, and other animals, on a fragmentary lapis-lazuli seal, of the same time and school. The half-preserved inscription reads: *en-ḫe-du-an-na*, daughter of Sargon. *ᵈigi-du* . . . , is thy (. . . son?).
Lapis cyl. U. 8988. PG/503. *Ur: Royal Inscr.* 271.

309. Buffalo passant under a cartouche, and two crossed bulls, on a fragment of clay bulla with seal impression of the same time and school. The half-preserved inscription reads: '*enḫedu-anna*, daughter of Sargon, [. . .]-*ki-ku-dug* [*dub*]-*sar* [*arad*]-*ni*: . . *kikudug*, the scribe, her servant.
The water-buffalo with slanting rugose horns is another landmark in art of the Sargonid period. A hole marks the place of the string passing across the bulla. The seal was rolled on sides and back. The complete scene showed the bulls attacked by the lion and the Kish hero.
Clay bulla fragment. 25×25 mm. U. 11684.

310. Bull rampant between two hunters. One is the Kish hero. He has caught the bull by neck and leg. The second is a Kish servant, an Akkadian version of Gilgamesh. He wears a loin-cloth, short hair and beard, and a double twisted turban. Enkidu and the lion.
Lapis cyl. with two gold caps. 20×11 mm. U. 9693, with 9694. PG/695.

311. The seal of *lugal-šag-sud*, son of Inimma. A bull between a Kish hero and a lion. A second hunter has caught the lion by the tail and strikes it in the neck. He is nude and has short hair and beard. Two Kish heroes carry a jar hanging on ropes very much like the old drinking pipes. They shoulder the Kish battle-axe, a curved club of wood with crescent-shaped copper blade.
Lapis cyl. 17½×11 mm. U. 11590, with 11591. PG/1092.

312. Two groups of Kish hero and bull. A tree.
Haematite cyl. l. 18 mm. U. 9291, with 9290, 9292. PG/557.

313. Gilgamesh holding a bull rampant by leg and horn. The same with a bison. Enkidu and the lion. Gilgamesh, full face, nude except for his triple belt, is a magnificent athlete. Enkidu and the bison repeat his type of face and beard. The lion is a masterpiece of realistic art. The engraving is not quite finished; cf. the legs of Enkidu and of the bull.
Lapis cyl. 35×20 mm. U. 9813. PG/703.

314. The Kish hero and Gilgamesh lift two lions by the hind legs, while they step on their heads. Crossed bodies and tails form a well-balanced heraldic group. The second group represents the undoing of Enkidu, apparently an episode of solar mythology. A hero with flaming wings pulls Enkidu by horn and tail. He is defeated and his club broken. Enkidu usually helps Gilgamesh to fight wild animals, but here he plays the part of the powers of darkness, the brooding clouds chased by the hero of light. The last wears the pleated skirt of Kish. Sippar, another city of the north, was dedicated to the Sun-god.
Shell cyl. 30×17 mm. U. 9717. PG/700.

315. The seal of *ur-ᵈgiš-*[*gi*]*bil-ga-meš dub-sar*: the scribe, son of *ur-ᵈka-di*. Two Gilgameshes fighting two lions crossed and rampant.
Jadeite cyl. 30×19 mm. U. 11418. PG/968.

316. The seal of *ur-^{d}ka-di*, probably the father of the scribe. Same style. Gilgamesh and the bull. Enkidu and the lion.
Steatite cyl. 31×20 mm. U. 11843. PG/1154.

317. The seal of *adda ni-gab*, the 'opener'. Gilgamesh and Enkidu lift from the ground by the hind legs a buffalo and a lion, and seem ready to tear them apart. A small lion passant.
Jadeite cyl. with concave face. 28×20 mm. U. 11457, with 11458. PG/1003.

318. The seal of *gimil-ilišu sangu*, the priest of ^{d}*giš-ban*. Gilgamesh with the buffalo. Enkidu and the lion.
Shell cyl. 43×29 mm. U. 9567, with 9568. PG/643.

319. Gilgamesh with the buffalo. Enkidu and the lion. A palm-tree.
Lapis cyl. l. 27 mm. U. 8926. PG/445.

320. The seal of *ur-igi-gal*. Gilgamesh with the buffalo. Enkidu with the lion.
Steatite cyl. l. 25 mm. U. 9010. PG/496.

321. Lion and buffalo. A Gilgamesh in Kish style lifts up a second lion by leg (?) and tail. He wears a loin-cloth, short beard and hair, and double roll turban.
Dark steatite cyl. with concave face. 26×15 mm. U. 9652. PG/67.

322. Crossed bulls and lions rampant. A hunter attacks a lion from behind. He is apparently nude, with short hair and beard, and carries an adze more for show than use. A large dagger in the field.
White steatite cyl. 32×18 mm. U. 8041. There is no external evidence for the dating of this seal.

323. Two lions lifted by one hind leg and the tail by two nude heroes in profile who step at the same time on their necks. They are Gilgamesh figures of heavy type, with pointed beard, and curling hair. Enkidu stands between the lions, and has caught their other hind leg. Strangely enough, he is given not one bull's body, but two, below his human bust, in an effort to link the fighters into symmetrical groups, which are full of action and very decorative in effect.
Jadeite cyl. 43×29 mm. U. 11492. PG/1045.

324. Gilgamesh with the bull. Enkidu with the lion. Crescent and star. Empty cartouche and ibex passant. Same heavy style.
Marble cyl. 37×24 mm. U. 7923. PG/23.

325. Gilgamesh with the ibex. Enkidu with the lion. Same heavy style.
Jadeite cyl. 22×13½ mm. U. 11483. PG/1028.

326. Bull and lion rampant. Gilgamesh has caught the lion by the neck, and drives a knee into its back. The second group is a reversed duplicate of the first. The Gilgamesh of Kish style wears a loin-cloth, short beard, and hair tied.
Marble cyl. 30×20 mm. U. 10355. PG/830.

327. Gilgamesh and the lion. Two groups. Same heavy style. Club, adze, empty cartouche, and spread eagle.
Steatite cyl. 25×16 mm. U. 9634. PG/673.

328. Two hunters of the same heavy type with a bull and a lion. They wear loin-cloth, short beard, and tied hair.
Lapis cyl. 18×12 mm. U. 9064. PG/540.

329. Nude hunters 'teasing' a lion passant.
Lapis cyl. 16×11 mm. U. 11598. PG/1067.

330. Lion rampant between nude hunters. They pull its legs and tail. They are of heavy type, with short hair and no beard.
Steatite cyl. with concave face. 25×12 mm. U. 11591, with 11590. PG/1092.

331. Lion rampant between nude hunters who pull its legs and tail. One swings an adze. Heavy type, with short hair, no beard, a double belt.
Steatite cyl. 27×14 mm. U. 11410. PG/963.

332. Enkidu holds by the paws two lions rampant. Crescent and star. A god is seated between two lines which perhaps represent a shrine.
Green st. cyl. 29×15 mm. U. 9642. PG/671.

333. Ritual worship and offering. Two registers. A seated lady attended by one servant is approached by two visitors saluting with one hand up. All have fringed shawls and hair tied in a roll. Same scene below but with the addition of an offering-table, a crescent, and a large arrow, emblems of a deity.
Lapis cyl. 26×7½ mm. U. 11580, with 11581. PG/1094.

334. Ritual offering. A seated goddess is approached by two worshippers. She wears the royal *kaunakes*, her hair tied in a roll, and probably a horned mitre. An offering-table loaded with meat (leg of lamb) and cakes is placed before her. Tables of clay or stone resting generally on a columnar support have been found in the cemetery. This table is a tripod ending in bull's legs. A crescent.
Shell cyl. 26×11 mm. U. 11148. PG/834.

335. Seated lady and servant. Perhaps a scene of worship. The hour-glass-shaped vase with palm or boughs is usual in libation scenes. The figures are roughly cut. No horned mitre. Simple shawls, and hair tied in a roll. Chair with a high back.
Steatite cyl. 19×11 mm. U. 11143. PG/857.

336. Seated goddess (?) approached by a procession of four. The first and third are divine assistants. They wear horned mitres and pleated skirts. Between them is the worshipper, and at the back his wife. They usually carry a kid and a bucket, here missing. The deity wears long hair, tied in a V shape, and a shawl of *kaunakes*. The possible beard and horned mitre are very indistinct. Crescent and star.
Shell cyl. with concave face. 27×17 mm. U. 8897. PG/575.

337. Seated goddess approached by two worshippers.
Lapis cyl. 23×12 mm. U. 9710. PG/704.

338. Seal of *en-^{d}utu*. Seated goddess and worshipper. A servant brings a fine jar which she carries on her shoulder. Star and crescent. In the field, a spouted jar. The side of the throne is decorated with an animal relief. Fringed shawls and hair tied in a roll.
Red clay cyl. White slip. U. 11452. PG/986.

339. Second seal of *en-^{d}utu*. Worshipper standing in front of a seated deity—a bearded god? Both extend one hand. Their long hair is tied in a roll. The god has possibly a horned mitre. A servant brings two jars, carrying one over the shoulder. In the field a crescent and a jar—or a bull's head?
Lapis cyl. with gold caps. 23×10 mm. U. 11458. PG/1003.

340. Two seated gods, one divine assistant, one human servant. The gods wear the *kaunakes*, their hair tied in a roll, and the horned mitre. So does the divine assistant, who stands staff in hand between them. His pleated robe is simpler; the servant is bareheaded and wears a fringed shawl. Thus a ritual meaning has been added to the old banquet of wine, as evidenced by the divine horns. The assistant may be the chief priest. One star. A guilloche pattern in the upper register.
Jadeite cyl. 38×18 mm. U. 8917. PG/435.

341. The harvesting of dates. Two female figures attended by servants pluck the fruits from the palm-tree, and store them in large slender vases. Fringed shawls and hair tied in a roll.
Lapis cyl. 13×8 mm. U. 11464. PG/1012.

342. Seated goddess approached by one human and two divine servants. She sits on an elegant upholstered throne with straight legs, below a palm-tree bearing fruit. She and her servants wear long pleated robes and the horned mitre. Her hair is tied up, theirs hangs loose down the back. The human is bareheaded, has short hair and beard, and a fringed shawl. The priestly assistants introduce a worshipper. Rank is marked by dresses and attitudes. Crescent.
Marble cyl. 40×26 mm. U. 9749. PG/720.

343. Seated goddess and worshippers. Crescent, palm-tree, horned mitre, and dresses have the same meaning as above.
Haematite cyl. with concave face. 28×17 mm. U. 9586. PG/652.

344. Goddess of the palm-tree and servant. Crescent, star, and tree. She wears a robe of *kaunakes*. Her hair hangs down her back. He wears the fringed shawl.
Stamp seal. 24 mm. sq. U. 11449, with 11447. PG/985.

345. Seated god and worshippers. Crescent. Pine-like tree. The god alone has a horned mitre. All wear the fringed shawl. The worshippers adore with one hand up.
Slaty-grey st. cyl. 24×14 mm. U. 11447, with 11449. PG/985.

346. Introduction of a worshipper to the goddess of the palm-tree. Goddess and assistant have the same rolled hair and divine horns. *Kaunakes*, pleated robe, and fringed shawl mark the ranks. A crescent.
Lapis cyl. 18×11 mm. U. 10796. PG/825.

347. Same scene of introduction to the goddess of the palm-tree. The female worshipper, her hair tied in a roll, brings a bucket probably full of dates.
Lapis cyl. 15×9 mm. U. 11592. PG/1095.

348. Three divine servants worshipping a goddess of vegetation. The side of her throne is decorated with an animal relief. A tree behind. The first assistant pours a libation which falls in a spray to the ground. There is a palm between him and the second. The third brings a bucket.
Haematite cyl. with concave face. 26×16 mm. U. 9578. PG/647.

349. Seated goddess and worshippers, one of whom carries a bucket. Star and crescent.
Steatite cyl. 16×9 mm. U. 11426. PG/973.

350. The seal of *qišum qa-šu-gab*, the libator. A priestess introduces a worshipper to a seated god wearing a mitre with four pairs of horns, three of which are attached to a central piece. The priestess wears her hair in a roll, and a pleated robe. The males have the fringed shawl. The worshipper is bareheaded.
Lapis cyl. 16½×8 mm. U. 11442, with 11443. PG/991.

351. Seated Ishtar and worshippers. The goddess of war has symbolic clubs on her shoulder and long tresses loose down her back, and wears *kaunakes* and horned mitre. She may be Innina of Susa, with the pine-tree as her emblem. The first assistant has her hair loose too and may be a priestess. The second, whose hair is tied, brings a bucket.
Dark steatite cyl. 20×12 mm. U. 11987. PG/1205.

352. Introduction to a seated god, a judge like Shamash, but who holds a club instead of the usual saw and has flaming wings. His servants wear pleated skirts and horned mitres. The first, who introduces the case, has his hands clasped. The second leads the worshipper. The last person saluting in fringed shawl may be a simple servant. Animal relief on the side of the throne.
Veined steatite cyl. 35×22 mm. U. 11420. PG/974.

353. Worshippers introduced to a seated god. A reed-like plant is his emblem. The divine servant leads by the hand a man carrying a goat. His wife follows with a bucket. Usual dresses, *kaunakes*, horned mitre, rolled hair, for the god, same head-dress, but pleated skirt for his servant, bare heads and fringed shawls for the human couple, and rolled hair for the woman.
Steatite cyl. l. 26 mm. U. 8093. PG/59.

354. The seal of *en-^{a}ki-da*. A god of vegetation seated on a stack of corn, with ears in his hand and an ear growing from his throne. Usual *kaunakes* and horned mitre. Nude Gilgamesh stepping on the neck of a lion which he lifts by leg and tail.
Serpentine cyl. with concave face. 20×13 mm. U. 11596. PG/1084.

355. The goddess Nidaba seated on a stack of corn—rather than bricks—and with ears in her hand. She is approached by divine servants. One is her male partner Ashnan, bristling with ears of wheat. He is introduced by two officials with extended hands, and followed by another carrying more ears. All four are stripped to the waist. Three wear a pleated skirt, the last a skirt of *kaunakes* like Nidaba. But the shawl of the goddess covers one shoulder. All wear the horned mitre, with several pairs of horns, of a different model for the males, whose extra pairs of horns are mounted on a central piece. Their hair is tied in a double roll, that of Nidaba in a V shape. The large arrow in the field is an emblem of the summer sun.
Marble cyl. 44×35 mm. U. 10397. PG/901.

356. The triumph of solar heroes. They pull the beards and crowns of their enemies, break their clubs, force them on to their knees, or back on the mountains. They are nude athletes, with only a belt, but of course the divine horns.
Steatite cyl. 29×16 mm. U. 9060. PG/522.

357. Shamash the divine archer and Ishtar the goddess of war pierce their enemy with his arrow, pull his hair and beard, and force him back to his mountains. A divine servant stands by. Shamash, stripped for action, wears only the pleated shawl opening in front; an Asiatic bow and a tasselled quiver hang from his shoulder. Ishtar is full face, with clubs on her shoulders, long tresses on either side, and a royal dress of *kaunakes*. The attendant, in fringed shawl, wears a mitre with small horns on a central piece.
Jadeite cyl. with copper caps. 20×12 mm. U. 9694. PG/695.

358. Solar heroes pulling off the crowns of their enemies. In the field a club, and a lance flying a pennon.
Black Steatite cyl. 21×9½ mm. U. 12004. PG/1213.

359. Shamash and Ishtar pull the beard and step on the leg of their enemy. Ishtar wears long hair and *kaunakes*, the two males a loin-cloth and hair tied. A servant of Shamash carries a lance and a Kish curved club.

Lapis cyl. 21×9 mm. U. 8971. PG/489.

360. The hero with the overflowing bottle. He steps on a crouching animal. A trickle of liquid falls on either side. He wears a loin-cloth and a horned crown (?). A goddess stands before him. She wears long hair, horned mitre, and *kaunakes*. There is a third unfinished figure.

Dark steatite cyl. with concave face. 27×17 mm. U. 11709. PG/1110.

361. Shamash steps over the mountains. He has flaming wings and a saw in his hand. Two divine servants throw open the doors of the sanctuary. They all wear pleated skirts, divine horns, and hair tied behind.

Steatite cyl. 20×15 mm. U. 10188. PG/782.

362. Shamash steps over the mountains. A divine servant opens the gates. Same flaming wings, saw, pleated skirt, and horned mitre. A large arrow with metal bands is his emblem.

Shell cyl. l. 29 mm. U. 9290, with 9291, 9292. PG/557.

363. Shamash steps over the mountains. A divine servant opens the gate of the shrine. A second approaches the idol. A third brings a kid offering. His skirt is the fringed shawl, while Shamash and servants have it pleated. His horned mitre is also different. The fourth assistant carries the overflowing bottle. All, except the porter, have their hair tied in a roll.

Marble cyl. with concave face. 35×22 mm. U. 8747. PG/384.

364 The seal of the three gods, two solar deities and the water-god of Eridu, Enki. Enki in his shrine is surrounded by the water of the abyss, the absu: he commands the springs. He is a god of vegetation and streams, and green branches issue from his shoulders. The three pennons, or cups, at the top of the shrine are unexplained. The god is dressed in approved style with *kaunakes*, horned crown, and rolled hair. Four streams of water wash the four faces of his abode and meet at the four corners. They overflow past the handle at the top of a buckled shaft, which a kneeling Gilgamesh holds fast with arms wound round it. This is perhaps the *tarkullu*-post marking the entrance.

The solar deities are of two types. There were shrines of the Sun-god at Larsa in the south and at Sippar in the north. Sippar, the supreme court of the land in the days of Hammurabi, had a famous cult image, remembered down to the time of Nabonidus. The Shamash of Sippar was enthroned under a canopy and receiving offerings. Utu, the god of Larsa, was probably the fighting hero of morning. Sippar, in Sumerian times, may have worshipped him under a similar aspect. The two heroes with the flaming wings on one seal give ground for the supposition. Both climb mountains, weapon in hand, but with a difference. One stands on a roaring, crouching lion, and climbs between mountains like wings, stepping on the shoulder of his defeated enemy, the god of night and darkness. The second ascends the stages of a ziggurat crowned by a two-story building. One may be the morning sun, the other the sun of noon. One wears the long Kish skirt pleated and opening in front, the other a short Sumerian kilt of *kaunakes* closing behind. One holds his notched saw on high, the other trails his club. Both have flaming wings, beards, long hair tied in a roll, but their horned mitres are different. The first wears the plume-like central piece with three pairs of small horns, the second has all the horns converging towards the middle. This rich mythological picture has unusual details. The lion is the emblem of Ishtar—associated with Shamash, also of Nergal the god of underground darkness. The first hero could be the Akkadian Shamash, and the second the Sumerian Utu.

Dark green st. cyl. 36×24 mm. U. 9750, with 9751. PG/699.

365. Introduction of a worshipper to Shamash with flaming wing and notched saw seated in judgement. One divine servant introduces the case. The second leads the worshipper by the hand. Usual distinction of dresses: *kaunakes*, pleated skirt, fringed shawl, and of horned mitres and bare head. The mitres are of the type with central plume. Erased inscription.

Haematite cyl. l. 33 mm. U. 9292, with 9290, 9291. PG/557.

366. Shamash with flaming wings and notched saw. He stands between the doors of a shrine opened by divine servants. All wear horned mitre and pleated skirt. Arrow emblem below two lines.

Steatite cyl. with concave face. 33½×21 mm. U. 8699. PG/427.

C'. SEALS ASSIGNED ON INTERNAL EVIDENCE TO THE SARGONID PERIOD

367. Indian seal. Cf. C. J. Gadd, *Seals of Ancient Indian Style found at Ur*, No. 7. 'Bull, unhumped, of the so-called unicorn type, raises his head towards a simplified version of a tree, and two uncertain objects, one a sort of trefoil [perhaps the characters No. 263, 173, of the list of Indian signs], are shown above his back.'

Under his head is an unmistakable character of the Indus script, the 'Fish' with cross hatchings. The cylinder form, hardly known at Mohenjo-Daro, is usual in Mesopotamia.

White shell cyl. 17×9 mm. U. 11958.

368. Lion rampant between two hunters. One has caught its tail, the other strikes it in front. Inscription illegible.

Black steatite cyl. 20×9 mm. U. 8476. Close to PG/304.

369. Worshipper greeting a standing god(?), behind whom a minor goddess intercedes with one hand up. She alone has the horned mitre, and a long tress of hair.

Lapis cyl. 13×6 mm. U. 7957. PG/35.

370. Indian flat round seal, with bull passant of the Mohenjo-daro style, and Indian pictographs: scorpion, fish, man carrier (?), and bug. A curious, unusual round dot. Seal of Sargonid period. Cf. C. J. Gadd, *Seals of Ancient Indian Style found at Ur*, No. 15.

Grey steatite. d. 20 mm. U. 8685. PG/401.

371. Indian flat seal. Bull passant, crouching bull, and monkey (?). It is No. 10 in C. J. Gadd, *Seals of Ancient Indian Style found at Ur*. The squatting monkey is also found on Elamite seals, *Délégation en Perse*, vol. xvi, Nos. 227, 228, 333, 334.

Steatite button seal. The convex back is decorated with straight lines and the circles with a central point. d. 16 mm. U. 9265.

372. Gilgamesh and the buffalo. Enkidu and the lion.

Lapis cyl. 28×14 mm. U. 9552, with 9551. PG/635.

373. Gilgamesh and the buffalo. Enkidu and the lion.

Lapis cyl. 24×14 mm. U. 9024. PG/484.

374. Gilgamesh and the buffalo. Enkidu and the lion.

Marble cyl. with concave face. 30×20 mm. U. 7656. PG/14.

375. Gilgamesh and the buffalo. Enkidu and the lion. Crescent.

Shell cyl. 28×17 mm. U. 11404.

376. Gilgamesh and the buffalo. Enkidu and the lion.

Lapis cyl. 26×13 mm. U. 8417.

377. Nude hunters and lions rampant and crossed. Heavy style. Bird, scorpion.

Steatite cyl. 20×9 mm. U. 9527.

378. Crossed lions rampant and one nude hunter, with short beard and round cap (?).

Steatite cyl. 27×15 mm. U. 12681.

379. The seal of *lugal-dug-ga*, son of *ud-da*. Two Gilgameshes in profile and a lion rampant which they catch by paw, mane, and tail. Heavy type, with short hair, beard, and belt. A club.

Black steatite cyl. with concave face. 34×19 mm. U. 9501.

380. A lion between two Gilgameshes in profile. Same heavy type. Illegible inscription.

Shell cyl. 21×11 mm. U. 11981.

381. Seal of *nam(?)-bi . . . mu-^{d}nannar dumu lugal-šu-ga . . .* (?): the baker of Nannar, son of Lugalšuga . . . A lion between two Gilgameshes. Same type.

Steatite cyl. 20×10 mm. U. 11604.

382. Nude Gilgamesh in profile between a bull and a lion which he holds by the foreleg.

Steatite cyl. 19×10 mm. U. 9583. PG/650.

383. Seated goddess and worshipper introduced by a priestess. Horned mitres and *kaunakes*. The worshipper wears a fringed shawl and is bareheaded. Cross, crescent, and a tree over an animal passant.

Black steatite cyl. 25×13 mm. U. 12331.

384. Seal of *nin-^{d}igi . . .* Seated goddess and worshipper introduced by a divine assistant. *Kaunakes*, pleated robe, fringed shawl, horned mitre, and rolled hair or bare head mark the ranks.

Lapis cyl. 20×9 mm. U. 9529.

385. Seated goddess and worshipper introduced by a divine assistant. Dresses and head-dresses mark the ranks. A crescent. Illegible inscription.

Steatite cyl. 27×14 mm. U. 11403.

386. Seal of *amat-um dumu um-ma-lu-na*. Same as above. A bird emblem of Bau. A crescent.
Steatite cyl. 21×11 mm. U. 11671.

387. Seal of *igi-^{d}lu-ab uku-uš lugal dumu zi-ku-li*: the royal messenger, son of Zikuli. Same scene. Bird emblem of Bau. A crescent.
Shell cyl. 25×12 mm. U. 11670.

388. Same scene. An offering-table with a cake. A winged dragon rampant, half lion, half eagle, a rare emblem of Ninlil. A crescent.
Black steatite cyl. 23×12 mm. U. 12030.

389. Two worshippers in fringed shawl approach a standing figure in *kaunakes*. This last is half-broken. The little man in loin-cloth and turban (?) standing on a brick pedestal is perhaps an idol. An Amorite libator of the same style is found on seals of a later time. The squatting monkey and libra are also emblems pointing towards a date about B.C. 2100.
Haematite cyl. 25×11 mm. U. 11959.

390. Three female worshippers approaching a crescent on a pole between two birds. Long hair and pleated robes.
Shell cyl. 19×11 mm. U. 8800.

391. Worshippers in fringed shawls on either side of a vase, with palm and bunches of dates, of the type used in libation ritual.
Black steatite cyl. 18×8 mm. U. 12033.

392. Fight of nude athletes—or solar heroes. They are armed with clubs and adzes. They have beards, hair tied with a fillet, and one a flat cap of the Kish style. A dagger.
Steatite cyl. 28×16½ mm. U. 12023. PG/1229.

393. Solar heroes. Seal unfinished and not bored.
Jadeite cyl. 32½×18 mm. U. 11507.

394. The triumph of solar heroes. The bird-man of darkness and storm oppresses humanity. He tramples on a prostrate man, and presses down the heads of two others kneeling and crying for mercy. He is Zu, the robber. Shamash of the flaming wings and the golden saw shines through the clouds. His pleated kilt opens in front. His nude athletic servant breaks the back of the hero of darkness. He surges with both arms and flaming wings above the dropping broken body. All the solar heroes have the same mitre. Only the enemy has the central plume.
Marble cyl. with concave face. 32×21 mm. U. 9026. PG/514.

Correspondence of U. Numbers with Numbers in Cylinder Seal Catalogue

U.	*Cat.*	*U.*	*Cat.*	*U.*	*Cat.*	*U.*	*Cat.*	*U.*	*Cat.*
7641	240	8228	47	8646	164	8965	253	9150	175
56	374	90	148	56	139	71	359	58	268
57	101	8339	202	62	80	81	216	65B.	271
7923	324	42	269	66	181	88	308	66	115
27	179	45	220	68	136	91	246	78	307
53	178	59	166	73	126	93	232	83	182
54	187	67	138	81	204	9010	320	86	264
55	156	85	208	85	370	23	118	9242	162
56	188	88	6	99	366	24	373	61	194
57	369	89	48	8713	125A	26	394	62	274
85	99	8416	235	14	8	27	302	63	205
89	174	17	376	21	153	28	154	64	85
92	58	20	203	47	363	51	88	65	371
8006	107	24	92	92	105	56	252	66	267
41	322	61	103	93	255	60	356	82	189
53	100	64	158	8800	390	64	328	83	172
56	49	76	368	97	336	69	223	90	362
56 *bis.*	50	94	119	8910	83	82	167	91	312
85	34	8513	60	11	222	83	176	92	365
93	353	75	42	12	256	9100	277	98	249
8119	26	84	134	16	306	17	142	9310	200
41	59	8615	27	17	340	20	229	15	98
69	133	43	38	26	319	45	183	21	227

U.	Cat.
9326	273
30	234
9501	379
02	236
13	87
26	245
27	377
29	384
51	238
52	372
67	318
78	348
83	382
86	343
87	299
9614	250
18	89
20	272
24	263
34	327
42	332
45	82
52	321
61	171
79	180
81	190
93	310
94	357
9710	337
17	314
21	192
33	155
40	170
49	342
50	364
51	298
64	169
65	177
9808	173
09	226
13	313
29	191
44	198
51	270
58	254
78	52
93	186
9908	244
23	185
43	57
10153	165
68	159
88	361
92	279
10302	247
03	160
23	13
10355	326
64	242
67	228
97	355
10444	10
10444A	11
48A	19
10530	63
10708	75
57	291
64	145
65	168
66A	157
66B	197
96	346
10822	36
23	29
71	17
72	18
10939	16
87	79
11107	76
10	1
12	73
23	207
36	224
43	335
48	334
50	248
74	64
75B	62
78	61
81	9
82	4
11401	94
02	275
03	385
04	375
05	260
10	331
18	315
20	352
26	349
38	262
42	350
47	345
48	305
49	344
52	338
56	233
57	317
58	339
62	259
64	341
73	261
76	193
83	325
11488	129
90	127
92	323
96	230
99	161
11507	393
09	97
15	258
28	44
33	137
54	69
65	151
66	132
80	333
81	303
82	196
90	311
91	330
92	347
96	354
98	329
11600	125
04	381
70	387
71	386
84	309
90	213
11709	360
15	301
25	201
34	12
45	243
51	55
57	84
73	35
74	28
11825	65
28	106
43	316
46	199
52	111
63	210
68	131
71	15
85	231
89	113
95	206
96	225
97	217
99	78
11904	21
38	71
52	140
57	90
58	367
59	389
61	237
11973	130
78	116
81	380
83	195
87	351
90	241
12004	358
11	135
17	265
19	93
23	392
29	278
30	388
31	221
32	266
33	391
34	112
40	304
53	152
79	239
84	144
86	251
87	77
12112	91
14	211
57	163
58	147
12256	33
58	30
96	149
12330	32
31	383
50	86
71	40
74	22
80	39
87	23
12413	72
27	14
33	31
48	43
57	56
61	54
70	290
71	292
12639	276
40	120
54	70
58	2
64	141
66	257
67	219
74	67
75	3
78	143
79	300
80	146
12681	378
12701E	74
01F	279A
04F	7
04G	68
05	280
06	218
07D	46
07E	66
11	5
20	53
65	81
13499	24
13502	212
15	114
16	117
21	104
52	184
74	150
13607	214
79	123
86	215
13815, 54, 63, 65	121
13942	122
14013	51
41	37
87	41
90	124
14216	128
70	109
14319	20
27	45
14441	95
43	25
73A	102
15302	281
03	289
07	296
08	282
09	297
18	283
15473	209
76	110
77	108
79	96
83	127A
17649	285
50	288
56	286
17811	287
12	284
15	293
17904	295
12	294

CHAPTER XVIII

BEADS

ENORMOUS quantities of beads were found in the cemetery; all women and many of the men had worn them, and they were sometimes worn in great numbers, as by Queen Shub-ad (Pl. 130 *b*), the ladies of the court (Pl. 144), a prince such as Mes-kalam-dug, or the owner of the grave PG/1422.

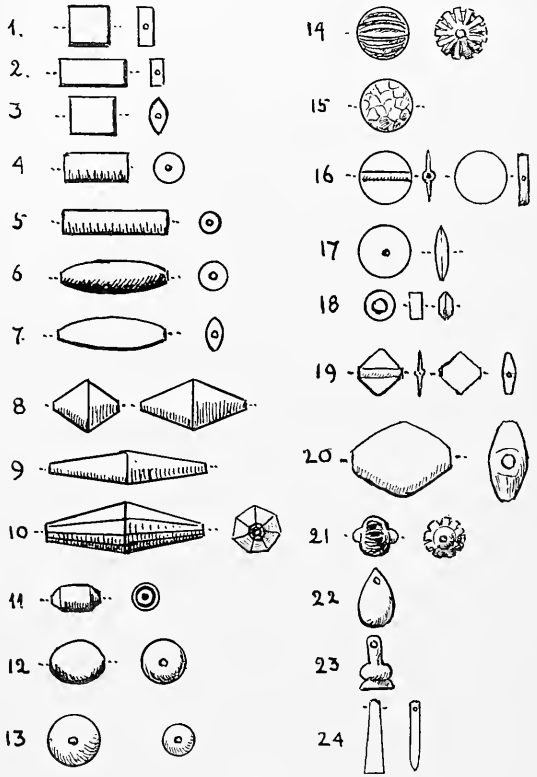


FIG. 70.

In very many cases it was possible to recover the order in which the beads were originally strung, and it became evident that there were definite fashions in the stringing as well as in the form or material of beads.

Forms. At a meeting of the heads of archaeological missions working in Iraq, held in Baghdad in 1929, it was decided to adopt a uniform nomenclature for the types of beads commonly found in Mesopotamia. This system

has accordingly been used in the present volume, and I give here a list of the types and names agreed upon.[1] It will be understood that these are abstract types and that in individual cases it may be difficult to assign a bead to one class rather than another, e.g. between Types 4 and 5, the cylindrical and the tubular, where the whole distinction lies in the relation of length to diameter, there is every possible gradation, and whatever system be adopted there is bound to be some inconsistency.

Type 1. *Square.* The thickness is variable; the flat face of the bead may be decorated as U. 8569, Pl. 134.
Type 2. *Rectangular.*
Type 3. *Biconvex.* The curved sides tend to become flat and to meet at an angle, giving a lozenge-shaped section, as in Fig. 71.

Fig. 71.

Type 4. *Cylindrical.* The length is not much more than twice the diameter and generally is less.
Type 5. *Tubular.* The length is three or more times the diameter; an extreme case is Fig. 72.

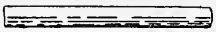


Fig. 72.

Type 6. *Date-shaped.*
Type 7. *Elliptical.* The bead is date-shaped in profile but elliptical instead of circular in section—a flattened date-shape.
Type 8. *Double conoid.* This is one of the commonest forms and embraces every degree of proportion; in order to preserve distinctions a separate type (9) is formed of those beads in which the length is more than three times the diameter. In badly cut beads this type may be scarcely distinguishable from Type 6.

Fig. 73.

Type 9. *Long double-conoid.* Extreme examples of this are shown in Fig. 74 and it will be seen that the sharp edges tend to disappear and the bead approximates to Type 5.

Fig. 74.

[1] It may perhaps be regretted that the meeting in Baghdad did not adopt the 'Classification and Nomenclature of Beads and Pendants' put forward by Mr. Horace C. Beck in *Archaeologia*, vol. lxxvii, 1928: that very scientific classification was thought rather too elaborate for field use, and the aim was to find simple and descriptive names which would so far as possible be similar and have the same significance in English, French, and German: the foreign equivalents of some of the terms used by Mr. Beck would convey a different meaning.

Type 10. *Faceted double conoid.* The number of facets varies from four to eight.

Type 11. *Barrel-shaped.* A double-chamfered cylinder (Beck) but often very roughly cut and assimilating to Type 12.

Type 12. *Ovoid.* The bead is circular in section and elliptical (rather than egg-shaped) in profile. One of the commonest forms, often roughly made.

Type 13. *Ball-shaped,* i.e. wholly spherical.

Type 14. *Ribbed ball-shaped.* Properly speaking, this is a fluted sphere, i.e. the grooves are concave or V-shaped and the tops of the ridges between them are flat, keeping to the outline of the sphere. In other cases the ribs are convex and the bead might be more properly described as gadrooned. The two forms pass into each other and are here not distinguished.

Type 15. *Faceted ball-shaped.* The surface of the sphere is rubbed down into more or less definite facets. A rare type.

Type 16. *Discoid.* In its simplest form this is a flat bead circular in profile and pierced on its diameter; such is its form when the material is stone. When metal is used the bead is formed of two disks soldered together, but by hammering these over a wire (?) a tube is left to take the string, and therefore a convex rib runs across the face of the bead. Occasionally this is imitated in stone examples, or if no rib is introduced the face may be bevelled back from its medial line.

Type 17. *Lentoid.* A disk bead with convex faces giving the lentoid section.

Type 18. *Ring-shaped.* The bead may be square, oval, or a truncated double conoid in section, but the sides are mainly flat so that the beads when strung come close together and produce the effect of an articulated but continuous band rather than of separate elements brought into conjunction.

Fig. 75.

Type 19. *Diamond-shaped.* The metal beads are made in the same way as those of Type 16 and have therefore the same medial rib. The stone examples may be flat or bevelled as in Fig. 76, or cut to imitate the metal as in Fig. 70.

Fig. 76.

Type 20. *Rhomboid.* Generally a coarse bead which may be convex or bevelled (Fig. 77); it is usually large and often of inferior material.

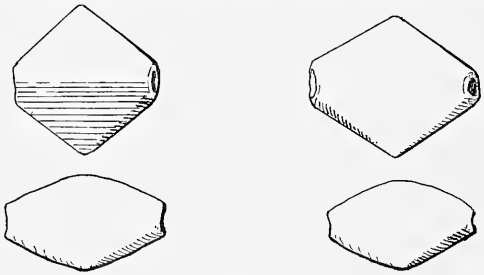


Fig. 77.

Type 21. *Hub-shaped.* The form is that of the hub of a wheel with the spokes cut off short, they becoming gadroons. A type rare in stone but well adapted to frit.

Type 22. *Pear-shaped* pendant.

Type 23. *Poppy-seed* pendant.

Type 24. *Chisel-shaped* pendant.

To these must be added the faceted date-shaped bead with from four to eight facets, Fig. 78; this, together with Type 10, is the favourite for the man's *brîm* head-dress of the early period, and the beads are sometimes of great size, as in the case of that illustrated. The above list includes the forms most commonly encountered in the cemetery, but Nos. 17 and 24 were not found there.

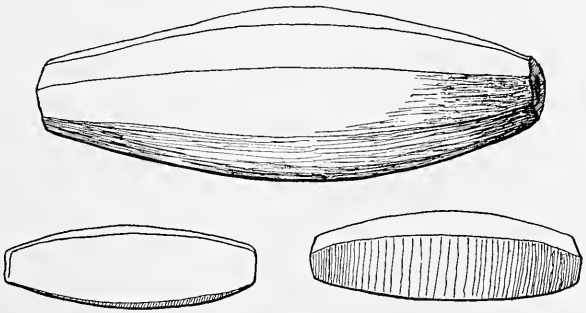


Fig. 78.

Materials. In the Predynastic Cemetery only four materials are regularly used for beads, namely gold, silver, lapis-lazuli, and carnelian; wood occurs occasionally, glazed frit is used, but is not common (18 cases), and there are two cases of glass paste. Queen Shub-ad possessed a marvellous collection of agate beads of exquisite colour and polish, Pl. 131, but in this she was exceptional, and the other graves both royal and private rang the changes on this strictly limited repertory. In the Sargonid period there is a far wider range; agate is common, sard sometimes occurs, steatite and haematite, marble, pebble, crystal occasionally, glazed frit is not infrequent, and there are two instances of glass paste; at the same time the four old materials continue to be the most fashionable of all.

Arrangement. Certain orders are characteristic of the old or Royal Cemetery. The first of these is the 'dog-collar' (Pls. 144, 145) of gold and lapis triangles; the lapis beads are cut out of a single piece and pierced with horizontally drilled holes, the gold triangles are made from sheet metal which is folded in half and beaten on to rods placed in a parallel series so as to produce channels for the threads; the two sides were generally soldered together, but sometimes this has been omitted. Occasionally instead of single solid triangles small ball beads are used (Pl. 133, U. 8527) and in this way carnelian can be introduced to vary the colour; in one case the gold triangles were made up of such small gold beads soldered or sweated together (Pl. 220); Queen Shub-ad's 'dog-collar', which judging from its length was worn not directly round the throat but as the neck of her cloak, was composed of the usual solid triangles of gold and lapis, but between these there were small ring beads of lapis and carnelian making diagonal rows (Pl. 220).

Equally stereotyped are the 'wreaths' worn by the women of the court; always the gold pendants hang from two, three, or four strings of lapis cylindrical beads flanked by carnelian rings (Pls. 129, 135, 220). Beads of the same types and materials but with the addition of gold cylinders were regularly

used for cuffs and belts, but here they were sewn on to a cloth background, not strung together, *v.* Pl. 131; for that purpose no other types were employed. But the combination of lapis and carnelian which seems to have been thought specially suitable to the head-dress and to the trimmings of the garments was not nearly so popular for necklaces; for the neck the favourite material is lapis-lazuli relieved with silver or gold. In the better graves the necklaces are nearly always composed each of beads of uniform type, the double conoid being most preferred; the beads will be arranged in sets, e.g. eight of lapis alternating with four of gold, and they will be carefully graded in size with the biggest beads, which sometimes are very large, in the middle; the strings were often long and went three or even four times round the neck. Gold and silver are not often used in the same string, though instances do occur wherein groups of beads in the two metals separate the larger groups of lapis (but it is possible that this was more common than I have supposed, because the silver beads were generally much decayed and sometimes reduced to powder, so that they may have escaped notice); but it is an invariable rule that no necklace should be made of metal only—a plain string of gold beads is absolutely unknown. Strings of plain lapis were of course common enough—that depended on the means of the owner—and if possible such would be spaced out with silver (e.g. PG/1332); gold was only for the rich; but it is evident that much more attention was paid to the aesthetic effect of the mixed colours than to the ostentation of wealth. PG/1054 was one of the very few graves in which carnelian took the place of lapis; the royal lady buried in the domed chamber wore strings of carnelian and electrum beads, and it is perhaps not too much to assume that the lighter-coloured alloy was chosen as going better with the stones than purer gold would have done. There are great differences in the size, the colour, and the cutting of the stone beads from the different graves, and in this wealth is clearly the deciding factor; one could generally identify the beads from a royal tomb by their size and quality. Mes-kalam-dug's grave produced the finest lapis-lazuli double conoid beads, deep in colour, large—some almost grotesquely so—and perfectly regular in shape, whereas the poor death-pit PG/1332 yielded beads small, more brown than blue, and so poorly cut that it was difficult to say whether they belonged to Type 8 or 5 or 12. Thus again the ribbed ball bead is not often found outside the richer graves, but in them it may be very large (Pl. 220) and, because the labour required for its cutting was considerable, the craftsman has generally selected stones of a fine colour. Date-shaped beads, the flattened date-shaped or elliptical, and the faceted date-shaped are all common in the early period and the last is specially characteristic of it, while for carnelian a favourite form is the long double conoid, which is found also in gold. The gold beads are generally of fairly heavy metal; they are hollow, except for some of the smaller double conoids and balls or ovoids, which are solid cast; the others were made over a core of wood or bitumen and are soldered or sweated together. Some of the gold beads are very elaborate. Three graves, amongst them that of Shub-ad, produced the dumb-bell beads made of twisted wire (Pls. 131 and 132, U. 11728); on Pl. 134, U. 9656,

are double conoids of coiled wire; from PG/580 came a big double conoid decorated with patterns in applied filigree work (Pl. 138, U. 9779) and a yet more complicated example consisting of four such beads soldered together, Pl. 146, U. 9657. Other instances of composite metal beads were found, e.g. the gold beads in the head-band on Pl. 133, U. 11806; here both the gold and the lapis beads are made in one piece (four beads in one), while the carnelian are separate; and in PG/755, where double conoids soldered together in sets of three occurred; with such may be mentioned the gold bar spacers found in several graves, most of them plain, but a more ornate example is illustrated at the top of Pl. 134.

Beads are not very satisfactory material for dating because they are almost indestructible and may be in use for a very long time indeed; the emergence of a new type is important, but the duration of a type is incalculable, and long after general fashions have changed there may turn up in use isolated specimens of a bead-form characteristic of an entirely different phase of culture. Consequently in trying to work out the chronology of the graves no notice was taken of the beads; it is more correct to date the fashions in beads by the graves in which they are found than to date the graves by the beads. It is obvious that certain types are bound to be equally common in both the old cemetery and in the Sargonid ages because they are the commonest types of bead all the world over; Types 4 and 5 (except in its extreme form), 13 and 18 can be disregarded for purposes of comparison. Type 12 is not always easy to distinguish, as it tends to merge on the one side into 13 and on the other into 6, but of the seven examples specified as such all came from the old cemetery and none from the Sargonid; faceted date-shaped beads were very common in the old cemetery and none occurred in the Sargonid graves; the gold 'dumb-bell' bead (Pl. 132, U. 11728) was found only in the old cemetery; of twenty-nine examples of the ribbed ball bead (Type 14) twenty-two came from the old cemetery, four from the few Second Dynasty graves dug, and only three from the Sargonid; the faceted double conoids (Type 10) well known in the old cemetery disappear altogether after that date; faceted cylinders occur only in the old cemetery; the rectangular bead (Type 2) is found eight times in the old cemetery, once in the Second Dynasty, and never in the Sargonid graves. The lunate bead (Fig. 79) and a bead shaped rather like a double axe occur only in the Sargonid cemetery. Type 1, the square, Type 16, the disk, and the cognate form the diamond, Type 19, are about equally divided between the two main cemeteries and are found in the Second Dynasty graves also; the rhomboid, Type 20, a rather rare form, is also common to both. The double conoid (Type 8) is found in more than four times as many graves of the old cemetery as of the late, and the proportion is the same for its longer and more graceful form Type 9, while the barrel, Type 11, is three times as common in the Early Cemetery, and the very long and slender form of Type 5 five times; Type 2, the biconvex, is rare, and occurs in the old cemetery and in the Second Dynasty graves but not in the Sargonid.

It follows that in spite of the difficulty which is involved in looking to beads

for dating evidence one can distinguish a very real difference between the general fashions of the Royal Cemetery and of the Sargonid age. Those types which require the most elaborate cutting disappear in the later period or at any rate become more rare, and the shapes as a whole are less clearly defined, and as the elaborate cutting is precisely that which gives character the disappearance of these types changes the whole aspect of the Sargonid jewellery. Nor is the change confined to the individual beads. It has been stated above that the formal wreaths and 'dog-collars' of the Royal Cemetery have not at Ur been found to persist beyond the Royal Cemetery age, but further, in the Sargonid period, with the introduction of a much wider range of material, there disappears altogether the love of symmetry and balance in the stringing of the beads which characterized the early period; occasionally in the fine necklaces from a rich grave, e.g. PG/1847 and 1850, Pl. 147 (Second Dynasty graves, but what is true of the Sargonid in this respect is true of the Second Dynasty also), there is a certain amount of arrangement, long beads alternating with short, but for the most part the only order is disorder. Very many necklaces of this age have been recovered with the original stringing, but no principle could be deduced from them except a passion for variety.

Fig. 79.

Of new shapes the most striking is the V-shaped flattened bead, generally of agate, which comes in the middle of a necklace: not infrequently it is provided with gold caps at either end, and the same ornament is applied to cylinders and other types of the agate beads now popular (Fig. 79); the flat cat's-eye agate seems to be most prized. A proof of the comparative poverty (or of the ostentation?) of the period is given by the gold beads; these are always of light metal and usually are of copper gold-plated; very often the gold has been worked to an astonishing thinness, almost that of the gold-leaf used by modern decorators, so that the employment of gold-beaters' skin by the makers would seem necessary. On the whole the beads are of smaller size than in the Early Cemetery (but this is not the case with the Second Dynasty graves, in which some particularly large beads occur) and not so well cut; the lapis used is seldom of good colour. This may be due to social conditions. The lapis-lazuli of the Sumerians was imported through Persia, in which country it does not exist, from the Pamirs; so distant a commerce would be difficult to maintain and to direct, and the failure to secure stone of good quality may have been owing to circumstances quite beyond Sumerian control: it is in the Sargonid period that we first encounter beads of 'synthetic lapis', a bright blue paste made partly out of the ground-up stone, a substitute which would only be employed when genuine lapis of good quality was hard to obtain. Carnelian and agate could be obtained nearer home, from the Persian Gulf, and in the absence of fine blue lapis it was natural that the local products should be better exploited. I should remark that what was imported in either case was the raw material. At Ur we find lumps of unworked lapis and it is evident that a vast amount of the lapis used, e.g. in mosaic work and for the hair and beards of animal figures, could only have been worked on the

spot by the craftsmen who intended to use it; and since the lapis beads are identical in shape with those in other materials which did not come from the same source the same must needs be true of them. It is quite common to find unfinished beads of carnelian, crystal, &c., and in the poor grave PG/958 we came on a bag containing the stock-in-trade of a bead-maker (p. 206); in this as in other matters we must look upon Ur as a manufacturing city which imported raw material and exported finished products.[1]

The unfinished beads found on the site—they are most common in an eastern suburb of Ur called by the modern Arabs Diqdiqqeh—illustrate well the process of manufacture. The bead was first chipped roughly to shape; in the case of carnelian ring beads the hole was then pierced and the polishing was the last operation, but in other shapes the final shaping by grinding and the polishing was done first and the piercing last. Whatever the medium used[2] the polishing was extraordinarily well done, and modern methods could not improve upon the surface obtained; present appearances are not always favourable, for the stone, and especially the lapis-lazuli, has often suffered from decay which by pitting the surface has reduced the luminosity and impaired the colour; but where conditions have been favourable to preservation, as in the case of Queen Shub-ad's beads (Pl. 131), the high quality of the original work is astonishing. Sometimes the hole was drilled from one end only, but in that case there was a danger of the drill forcing off the end of the bead, and a number of examples so fractured have actually been found; generally therefore the workman preferred to drill from both ends, the holes meeting in the middle of the bead; the slight deflexion that was almost bound to occur, resulting in the two holes meeting at an angle, can usually be detected. The drills were extremely fine and it is difficult to explain how the metal was hardened so as to penetrate such a stone as carnelian sometimes to a depth of 0·035 m., nor is there anything to show whether the bead was held firm and the drill (presumably a bow-drill) applied to it or whether the bead was pressed against the point of a fixed but rotating drill; and there is the same uncertainty as to the method of polishing, but in both cases the mechanism must have been simple; the faceted beads, of which there are elaborate examples having as many as twelve facets, could of course have been worked on a flat grindstone, and the fact that most of the beads were polished before piercing is against their having been attached to a spindle and rotated by a bow-drill against a stationary polisher and would suggest that they were held e.g. in bitumen on the end of a stick and applied to a rotating polisher and treated half at a time: but this cannot be definitely proved.

To the general rule that the beads are of local make there is probably one important exception. On Pls. 133 and 134 there are illustrated a number of carnelian beads and pendants with white patterns artificially bleached on the

[1] Mackay, *Report on the 'A' cemetery at Kish*, pp. 18 and 185, found the lapis beads at Kish less well shaped and polished than the carnelian and deduced that the former were perhaps locally made and the latter imported. The facts at Ur are quite different and the conclusion could not apply. The lack of polish of lapis beads is often due to decay.

[2] Emery has been found at Ur (not on the cemetery site) and may have been employed by the bead-makers.

stone.[1] Such beads have been found at Kish, apparently belonging to the Sargonid period; at Ur a few examples have been found in the early graves, notably in the royal grave PG/580, in Second Dynasty graves, and in graves of the Sargonid cemetery;[2] they are always rare. Four precisely similar beads with the same patterns worked in the same technique have been found at Mohenjo-daro, thousands have been found in excavations at Greek, Scythic, Parthian, and Kushan sites throughout the north-west of India,[3] and the technique is still practised in India; it is impossible to suppose that the elaborate chemical process was invented independently in the two countries, in Sumer the beads are not so common as to suggest a local manufacture, the patterns are not characteristic of Sumerian art, so far as we know they drop out of use whereas India retains the fashion, and that there was inter-

Fig. 80.

course between Sumer and Mohenjo-daro we can prove from other evidence. Probably the bleached beads are of Indian manufacture; in any case they provide a further link between the civilizations of the Indus and the Euphrates Valleys.

Pendants. In the Royal Cemetery the principal types of pendant are those worn on the wreaths, but pendants on necklaces are not uncommon. Most of them are made of gold, and even those of carnelian or lapis-lazuli are usually attached to gold suspenders. The Sumerian rightly felt that pendants hung from a single rank of beads were likely to overweight it in effect—something more solid was needed above to put the pendants in proportion, and therefore the pendants are nearly always so made as to act as spacers for two, three, or four ranks of beads: the stem is made of a strip of gold cut as a narrow ribbon in the centre and thinned down at one or both ends almost to a wire, it is folded in half and the two sides are alternately looped apart and soldered together so as to make parallel horizontal rings through which the strings of the necklace or wreath may pass, and the pointed ends, in the case of a stone pendant, are put through it and twisted in a knot; in the case of the gold leaves the leaf and stem are in one piece (*v.* Pl. 220).

The leaves of the wreaths are a puzzle, for characteristic though they appear they have not been identified with certainty. They look like beech-leaves, and so I have called them in the text, but the beech is not a native of Mesopotamia, nor are the other leaves with which they have been compared. Probably

[1] The method of bleaching is described by Mackay in *A Sumerian Palace and the 'A' cemetery at Kish*, Part II, p. 185: 'Coat the carnelian with a layer of carbonate of soda, then place on a red-hot iron. The depth of the white layer depends on the length of calcination. Next stop out the parts not wished to be opaque with a cement containing oxide of iron. Re-submit to heat, when the stopped-out parts will recover their lost colour.' Also cf. *Man*, vol. xxxiii, No. 150, and Beck in *A.J.* xiii (1933), No. 4, p. 384.

[2] Early graves PG/151, 453, 580, 1100; Second Dynasty PG/1845, 1853; Sargonid graves PG/248, 384, 1284, 1351, 1380 (?), 1470.

[3] *Mohenjo-daro*, p. 583.

they do not represent any tree native to the valley but are an inheritance brought by the Sumerians from their original home and guarded by tradition. The long narrow leaves (Pl. 135, U. 12380) always made in sets of three I take to be those of the willow or sallow, common on the banks of the Euphrates; the pomegranates of Queen Shub-ad's diadem and of U. 11776, Pl. 142, are easily recognizable. The ring pendant, Pl. 135, U. 11558, is the most common as it is the least interesting of the rest; the gold disk with lapis centre, Pl. 135, U. 12380, occurs only twice. The most elaborate form is the circle of gold wire on which are four cones of coiled gold wire, U. 9656 on Pl. 134, and of this there is the more usual and more simple form consisting of a single gold wire cone which is also imitated in lapis-lazuli (examples on the same plate). The double spiral of gold wire on the same plate is unique; the heavy gold leaves with a strong central rib, and their imitations in lapis, occur very rarely, but the fruit pendants in gold, lapis, and carnelian (U. 34, Pl. 134) are not uncommon (all the above are illustrated from specimens found in the 'gold dagger grave', PG/580). In a plundered grave, PG/147, there was found a single example of the poppy-seed pendant, Type 23, and from the royal grave PG/1236 came a tooth-shaped pendant, Pl. 220, U. 12459; the pear-shaped pendant Type 22 is fairly common in all materials. The curious embossed disk U. 12375, Pl. 219, perhaps a bunch of grapes, is from PG/1237. None of these pendants are found in the Sargonid graves.

Amulets. Amulets are not common. It is only in the old cemetery and then almost exclusively in royal graves that large amulets occur, the only exception being the grave of Mes-kalam-dug. Queen Shub-ad wore hers as ear-drops and on her right arm, and none of the larger sort have been found suspended from a necklace. The gold bearded bull, U. 8269, may be from a diadem (*v.* p. 45); the other forms, illustrated on Pls. 142–3, are the calf (U. 10946, U. 8033), the bull (U. 2918), the ram (U. 10009), two gazelles (U. 10943), the fish (U. 10944), the frog (U. 10008), the dove (U. 9076) and another bird (U. 8005). Small amulets strung on bead necklaces, however, though rare, are found, both in the Royal Cemetery and in the Sargonid; these give further animal forms, viz. the frog, three times in the old cemetery, twice in the Sargonid, the fly, three times in the old cemetery, once in the Second Dynasty, once in the Sargonid, and the dog, a silver pendant in the Sargonid grave PG/906, U. 10742. A heart-shaped amulet came from the Sargonid grave PG/908, U. 10378, cat's-eyes from PG/1847 and PG/1854, Second Dynasty graves, and from the Sargonid graves PG/1094 and PG/1490. A lapis-lazuli phallic amulet came from the old grave PG/405 (U. 8904, Pl. 219); from an old grave also, PG/91, came the two amulets U. 8072, 8073, on Pl. 219, of which one is a bird and the other possibly phallic; the small gold phallus U. 9610 on the same plate was attached by minute gold nails to a wooden background, so it was probably not an amulet but part of a carved figure. The (Sargonid) bird, U. 8397, Pl. 219, was apparently the head of a pin, not an amulet in the ordinary sense.

CHAPTER XIX

STONE OBJECTS

THE most remarkable stone object found in the cemetery is the limestone relief U. 8557 on Pl. 181; unfortunately it is only a fragment, the bottom of a rectangular slab pierced through the centre with a square hole through which probably went a peg with an ornamental head attaching it to the wall: there are also holes for attachment at the corners. The slab was divided into four compartments arranged in three registers and each occupied by a scene carved in relief. The fragment gives the entire width of the stone and is preserved from the base to the lower edge of the central hole, but the upper corners of the bottom scene are broken away and of the two side scenes only a corner is left showing human feet. By an extraordinary coincidence there has been found at Khafaje[1] an identical slab of which the whole of the upper part remains and the front of the bottom scene together with the head of the last figure in it; everything that is missing on one slab is present on the other, and the two between them allow of a complete restoration of the monument.

The scenes at once recall the 'Standard'. In the top register is a feast with music; in the second servants bring wine in a great jar and an ox is driven in by a man carrying on his head what is probably a basket of food; in the third register, which alone is well preserved on the Ur fragment, we see the empty chariot of the king drawn by four asses[2] and escorted by three men. The similarities are so striking that the difference between the two monuments becomes far more interesting. Scarcely a detail in the two chariot-scenes corresponds. The chariot itself has, on the limestone relief, two instead of four solid wheels built like those on the Standard but with more prominent tyres; the body of the car is of quite a different shape and the pole springs from the top of the body in a high curve and descends to the yoke instead of rising from beneath the body; there are no high front or sides to the car, but the back is fairly high and curved; part of it seems to be of wickerwork, but most of it is concealed by a spotted leopard's skin thrown over back and front; almost it might be supposed a sort of *calèche* in which a single driver sat as in a saddle, but against this there is the quiver rising in front full of weapons, showing that it is a war chariot in which the fighter would of necessity stand upright. The weapons call for comment, because while there are spears, as on the Standard, there are also two axes of Type A 15; the whole cemetery produced only a single example of the type, and on the Standard no such weapon appears: here two extra spears are slung by a loop from the quiver and hang with their points resting on the floor of the car.

[1] Frankfort, Jacobsen, and Preusser, *Tell Asmar and Khafaje* (Oriental Institute of Chicago, Communications, No. 13), Fig. 14, p. 96 f.

[2] In my preliminary publication, *A.J.* viii, p. 18, I described the animals as lions, being misled by the feet, which certainly have little resemblance to hooves, and by the tassels of the collars which I supposed to be manes; in view of the Khafaje slab the error is obvious. The question of their being mules or asses is discussed on pp. 271–3 *supra*.

Very different too are the men. All the principal characters have long hair which hangs down on their shoulders and looks very like a wig, clean-shaven upper lips, and long straight beards; the upper part of the body is nude, and from the waist hangs a kilt of a different pattern from that on the Standard fastened by a broad belt and provided with what may be a cod-piece.[1] Only in the middle register are there clean-shaven folk of the familiar Sumerian type, and these are servants or tribute-bearers corresponding to those who on the Standard are represented as long-haired and wearing feathered caps, i.e. to those whom we may suppose to be captive enemies.

The Ur plaque was not found in a grave nor in conditions which enabled us to assign to it any certain date. It was loose in the upper soil close to the circular pavement of plano-convex bricks (Pl. 69 *a*; cf. p. 37) which proved to have nothing to do with any grave and was probably later in date than the cemetery; but again there was nothing to show that this proximity to the pavement was other than accidental. Partly on the strength of this and partly because the style of the relief resembled that of the Ur-Nina sculptures I was inclined to assign it to a period later than the royal graves, perhaps to the First Dynasty of Ur: but the discovery of the companion piece so far away in the north as Khafaje, near the modern Baghdad, puts the matter in a different light. The physical type of the men, their dress, their weapons, and the build of the chariot are not what we have learnt to expect of the Sumerians, but they might be at home in the north where Sumerian culture had imposed itself but the people were almost certainly of another racial stock; the fact that, judging by these criteria, the roles of conqueror and conquered as given on the Standard have been reversed on the plaque makes the Sumerian authorship of the latter less likely, and I now think that it is an importation from the north; if the late date suggested is correct the monument might even celebrate the downfall of the First Dynasty of Ur.

The two lamps carved in white calcite, U. 10746 and U. 11795 on Pl. 182, have the shape of the metal lamps derived ultimately from the cut shell, but to this is added a figure of a man-headed bull carved in the round.

They offer a marked contrast in style. U. 11795 we found when excavating grave PG/1134, a grave belonging to the later part of the Royal Cemetery period; it lay in the filling of the shaft about a metre above the body and whether it had been put in the filling at the time of the burial, or was an intrusive object having nothing to do with the grave, as was possible, since the earth was disturbed in its immediate neighbourhood by later burials, there was no means of deciding: in the Tabular Analysis it is attributed to PG/1134, but the possibility remains that it is somewhat later in date. U. 10746 was found in PG/871, a grave of Second Dynasty age. The difference in style therefore corresponds with a difference in date which if indeterminate is very real. U. 11795 is obviously archaic and recalls the man-headed bulls, for instance, on the shell plaque on Pl. 105, though the treatment of the body is somewhat drier and more schematic than one would expect of the earlier Royal Cemetery period which produced such marvels of animal

[1] Gadd, *History and Monuments of Ur*, p. 32.

sculpture as the ass on Pl. 166; it is more in keeping with the close of that period when art was becoming scholastic. The Second Dynasty piece, on the other hand, is thoroughly characteristic of the Sargonid age, a faithful translation of what is best in the cylinder seals of the time: the contrast between the two similarly conceived but differently executed figures emphasizes the wide time-gap between the two phases of civilization.

Another stone object of late date is the gypsum mace-head U. 11678, of which three photographs are reproduced on Pl. 183. This was found loose in the upper soil of the cemetery and need not, so far as the evidence of the finding goes, have anything to do with the graveyards, but since in subject it resembles the lamps so closely and since it does come from the cemetery area it is published here in their company.

The pear-shaped body of the mace-head has carved on it in low relief two figures of man-headed bulls, and on the top of it is a crouching lion now so damaged as to be scarcely recognizable; the bulls have also suffered greatly. An inscription with a dedication to the god Shamash, the Sun-god, has been very much defaced but it is still possible to read the name of the dedicator, AN-BU, followed by the (imperfect) title *lugal*, king, *v.* p. 321. This AN-BU cannot well be other than the first king of the dynasty of Mari which obtained the hegemony of Mesopotamia soon after the fall of the Second Dynasty of Ur. In that case the mace-head is later in date than the Second Dynasty lamp U. 10746 although at first sight it looks more primitive in design, but that appearance is partly due to inferiority in execution and partly to the condition of the stone; so far as can be judged the style is really quite consistent with the later period, for it retains indeed something of the general scheme of the archaic school but combines with this a stronger Sargonid feeling, the abstraction of the figure from its background and the insistence on decorative effect rather than on meaning which tend to make the products of the Sargonid age dry and relatively uninteresting.[1] The identification of AN-BU supports the conclusion at which Legrain arrives from the study of the cylinder seals, namely that the 'Sargonid' style in art was developed before the time of Sargon himself, and is of further value for its historical significance; the mace-head is dedicated by a foreign king who must have been suzerain of Ur if he could make offerings in its temples, its form implies the conqueror, and the defacement of the carving and of the inscription imply the resentment of the conquered and the final shaking off of his yoke;[2] it goes far to establish the credibility of the King-Lists which make AN-BU the founder of a foreign dynasty whose rule extended over all Sumer.

The Stone Vases. Pls. 165, 174–80, and 241–50

The shapes of the stone vessels found in the cemetery were most varied, 103 types being registered; but even so it must be remembered that with hand-made objects no two are exactly alike and each example is in some degree a modification of the type as drawn; thus in the case of the 'spill vases'

[1] Though this is not the case with the best of the Sargonid work, e.g. the Stela of Naram-Sin.

[2] Compare the 'beheaded' statue of Entemena from Ur, *A.J.* iii, Pl. xxxi, p. 331.

(Types 1 and 3–7) the rim is sometimes flat as represented on the type sheets but sometimes bevelled on the top so as to give a more angular contour, and the proportions of height and diameter are never identical. The vast majority of vessels belong to the predynastic cemetery; only nine types, of which three are doubtful, are peculiar to Sargonid graves[1] and only six types are common to the two cemeteries;[2] the graves of the Second Dynasty produced three types all of which occur also in the predynastic graves.

The materials are also varied. By far the commonest is white calcite, ranging from ordinary limestone (which is so specified in the catalogue) to the finest stalagmitic calcite richly veined and beautifully coloured (e.g. U. 10882, Pl. 175) or to a plain translucent stone almost blue-white, as U. 9363, Pl. 176; in many cases the decay of the surface had robbed the vase of its original effect, but where this was preserved the polish was admirable and brought out the full quality of the stone. Steatite, dark or greyish-green, was fairly common, diorite or basic diorite, popular in the preceding period, was now less in use; isolated examples occurred of lapis-lazuli (U. 10517, Pl. 174), obsidian (U. 10488, Pl. 165), black and white breccia (U. 10496, Pl. 178), and translucent green calcite (U. 10480, Pl. 174). To some extent material and shape were associated. The 'spill-vase' types 1–12 were always of calcite, the very beautiful bell-shaped bowls 49–51 were always of steatite, the jars 85–92 always of calcite, the oval bowl 96, which is borrowed from the metal type, was only made in rare material such as obsidian or green calcite, the decorated types, 10, 29, 52, 53, were of steatite.

A good many of the shapes present striking similarities with those prevalent in Egypt in early dynastic times, and it is difficult not to see some connexion between them; I had myself suggested this[3] and had the support of Sir Flinders Petrie for the view, but the argument must be used with all caution. Dr. Reisner[4] has pointed out that in all these types there are individual features such as the treatment of the rim which have no parallel in Egypt; he considers that the shapes could have been evolved independently in the two countries and holds that the Sumerian vases were made not in Egypt but probably in Babylonia. In the latter contention Reisner is certainly right. The fine veined calcite of which so many of the vessels are made is not Egyptian but probably comes from the west coast of the Persian Gulf where stalagmitic calcite deposits are found, and the basic diorite (which is much more common in the earlier Jemdet Nasr period) is more likely to come from the East. We have proof that in the Jemdet Nasr period stone vessels were manufactured locally, because the stone borers for hollowing out the bowls have been found, and although there is no such tangible evidence available for the cemetery age it is highly improbable that the industry should have lapsed; moreover, where some of the vases are so typically Sumerian (e.g. Type 96 and the decorated types 10 and 29) and must have been made in the country it would be unreasonable to suggest a foreign origin for others. At

[1] 18, 33 (?), 36 (?), 38, 46, 52 (?), 57, 73, 80.
[2] 15, 20, 28, 43, 56, 91.
[3] *The Sumerians*, p. 186.
[4] G. A. Reisner, 'Stone Vessels found in Crete and Babylonia', in *Antiquity*, 1931, p. 200.

the same time it must be remembered that a local industry can influence or be influenced by foreign products, and the possibility of a connexion between the stone vessels of Sumer and Egypt is not ruled out by the fact that each country manufactured its own, nor in that case is the general resemblance necessarily impaired by local differences of detail because imitations of a foreign model nearly always do betray their origin by the introduction of some native element. The independent development of numerous types so similar as are these seems to me unlikely, and since other points of contact between the Euphrates and the Nile Valleys are beyond question, it is but reasonable to see here a further link.

As might be expected, the stone vessels vary much in quality. From the poorer graves come bowls of rather coarse and soft limestone which are clumsily cut and lop-sided, while vases from the royal tombs are of the better materials and as a rule extremely well shaped. As regards the technique of manufacture, a metal tubular drill was used for hollowing out the interior of tall vases of the 'spill-vase' types (1–12) and sometimes to start the process in the jar types, e.g. Type 88, where the hole is vertical and the drill marks are visible on its sides; but usually the walls, in this instance left solid, would be thinned by subsequent grinding with another tool. For bowls the usual tool was the stone borer (this would often be used to finish the work on the 'spill-vase' also), which was mounted on a wooden bit and apparently worked with a bow-drill. Probably in the case of the more open bowl types much of the interior work was done by chipping and finished with the grinder. It is almost certain that the hollowing out of the vase was done when the outside had been only roughly chipped to shape and that the fine cutting of the walls from the outside was the last process of all; this would explain why in some of the finest vases an imperfection of the stone which interferes with the regularity of the contour has been left and at best slightly 'faked'; the interior having been already hollowed out the wall could not be ground farther back so as to circumvent the fault as would have been done if the stone were still a solid lump.

Carved decoration was extremely rare. Two steatite bowls from Queen Shub-ad's tomb (U. 10522–3, Pl. 178), two from PG/337 (U. 8950, 8951), and one from PG/1633 (U. 14058) are ornamented with the all-over pattern in raised dots or scales which was common at Tello,[1] there are two bowls of basic diorite with incised concentric circles (U. 10547 and 9020, Types 52 and 53), one calcite bowl (Type 39, U. 12129) has a simple cord band in relief, and two limestone vessels, a bowl and a jar (U. 8239, 8190, Pl. 177), are covered with a roughly scored pattern derived in the first case from a straw cover like that of the modern Italian *fiaschi* and in the second from basket-work. The bull's legs incised on several vases, nearly always steatite bowls of the bell shapes (e.g. U. 8135, Pl. 177), are not ornaments but marks of ownership like the similar marks on weapons (*v.* Pl. 189), and the nicked rims of Types 17 and 48 are decoration reduced to a minimum. One reason for the paucity of ornament is that on a very great many of the vessels (but

[1] de Sarzec, *Découvertes en Chaldée*, ii, Pl. 44 *bis*, 6 a, b.

not the bowls) ornament would have been wasted; like the jar carried by the lion on the shell engraving (U. 10556, Pl. 105) they were normally hidden by a case of plaited straw or basket-work; in a number of cases the decay of the vegetable matter has left its imprint on the stone, and even the perfectly clear design in black on U. 7645, Pl. 178, seems not to have been painted on but to be due to the reed covering having been dipped in bitumen. Scratched patterns of a very rough sort do regularly occur on the stems of the offering-tables (Type 101) whether they be made of clay or limestone (U. 8217, Pl. 180, and Pl. 221); these are always tree (or palm-leaf) patterns and must have some special significance other than mere ornament, *v.* p. 388.

The distribution of the various types and the evidence for their dating is given in Appendix III, B, and few of them call for special comment here. In some cases the types might have been reduced in number by grouping together as variants of one type several which here are distinguished, e.g. Types 19 to 23, and indeed it was often difficult to decide to which type an individual vessel was rightly to be referred; but with new material it seemed better to be over elaborate than to simplify perhaps at the cost of confusing the evidence. Type 21 is represented by a single example which is roughly cut and has on one side an excrescence now broken and of uncertain shape and purpose; it is possibly an unfinished vessel. The angular jar 69 is inherited from the Jemdet Nasr period; discoveries made after the type-sheets were drawn up show that more forms go back to that period than was then suspected. Type 98 may be a lamp. Type 100 is a circular box with a lid which was secured by strings passed through holes in the sides and tied over the top. In Shub-ad's tomb was a curious limestone table (U. 10525, Type 105) on three short feet pierced in both directions: clearly there had been inserted in vertical holes metal legs which were secured by cross-pins; a somewhat similar table was found elsewhere, belonging to the Sargonid age, but in the early period it is unique.

Other Stone Objects

On Pl. 221, U. 8731, is figured a toilet-box of white calcite divided into four compartments; U. 11841, on the same plate, has three compartments and is decorated outside with 'mountain' pattern. The carvings in lapis-lazuli on Pl. 142 are dealt with as amulets (p. 375) and need not be described here. No celts or other polished stone tools were found in the graves, but in the grave of Mes-kalam-dug, PG/755, there was a group of chipped flint arrow-heads of the triangular chisel-pointed shape probably used for shooting small birds and game. It is curious that nothing of the sort was found in any other grave of the cemetery, but the type is quite common in the al-'Ubaid strata and may have persisted, although there is no evidence as yet to prove that it did. The type is common in Egypt[1] in and after the First Dynasty, and appears as a hieroglyph, which might seem to be evidence for its earlier use, but as a matter of fact it has not been found in predynastic associations; it is

[1] Professor P. E. Newberry, in *Ancient Egypt*, 1914, p. 5, Fig. 1.

therefore possible that it is one more example of Egyptian borrowing from Sumer prior to the rise of the first dynasty. In PG/319 there was a small saw-edge tool of red chert set in bitumen (Pl. 221, U. 8578), in PG/1561 the small flint, U. 13555, Pl. 221, and in PG/958 the bead-maker's outfit included stone pounders or hammers (U. 11414, Fig. 67, p. 207); considering that for certain purposes the use of stone implements has lasted in Mesopotamia and Syria up to the present day, there is nothing surprising about their occasional appearance at Ur in the cemetery age.

CHAPTER XX

WOODWORK

WOODEN objects were probably not uncommon in the graves, but owing to the nature of the soil scarcely anything of the woodwork survives. It is obvious that a race whose manual skill is illustrated by the masterpieces in metal-work found in the Royal Cemetery would not have been behindhand in dealing with a less obstinate material, but of their technical excellence in this direction chance has preserved to us only the scantiest evidence.

The construction of the coffins, whether of wickerwork over a wooden frame or of wood throughout (*v.* pp. 135–7), does no more than show a moderate proficiency in joinery, and the same is true of an example of planking from PG/389 (Pl. 222), where the planks are clearly fitted into a slotted frame, and of the boxes in PG/381 (Pl. 222), in which the bottom must be mortised into the sides.[1] The wheels of the cars in PG/789 (Pl. 222) are good examples of joiners' work; more interesting is the cast in plaster of a wooden lyre (Pl. 118), where owing to a slight springing of the tenon joins the method of mortising can be clearly seen—this last is something more than mere carpentry and deserves to rank with cabinet-making.

From the cylinder seals and from the banquet-scene on the 'Standard' (Pl. 91) we can get some idea of the furniture of the early period, and the designs bespeak a certain degree of artistry as well as technical skill; probably the two silver heads of lionesses found in PG/800 were ornaments from a chair not unlike those figured on the 'Standard', for they were attached to wood of which an impression was left in the soil—a broad piece, probably the arm-rest, running back to an upright which should be the back leg carried up to form the back, and a narrow bar from the chair-back (Cat., U. 10465). The decoration in this case was, so far as we can tell, not carried out in the wood itself but applied to it in an alien material; the same is true of the chariot of Queen Shub-ad (Pls. 122–3), where the actual woodwork is plain and the ornament is all in metal or shell; the panelling was constructive, not decorative. In the wardrobe of Queen Shub-ad also the real ornament consists in the mosaic panel (Pl. 94) and a strip of gold inlay; but in this case the wood seems to have been painted a bright red. By far the most elaborate example of cabinet-work found by us was that of which four illustrations are given on Pl. 222, figs. *a–d*; the circumstances of the finding of this have been described elsewhere (*v.* p. 169), and here I need only add that while the original fracture of the soil produced the carving (fig. *c*) a second fracture brought to light the two impressions drawn on figs. *a*, *b*, and *d*; unfortunately it was impossible to say whether these are the two faces of a single thickness of wood

[1] In PG/1156 there was a wooden box 0·55 m. square and 0·23 m. high containing cockle-shells and paint; in PG/1248 remains of what was apparently a box inlaid with mother-of-pearl and red and black stone; in PG/1054 a wooden box containing the two gold daggers, Pl. 157 *b*, *c*. Of the construction of these nothing could be seen.

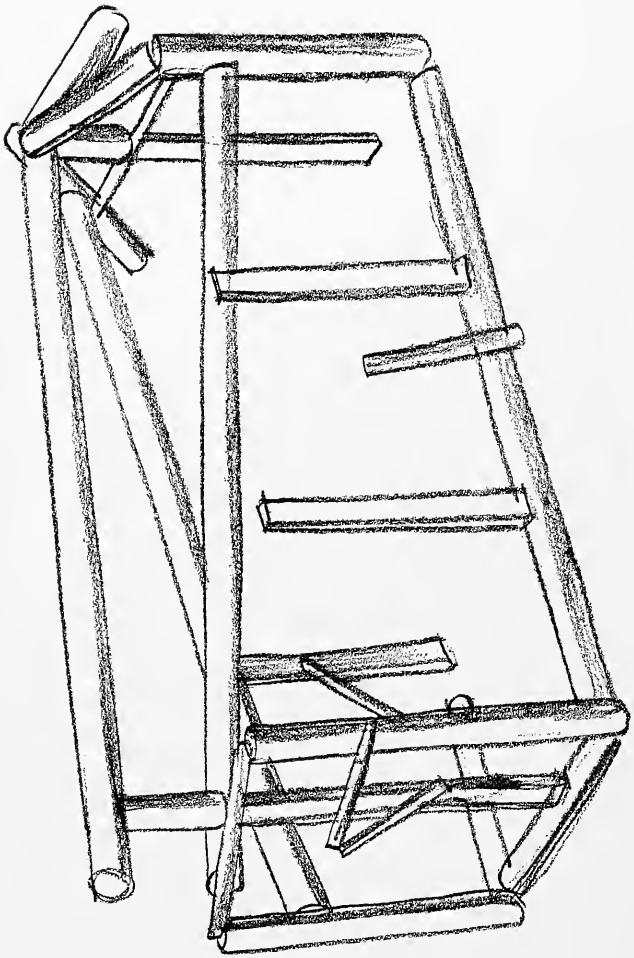


FIG. 81. Framework of a coffin, PG/1850, *v.* pp. 136–7

or whether two separate panels lying side by side in the soil have had one face of each preserved by the earth cast. One of the faces was of plain wood; a wide rail with ovolo edge was supported on a framework of fairly solid timber, the panels of which were filled in each with three lines of horizontal reeding; the impression was not detailed enough to show whether the reeding was carved out of the solid wood or was inset and consisted of wooden rods or reeds. On the other face the design was different and the decoration much more elaborate. The same wide top rail was supported by uprights 0·05 m. wide on which was incised a strip of 'eye' pattern; the engraved lines of the eyes were filled in with red and those of the border with black paste. Immediately below the rail came a narrow band of fine wickerwork (see the drawing, Pl. 222, fig. *b*), a wooden bar with rounded edge, and a second band of wickerwork; below this was a rather broader wooden bar, this time rectangular in section and having its front enriched with an incised trellis-work design, the lines of which were filled in with red; then came another band of wickerwork and a wooden horizontal which seemed to have been quite wide but was broken away below. The wickerwork is more likely to have been used *à jour* than set against a solid wood background, and it is therefore safer to consider the two impressions as coming from separate pieces of the same article of furniture; to that must also have belonged the fragment with figures carved in relief, Pl. 222, fig. *c*, which was found in the same place; how it was associated with them—as chair-back or what—we of course do not know. In this case the border above and below is of chip-carving, alternate squares of the diaper pattern being cut out and filled with red pigment while for the others the original surface of the wood was kept; the bounding lines were engraved and filled with red. In the centre the ground was cut back and the human figures were left standing out in low relief on which the details were finely carved—the drawing shows all that could be recognized and measured as the mud impression was melted by the rain. The scene is the usual one of a banquet where two royal persons, distinguished by the many-flounced *kaunakes* skirt,[1] are seated and receive drink from standing attendants who wear a skirt with a single line of deep flounces and a shawl over the left shoulder; one has a peculiar head-dress which cannot be the horned crown of the gods.

The decoration of wooden objects by chip-carving and the filling-in of the hollows with coloured paste was perhaps a common practice, but in the nature of things examples of it were not likely to survive; in PG/730 was what may have been the lid of a circular box inlaid with red paste, but of the design very little was left—it will be understood that the wood background had perished completely and only the threads and spots of red powder formed a low relief on a smooth face of earth to find which the earth mass had to be broken up, and that involved the breaking of the pattern.

Inlay with shell and similar material in wood, such as we see in the sledge-chariot of Queen Shub-ad (Pl. 124) and in the harps and lyres—a dagger-

[1] That this skirt is a prerogative of royalty is convincingly shown by E. D. Van Buren, Liverpool *Annals of Archaeology and Anthropology*, xvii, p. 48.

handle in the same technique was found in PG/796—is less interesting for the present discussion because in it the tendency is for the wood to become more and more a simple background and for the design to be worked out altogether in the alien material; this is very much the case with a specimen (U. 9214) from PG/556 (Pl. 222), where strips of bone form the border with red paste between them and the squares of the central panel are alternately of red paste and bone; the wood did not show at all. The proper craft of the cabinet-maker is much more in evidence when no foreign matter is introduced and the design is worked by the inlaying of wood in wood. In PG/677 there was found what might have been a boss at the pommel of a dagger-handle (Pl. 222); the wood of the ground had disappeared, but there remained in position some of the inlay, minute triangles and a curve of thin white wood such as box. In the royal grave PG/789 there were found two fragments (Pl. 222) of wood inlaid with wood of a lighter colour in a leaf pattern which reminds one of some of the engraved shell plaques; apparently there had been here a free naturalistic design. From PG/871 comes a formal pattern of four-petalled rosettes regularly spaced; in this case the ground seems to have been light and the inlay is of a dark virtually black wood well preserved which resembled ebony; the same pattern in the same material occurred on the wooden sheath of a dagger in PG/709; in PG/645 there was found a patch of minute rectangles (*c.* 0·004 m. square) of reddish wood which had been set in bitumen as inlay in a box of which the woodwork had vanished.

As a pendant to the unique[1] example of woodcarving in relief described above must be mentioned an example, also unique, of woodcarving in the round. In the grave of Queen Shub-ad there was found running down vertically into the ground a hole the sides of which showed the discoloration due to the decay of wood; the upper part had been cut away before it was noticed and only the lower part remained; when plaster of Paris was poured into this it produced a very rough cast of a staff round which was coiled a snake—all detail was lost but the general character of the design was fairly clear. From such a ghost of what has been one can no more judge the quality of a work of art than from the wooden core over which was built up the gold and shell and lapis-lazuli figure of the goat on Pl. 87; but the sadly scant remains of woodwork which the soil of the cemetery has spared to us do warrant the conclusion that the skill of the Sumerian craftsman was probably as well displayed in wood as in those other materials whose better preservation affords more ground for judgement.

[1] Unique only in so far as it was preserved. The field-notes on PG/695 record 'remains of a small wooden object the face of which had been carved and the hollows filled in with bright red pigment; nothing more could be made of it'.

CHAPTER XXI

POTTERY

THE number of clay vessels recovered from the cemetery was enormous and the range of shapes was also very great. It was this quantity and variety that made of the clay vessels such invaluable material for establishing the sequence of the graves, but it must be admitted that the intrinsic interest of the pottery is far less than its historical importance. All of it is wheel-made and all of it is plain. Probably because the wealth of the period had brought into common use vessels of stone and metal on which the skill of the craftsman could be more profitably lavished and those of clay were degraded to purely utilitarian ends, there is a complete lack of those painted wares which characterize the earlier times of Jemdet Nasr and al-'Ubaid: the shapes may be good, the potting certainly is excellent, but the potter was no longer at pains to decorate his wares at all or, in a few rare instances, confined his efforts to a design roughly scrabbled in the wet clay. Another curious falling-off in the potter's art is this, that spouted shapes, common in the pre-cemetery age and still occasionally found in the earlier graves of the cemetery, pass with time almost entirely out of use; and whereas in the Jemdet Nasr period and for some time after it the larger vessels were normally provided with handles, often reeded or twisted in imitation of rope, the whole range of shapes from the early cemetery gives us only three handled types[1] and in the Sargonid graves not a single handled pot is found. It is remarkable that so obviously useful a thing as a handle should be known and thereafter fall into desuetude, and I do not recall a parallel case in any other country, but the fact remains, and one can attribute it only to the decadence of pottery faced with the competition of the richer materials metal and stone. It is only in the Neo-Babylonian and Persian periods that handles on clay vessels again become common.

The only painted vessel found in the cemetery, U. 11838, from PG/1101, *v.* Pl. 186, is not of local manufacture. The design, painted in red and black on a buff slip, is typical of the so-called 'Susa II' ware and the vase is without doubt an import from the East. Since the vague term 'Susa II' applies to many phases of a culture which is spread over many centuries, the occurrence of the vase in a grave at Ur does not help to establish the relative chronology of Sumer and Elam. One early grave, PG/1248, produced the fragments of a small clay pot round the shoulder of which was a single narrow band of red paint; it was unfortunately not only broken into countless fragments but so rotted with salt that it could not be restored nor its shape ascertained, but the clay was fine and the thinness of the walls showed skilful potting; it certainly looked like a survival from a considerably earlier date when, after the disappearance of the Jemdet Nasr three-colour painted pottery, this very

[1] The types with solid lugs, 239 and 249, are not included.

simple form of decoration by red bands anticipated the exclusive use of plain wares.

One of the attendants in Queen Shub-ad's death-pit had by her side a little bottle of burnished black pottery; this too was much crushed and completely rotted by salt, parts of it being reduced to powder, so that no more than its existence could be recorded; a second and equally fragmentary example came from PG/829; the two vases do not seem to be a local product in that they stand alone amongst the thousands found in the cemetery. A foreign origin seems probable for the types 105 and 106 also; of these one example was found in a private grave, one loose in the soil but in close proximity to a royal tomb to which it very likely belonged, and the remainder in royal tombs; they are of a hard brown biscuity ware quite different from that of the ordinary vessel, with thin walls deeply grooved or ridged, a trick of potting which is strange to the Ur potter, and their provenance makes it probable that they contained some special luxury such as might have been imported.

More interesting because native to the country are the few examples of incised decoration. One of these is the large handled jug U. 10183, Pl. 187, which has a cable-pattern in relief round the angle of the shoulder and a handle decorated with two knobs in relief and two crossed bands of hatching; the latter design is almost certainly a degenerate survival of the handle in the form of a woman's figure of which we get an actual specimen in U. 10747, illustrated on the same plate. The latter is the unique example at Ur of what is a common fashion at Kish,[1] and the broken handle and perhaps the complete jug also are likely to be imports from the more northern site; the 'A' cemetery at Kish is shown by the character of its contents to be more or less contemporary with the Royal Cemetery at Ur, and one would expect intercourse between the two Sumerian cities, indeed it is not so much the occurrence of the type at Ur as its rarity that is surprising; probably its prevalence at Kish is due to some local religious cult which was not in favour in the South. Apart from these two cases the only incised ornament sufficiently elaborate to deserve the name is confined to a single form of vase, the 'offering-table', Type 243, and here it is actually the rule; nearly every one has on its tall stem a roughly incised pattern of palm-leaf or -tree. In one case, U. 13709, Pl. 218, there are, besides the two trees, what is clearly meant for a house or shrine and the triangle which stands for the female *pudenda*; in another, U. 8245, Pl. 180 *b*, the lower part of the stem bears the palm-leaf decoration and round the upper part is a raised collar on which are placed figurines of gazelles hand-modelled in the round: the stems of the 'offering-tables' are often—though not always—pierced with triangular holes and the rims of the bowls are often serrated; in the case of stone offering-tables the stem is usually solid and there are no holes but the scratched decoration of palm-leaves seldom fails. At Kish the type is common and nearly all the examples of it are decorated in much the same fashion as at Ur. This insistence on ornament when all the rest of the pottery is plain must mean that the offering-

[1] Mackay, *A Sumerian Palace and the 'A' cemetery at Kish*, Part II, Pls. XLIX, L: for parallels to the jug cf. ib., Pl. XLVIII; see also above, p. 162.

table type is in some way distinguished by its functions from other purely utilitarian vessels, it is because it is an offering-table and therefore dedicated to the service of the gods that it is singled out in this manner. It is worth remarking that usually, though not always, the offering-table was set apart from the other furniture in the grave, which might be interpreted to mean that it was an offering not to the dead but to the god, or possibly that it was for the dead man's use not as the other things were but that he might perform his acts of worship according to the proper ritual. The fact that in the richer graves the table might be of stone, copper, or even silver[1] implies an importance in its functions consistent with such a theory.

In a cemetery which produced no terra-cotta figures and so very little in the way of decorated pottery a quaint exception is the zoomorphic vase U. 14461 shown on Pl. 188 *a*. The body is a pot turned on the wheel in the ordinary way, but to this has been added a hand-modelled head of an animal, and instead of legs there are two square protuberances pierced to take the axles of wheels; a ring in front of the neck is to take a string by which the animal could be drawn along the floor. There is a large hole in the top of the back and another which comes out through the mouth and serves as a spout, so that the animal closely resembles the glazed earthenware cow-jugs of the Staffordshire potteries; presumably it was a child's toy. The vase was found in fragments and incomplete in or by a completely plundered grave, and there was no means of deciding whether it really belonged to that grave or, as was more likely, was in the much older rubbish into which the grave-shaft was dug; the wheels were missing and were supplied from those which the rubbish in the neighbourhood produced in abundance. A fragment of a similar pot has been found elsewhere at Ur but in circumstances which threw no light on its date, nor does evidence seem to be forthcoming from other sites; the question whether this wheeled toy is an exception to the general rule of Sumerian pottery in the Royal Cemetery period or has nothing to do with it must remain for the present unsettled. The same is true of a rough hand-modelled figurine of a pig (?) figured on Pl. 221; it was found within the area of grave PG/1847, but again was not necessarily connected with it, and as such clay animals are found in very great numbers in the rubbish deposit underlying the cemetery and penetrated by the deeper graves belonging to it the figure can with much better reason be assigned to the earlier stratum; even if it could have been shown to have belonged to the grave there remains the possibility that it was found by the grave-diggers in the rubbish which they excavated and placed in the grave as an extra offering.[2]

Apart from decoration there are a few pot-marks which might denote ownership or content. In PG/1374, a grave belonging to the early part of the Royal Cemetery, there were two clay pots bearing respectively the incised marks ++ and ⋀; U. 11631 from near PG/1051 was incised ⊤⊤. Of Sargonid graves PG/983 had a pot with the incised mark ◺, PG/992 one with a painted mark ∿, and PG/691 a pot with a crescent.

[1] The grave of Shub-ad.

[2] I have suggested that this would explain the presence of an early axe in the Sargonid grave PG/503; *v.* p. 27.

In Chapter II it was made clear how wide a gulf separates the pottery of the Royal Cemetery from that of the Second Dynasty and Sargonid graves; 84 types found in the older period never occur in the late, and in the late period 90 types have been introduced which were unknown in the early: but together with these changes in form goes a not less marked innovation in technique. In the Jemdet Nasr age and for some time after it plain red burnished pottery was fairly common; by the time of the earliest graves of the Royal Cemetery it had dropped out of use, but under the Second Dynasty and throughout the Sargonid period the fashion was revived in connexion with certain of the newly introduced pottery shapes. Vases of types 41, 44, 48, and 224 are more often than not covered with a red haematitic wash which is sometimes matt but usually rag-burnished and sometimes relieved by close-set parallel lines of pebble- or bone-burnish; the pot was sometimes coated with a light slip, more often the surface of the body clay was worked up by water constantly applied to a smooth and fine engobbage, and the vessel was then dipped in the colour bath; good specimens of the ware are brilliant in tone and lustrous; it looks as if in a poorer age men were again turning their attention to pottery.

NOTES ON POTTERY TYPES

Type 1 is always of rough gritty clay, hard-fired. In some specimens there are two troughs instead of one round the base on the inside. The workmen professed to recognize this as a mixing-bowl; according to them water would be put in the trough and meal in the centre and the fingers would constantly be dipped in the water while stirring the meal so as finally to produce a dough of the required consistency.

Types 4–7: the 'saucer', 'cup', and 'goblet' are distinguished by the relation of their height to their rim diameter, but the different types in practice run into each other. They are generally of rather coarse clay and the potting is often very careless, the vessel being lop-sided and the base very often cut off crookedly. The goblet is an early form which in time is ousted by the more open cup.

Type 16, an early type, is well potted from a fairly smooth clay the surface of which is sometimes worked up to an engobbage.

Type 17 is one of the rare examples of decoration at a late date, having a band of rope-pattern in relief. The base is pierced to act as a funnel.

Type 18 is unusually well made of smooth clay, the walls thin.

Type 19 of smooth clay, thin-walled, well made and with engobbage surface.

Type 20 is of coarse red clay, very heavy and poorly turned.

Type 25, a single example remarkable as having red paint on the rim-edge, the only example of such in the Sargonid cemetery.

Type 26. The type is characteristic of the Third Dynasty of Ur and continues into the Larsa period; it occurs rarely in the Sargonid Cemetery, and then as a carefully made bowl with the carinated rim well developed. The similar but coarser *Type 27* is undoubtedly of Sargonid date but was not dated by external evidence.

Type 28 was of rather gritty clay extremely hard-fired; evidently a small cooking-pot.

Type 31 is a 'freak' pot interesting as being probably a clay imitation of a lathe-turned wooden cup; it was of rather fine clay worked up to a smooth surface.

Type 32 is very roughly made of coarse clay.

Type 33 is a characteristically late form continuing into the Third Dynasty; well potted and regular in outline.

Type 38 is occasionally covered with a haematite wash and burnished; it is well made of a light pinkish clay, smooth and free from grit.

Types 39–42 are examples of the better potting of the late period; the surface is always good, water-smoothed or covered with a fine slip, and sometimes with a haematite wash; the same is true of

Type 44. The coarsest of them, *Type 41*, is found in the early cemetery but all the good examples are Sargonid.

Type 47, of which one example was found without dating evidence, is a Larsa type and probably does not really belong to the cemetery.

Type 48 is usually of fine pinkish ware with or without slip, often with a haematite wash and occasionally pebble-burnished.

Type 49, well made of fairly fine red or brownish-drab clay, with a slightly pointed base, changes to the rounder form characteristic of the Sargonid age, *Type 50*; the more angular forms of bottle, *Types 51* and *52*, have often a creamy slip (flaring to pink) over a brownish drab body clay, and may be rag-burnished.

Types 60–3 are closely connected and tend to merge into each other. They are well made of drab clay (generally) but not highly finished, though *Type 61* especially may have a good smooth surface.

Type 67 is usually of drab clay not very well worked and the pots tend to be more mis-shapen than most.

Type 76, usually of drab, seldom of red clay, rather coarse and often very hard-fired, so that distortion is not uncommon.

Types 82, *210*, *236* are the only handled types found in the cemetery.

Type 83, very common in drab and grey-drab ware and in a coarser red clay; a poorly made type for the most part and therefore subject to many minor variations.

Types 87 and *88* are clearly based on metal originals.

Type 92, roughly made of coarse gritty clay.

Type 98. An example (figured) with combed decoration and incised circles was one of the very rare ornamented vessels.

Types 100, *101*: most examples are roughly made and ill shaped, of different clays and colours, the ordinary store-pot of domestic use.

Types 105, *106*: thin walls, deeply ribbed; fine-grained deep brownish-red clay, the surface sometimes showing the natural body clay, sometimes worked up to a drab engobbage. See p. 388.

Types 108, *109*, *110*: small pots very roughly made on the wheel and sometimes hand-made or at least scarcely turned. *Type 108* A is often larger and in that case better made, but even so a clumsy pot; the clay is always coarse and usually red or reddish-drab in colour.

Types 125–30 are also generally small and very poorly made, the types merging into each other.

Type 156 has generally an engobbage of light drab over a drab or red body clay.

Type 158 is found with a haematite wash, as is also *Type 161*. The ridge round the neck of the latter becomes common in the Second Dynasty and is a regular feature of certain types in the Sargonid age.

Type 166 is curiously like a Neo-Babylonian type. Only one example was found.

Types 197–200, all closely allied, begin in the Second Dynasty and are common in the Third Dynasty of Ur. They are well made of hard brownish-red clay.

Types 204–12. Spouted types are nearly all, like these, peculiar to the older period; in the Sargonid age the spout is practically confined to the bowl, *Types 214–16*. The commonest spouted jugs, *Types 208* and *209*, are generally rather lumpy and coarse in potting, but there is great variety in the clays.

Type 224 is usually of light pinkish-red clay with often a slip and a haematite wash, burnishing is common.

Type 235 has combed ornament on creamy drab ware.

Type 237 with its small knob foot approaches a Larsa type.

Type 240 is probably an incense-brazier; this would explain its peculiarity in having rough combed ornament; cf. the 'tables of offering', *Type 243*, on which *v. supra*, p. 388.

Type 242 is also an incense-brazier; like *Type 240* it is of a coarse clay plentifully mixed with grit to resist heat.

Types 244, *245* are generally classed as ring-stands for vases; I suspect that the former certainly and probably the latter also are tom-toms. *V.* p. 259–60.

Type 246. A single example was found apparently in a grave, but it almost certainly belongs to the surrounding rubbish; it is a potter's essay at the neck or base of a vase.

Type 248. The clay strainer, found in the mouth of a large jar, is rare in the Sargonid age but becomes very common in Third Dynasty and Larsa times.

CHAPTER XXII

GENERAL RESULTS

THE excavation of the Royal Cemetery brought to light a civilization of whose existence science had until then been ignorant. Now that for the first time the material remains unearthed there are brought together, illustrated and explained, it is possible to see to what a high pitch that civilization had been developed, but it must be remembered that Ur, albeit the richest site yet excavated, is only one of many in Sumer and that other expeditions are yearly discovering further monuments of the same ancient people; moreover, at Ur we have dug out only their graves, and a fuller picture will be obtained when the houses in which they lived and the temples in which they worshipped have been added to the record. The results obtained by a single expedition must obviously be incomplete, but with so great a mass of material available as the Royal Cemetery has yielded they should be, so far as they go, well established.

From the very first moment of the discovery two salient features of it impressed themselves on the most conservative minds, first the extraordinary wealth and artistic quality of this epoch, and secondly its antiquity, which pushed back the history of civilization in Mesopotamia into what had been an unguessed-at past; but both those features require to be judged not by immediate impressions but by more detailed analysis and comparison. Assuming that the dates which I have proposed for the cemetery are approximately correct, there have been found in other countries evidences of culture vastly more ancient than it; if Sumer is to be credited with priority, the character of that for which priority is claimed must be more exactly defined.

'Civilization', as distinct from 'culture', would seem to imply a certain proficiency in art and science, a social organization based on broad principles of law, safeguarding the rights of the individual while subordinating him to the wider interests of the State and allowing of that intercourse which is essential to the exchange of ideas as well as of commodities—an organization which is scarcely possible without urban life, and a knowledge of the art of writing, without which there is no assured permanence of tradition or inheritance of intellectual achievement. The magnificent rock paintings of the Almeria caves were the work of pure savages; the tribal organization and the technical ability of the predynastic Egyptians constitute a fairly high state of culture but cannot at all rank as civilization; but in the latter half of the fourth millennium before Christ the Sumerians of southern Mesopotamia had evolved or inherited all the essentials of civilization properly so called and had entered thus early on the full life of the modern world.

To those who have made themselves familiar with the objects recovered from the graves at Ur such a claim will seem scarcely exaggerated, but the phrase 'the modern world' is too apt to evoke the picture of that advance in

machinery and the utilization of power which has been so sudden and so great in very recent times, and in this respect the Sumerian civilization like all others in the past had little or nothing to offer. Yet even here it would seem that the first step was taken in the Euphrates Valley; long before any other people of whom we know the Sumerians had invented the wheel and applied it to means of transport and to such simple but revolutionary mechanisms as the potter's wheel; if their invention went no farther, that of the Romans was scarcely to outstrip them. Equally striking is their skill in the working of metal. Not only were the technical processes of casting, whether solid or by the *cire-perdue* method, evolved by them and freely practised in the fourth millennium, but they used, if they did not manufacture, alloys such as bronze and electrum which gave them wider scope and of which the first at any rate remained for many centuries after unknown to the outer world; and the sweating and soldering of metal put within their reach an elaboration such as mere casting and hammering could not have attained; here there is scientific craftsmanship going hand in hand with the artistry which informs alike the silver head of a lioness from Queen Shub-ad's tomb (Pl. 127) and the electrum axe on Pl. 165. But it is perhaps in architecture that one recognizes best this precocious invention. Living in a valley where stone was far to seek and the alluvial soil yielded only clay, where lime was scarce and timber had to be imported, the builders had perforce to work within the limitations of their material, but it is probably true to say that in the use of bricks they have never been surpassed. The ruins of Mesopotamia cannot at their best compare for grandeur or beauty with the granite and limestone temples of Egypt, but even the scanty remains that survive from the time of the Royal Cemetery prove a scientific knowledge of architecture which the Egyptians never possessed: to the Sumerians goes the credit for having worked out all the basic architectural forms in use to-day.

Legends current in Mesopotamia in the latter days had it that once upon a time strange superhuman creatures coming from the sea introduced agriculture, writing, the use of metal, and all the arts. If this refers to the coming of the Sumerians and if, as is not improbable, they did bring in with them the art of writing, it was an art yet in its infancy, mere picture-writing not developed enough to be termed hieroglyphic; but from such beginnings the elaborate cuneiform writing of the Sumerians and their successors the Babylonians was evolved in the Euphrates Valley, and the linear script which characterizes the earliest of the royal tombs differs from the mature system only in the niceties of calligraphy. So far as we know at present, theirs was the oldest writing, but whether or not the Sumerians invented the art and were the first to practise it, at any rate those of the Royal Cemetery period by its use possess the second qualification of a really civilized people.

There is no literature extant to tell of the social organization of the Sumerians in the fourth millennium before Christ, and although it is true that that of 2000 B.C. about which much is known must have had its roots in a remote past and, in so conservative a country, might in many respects stand for a picture of the older age, as various documents of intermediate date

would warrant, yet it is better that the remains of the Royal Cemetery should be made to speak for their own period and that no loophole for anachronism be allowed.

It is of course true that the whole character of the objects found in the graves connotes a society whose luxury and wealth must have rested on a firm basis of law and order amongst its own people, a civil organization in keeping with the military discipline at which the pictures on the 'Standard' clearly hint; the fact that gold is by no means confined to the tombs of the kings but occurs freely in the graves of ordinary people bespeaks a general well-being consistent only with a liberal form of government. But the richness of these graves—and it must be repeated that plunderers in ancient times have carried off all but a tithe of what they once contained—is not due merely to good government; we have to ask how the people acquired wealth of the sort, how, in a land whose sole products were cattle and the fruits of the soil, men amassed such store of gold and silver and precious stone. The raw material of nearly everything found in the graves is foreign to the Mesopotamian delta and had to be imported. The pottery of course is local, made in the kilns of Ur from the clay of the river-banks, the dresses would have been of local cloth, but the gold came from abroad, probably from the gold-bearing rivers of many lands, the silver from southern Persia and from the mountains of the North,[1] the bronze from Oman,[2] copper necessarily from foreign mines wherever they might be, lapis-lazuli from the Pamirs, conch-shells from the Persian Gulf, and from the Gulf also the fine white calcite of which so many vases were made, and the carnelian for their beads; malachite for eye-paint, hardwood for inlay, diorite for cups, and steatite for cylinder seals, all had to be brought from afar, and though some of these things might be spoil won in war and some tribute paid by conquered neighbours, most of it must have come by way of trade and for that the merchants of Ur had to pay.

A people whose natural wealth was in flocks and herds, in grain and dates, could not by the barter of these carry on so widespread and wholesale a trade as would account for the material riches which the offerings in their graves attest: wonderfully fertile though their soil might be, grain is too bulky a thing for its distant export to have paid very high profits, and as for cattle and sheep and goats, the whole Valley of the Two Rivers was as rich in these as Ur, and even the upland pastures right across to northern Syria were more than self-sufficing, and only in the East could there be any market. The explanation of the whole matter is this: that while the raw materials of the things we find is of foreign origin, the things themselves are unquestionably of Sumerian make.[3] Already in the fourth millennium Ur was a great manufacturing city; for all these imported goods she paid in manufactured articles, and the wealth of her citizens is the measure of the skill of her craftsmen. Of that skill we are now in a position to judge, and it is not difficult to

[1] This was the case later, and probably it is true of early times.

[2] The analysis of the bronze objects agrees with that of ore from the Oman peninsula, *v.* p. 287.

[3] So too in later times we have actual records of ships bringing to Ur gold dust, copper ore, and unhewn stone for sculptures; manufactured goods are not mentioned.

believe that the products of Sumerian workshops would find ready customers amongst the semi-barbarous peoples of the outer world.

It is clear, then, that in order to pay for the gold and the lapis and all the things that the Sumerian worker required for his craft the Sumerian export trade went far afield and had to be well organized; Sumerian gold-work has been found in a grave at Astrabad, and we know that the trading colony of Ganes in the heart of Asia Minor was established very long before the time of Sargon of Akkad; it is noteworthy that the oldest written tablets from Mesopotamia deal almost exclusively with commercial matters. At the time of the Royal Cemetery the Sumerian population must have been organized in classes necessarily distinct, slaves certainly, shepherds and agriculturalists, craftsmen and merchants, priests and soldiers[1] and government officials, a regular social hierarchy such as we find in the same country many centuries afterwards. I have suggested that a State cannot be called really civilized until it has attained that degree of social organization which is implied by urban life; judged by this criterion the Sumerians of the fourth millennium, with their elaborate home system, their manufacturing industries, and their international trade, are as deserving of the title as any.

First the discovery of the little temple at al-'Ubaid pushed back the history of Mesopotamian civilization properly so called well beyond the limits of what science had thought even remotely probable; now the excavation of the Royal Cemetery has taken us a long step farther back; the art of al-'Ubaid is proved what some had from the outset recognized it to be, an art of the decadence, and its richer and more vigorous phase has come to light in relics of a much earlier day. Since, then, civilization flourished in the Euphrates Valley at a time when most of the world was still plunged in barbarism or had at best developed a greater or a less degree of culture such as an essentially uncivilized people may achieve, the question of relative chronology becomes important for the general history of man; if international trade brought the Sumerians into touch with outside nations, which learnt from the other? to whom is due the priority of invention? how far did the Mesopotamian civilization by influencing others perpetuate itself and contribute to man's advance?

If the date which I have proposed for the royal tombs is approximately correct then they are as old or older than the First Dynasty of Egypt, seeing that 'Menes', its founder, must be placed about 3300 B.C.; even if it be thought exaggerated, yet the civilization which produced the royal tombs was then no new thing but had its roots in an antiquity which would coincide with the Egyptian predynastic period, and the early Sumerians in either case had attained a higher level than their contemporaries in the Nile Valley. It has long been recognized that there was some contact, direct or indirect, between the two countries, and that prior to the rise of the First Egyptian Dynasty. At this time there appear in Egypt such things as cylinder seals,

[1] Judging by later analogies the fighting force in time of war would be raised from the citizens of the upper classes and if needs were by a *levée en masse*; but there would probably be a cadre of trained officers and a regular bodyguard for the ruler. The policing of trade-routes alone would require something in the nature of a standing army.

pear-shaped mace-heads, seal-impressions on mud, a panel design in building derived from timber construction, figures of animals playing on musical instruments, a metal axe type (Type A 13), and certain shapes of stone vases, all of which have their counterparts in Sumer also; but whereas in Egypt they appear suddenly and all, or nearly all, soon drop out of use, in Sumer all (except the stone vases and perhaps the axe type) seem to be endemic; of most of them we can definitely say that the borrowing was by the West from the East. On the other hand, there is in all the remains from Ur nothing which even remotely suggests Egyptian influence or an Egyptian model, unless it be the stone vases which were made at Ur but might have been inspired by foreign imports;[1] the debt is one-sided. We are not yet in a position to say at what stage in Sumerian history this intercourse with Egypt took place. Frankfort[2] suggests that because the only common metal type (axe A 13) is cast in an open mould and the Egyptians did not until long afterwards learn the use of the closed mould in which the Sumerians cast their axes of Types A 1–11, the contact must have occurred before such types were being made, i.e. at the very beginning of the early dynastic period in Sumer or at the end of the Jemdet Nasr period; the difficulty here is that in the Jemdet Nasr age the stamp seal seems to have been at least as common as the cylinder, we do not know that the comic animals or the axe type go back so far, and, as Frankfort admits, the failure of the predynastic Egyptians to learn the use of the closed mould from the Sumerians is no more strange than the failure of the more advanced Egyptians at a later date, when both countries were in touch with Syria, to learn of it through that intermediary. That the contact was fairly direct may perhaps be inferred from the finding near Abydos of isolated groups of skulls dating to the early predynastic period which 'in their absolute and relative dimensions have a very direct resemblance to the Sumerian';[3] it may have come about early in that phase which led up to the royal tombs; that it was short-lived is most probable, for no more signs of Sumerian influence appear in the Nile Valley after the rise of the First Egyptian Dynasty, but its effect may well have been very great. The introduction of new ideas and perhaps of new blood from the East does coincide with the beginnings of the advance which was to result in the Egyptian civilization of dynastic times: *post hoc propter hoc* is a bad argument, nor is there anything Mesopotamian in the civilization of historic Egypt, but it is also true that in her predynastic culture there is apparent very little dynamic force, very little promise of such growth as did actually ensue; contact with a more highly developed people probably supplied the impetus which enabled Egypt to work out her own salvation on her own national lines.

The relations of Sumer with her eastern neighbours are much more complicated. The painted pottery of the al-'Ubaid period and that of Susa are certainly related, but neither can be said to be derived from the other; each is a local development of a culture spread over the vastly wider area of the Iranian highlands, but whereas Elam continued to use such wares probably

[1] But on this see Reisner, quoted above, p. 379.
[2] *Archeology and the Sumerian Problem*, p. 55.
[3] Sir Arthur Keith in *al-'Ubaid*, p. 223.

until the beginning of the Sargonid age, Sumer had abandoned them long before the time of the royal graves, and the step seems to mark a weakening of the old bond rather than a persistence of relation. Again, certain similarities in the oldest scripts of the two countries and the striking resemblance between many seal-impressions found at Ur and those from Susa show interdependence, but at a time earlier than that with which we are concerned; the only object found in the cemetery at Ur which is definitely Elamite is the painted pot of Susa II ware figured on Pl. 186. That there were no dealings between the great commercial city in the valley and their neighbours in the hill country whence gold and silver and timber could be got and through whose territories ran the trade-routes for India and the Pamirs is out of the question; the lack of any distinctively Elamite influence on the arts and crafts of Ur can only mean that, whatever had been the case in times past, at this period Sumer had taken the lead and was setting the fashion rather than borrowing. The excavations at Susa make it clear that Elam had nothing to teach the Sumerians at this date, and the discovery of graves at Hecatompylos in northern Persia[1] containing stone vessels and copper weapons closely resembling those from the Ur graves testifies to the eastward spread of Sumerian influence and to the importation or imitation of Sumerian models in Elamite territory; the later Elamite civilization is obviously akin to that of Mesopotamia, but in the light of what knowledge we possess it must be judged derivative and not a native growth to which Mesopotamia owed any immediate debt.

In 1923 there was found at Kish a steatite seal[2] which by the style of its engraving and by the inscription in unknown characters which it bore was identical with those coming from the great excavations at Mohenjo-daro and Harappa in the Indus Valley:[3] other such seals have since been found at Kish and at Khafaje and at Ur,[4] from which site seventeen have been recorded. Most of the dated examples belong to the Sargonid age or are slightly earlier than that, but amongst the Ur seals one[5] comes from a grave of the first part of the Royal Cemetery: other points of connexion between the Indus and the Euphrates civilizations are not far to seek, but again the majority concern a late period and on some too much stress has, I think, been laid;[6] for the period of the Royal Cemetery we have the single seal mentioned above, the artificially bleached carnelian beads (*v.* p. 373–4), and one or two very characteristic bead forms not likely to be of independent origin such as the metal disk bead Type 16, cf. *Mohenjo-daro*, Pl. CXLIX. It is to be remarked that all these things are small and easily carried, the kind that merchants might import to sell or the resident agents of merchants might employ, they imply no racial connexion but a trade either with India or with some kindred cultural centre with which India was also in close touch, but the finished articles of

[1] *University Museum Bulletin*, Philadelphia, 1931, vol. iii, No. 1, Pl. VI.

[2] Mackay, *Journal of the Royal Asiatic Society*, 1925, pp. 697 ff.

[3] Sir John Marshall, *Mohenjo-daro and the Indus Civilization*, Pls. CII–CXI. The first publication that drew attention to the similarity of the seals was in the *Illustrated London News*, Sept. 20, 1924, p. 624.

[4] Gadd, 'Seals of Ancient Indian Style found at Ur', in *Proceedings of the British Academy*, vol. xviii, p. 3.

[5] U. 11181, Pl. 192.

[6] e.g. both races were skilled builders in brick, but it is not the case that the ground-plans of private houses at Ur in the nineteenth century B.C. and at Mohenjo-daro are similar in design.

demonstrably foreign origin are far too few to postulate any considerable import trade in such; again, one would suspect that business was in raw materials, and whether these were paid for in manufactures will only be known when further excavations in the Indus Valley produce, or fail to produce, Mesopotamian products. The interest of the discovery is that trade was carried on between places so widely separated that it may have been on a scale sufficient to justify the presence of Indian merchant agents in Sumerian cities, as the seals with Indus inscriptions seem to show, and that such intercourse, most common in the Sargonid age, did go back to the time of the royal tombs; the last point is of great importance in that the dating of the Indus civilization depends entirely on Mesopotamian evidence.

That Sumer was in constant touch with the north, with the Halys basin and the country eastwards to the Caucasus, may be taken as certain, and from the very beginning she must have drawn on the mineral wealth of that part of Asia Minor. Probably at the beginning the connexion was more intimate than that, for the working in metal, in which the Sumerians excelled, might have been perfected but could not have been invented in a riverine country where no ores exist. That knowledge must have been brought with them into Mesopotamia or at a very early date imparted to them by incomers from the northern mountains; and since the mountain origin of the Sumerians is attested by so many features in their art and religion as to be practically proved, and since copper, even though in small quantities, has been found in the earliest graves of the al-'Ubaid period at Ur, then, if the al-'Ubaid people are, as they seem to be, Sumerian, it follows that the Sumerians brought the use of metal with them from their original home wherever that may have been. Some of the metal objects found in the Early Cemetery, e.g. the curious axe of Type A 16, which has points in common with the axe of the Hittite king relief at Boghazkeui, or that of Type A 14, which is a well-known Syrian form, indicate that the import of metal would not be without result in introducing new and alien forms also; but although Asia Minor may at all times have made such casual contributions to design in its own materials there is nothing to show that at the end of the fourth millennium there flourished in the North a civilization to which Sumer would be in any degree indebted: on the contrary, the discovery at Assur of a predominantly Sumerian phase proves that the current of civilizing influence set from the south northwards.

How far that current made itself felt beyond all probable limits of direct Sumerian trade is shown by the fact that a whole range of objects identical in type with those from the cemeteries of Ur and Kish is found in the Caucasus and the Kuban Valley to the north and to the west across north Syria and Anatolia in central Europe.[1] It becomes apparent that the early Bronze Age of Europe is directly indebted to the civilization of Sumer; our evidence is

[1] A number of these cases of identity are quoted by Frankfort, *Archeology and the Sumerian Problem*, Fig. 7, others by Gordon Childe, 'Die Bedeutung der altsumerischen Metalltypen für die Chronologie der europäischen Bronzezeit', in the *Mitteilungen der Anthropologischen Gesellschaft in Wien*, Bd. LXIII, p. 217.

of course confined to objects of a material able to survive the accidents of time, i.e. of copper or bronze with rare instances of precious metal escaped from the melting-pot, but the commerce which carried these to the West probably dealt in other classes of goods also, and the debt may have been far greater than we now can prove.

When the first treasures were recovered from the Royal Cemetery at Ur they constituted a phenomenon astonishing in itself but isolated from all known context; since then further excavation at Ur and other sites has done much to increase our knowledge of the period, to elucidate the steps by which so remarkable a civilization was built up, and to establish its place in history. At a period remote indeed from us but very late in the history of man the marshes of Lower Mesopotamia became dry enough for human occupation and the people of the uplands and the plateaux moved down into the rich alluvial plain where as soon as 'the waters were gathered together into one place the dry land brought forth grass, the herb yielding seed and the fruit-tree yielding fruit after his kind'. Amongst those who came were the Sumerians, and they brought with them at least a certain degree of culture and in their new home, through vicissitudes which archaeology now begins to trace, developed the civilization illustrated by the royal tombs. In a twofold sense their record is the record of modern man: in the first place because when we first encounter them they would seem already to have emerged from that real darkness which we call the Stone Age and with the invention of metal and the other arts to have become people of the modern world understandable to us, and in the second place because their genius not only achieved so fine a flower within their own limits of space and time but profoundly influenced future ages. Southern Mesopotamia was not and could not be in any sense 'the cradle of the human race', but it was, so far as we can tell, the place in which man evolved that complex mode of life which is called civilization. To have helped engender the amazing growth of Egypt, to have set the standard for the handicrafts of Anatolia and central Europe, to have moulded the thought and mind of the first Hebrews was to play a great part in history, and when the Sumerians died out as a nation they had stamped their seal so indelibly on the Near East that all their successors, Babylonians, Assyrians, and the rest, carried on their traditions unchanged and Berossus in the Greek period could fairly say that 'since that time no further inventions have been made': all—and it is no small sum of things—that has come down to us from Babylon, directly or through Phoenicians, Greeks, and others, was derived ultimately from Sumer.

A few years ago little of this claim could have been substantiated and anything approaching it would have been deemed fantastic; but it will hardly appear too bold to those who, with the treasures of Ur before their eyes, can see how remarkable the civilization of the Sumerians was in its material achievements, can appreciate the intellectual power expressed in their art, and tracing the ramifications of their trade can estimate the effect which their influence was likely to exert on a primitive and a barbarous world.

CHAPTER XXIII

REPORT ON HUMAN REMAINS

By Sir Arthur Keith

Queen Shub-ad.

An examination of the Queen's remains has led me to form the following conclusions concerning her: the Queen was about forty years of age at the time of her death; she was approximately 1·510 m. (just under 5 feet) in stature; her bones were slender and her feet and hands small; she had a large and long head, and was a member of a highly dolichocephalic race—her cephalic index being 72·5. Unfortunately only a few minute fragments of her face have been preserved so that it is not possible to assign the Queen to her race with any degree of certainty. But seeing that she is, so far as we know her, similar to the people of al-'Ubaid, we may justly infer that she is of the same race—a race or people we may speak of, provisionally at least, as Proto-Arabs.

Plate 268, fig. 1, gives an exact drawing of Queen Shub-ad's skull as seen in profile. The drawing shows how much of the skull has been restored and how much is missing. Its length, 197 mm., is remarkable; its width is 143 mm.; the height of the vault—129 mm.—is so great that there arose a suspicion either that the part of the bone carrying the auditory meatus (fig. 1) had been wrongly articulated or that the sides of the skull had been so compressed by earth pressure that the vault had been pressed upwards to an artificial level. Even if we do allow for error in these respects there can be no doubt that Queen Shub-ad had an uncommonly capacious skull. We have only to measure the frontal, parietal, and occipital bones along the midline of the vault to realize how large the capacity of the skull must have been. The median arch of the frontal measures 138 mm., that of the parietal bone 140 mm., and that of the occipital not less than 125 mm., all being measurements far above the means for women. The cranial capacity could not have been less than 1,600 c.cm.—250 c.cm. above the mean for European women.

The bones of the vault are of moderate thickness—varying from 6 to 8 mm. The sagittal and lambdoid sutures are partly closed but the coronal suture is still open (Pl. 268, fig. 2).

The supra-orbital ridges are moderately marked. The nose did not continue evenly the line of the forehead (as in some Eastern women)—there being a slight depression between the glabella and root of the nose. The inter-orbital process of the frontal bone measured only 23 mm. in width. The nasal bones, at their articulation with the frontal, measured 12 mm. in combined width, their bases forming a narrow arch, 7 mm. high. We infer that the nose was not flat and wide, but narrow and prominent. A fragment of the upper jaw carries the floor of the anterior nares and shows us that the lower margin of the anterior nares was not marked by a raised line of bone.

Although the condition of the sutures of the skull, as well as the thickness and condition of the bones of the vault, suggest that the Queen was at least forty years of age, there are other points of evidence which indicate a rather younger age. There are two of her teeth preserved; one is a lower central incisor which is worn less than one expects in a woman of forty; so also with an upper first molar; only the tips of the two lingual cusps are worn down so as to expose a ring of dentine in their bases. The articular surfaces of the limb bones are very sharply defined as in young people. It is thus possible that by judging the Queen's age from the evidence of the skull alone I may have over-estimated her age and that she was considerably under forty at the time of her death.

Parts of several vertebrae are preserved—especially from the neck. These are of small size and delicately fashioned.

The only bones of the limbs which are complete are the right tibia and fibula. The total length of the tibia—from tibial spine to tip of internal malleolus—is 322 mm. Its slenderness will be realized by measurements taken at the midpoint of its shaft. Its side-to-side diameter measures 19 mm.; its front-to-back diameter, 27 mm. The bone is not flattened from side to side; at the level of the nutrient foramen the side-to-side diameter is 22 mm.; the front-to-back diameter 29 mm.—the degree of platycnemia being 75. Similar measurements may be obtained from the leg-bones of many modern European women.

Although we cannot tell the exact length of the other limb-bones, all are sufficiently preserved to assure us that their dimensions were in keeping with those given for the tibia and with a stature of 1·500–1·520 m. The head of the femur measured 36 mm. in diameter; at its midpoint the shaft of the femur was 24 mm. from side to side and 25 mm. from front to back, while just below the small trochanter the corresponding diameters were 26 mm. and 23 mm. Thus there was no platymeria and no platycnemia; indeed one is struck by the modernity of Queen Shub-ad's bones.

Although all the chief bones of the upper extremity are preserved, none are sufficiently intact to give exact measurement of length. Their moderate strength may be judged from the fact that near its midpoint the shaft of the humerus measures 15·5 mm. from side to side and 18 mm. from before backwards. At its midpoint the corresponding diameters of the radius are 14·5 mm. by 10 mm.

As already said, the hands and feet were small. Although somewhat stouter than the corresponding bones of the hand and foot of a Bushwoman—noted for their slender hands and feet—they agree with the Bushwoman's in their length measurements. The metacarpal bone of the Queen's thumb was 38 mm. long, but its shaft was stoutly made—its width at its midpoint being 12 mm., its dorso-ventral diameter 8 mm. Her third metacarpal had a total length of 56 mm.; the corresponding bone of the foot, 65 mm. The ankle bone (astragalus) was short and wide with extensive articular surfaces; on the upper surface of the neck of this bone and on the adjacent anterior border of the lower extremity of the tibia were well-marked articular facets, caused by these two

surfaces coming into contact when the squatting position was assumed. The presence of these well-marked articular facets justify us in supposing that the Queen habitually assumed the squatting position when seated. The total length of the astragalus is 45 mm.; its total width 36 mm. The neck of the bone is remarkably short. The articular surfaces of the tarsal bones convey the impression of very free foot-movements—such as we observe in the feet of native races that walk barefoot.

Mes-kalam-dug.

A comparison of the bones of this Prince with those of Queen Shub-ad brings out the influence of sex in moulding the bones of the body. Except for her large cranial capacity, Queen Shub-ad was intensely feminine in her physical characterization; in Mes-kalam-dug the bones of the body were fashioned as in the very robust male. For instance, in him the head of the thigh-bone had a diameter of 49 mm.—13 mm. more than in the Queen. In the Prince the heel bone (os calcis) had a total length of 93 mm.—32 mm. more than in the Queen; the width of this bone, measured so as to include the *sustentaculum tali*, was 47 mm.—11 mm. more than in the Queen. In her the proximal end of the os calcis, which represents the size of the heel, was 32 mm. high and 31 mm. wide; in him the corresponding measurements were 46 mm. and 39 mm. The right arm—represented by the humerus—was particularly thick and strong in the Prince; the articular head of the humerus measured 49 mm. in a vertical direction and 45 mm. in a transverse (dorso-ventral) axis. In the Queen the radius of the right forearm, measured near the midpoint of its shaft, gave a width of 14·5 mm. and a dorso-ventral diameter of 10 mm.; the corresponding dimensions in the Prince were 21 mm., 14 mm. In the Prince the third metatarsal bone of the foot had a total length of 78 mm.—13 mm. more than in the Queen. The bones of the Prince—alas! all of them are only fragmentary now—show him to have been a strongly built, powerful man, about 5 ft. 5 in. or 5 ft. 6 in. (1·650–1·675 metres) in height.

As in the case of the Queen we have very little to guide us to the racial origin of the Prince. Of his face we have only a cheek-bone (os zygomatici) and two fragments of the lower jaw. We have to draw our inferences regarding his racial origin from the characters of his skull. As will be seen from Pl. 269, it has been possible to reconstruct only the hinder two-thirds of the skull of Mes-kalam-dug. Fragments of the frontal third have been preserved but are not sufficiently complete to permit a reconstruction to be made. Amongst these fragments there is fortunately one representing the root of the nose and the adjacent part of the glabellar region of the forehead. Only a slight depression interrupts the profile of the forehead as it passes into that of the nose. The nasal bones are narrow and sharply arched. The bridge of the nose (formed by the two nasal bones) is 9 mm. wide at its base and its arch is 4 mm. high. The width of process of the frontal, which intervenes between the orbits, is 26 mm. From these measurements we infer that the nose was narrow and its bridge high as in Greeks, Persians, Arabs, and several other Eastern peoples.

From fig. 1 it will be seen that Mes-kalam-dug had a projecting, cap-like occiput, of the form usually found in dolichocephalic skulls. That the Prince's skull was a very long one, we may feel certain for the following reason. As represented in fig. 1, the midpoint of the upper border of the auditory meatus is 102 mm. in front of the hindmost point of the skull. Now in the skulls from al-'Ubaid and from the mound tomb of Ur,[1] the ear passage is so situated that rather more of the skull lies behind it than in front of it. The post-auricular part of the al-'Ubaid skulls formed 50·4 per cent. of the total length. If we infer that this proportion also held in Mes-kalam-dug's skull, then its pre-auricular segment should have measured 101 mm. and the total length of the skull should have been 203 mm.—a very long skull. Even if we suppose that the pre-auricular part made up only 48 per cent. of the total length, as may occur in skulls of Arabs, the total length of Mes-kalam-dug's skull would have been 198 mm. As to the width of the skull there can be no doubt. An occipital view of the skull is given in fig. 2. The greatest width as seen in this view is 145 mm. If we suppose the total length to have been 200 mm.—a figure intermediate to the two estimates already given—then the cephalic index of the skull was 72·5—strangely enough the same index as in Queen Shub-ad. It will be remembered that the cephalic index for the al-'Ubaid skulls was 72·6; for two male skulls from the mound tomb[1] of Ur, 69·8. In absolute length and breadth and in the relationship of breadth to length as indicated by the cephalic index, the skull of the Prince agrees with the al-'Ubaid and Ur types.

In one respect the skull of Mes-kalam-dug differs from the al-'Ubaid type and also from that of Queen Shub-ad. In them the vault was high; in the Queen the vault rose to the very unusual figure of 129 mm. above the Frankfort plane; in the al-'Ubaid men the mean height of the vault was 119·6 mm.; in Mes-kalam-dug the vault is low, rising only 114 mm. above the Frankfort plane—about the same as in the skull of the average Englishman. In this respect it more resembles the male skulls from the mound tomb of Ur, in which the mean auricular height was 116·3 mm. The capacity of the Prince's skull must have been about 1,550 c.cm.; the mean capacity for the al-'Ubaid male skulls was 1,488 c.cm. The Prince had a brain which was well above the average size for Sumerians.

Although the skull of the Prince shows the same robust muscular markings as were seen in the bones of his limbs and body—yet the bones of the vault were not thick; they varied between 4–6 mm. He was under thirty years of age at the time of death, for the sutures between the bones of the vault are quite open. His teeth, too, which are of moderate dimensions, are only slightly worn. One notices that the lower incisors are worn in a way which indicates that the upper incisors did not meet the lower teeth in an edge-to-edge bite, as in primitive peoples, but tended to pass in front of them as is usual in modern civilized populations. A fragment of the lower jaw carries part of the chin which was moderately developed. The malar bone (os zygomatici) is flat and its body deep, the distance from its orbital to its lower border being 30 mm.;

[1] Of Larsa date.

the total height from malo-frontal suture to the masseteric border was 50 mm. Such dimensions indicate a long, heavy face. The mastoid process will be observed in fig. 1 to be strongly developed, its apex descending 29 mm. below the Frankfort plane; the corresponding mastoid depth in Queen Shub-ad was 20 mm. The width of the skull, taken over the bases of the mastoid process, was 128 mm., indicating a strong-necked man. In fig. 1 a fissure will be seen to descend in the mastoid process. This is due to the temporo-mastoid suture failing to close—which it usually does in childhood.

One other remarkable feature of Mes-kalam-dug's brain remains to be mentioned. Usually the pole of the left occipital lobe makes a much larger impression on the interior of the occipital bone than that of the right occipital lobe. The larger development of the left occipital pole has been attributed by Professor Elliot Smith to the greater development of the left hemisphere of the brain because this hemisphere has to do with the control of the more highly specialized right hand. A larger development of the right pole indicates left-handedness. The Prince therefore should have been left-handed. Unfortunately no part of the left humerus has been preserved, so that we cannot compare its development with that of the right humerus.

I do not propose to give a description of the bones of the skeleton of Mes-kalam-dug. All the parts preserved indicate a man of uncommon muscular strength. The shafts of the femur and of the tibia show none of the flattening met with in European peoples of the Neolithic and of the Bronze Ages. The metatarsal bone and phalanges of the great toe are remarkably strong. The metatarsal bone of this toe is 67 mm. long; the base, which articulated with the internal cuneiform, measured 32 mm. in a vertical direction and 21 mm. from side to side.

Mes-kalam-dug had thus several remarkable individual characteristics—his great physical strength, his peculiar development of the right occipital pole indicating a predominant use of the left hand, and the massiveness of his head and face. As to his race, all we know of him indicates that he was a member of the same race as the people of al-'Ubaid and of the mound tomb of Ur—the people to whom I have given the name—for lack of a better—Proto-Arabs.

PG/1573.

Remains of a man about fifty years of age and about 5 ft. 6 in. (1·675 m.) in stature, stoutly built. His skull is fragmentary. A part of the frontal bone has been divided by a sharp-edged cutting implement while still fresh. The parietal bone, at its centre, is greatly thickened (12 mm.), while at the sagittal suture it is only 6 mm. thick. The impressions on the bones of the skeleton, made by the attachments of muscles and of tendons, are studded with bony outgrowths—probably of rheumatic origin. The cusps of the molar teeth are worn until the dentine in their bases has become exposed. The chin region of the mandible measures 36 mm. in depth and 12 mm. in thickness. The chin is papular in form and projects 9 mm. in front of the incisor alveolus. The thigh-bone measures 440 mm. in length, the diameter of its head being 49 mm. Its shaft, just below the small trochanter, is 28 mm. in its a.p.

diameter and 35 mm. in its transverse; the corresponding diameters of the mid-point of the shaft are 35 mm. by 31 mm. There is no exaggerated side-to-side flattening of the tibia; at its midpoint the shaft of that bone is 34 mm. in its a.p. diameter and 24 mm. in its transverse. It will be seen from these measurements that this man, like Mes-kalam-dug, had strong limb-bones.

PG/1631. *Skull from stone chamber.*

A skull of a man between forty to fifty years of age, having slightly developed supra-orbital ridges and a short face. In its dimensions and shape this skull is of the Proto-Arab type. Its length, 190 mm., width 136 mm., gives a cephalic index of 71·6—a highly dolichocephalic skull. The skull is flat-sided, the vault rising 114 mm. above the Frankfort plane. The vault is low as in Mes-kalam-dug. The forehead was narrow—the minimal frontal diameter being 90 mm., maximum frontal 121 mm., and supra-orbital width 100 mm. The total length of the face (naso-mental length) was only 106 mm. and its width (bizygomatic) 130 mm. This man suffered from periodontitis which has led to a great thickening of the roots of the teeth. The nose was short (48 mm.) and of moderate width (25 mm.). The chin was well developed, projecting 9 mm. in front of the alveolar margin when the jaw is placed on a plane surface so that it rests on its lower border. The depth of the lower jaw in the region of the chin was 28 mm., its thickness (a.p. diameter) 16 mm. The teeth are small, the combined length of the three lower molars being only 30 mm. This skull is similar in its proportions and dimensions to some from the mound tomb of Ur.

PG/1648. *Bones of attendants found against the south-west side of the stone chamber.*

The bones represent two women—one young, the other old. As the upper epiphysis of the humerus of the young woman is unjoined and as her teeth are but slightly worn, we may suppose her to be between eighteen and twenty years of age. Only fragments of her skull and face were found. The nasal opening was narrow (23 mm. wide), and as the nasal spine was well developed we may infer that her nose was narrow and prominent. The lower jaw is shallow and the chin represented by a small triangular eminence. The depth of the lower jaw at the symphysis (chin region) was only 24 mm. and its thickness (a.p. diameter) 13 mm. The bones of the face are slender and their dimensions indicate a short, rather childish countenance. This younger woman was about 4 ft. 10 in. (1·475 m.) in stature. Her limb-bones were slender. The shaft of the femur, at its midpoint, measured 23 mm. in its a.p. (antero-posterior) diameter and 21 mm. from side to side. The humerus, at the insertion of the deltoid muscle, had an a.p. diameter of 20 mm., a side-to-side one of 15 mm.

The skeleton of the old woman is represented by a number of fragments. Her forehead was narrow—its minimum width being 90 mm., its maximum width 114 mm., and its supra-orbital width 97 mm. Her lower jaw is deeper and stronger than that of the young woman—having a depth at the symphysis

of 28 mm. and a thickness of 13 mm. Only her first lower molars were in place in her lower jaw, the second and third molars—if ever developed—must have been lost in early life. Her bones are much stronger than those of the younger woman. At the midpoint of the shaft of the femur, for example, the a.p. diameter measured 26 mm., the side-to-side 25 mm. From the condition of her bones one infers that she was well over fifty years of age.

With the remains of these two women were two stray bones—one, the heel-bone (os calcis) of a strong man, the other a piece of a hip-bone of a child about six years of age. Graves which have been dug into old burying-places may have such stray fragments added to them when filled in.

Bones of attendant lying beside coffin.

These are the bones of a young man not over twenty years of age, about 5 ft. 5 in. or 5 ft. 6 in. (1·650–1·675 m.) in stature. His limb-bones, like those of Mes-kalam-dug, were exceedingly strong. The head of the thigh-bone had a diameter of 48 mm.; its lower extremity was 83 mm. wide; the shaft, at its midpoint, had an a.p. diameter of 28 mm. and a transverse of 27 mm. Its length was 440 mm. The tibia, at the midpoint of its shaft, had an a.p. diameter of 28 mm. and a transverse of 21 mm. The humerus was 320 mm. long and at its deltoid impression had a dorso-ventral diameter of 24 mm., a transverse of 19 mm. These figures bespeak a young man of great muscular strength.

His skull showed all the features of the Proto-Arab save that its vault, like that of the Prince, was relatively low; it rose only 113 mm. above the Frankfort plane. The greatest length of the skull was 190 mm., its width 143 mm.; its cephalic index, 75·2, a skull at the upper limit of dolichocephaly. The sutures of the vault were open; its bones varied in thickness from 5 mm. to 8 mm.

Most of the bones of the face are missing, but one infers from the shape and dimensions of the lower jaw that it was of medium length and width. The minimal width of the forehead was 93 mm., the maximal frontal width 118 mm.; supra-orbital width 101 mm. The inter-orbital process of the frontal was only 25 mm. wide. At their attachment to the frontal bone the nasal bones formed a triangular impression 13 mm. wide at its base and 10 mm. high—an indication of a prominent nose. The chin was well developed, the depth of the lower jaw in the region of the chin being 31 mm., its thickness (a.p. diameter) 14 mm. The minimal width of the ascending ramus of the lower jaw was 34 mm.—indicating a reduced system of chewing muscles. The dentition was intact and free from disease. The third molars (wisdom teeth) had just come into use.

PG/1847. *Burial R.*

Remains of a man of about forty-five years of age—or older. His skull is of the Proto-Arab type, its length being 189 mm., its greatest width—which is high up, being almost level with the parietal eminences—139 mm.; the width being 73·5 (cephalic index) of the length. The vault rises 117 mm. above the Frankfort plane; the basi-bregmatic height is 144—a relatively high skull. These dimensions are similar to those of the skulls from the mound tomb of

Ur. The nose was narrow and prominent. The root of the nose was marked off from the forehead by a very shallow infraglabellar notch. The bridge formed by the nasal bones was 8 mm. wide at its base and its arch was 4 mm. high. The width of the nasal opening was 24 mm., its lower margin being marked by a sharp line of bone—as in most modern European skulls. The molar teeth were worn so that dentine was exposed over their chewing surfaces. The forehead was 93 mm. wide (minimal frontal width); the greatest frontal width was 113 mm.; the supra-orbital width 102 mm. The bizygomatic width of the face was 135 mm.—a face of rather more than moderate width. The chin was moderately developed, the mandible being 36 mm. deep in the middle line and 11 mm. in thickness (a.p. diameter). In this skull we had an opportunity of taking the dimensions of the palate. Its width, measured between the outer surfaces of the second molars, was 66 mm.; its length, measured from the anterior margin of the central incisor alveoli to the mid post-molar point, was 50 mm.—these dimensions agreeing with those taken in the palates of modern Europeans. The jaws of the skulls from Ur show all the features which are supposed to result from living on a civilized dietary.

PG/1847. *Burial S.*

Remains of a man, younger than the one just described but very similar to him in shape and size of skull. The greatest length of the skull was 190 mm., its greatest width which, as in the last, was situated high up on its sides, was 142 mm., the cephalic index being thus 74·7—a dolichocephalic skull. The vault, as in the al-'Ubaid skulls, was high, rising 122 mm. above the Frankfort plane. The basi-bregmatic height was 139 mm. The face is represented by fragments, but there is enough to prove that the nasal opening was narrow (23 mm.) and that its lower margin was demarcated by a double linear ridge of bone. The palate was small, its width being 61 mm. and its length 46 mm. —these measurements being made as described above. The supra-orbital ridges were well marked. The minimal frontal width was 94 mm., the maximal frontal width 116 mm., and supra-orbital width 98 mm. The inter-orbital process of the frontal was very narrow, being only 21·5 mm. The chin projected 9 mm. in front of the incisor alveolar border. In the midline the depth of the lower jaw was 29 mm. and its thickness 14 mm. The occiput was cap-shaped and prominent, being separated from the inial protuberance below by a deep transverse groove. From stray fragments of the skeleton we estimate the stature of *S* at 5 ft. 6 in. (1·675 m.). His features are those I attribute to the Proto-Arabs.

THIRD DYNASTY EVIDENCE

Bones collected from the long Vaulted Tomb under Bur-Sin's NW. Annex.

These fragments, representing at least five individuals, are in a curious state of preservation. They are 'calcined'—a condition produced when bones which are dry and free from animal matter are burned. When dried bones—such as those taken from old graves—are subjected to fire, they retain their

natural shape and size. It is quite otherwise when bones are burned with their animal matter in them and surrounded by the flesh of the body. They then split, crumble, and become distorted. Such remains are spoken of as 'cremated' bones.

Of the individuals represented by the black calcined remains from the long vaulted tomb four are certainly women; the fifth may also have been a woman. The significance of burning human skeletons which must have been dug up some time after burial I do not know, but it is an ancient practice in Palestine. In 1932 Miss Dorothy Garrod submitted to me a collection of calcined human bones found while excavating the mesolithic strata of a cave in the Judaean Hills. The calcined fragments represented at least seventy-five individuals—mostly women. Miss Caton Thompson found the calcined fragments of two human skulls under the foundations of Zimbabwe; both skulls were of women —negro women.

Bones from Second Tomb, Dungi Building.

In this case there is no skull. The limb-bones are those of an adult male. Some of the bones have been exposed to fire.

Bones from the SW. vaulted Tomb under Room 1. Dungi Building.

These fragmentary bones represent three individuals: (1) an adult male of small stature and slender build; (2) a child—ten to twelve years of age; (3) fragments of a woman's skeleton.

SUMMARY

A review of the facts gleaned from an examination of the human remains from the Royal Tombs of Ur leads to the conclusion that the individuals buried in these tombs were all of them of the same race as the Proto-Sumerians buried at al-'Ubaid and those of a later date buried in the mound tomb of Ur. The Sumerians had big, long, and narrow heads, with strongly marked facial features. I propose, as a racial designation for the early inhabitants of Sumer, the name Proto-Arabs, for I think there can be no doubt that the Arabs now inhabiting Iraq are lineal descendants of the same people whose dead were buried in the Royal Tombs of Ur. I do not see how a physical distinction can be drawn between the Semitic type now represented by northern Arabs and the Proto-Sumerian type of predynastic and early dynastic Ur. If the Semite and Sumerian regarded themselves as of different races, these differences were probably linguistic and political rather than ethnological. The Sumerian and Semitic types resemble each other too closely to be regarded as other than members of the same racial stock.

Of particular interest is it to observe the fine physique and the rich brain endowment of Queen Shub-ad and of the Prince, Mes-kalam-dug. The latter was an exceptionally strong man physically, and if we may rely on size of brain as an index of mental capacity—then was the Prince not only physically strong but also a man of superior capacity. The Queen's cerebral

endowment was exceptional, and if we can trust physical development of the body as a clue to sexual mentality, then we may infer that she was also a very feminine woman.

ARTHUR KEITH.

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ANIMAL REMAINS

Mr. R. I. Pocock kindly supplies notes on some of the animal remains.

Cattle.

Of one of the oxen attached to the wagon of the king in the death-pit of PG/789 he writes:

Ox. Crushed skeleton showing remains of ribs and of the long bones of a front and hind leg and well-preserved teeth of upper and lower jaw *in situ*; but apart from the piece of the lower jaw in which the teeth are lodged there are no identifiable bones of the skull preserved, nor any trace of horns. So far as can be judged from the length of the leg bones, this ox, or bull, was about the same height as a Chartley bull, a long-horned breed representing approximately the average size of European domesticated cattle. This is also borne out by the following measurements of the lower jaw taken from the tip of the symphysis in front to the alveolus of the last molar tooth behind:

Chartley Bull and Cow	$10\frac{1}{2}$ in.
Chartley Bull	11 ,,
Chaldean Ox	11 ,,
Shorthorn Bull	$11\frac{3}{4}$,,
Aurochs from Ilford	$12\frac{1}{4}$,,

Many teeth and fragments of bone of apparently the same breed of bull or ox are also contained in the collection.

Pigs. The remains are mostly teeth, e.g. from PG/88 and PG/144. These are no doubt domesticated specimens; all the teeth except one incisor are those of young animals and too small for the wild boar.

Sheep. From PG/333 come the frontal bone and horn of a young sheep. Scattered throughout the collection are numerous loose molar teeth of some medium-sized ruminant or ruminants. They may be goat, sheep, or gazelle, which have very similar molars. It is noticeable that quite a large percentage of these teeth shows absence of wear; many of them had not cut the bone. Clearly the people of Ur appreciated lambs and kids.

I can find no remains definitely assignable to goat. This seems odd considering the liking the artists had for the animal; but the figured specimens were perhaps solely wild ibex.

It is also curious that there are no teeth or bones of horses or donkeys.

Gazelle. From PG/1850 come two skeletons which have been crushed completely flat but have been waxed and removed in the same way as the ox from PG/789. The skeletons are those of two ruminant animals which, from the length of the limbs and especially of the cannon-bone below the knee of the

fore-leg, I take to be gazelle (this bone is comparatively short in goats). But there is no trace of horns or skull except a detached molar tooth lying above the tail of one specimen which may or may not belong to it.

A fragment of a jaw and an unmistakable gazelle horn come from PG/188, and two gazelle horns from PG/1050.

Varia. From PG/610 came the incisor tooth and ribs of a mole-rat (*Nesokia buxtoni*), and the bony spine of a perch-like fish. From PG/1232 came the vertebrae of a shark (identified by Mr. J. R. Norman, of the British Museum, Natural History, who adds 'shark ascend big rivers from the sea and are found in the Euphrates at the present time'). Amongst the bones of birds Dr. P. R. Lowe of the Natural History Museum has identified the leg-bones of the pochard and of the tufted duck.

APPENDIX A

TABULAR ANALYSIS OF GRAVES

INTRODUCTORY NOTE

In this tabular analysis are included all graves in which were found objects sufficiently numerous or sufficiently important to constitute evidence for dating; the graves omitted are those plundered graves which contained either a single object of small interest or objects all of which were common to the whole cemetery period.

The numbers preceded by U. are catalogue numbers; the others refer to the series of types shown on Plates 232–67. Objects not included in these series are indicated by their number in the catalogue, where a further description will be found. Where the type number only is given this implies that it is sufficient description. Where neither a catalogue nor type number, but only a √ or a verbal description is given, this means that the character of the object could be recognized but its condition was such that it could not be preserved.

ABBREVIATIONS

A Graves assigned to the early part of the predynastic cemetery.

B Graves assigned to the predynastic cemetery as a whole.

T Trench burial, i.e. the simple interment of a body usually wrapped in matting.

L Larnax or clay coffin.

WC Wooden coffin.

MC Mat coffin.

BC Coffin of wickerwork or of upright reedstems or withies.

'burnt', 'burnt?' i.e. the body showing more or less definite signs of partial cremation.

PREDYNASTIC
TABULAR ANALYSIS

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
2	A	BC	..	2·20	..	..	..
3	A	..	..	..	..	..	..
5	B	BC	..	..	..	rings U. 7890	..
6	B	BC	NE.×SW.	2·60	..	..	..
7	B	L	N.×S. head N.	..	..	..	..
8	B	..	..	3·80	..	..	..
9	A	T	head W.	0·80	..	..	..
12	A	Double larnax partly burnt	..	1·50	..	..	carnelian U. 7644
13	A	L	N.×S. head S.	0·50	..	..	..
15	B	L	..	0·60	..	..	U. 7893
16	A	T (burnt)	..	1·00	..	..	..
18	B	..	..	..	..	..	..
19	A	T	..	1·00	..	..	..
20	B	T	..	0·45	..	..	..
21	B	T	..	0·50	..	..	..
22	B	T	..	0·70	..	..	..
25	A	T	..	1·90	..	..	..
26	B	..	..	1·00	..	..	..
28	B	..	..	2·50	..	..	..
29	B	..	..	0·50	..	..	..
30	B	..	..	0·50	..	..	..
31	A	T	..	0·90	wire on bracelets	ring U. 7983, bracelet U. 7977	lapis U. 7987
32	B	T	..	1·00	..	..	..
33	A	T	..	1·35	..	..	..
35	B	..	..	4·00	diadem U. 7951, pin-head U. 7971, ear-rings U. 7952	rings U. 7961	U. 7958, U. 7959, U. 7962, U. 7963, U. 7976
36	A	T	NE.×SW.	1·20	..	..	U. 7944
37	A	L	NE.×SW.	1·65	..	..	U. 8083, U. 8084, U. 8089
38	B	T	..	0·30	..	..	..

CEMETERY

OF GRAVES

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
2	..	dagger 7	√√	5, 109, 178	..	fragment of painted clay head by grave
3	..	axe A 3, chisel 1, arrow butt U. 7853	√√√√√√			
5	..	pin 1	√	5	U. 7637: 14, U. 7638: 84	
6	..	.. ..	√√	100	√	animal bones in saucers in grave
7	..	axe S 8	..	108, 145, 150, 167	..	above the larnax, remains of mud brickwork, fragment of statue and cow's bones near grave
8	..	.. ..	..	49, 61, 108, 212	√	cut shell lamp, cockle-shells with paint
9	..	axe A 3				
12	..	.. ..	..	5	U. 7647: 20, U. 7648: 54, U. 7649: 89	
13	..	.. ..	4, 96	40, 236	..	
15	U. 7657	pin 1				
16	..	axe A 3				
18	√	.. ..	..	5, 50 (variant), 136, 208	..	
19	..	.. ..	..	5, 109, 125	U. 7937: 63	
20	..	.. ..	..	7	..	
21	..	.. ..	..	5, 99	..	
22	..	pin 8, ring	..	108, 145	..	
25	..	spears 1, 6	..	108	..	
26	U. 7927	dagger 7, axe S 5	..	51, 252	..	
28	..	.. ..	..	5, 7, 108	fragment of incised pot	
29	..	.. ..	..	4, 108	..	
30	..	.. ..	..	7, 99	..	clay sling bolts
31	U. 7985, U. 7986	dagger 7, adze 2, pin 1, bracelet U. 7977	4	4, 108, 150	..	cockle-shell, sheep's teeth
32	..	.. ..	..	145	..	
33	U. 7989, U. 7990	dagger 7, axe A 3, pin 1, reticule U. 7898	√	7	U. 7840: 47	
35	U. 7953, U. 7954, U. 7955, U. 7956, U. 7957	dagger 7, pin 1, reticule U. 7968, bracelet U. 7960, ring U. 7972	4, 25, U. 7966	45	..	jaw-bone of cow
36	..	ring U. 8416	..	5, 16	U. 7943: 47	Shell lamp, stone palette
37	U. 8085	pin 3, axe A 3, ring U. 8087	..	..	U. 8082: 22	cockle-shells
38	..	.. ..	..	61, 108, 109, 121	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
39	B	Circular ribbed jar	..	2·80	..	..	..
40	A	T	..	0·40	..	..	..
42	B	(drain)	..	2·00	..	..	..
43	A	T	..	1·75	..	..	..
44	B	..	..	1·50	..	..	..
48	B	T	..	1·80	..	..	..
49	B	T	..	1·50	..	..	..
50	B	T	..	1·50	..	..	..
53	B	T	..	0·80	..	..	..
55	A	T	..	1·20	chain U. 8002, diadem U. 8003, bird bead U. 8005, chain U. 8018	bracelet U. 8013, cockle-shells, antelope's head U. 8013 plaque U. 8007 pin 6 U. 8014	U. 7914, U. 8002, U. 8004, U. 8008, U. 8009, U. 8010, U. 8011, U. 8012, U. 8018
57	A	T	N.×S. head S.	4·30	ring U. 8098	..	U. 8097, U. 8099
58	A	T	..	2·00	..	hair-ring U. 7935	..
64	A	T	..	2·00	..	..	..
68	A	T	..	1·80	..	..	..
69	B	L	..	1·20	..	bracelet U. 8055	U. 8054
71	A	T	N.×S.	2·20	..	..	one lapis, large, U. 8044
76	A	T (burnt)	..	2·30	..	..	U. 8101
78	A	T	..	2·50	..	..	..
87	A	T	..	1·00	..	..	rough shell
88	A	T	..	1·30	..	ring U. 7948	U. 7945
89	A	T	..	2·20	hair-ring U. 8048	..	U. 8050
91	A	T	E.×W. head E.	2·10	..	..	U. 8070, U. 8159
92	B	T	..	4·00	..	..	..
93	B	T	E.×W. head W.	0·50	..	hair-ring U. 8303	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
39	..	.. ..	..	41, 108	..	mound of ashes clearly defined above grave; detailed descr., p. 147
40	..	.. ..	√	..	U. 7938: 61	
42	..	.. ..	..	7, 16, 67		
43	U. 7992	.. ..	7, 96	243	..	whetstone U. 7993
44	..	.. ..	..	5, 7, 108, 209	..	
48	..	.. ..	..	101, 109, 110	..	
49	..	dagger 7, pin 1, reticule U. 8650, ring U. 8652, ear-rings	..	5, 108	..	
50	..	.. ..	..	7, 108, 145	..	
53	..	.. ..	..	108, 149	..	
55	U. 8006	pin 1	..	5	U. 7996: 19, U. 7997: 16, U. 7998: 8, U. 7999: 19	cockle-shells, inlay plaques (or counters) U. 8020, lead sheeting, cuttle-fish bones, shell bull U. 8033; see detailed description, p. 148
57	..	axe	√√	..	U. 8063: 51, U. 8064: 61	
58	..	.. ..	..	..	19, U. 7936: 61	
64	..	pin 8	..	..	U. 7939: 49, U. 7940: 60	
68	..	axe A 3				
69	U. 8056	pin 1, needle U. 8060	4, 7, 86	59, 108, 173, 174	U. 8062: 19	
71	..	dagger 7, pins 1, 7, axe A 3	..	108, 130, 145, 149	U. 8028: 87, U. 8029: 87, U. 8030: 92, U. 8031: 51, U. 8032: 60, U. 8069: 19	shell lamp U. 8160, whetstone U. 8035, pestle U. 8025
76	..	.. ..	..	109, 128	U. 8100: 47	
78	..	.. ..	..	109	U. 8103: 59, U. 8104: 29 (variant)	
87	..	dagger 7, axe A 1, pin 1, ring U. 8080, razor U. 8078	..	108, 243	..	cockle-shells
88	..	pin	..	5, 101, 108, 149	U. 7946: 60, U. 7947: 22	pig's teeth
89	..	.. ..	4, 14, 79	61, 100, 108, 187	U. 8047: 8, U. 8049: 13, U. 8052	
91	..	adze 2, pin 8	4, 7	149, 181, 243	U. 8071: 22, U. 8074: 16, U. 8075: 22, U. 8156: 21,	whetstone, amulet U. 8072
92	..	.. ..	..	61, 67, 108, 149, 190	..	
93	..	pin 1	..	45, 108	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
95	A	T	..	2·30	..	..	..
96	A	T (burnt ?)	..	2·00	..	..	..
97	B	L (burnt wood)	NE.×SW.	2·00	..	..	..
102	A	T	..	0·50	..	..	..
108	A	T	..	1·50	..	..	..
110	B	T	NE.×SW.	2·00	..	..	..
111	A	T (burnt)	N.×S. head S.	3·30	..	..	..
112	B	T	..	3·00	..	..	..
113	B	T	..	2·60	..	..	..
114	A	T	..	3·00	..	hair-ring U. 8291	U. 8110
116	B	T (burnt ?)	..	2·50	..	..	..
118	B	T	..	1·20	..	..	..
119	A	T	..	2·80	..	..	..
120	B	T	..	0·80	..	..	..
121	A	..	..	..	..	shoe (?) U. 8185	U. 8178 (*brim*)
122	B	T (burnt ?)	..	3·00	..	..	..
123	A	T	..	..	..	..	..
125	B	T	..	2·40	..	pin 1 U. 8162, finger ring U. 8165, bracelet U. 8166	U. 8164
128	A	T	E.×W. head E.	2·10	..	..	..
130	B	T	..	3·00	..	..	..
131	A	L	NE.×SW.	1·10	..	..	..
132	B	T (burnt ?)	E.×W. head E.	3·60	..	..	..
134	B	T (burnt)	..	3·10	..	..	..
135	A	T	..	2·00	..	..	..
139	A	T	..	2·70	..	..	..
141	A	T	..	2·10	..	..	..
142	B	T	..	1·00	..	..	..
143	A	T	..	3·00	..	hair-ring U. 8203	shells U. 8193, U. 8194, U. 8201
144	B	T	..	3·80	..	..	..
146	B	T	..	2·00	..	..	..
147	A	T	..	3·40	..	hair-rings U. 8144, thin plate	shell-rings U. 8146, U. 8147

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
95	..	.. ..	..	86, 130,	103	cockle-shells, mother of pearl pendant U. 8073
96	..	spear 2	√			
97	..	.. ..	..	108, 145	..	whetstone, alabaster tessera
102	..	chisel 2, pin 1, axe S 18,	..	108		
108	..	dagger 5, axe A 3	..	107	..	2·00 m. from the grave a painted clay head U. 8292
110	√	pin 1	..	5	..	cockle-shells
111	..	.. ..	4	61, 108, 130, 209	U. 8206: 47	
112	..	.. ..	..	5, 7, 49, 108	..	
113	..	.. ..	4	5, 7, 50, 209	..	
114	..	axe A 3	..	99, 108	..	cockle-shells
116	..	.. ..	..	100, 108	√	
118	..	.. ..	..	100, 145	U. 8455: 20	
119	..	.. ..	..	7, 114, 208	U. 8207: 22, U. 8326: 48	
120	..	.. ..	..	5, 7, 108	..	clay roundel
121	..	dagger 7, axe A 1, tool 3, razor U. 8181, finger ring U. 8180, saw U. 8366, chisel (?) U. 8183, awl	7, 79	1, 149	U. 8187: 61	wood spatula U. 8186, shell ladle, loom weight (?) U. 8188
122	..	.. ..	..	5, 111, 208	..	
123	..	.. ..	..	130, 243	U. 8204: 22	cockle-shells
125	..	.. ..	4	110	U. 8163	cockle-shell
128	..	.. ..	..	83, 100, 149	U. 8252: 27	below the grave 2 mother of pearl .. pendants and an ostrich egg
130	..	.. ..	..	7, 108	..	
131	..	.. ..	..	..	U. 8321: 47	
132	..	.. ..	..	100	..	
134	..	.. ..	..	7, 108	..	
135	..	axe A 3	..	..	U. 8135: 50	
139	..	.. ..	..	5	U. 8240: 49	
141	..	axe A 3, dagger 3	4	5, 100	..	
142	..	.. ..	..	99, 108, 110	..	
143	U. 8202	.. ..	..	..	U. 8190: 22, U. 8195	shell lamp with bird U. 8191, cockle-shell
144	..	pin 1	..	5, 64, 108	..	animal bones & teeth
146	..	.. ..	..	5, 130, 149	..	
147	..	.. ..	..	..	U. 8143: 22	cockle-shells

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
148	B	T (burnt ?)	..	3·00	..	..	..
149	B	L	NW.×SE.	3·40	..	..	..
151	A	T	..	1·85	..	..	U. 8177
152	A	T	..	1·00	..	..	..
153	B	T	..	3·40	diadem U. 8173	..	U. 8165, U. 8168, U. 8172
155	A	T	N.×S. head S.	3·00	..	..	..
156	A	T (burnt ?)	E.×W. head W.	3·10	hair-ring U. 8118 rings U. 8120	..	U. 8116, lapis pendant U. 8117
157	B	T	NE.×SW. head SW.	1·70	..	..	..
158	A	T	N.×S. head S.	2·00	hair-ring U. 8128	..	U. 8127
159	A	T	N.×S. head N.	4·00	hair-ring U. 8209	diadem, comb U. 8212, wreath, rings U. 8214	U. 8210, U. 8211
160	A	T	..	3·20	..	..	..
161	B	T (?)	..	2·00	..	..	U. 8224
162	B	T	..	1·00	..	ring	..
163	A	T	NW.×SE. head NW.	3·30	..	..	..
164	B	T	..	3·20	..	..	..
165	A	T	E.×W. head W.	3·60	..	pin 1 U. 8226 ear-ring U. 8227	U. 8226, U. 8229
166	A	L	NE.×SW. head SW.	1·00	..	..	..
167	B	T	NE.×SW. head SW.	2·70	..	..	..
168	B	T	..	4·20	..	hair-ring	..
168 *bis*	B	T	NE.×SW. head SW.	4·20	..	..	..
169	A	T	..	3·20	..	..	U. 8250
170	B	T (burnt ?)	..	3·90	..	..	..
171	A	T	..	4·00	..	..	..
172	B	T	NW.×SE. head SE.	4·20	..	..	..
173	A	T	..	3·80	..	..	..
176	B	L	NW.×SE. head NW.	2·80	..	..	U. 8137
177	B	T	..	4·20	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
148	..	.. ..	..	108, 121, 128	..	
149	..	bracelets U. 8200	..	108	..	shell lamp, cockle-shells
151	..	.. ..	4, 97	63, 108, 130	U. 8175: 60	
152	..	axe A 3	..	5, 108		
153	U. 8169	pin 1	bowl	..	U. 8170: 90, U. 8174: 16	
155	..	.. ..	..	5, 108, 130	U. 8311: 22	cockle-shell, basket
156	U. 8119, √	dagger, pin 1, axe A 3, chisel 4	4	108, 180	24, U. 8122: 87	whetstone
157	..	razor	..	5, 49	..	
158	..	spear 2, pin 1, axe A 3, spoon	3 bowls	108	U. 8126: 87	
159	..	spear 4	49, bowl,	5, 61	U. 8215: 61, U. 8216: 66, U. 8217: 101, U. 8218: 41, U. 8219: 47, U. 8220: 15, U. 8221: 78	stone crescent U. 8213, 2 shell lamps, cockle-shells
160	U. 8141	dagger 7, spear 6	..	..	U. 8142: 41	
161	..	.. ..	..	..	U. 8223: 101	
162	..	.. ..	..	88, 108, 149	..	
163	..	chisel 2	96, bowls	5, 61	U. 8319: 19	
164	..	.. ..	..	5, 88	√	cockle-shell
165	U. 8228	.. ..	..	1	U. 8225: 24, U. 8237, U. 8238	dog figurine (clay), cockle-shells
166	..	dagger 7, pin 4	..	5, 108	..	
167	..	.. ..	..	108, 208	..	
168	U. 8290	.. ..	..	5, 7, 108, 203	U. 8149: 19	
168 *bis*	√	.. ..	..	5, 7, 61, 108	..	whetstone
169	..	pin 1	..	5, 63, 108	U. 8239: 82, U. 8249: 47	shell lamp, mother of pearl rosette U. 8301
170	..	.. ..	..	7, 61, 130	..	
171	..	dagger 7	..	162, 208	U. 8239: 82, U. 8242: 42	clay crescents U. 8323
172	..	dagger 7, axe	..	5, 7, 86, 107, 108, 130, 209	U. 8260: 48	clay dog figurine, four clay nails or cones?
173	..	.. ..	96	5, 7, 61, 86, 130	..	cockle-shells
176	..	.. ..	..	67, 92	..	
177	..	.. ..	..	5, 61	U. 8320: 19	shell lamp, cockle-shells, clay inlay cones near grave

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
178	A	T	N.×S. head S.	1·60	..	..	√
179	A	T	N.×S. head S.	3·40	..	pin 5 U. 8304, ear-ring U. 8305, chain *brîm* U. 8306	..
180	A	T	E.×W. head E.	4·10	..	..	..
181	B	T	..	3·50	..	ear-ring U. 8309	U. 8310
182	A	L	NW.×SE.	3·20	..	..	..
183	A	T	..	4·30	..	pin 1 U. 8279, hair-ring U. 8280	..
184	A	T	NE.×SW. head SW.	2·10	pendant U. 8269, ring U. 8272	hair-rings U. 8268	U. 8266, U. 8267
185	B	T	..	3·80	..	..	..
187	A	L	..	3·30	..	..	..
188	A	T	..	0·80	..	..	..
189	B	T	..	4·50	..	..	..
191	B	T	..	2·00	..	..	..
193	B	T	..	2·50	..	..	..
194	B	T	N.×S. head N.	4·40	..	..	1 clay tubular
196	A	T	NW.×SE. head NW.	4·40	..	..	..
197	B	T	NW.×SE. head NW.	2·90	..	..	..
198	A	T	..	4·30	..	..	..
200	B	T	..	0·50	..	..	..
202	A	T	NW.×SE. head SE.	0·50	..	2 finger-rings	U. 8409
203	A	T (burnt ?)	..	3·30	..	mirror U. 8332, bowl 7	..
204	B	T	..	0·50	..	..	..
205	A	T	..	4·40	..	..	..
207	B	T	..	3·00	..	ear-rings (lunate)	..
208	A	T	NW.×SE. head NW.	4·35	..	pin 1 U. 8404, hair-rings U. 8405	U. 8403
209	B	T	..	2·00	..	..	..
211	B	T (burnt)	N.×S. head S.	4·10	..	..	..
213	A	T	NE.×SW. head NE.	5·60	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
178	..	.. ..	4	63	U. 8293: 47	
179	..	chisel 4	bowl	..	..	
180	..	.. ..	..	16	U. 8275: 61, U. 8276: 101, bowl	
181	..	dagger U. 8246, pin, axe S 19	..	..	..	animal jaw, gazelle horn
182	..	axe A 3	4	..	U. 8283: 16	
183	white shell	3 reticules	7	5,64,107	U. 8277: 97, U. 9236: 70	shell inlay duck U. 8313, cockle-shell, clay dog figurine
184	..	pin 1	..	145, 187	U. 8273: 47	
185	..	.. ..	..	101	..	
187	..	spear 2, spear U. 8235, arrow 1	..	..	..	
188	..	.. ..	..	16	U. 8265: 86, bowl	cow's teeth
189	..	.. ..	4	..	..	encrusted ostrich shell U. 8244
191	..	.. ..	..	7, 108, 130	..	
193	U. 8342	pin 1	..	108	..	cockle-shells
194	..	.. ..	..	108, 109	..	flint
196	..	.. ..	..	49	U. 8296: 48, U. 8297: 22, U. 8300: 61	
197	..	pin, bracelet	4	99, 108	..	cockle-shells
198	..	.. ..	..	49, 137	U. 8296: 48	
200	..	.. ..	..	5, 7, 108	..	2 clay roundels
202	U. 8410	pin 1	112, 115	5, 40, 99, 108, 145, 149	U. 8406: 92, U. 8407: 37	animal bones
203	..	pin 4, arrows U. 8329, bracelets	..	108, 243	..	sheep's teeth and cracked marrow bones
204	..	.. ..	..	5, 108	..	
205	..	.. ..	..	5, 132, 205	U. 8340: 61	
207	..	pin 1	..	45	..	
208	..	.. ..	bowls	7, 108, 209	U. 8401: 64, U. 8402: 54	cockle-shells, 2 bone combs U. 9052, burnt grain, bone bodkins U. 9053
209	U. 8339	needle	..	108	..	
211	..	.. ..	bowl	5, 61, 108	..	wood in grave, perhaps coffin staves
213	..	.. ..	bowl	5, 61, 108	U. 8346: 66, U. 8347: 19	offering table, clay phallus U. 8349. The grave seems to have been dug down to level of SIS 4–5

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
214	B	T	NW.×SE. head SE.	3·70	..	..	..
218	B	T	N.×S. head S.	3·30	..	..	..
219	A	T	NE.×SW.	0·80	ear-rings U. 8361	bangle U. 8359, ring U. 8358	U. 8364
220	B	T	NW.×SE. head SE.	4·30	..	..	..
221	A	T	E.×W. head E.	5·60	ear-rings U. 8369	pendant U. 8374, ring pendant wreath	lapis bull amulet U. 8368, U. 8375, U. 8376, U. 8377
222	B	T	..	0·60	..	..	..
223	A	MC	E.×W. head W.	2·40	..	..	..
226	B	T	..	3·00	..	..	U. 8421
227	A	T	NW.×SE.	1·10	..	ear-rings	U. 8391
229	A	T	NE.×SW. head SW.	1·00	..	..	..
230	B	T	NW.×SE. head SE.	0·80	..	..	..
231	B?	T	..	2·30	..	..	..
233	A	T	..	2·30	..	..	..
234	B	T	..	0·60	..	..	..
236	B	BC	E.×W. head W	4·10	..	..	..
237	A	T	N.×S. head S	1·20	..	..	U. 8400
239	B	T	..	1·50	..	..	..
240	B	T	..	1·60	..	..	..
241	B	T	NW.×SE. head NW.	2·50	..	..	U. 8429
242	B	T	..	2·90	..	..	..
243	A	T	NW.×SE. head SE.	3·20	..	..	..
245	A	T	NW.×SE. head SE.	3·20	..	..	..
247	A	T	NW.×SE. head NW.	3·20	..	..	U. 8432
248	B	T	NW.×SE. head NW.	2·30	..	..	U. 8438
249	B	T	NE.×SW. head NE.	1·40	..	ear-rings U. 8440	U. 8439
250	A	T	NW.×SE. head NW.	..	..	axe A 3 U. 8428	..
252	B	T	..	4·80	..	..	..
256	B	T (infant)	..	2·10	..	..	..
258	A	T	NE.×SW. head NE.	2·10	..	..	..
259	A	T	..	2·30	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
214	..	.. ..	4	108	..	
218	..	.. ..	..	145	..	
219	U. 8359	dagger 7, pin 1, axe S 6, reticule U. 8356	4	5, 83, 100, 108, 145	U. 8351: 4, U. 8352: 55	ostrich shell, glazed spindle whorl U. 8363, cockle-shell. The grave lay on the top of a plano-convex brick floor belonging to a series of ruins
220	..	dagger 7	..	61, 108, 208	..	cockle-shell, clay crescent U. 8486
221	U. 8367	razor U. 8370	4, 27, 49	61	U. 8371: 61, U. 8372: 19, U. 8373: 24	cockle-shells. The grave seems to have been dug down to SIS 4–5
222	..	.. ..	..	145	..	
223	..	.. ..	7	101	..	brick stamp? U. 8426
226	U. 8420	dagger 7	..	..	..	
227	U. 8388, U. 8389	pin 1	49, bowl	108, 130, 150	U. 8386: 95, U. 8387: 61	
229	..	pin 1, chisels 1, and 2 or 3, saw U. 8393	4	108, 150	..	
230	..	bracelets	25	..	..	
231	white shell (decayed)	dagger U. 8398, reticule U. 8396	..	..	..	copper bird amulet U. 8397
233	shell (decayed)	adze 5, razor	..	7, 21, 108	..	
234						
236	..	.. ..	..	7, 21	..	burnt grain in cups
237	..	dagger 7, pin 1	7	5, 108, 150, 243	U. 8399: 11	cockle-shells
239	..	.. ..	..	108	U. 8534: 19	
240	..	.. ..	..	107	..	
241	..	.. ..	bowl	..	..	clay crescent U. 8430, whetstone
242	..	.. ..	..	4, 7, 125	..	
243	..	rivets (?) U. 8434	21, 26, 49, 79	150	U. 8435: 90	
245	..	axe A 3	7, 96, 115	4, 108, 112, 150	..	knuckle-bones, clay nail
247	..	axe A 3	4, 7, 96	108, 125, 150	bowl	
248	..	.. ..	..	..	..	
249	..	.. ..	..	5, 7, 108, 109	..	
250	..	dagger 4, axe A 3, staples U. 8477	7, 96, 115	108	..	shell inlay .. , 2 whetstones, cockle-shell
252	..	.. ..	..	108, 208		
256	..	.. ..	..	108, 209	.. ..	
258	..	pin 7	4	5, 108, 150	U. 8443: 2	
259	..	adze 5, pin	4	..	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
260	A	T (two, confused)	..	3·20	ring pendant from wreath U. 8441	..	U. 8441
261	A	T	..	4·70	toilet set U. 8510	..	..
262	B	T	..	2·10	..	..	..
263	A	L	N.×S. head S.	3·10	ring pendant wreath U. 8528	diadem U. 8524, hair-rings U. 8523, rings U. 8531	U. 8525, U. 8526, U. 8527
266	B	T (infant)	..	2·20	..	..	..
267	B	T	N.×S. head S.	2·70	..	..	..
269	A	T	..	3·50	..	..	..
271	B	L	N.×S. head S.	3·50	..	ear-rings U. 8545	..
273	A	T	..	3·00	..	..	..
278	B	T	..	3·60	..	..	..
285	B	L	..	3·40	..	..	U. 8551, shell rings U. 8552
286	A	WC	NE.×SW. head NE.	3·00	..	..	U. 8446
287	B	T	..	3·30	..	..	..
288	A	T	N.×S. head S.	3·40	..	..	U. 8465
290	B	T	E.×W. head W.	3·50	..	..	..
292	A	T	NW.×SE.	2·80	..	..	..
293	B	T	..	4·40	..	..	..
295	A	T	..	3·80	..	..	..
296	B	T	E.×W. head E.	3·30	..	..	..
297	A	L	NE.×SW. head SW.	4·20	..	..	..
299	B	T	..	1·70	..	..	..
300	B	T	..	3·20	..	..	..
302	B	T	..	3·30	..	..	..
303	A	L	NE.×SW. head SW.	..	..	..	U. 8592
306	B	T	NE.×SW. (confused)	3·90	..	..	..
310	B	T	N.×S. head S.	2·30	..	..	..
312	A	T	..	3·00	..	..	..
313	A	T (see 319)	..	4·50	leaf wreath U. 8568, ear-ring U. 8570	..	U. 8569, U. 8571
314	A	L (burnt?)	NE.× W. head SW.	4·50	..	..	U. 8702
316	A	T	NW.×SE. head NW.	4·00	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
260	..	pin 7	..	..	..	
261	U. 8513	dagger 7, axe S 19, chisel 2, razors U. 8508	7, 96	5	U. 8504: 66	inlaid counters U. 8509, whetstone, cockle-shells; p. 149
262	..	.. ..	..	7, 108, 113	..	
263	U. 8529	pin 1	4, 115,	..	U. 8520: 86, U. 8521: 87, U. 8533: 102	see detailed description, p. 150
266	..	.. ..	..	5, 109	..	basket
267	..	pin 1, axe, bracelet	bowl	108	U. 8540: 24	
269	..	axe A 3	4	108	..	
271	..	.. ..	bowl	..	U. 8544: 19	
273	..	.. ..	..	5, 108, 187	U. 8558: 86	
278	..	arrows, staple U. 8460, fish-hook U. 8458, bolts U. 8459	..	..	..	animal bones
285	..	pin 1	..	..	..	cockle-shells
286	..	.. ..	7	108, 150	U. 8445: 7, U. 8447: 60	
287	..	.. ..	..	5, 67, 108, 130, 162, 177, 243	U. 8588	
288	U. 8464	handle (?) U. 8467	96, bowl	..	U. 8463: 14	weights U. 8466
290	..	dagger 7	4	67, 100	..	
292	..	pin	..	108	61	
293	..	.. ..	..	5, 83, 101	U. 8634: 16	
295	..	dagger 7, pin 4	..	..	..	whetstone
296	..	.. ..	..	5, 7, 108	√	burnt grain and date-stones
297	..	.. ..	..	..	U. 8553: 42	
299	..	.. ..	..	100, 149	..	
300	..	.. ..	..	4, 108, 208	..	shell lamp, cockle-shells
302	..	.. ..	..	149	..	
303	..	axe A 3	bowl	..	U. 8591	
306	..	.. ..	..	7, 108, 173	..	
310	√	axe, reticule	..	100, 187	..	
312	..	.. ..	..	28, 67, 92, 108, 132	U. 8703: 59	
313	U. 8575	awl U. 8579	..	..	..	mother of pearl inlay plaques U. 8574. Apparently the same grave as 319
314	U. 8701	.. ..	..	..	59	
316	..	axe A 3	..	5, 45, 91, 100, 121, 136	..	grindstone

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
317	A	T	NE.×SW. head SW.	5·20	chain *brîm* U. 8561–2, ear-ring U. 8564	bowl, belt	U. 8565
319	A	T (see 313)	..	4·60	rosettes U. 8567, open-work pendant, foil U. 8576	ear-rings U. 8573	U. 8572
320	A	T	NE.×SW. head SW.	4·40	..	..	..
321	A	T	..	5·20	..	..	..
323	B	T	..	?	..	bracelet, ring	U. 8585
324	A	T	N.×S. head S.	4·40	..	..	√
325	A	T	..	5·50	..	..	..
326	B	T	..	4·00	..	..	..
329	B	T	..	3·50	..	..	..
332	A	T	N.×S. head N.	4·00	ear-rings U. 8496	..	U. 8495, U. 8497
333	A	L	NNE.×SSW. head SSW.	4·60	..	pin 5 U. 8598, wire bracelet U. 8605, rings, double-pipe U. 8605	U. 8602, U. 8603
335	A	T	..	4·00	..	..	*brîm*
337	A	Royal Tomb	..	..	ear-rings U. 8616, chain *brîm* U. 8613, ribbon U. 8612, finger-rings U. 8618	ring pendant wreath U. 8622, belt, ear-rings, pin 1 U. 8619 pin 5 U. 8617 bowl or lamp? U. 9364	U. 8614, U. 8620, U. 8621
338	B	T	..	5·20	..	..	U. 8738
341	B	T	..	4·30	..	..	..
343	A	T	..	3·70	..	..	..
345	B	T	..	2·30	..	..	√ (glazed)
347	A	T	..	2·70	..	..	U. 8719
350	B	T	..	4·50	..	..	..
351	A	T	..	4·00	..	..	..
353	B	T (burnt?)	..	4·50	..	..	..
354	A	T	NW.×SE. head SE.	4·30	ear-rings U. 8705	..	U. 8704
355	A	T	..	1·20	..	..	..
356	A	T	E.×W. head W.	4·30	hair-rings U. 8708	..	U. 8707
357	B	T	E.×W. head E.	6·20	..	ring	U. 8644

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
317	..	dagger, pin 1, chisel 2, axe A 5	7, 115	..	..	whetstone, sheep's bones
319	..	spear 1, chisel 4	96, many bowls	145	..	clay dog figurine, cockle-shell, flint saw U. 8578. Apparently the same grave as 313
320	..	.. ..	..	21, 45, 109,110, 130	U. 8492: 47	
321	..	axe A 4, chisel 2	..	81	..	
323	U. 8584	pin 1	bowl	44	..	
324	..	axe A 3, dagger	..	45, 86, 108	..	cockle-shells, shell lamp
325	..	axe A 3	..	5	..	
326	U. 8494	dagger 7	..	..	..	whetstone
329	..	dagger 7	107	5, 108	√	
332	..	.. ..	2 bowls	..	U. 8498: 63	cockle-shells
333	..	pin 7, chisels 2,4, axe A 5, arrow 5, razor U. 8604, saw U. 8594	88, 115	5, 61, 101,108, 209,243	U. 8608: 42	whetstone, cockle-shells, sheep's bones in cups; see detailed description, p. 151
335	..	dagger	..	46, 108, 209	..	shell lamp U. 8679, cockle-shells
337	U. 8615	pin 1, 7, hair-rings U. 8630	4, 7, 27, 79, 85, 103,106, 114,115, feet,tray	4, 5, 6, 61, 92, 101,108, 244?	U. 8623: 90, also see list of pots referred to under PG/497	see detailed description, p. 43; 2 rubbing stones
338	..	pin 1	..	65	U. 8733: 15	
341	..	.. ..	..	..	..	gaming pieces U. 8632, and dice U. 8633
343	..	.. ..	..	1, 5, 83, 208	..	animal bones, by the grave burnt bricks 0·22×0·21×0·05 m.
345	U. 8965	pin	..	..	..	
347	U. 8721	pin 8	..	5, 61, 100,186	√	two graves confused
350	..	.. ..	..	203	..	shell lamp, cockle-shells
351	..	dagger 3, axe A 3	..	5, 108, 125	..	
353	..	.. ..	..	108, 187	..	shell lamp, cockle-shells
354	..	.. ..	7	..	..	
355	..	.. ..	13, 22	187	..	
356	..	pin 1, arrow butt U. 8712	7	243	U. 8709: 61, U. 8710: 22, U. 8711: 48	
357	U. 8643	pin	85	5, 108	U. 8645: 98	shell lamp, cockle-shells, well preserved cloth of 3 kinds

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
358	B	T	..	5·00	..	..	*brîm* U. 8735
359	B	T	..	6·30	..	..	..
362	A	T (burnt)	NW.×SE. head NW.	4·80	..	..	U. 8715, U. 8716
365	A	T	NE.×SW. head SW.	5·30	..	ear-ring U. 8722	U. 8723
366	B	L	NE.×SW. head NE.	3·80	..	..	..
369	A	T	NE.×SW. head NE.	1·60	..	..	..
377	B	T	..	5·80	..	..	..
379	B	T	NE.×SW.	1·00	..	..	..
380	A	T	..	2·00	..	ear-ring U. 8745	..
381	A	WC	NW.×SE. head SE.	3·40	..	inlaid roundel	U. 8653, U. 8657, shell rings
383	A	T	NE.×SW. head SW.	6·20	..	..	U. 8647
389	A	WC	NNW.×SSE. head NNW.	3·60	ring U. 8688, diadem U. 8913	toilet set U. 8690, rings U. 8691	U. 8687, U. 8689
390	B	L (burnt)	NW.×SE. head NW.	2·10	..	..	..
391	B	L	NNE.×SSW. head NNE.	5·70	..	..	..
392	B	T	N.×S. head S.	?	..	..	..
395	B	BC	N.×S. head S.	1·90	..	..	U. 8667
397	B	T	E.×W. head W.	1·20	..	..	U. 8669, U. 8670
400	B	T	NW.×SE. head NW.	1·60	..	..	..
404	A	T (infant)	NW.×SE. head SE.	..	..	..	..
405	B	T	..	3·10	..	..	U. 8904
406	A	WC	..	2·50	..	..	..
416	A	WC	NE.×SW. head SW.	5·20	..	..	..
420	A	T	NE.×SW. head SW.	5·30	..	..	U. 8775
423	B	L	NW.×SE. head NW.	4·10	..	..	..
424	B	T	..	4·20	toilet spoon	..	..
427	B	T	N.×S. head S.	2·50	..	..	..
428	A	T	NE.×SW. head NE.	4·00	hair-rings U. 8762	..	U. 8761

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
358	..	axe S 19	..	..	U. 8733:15	
359	..	.. ..	..	108, 121	..	
362	U. 8714	.. ..	..	243	U. 8717:22	cockle-shells, clay crescent U. 9234
365	..	axe S 19, spear 5	..	..	U. 8724:15, U. 8725:17	
366	..	.. ..	..	108, 145, 209	..	
369	..	pin 1	..	108, 187	U. 8739:22	cockle-shells, lapis spindle wheel, grindstone (?) U. 8741
377	..	.. ..	..	5, 51, 108	..	cockle-shells
379	..	.. ..	..	108, 187, 243	..	shell lamp, animal bones, wooden bier poles
380	..	pin 1, chisel 2, arrow butt U. 8744, needles U. 8746	..	..	..	
381	U. 8656	.. ..	..	..	U. 8654:92, U. 8655:3	cockle-shells
383	U. 8646	pin	..	207, 243	U. 8648:22	
389	..	dagger, axe A 3	bowls	108	U. 8977:42	whetstone, coffin well preserved and grave measurements exact
390	√	dagger 7, pin 1	bowl	187	..	bitumen counter (?)
391	U. 8662	.. ..	bowl	5, 100	..	shell lamp U. 8661, cockle-shells
392	..	.. ..	..	7, 108, 166	..	
395	U. 8666	pin 1, ear-ring	4	45, 162	..	cockle-shells
397	U. 8668	pin, ear-rings	..	76, 108, 162	..	
400	..	.. ..	..	162	..	cockle-shells
404	..	adze 2	..	109	..	
405	..	.. ..	bowl	..	..	
406	..	.. ..	..	5, 7, 108, 121, 208	U. 9219:97	a large basket was laid above the coffin
416	..	.. ..	..	208	U. 8780:47	
420	..	.. ..	..	67, 81, 108, 203, 208, 243	U. 8770:61, U. 8771:22, U. 8772:47, U. 8773:22	
423	..	.. ..	..	5, 61, 67, 108	..	shell bowl, cockle-shells
424	..	.. ..	..	61	..	
427	U. 8699	dagger 7, axe S 6	..	52, 108	..	
428	..	pin 8	..	..	U. 8763:32, U. 8764:51	close to the grave was stone pot U. 8765: 92

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
429	A	T	..	..	chain *brîm* U. 8693, hair-ring U. 8694	studs U. 8905, bowl 4 U. 8901, lamp 115 U. 8902	..
437	A	T	..	5·10	..	..	..
448	B	T	NW.×SE. head NW.	3·70	..	..	..
449	A	T	?	3·00	..	bowl	..
453	A	T	..	4·40	leaf and ring pendant, wreaths U. 8930, U. 8931	..	U. 8931
455	B	T	..	3·20	..	..	..
457	A	T	..	1·60	..	..	..
458	A	L	NW.×SE. head NW.	6·00	..	..	..
466	A	T	E.×W. head W.	..	..	..	..
468	A	T	NW.×SE. head NW.	6·30	..	..	..
473	A	T	NE.×SW. head NE.	2·50	..	..	U. 9018
482	B	T	?	5·30	spiral pendant U. 9243	..	U. 9244
495	A	T	E.×W. head W.	2·00	ribbon U. 8959, ear-ring U. 8960	rings U. 8961, bracelet U. 8964	U. 8962
497	A	T (see 337)	..	4·40	..	..	..
500	B	T	NE.×SW. head NE.	1·50	..	..	..
509	A	L	NE.×SW. head SW.	5·60	..	..	..
511	A	T	..	6·20	..	hair-ring	..
513	A	T	..	6·00	..	..	U. 9109

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
429	..	axe A 3	7, 90	..	U. 8697: 50	clay roundel U. 8696, whetstone. The gold 'chains' were imitations made of twisted wire
437	..	adze 3	4	5, 101	..	
448	..	.. ..	..	5, 22, 100	..	
449	..	.. ..	7	..	..	shell and shale handles (?)
453	..	.. ..	..	..	..	perhaps part of PG/497, part of plundered royal grave with limestone chamber
455	..	.. ..	..	7, 41, 108	..	
457	..	axe A 3	..	..	..	
458	..	.. ..	..	33, 101	..	
466	..	dagger 7, axe A 3	4	5, 101	..	
468	..	.. ..	4	5, 209, 245	U. 9220: 78	cockle-shells, fish bones
473	U. 9028	pin 1, finger-ring U. 9019	..	67	U. 9020: 53	
482	U. 9242	pin 1	..	149, 150	spouted dish	
495	..	pin	42	..	..	
497	..	.. ..	..	..	U. 8936: 92, U. 8937: 92, U. 8938: 92, U. 8939: 89, U. 8940: 90, U. 8941: 90, U. 8942: 92, U. 8943: 92, U. 8944: 92, U. 8945: 92, U. 8946: 92, U. 8947: 72, U. 8948: 72, U. 8949: 3, U. 8950: 8, U. 8951: 29, U. 8978: 3	group of pots probably belonging to PG/337
500	..	.. ..	..	4, 96, 101	..	
509	..	.. ..	..	..	U. 8998: 92	
511	..	.. ..	..	..	U. 8979: 3, U. 8980: 62	
513	..	chisels 2, 4, spear 2, tool 2, saw U. 9108	49	..	..	mosaic draughtboard U. 9000, whetstone. At 2·40 m. above the grave was a limestone floor. The grave cuts into the shaft of the Royal Tomb PG/777

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
519	A	L	N.×S. head N.	4·90	..	..	..
525	A	BC	WNW.×ESE. head WNW.	3·00	..	..	..
526	B	T	NW.×SE. head NW.	2·30	..	..	..
530	B	BC	NE.×SW. head NE.	2·30	..	..	..
531	A	T	..	5·60	..	..	√
532	B	T	?	2·30	..	..	..
533	A	BC	N.×S. head N.	6·00	..	ear-ring U. 9124	U. 9124
535	B	T	NW.×SE. head NW.	1·40	..	..	U. 9165A
542	B	T	NE.×SW. head SW.	3·00	..	..	..
543	A	BC	NE.×SW. head SW.	3·00	ear-ring U. 9146	diadem, bracelet U. 9152, rings U. 9152	U. 9142, U. 9143, U. 9144, U. 9149, U. 9153, U. 9157
544	A	T	NE.×SW. head NE.	3·60	bird amulet U. 9078	ribbon, ear-rings U. 9087	U. 9088, U. 9089
545	A	BC	E.×W. head E.	3·50	..	ear-rings	U. 9174
548	B	T	NW.×SE. head NW.	2·70	..	..	..
549	A	T	..	2·10	..	..	..
556	A	T	E.×W. head W.	3·40	..	..	..
559	B	BC	N.×S. head N.	3·40	ear-ring U. 9284	rings U. 9277	U. 9279, U. 9280, U. 9281
560	A	T	..	5·50	..	axe A 3 U. 9247	..
563	B	T	N.×S. head N.	2·10	..	..	..
563 (A)	A	T	NE.×SW. head SW.	3·10	ear-ring U. 9308, diadem, U. 9307, diadem U. 9309	..	U. 9308, U. 9309
566	B	T	NW.×SE. head NW.	3·00	..	..	..
568	B	T	?	5·00	pendants U. 9356	ring U. 9254	U. 9253, U. 9356
569	A	T (child)	..	5·70	..	..	..
580	A	Royal Tomb	E.×W.	5·00	adze 5 U. 9339, binding U. 9333, cloisonné ring U. 9778, filigree bead U. 9779,	vessel U. 9334: 84 ear-ring U. 9700, spindles U. 9777	√ U. 9351, U. 9656, U. 9657, U. 9779

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
519	..	dagger 7, axe A 3	7, 96	5	U. 9113:86, U. 9114:15	
525	U. 9117	pin 1, dagger 4, axe S 9, reticule	4	5, 46, 132	..	
526	U. 9069	axe S 5, reticule	..	..	..	
530	..	.. ..	..	100, 132	..	
531	..	pin	..	..	U. 9192:49	
532	..	.. ..	..	7, 142, 187	..	
533	..	dagger 7, axe A 3, toilet set U. 9127	27, 46, 74	107	..	
535	U. 9165 B	pin 1, ear-rings, blade U. 9182, needles U. 9181	..	..	..	
542	..	pin 8, ring, ear-ring	4	100, 108, 162	..	
543	U. 9145, U. 9149 (silver), U. 9150, button seal U. 9153	dagger 7, pin 1	4, 7, 110	..	U. 9148:3	see detailed description, p. 151; bone inlay U. 9154, ostrich shell, shell lamp
544	U. 9082, U. 9083	dagger 7, pin 1, axe A 3, reticule U. 9084, rings U. 9086	35	..	..	bone comb U. 9091
545	(decayed)	dagger 7, axe A 1, pin, toilet instrument 1	4	38, 108	..	cockle-shells
548	..	dagger 7, axes S 5, U. 9096, pin 8	..	77, 162	..	
549	U. 9183	pin 4, toilet instrument 2	..	..	..	
556	..	dagger 4	..	..	U. 9212:56	bone inlay U. 9214
559	U. 9282, U. 9283	pin 8, ring U. 9277, reticule U. 9286, toe-ring U. 9288, dagger U. 9287	4, 49	108, 173, 187	..	cockle-shell
560	..	chisel 3, axe A 3	80	..	U. 9249:51, U. 9250:90	cockle-shells
563	U. 9298	pins, arrow 6, bangle U. 9300, reticule U. 9299	..	..	..	
563 (A)	U. 9310	pin	21, 42, 46	83	U. 9311:4	bellum
566	√	pin 8	..	..	..	cockle-shells
568	..	.. ..	..	..	..	shell inlay, lapis lock of hair and lapis ear from statue of donkey or bull U. 9252
569	..	.. ..	..	..	U. 9318:59	cockle-shells
580	U. 9315, U. 9341	axe A 3, arrows 1, 3, 4, 5, spears 1, 4, 5, spindles, bull's feet, quiver ends (?), chisel 2, mace-head U. 9137, hasp U. 9136, saw U. 9138, rein-rings U. 9324	4, cups, 95	16, 186	U. 9354:50, 6, 88	see detailed description, p. 46; 2 bellums, shell figures U. 9905, U. 9906, whetstones, 3 ox skulls, tool of meteoric iron U. 9139, belt

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
580					gold dagger U. 9361, gold reticule U. 9340, spear U. 9122, chisel 3 U. 9130, finger-ring U. 9699, awl U. 9131, toilet set U. 9340, hair-ring U. 9658, chain U. 9780		
584	A	T	..	5·00	..	..	√
591	B	L	..	0·30	..	..	..
617	A	T	..	1·60	..	..	..
618	B	T	..	1·50	..	..	..
655	A	L	NE.×SW. head NE.	2·50	..	ear-rings U. 9649	U. 9650
662	B	T (child)	..	3·65	..	..	U. 9596
677	B	T	..	3·60	..	..	..
678	B	T	..	3·00	..	..	..
679	A	T	..	3·80	..	..	..
681	B	BC	..	4·50	..	ear-ring U. 9727	U. 9719
686	B	T	..	3·30	..	ear-ring U. 9622	U. 9623
689	B	WC	..	4·10	..	bracelets, hair-ring U. 9684, collar	U. 9683
690	A	T	..	2·40	..	..	..
692	A	T	..	3·70	..	ear-ring	..
693	A	BC	NE.×SW. head SW.	4·30	..	..	..
697	A	WC	..	4·50	diadem U. 9763, ear-ring U.9766	bracelets U. 9768	U. 9767, U. 9775 (frit)
701	A	..	..	..	..	..	..
708	B	T	..	4·40	..	..	..
717	B	BC	..	5·10	frontlet U. 9824, ear-rings U. 9827	bracelet U. 9830	U. 9825, U. 9826, U. 9834, U. 9838
718	B	WC	..	4·60	..	..	U. 9800
719	A	T	..	4·60	..	..	U. 9839

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
580						U. 9341, gaming-boards U. 9776, copper ring, copper bangle, shell plaques U. 9909, U. 9306, engraved shell U. 9907, copper rods U. 9913
584	..	.. ..	..	..	U. 9269:51	
591	..	.. ..	..	190	..	position suggests Larsa date
617	..	spear 2, ring	..	..	..	cockle-shells
618	..	drinking tube (?) U. 9548	..	83, 165	..	the tube was of copper set with rings of red glass paste
655	..	pin 1	..	5, 45, 108, 132	U. 9647:86	
662	..	pin 8, bangle U. 9598, ring	..	21, 45, 100	..	cockle-shells
677	U. 9674, U. 9675	pin 1, dagger 4	'frying-pan'	5, 83	..	cockle-shells, shell lamp, mosaic, wood
678	..	.. ..	..	21, 81, 83, 110		
679	..	.. ..	..	130, 153	U. 9677:92, U. 9678:7	
681	U. 9721	pin 1, ear-rings U. 9726	4	5, 45, 100	U. 9724:16	cockle-shells
686	U. 9620	pin 1, ear-ring U. 9622	..	..	..	
689	U. 9679, U. 9681	pin 1, axe A 16, ring, holdfast U. 9685	4, 23	5, 45, 100, 127, 174, 214	..	stone offering-table U. 9914, axe type unique; see detailed description, p. 152
690	..	.. ..	4, 7, 96	..	U. 9616:14	
692	U. 9661	dagger U. 9659, axe A 3, reticule	4	108	U. 9663:28 U. 9664:19	
693	..	chisel 2, toilet instrument 5, reticule	..	5, 100	U. 9689:2	evidence for hafting 'chisel' as adze
697	U. 9764, U. 9765	dagger U. 9768, axe A 3, reticule (with gold rim) U. 9769	4, 58, 73, 96	132, 163	..	see detailed description, p. 154
701	..	.. ..	79	110	..	
708	U. 9733	pin 8, ear-rings	..	163	..	
717	U. 9829	pin 1	4, 21	..	U. 9835:37	
718	(shell decayed)	pin 1, ring, ear-ring	..	..	U. 9802:24	
719	U. 9844	dagger 7, axe A 3, pin 1, reticule U. 9845, holdfasts U. 9846, U. 9847, U. 9859	4	100	..	copper spindle whorl (?) U. 9848; the 'holdfasts' seem to belong to belt

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
721	B	T	NE.×SW. head SW.	5·70	..	..	..
722	B	T	..	4·20	..	..	..
723	A	T	..	5·70	..	ear-rings U. 9932	U. 9920, U. 9921
724	B	WC	..	5·80	..	..	U. 9735
726	B	T	..	4·00	..	..	U. 9805
730	B	T	..	5·90	..	..	..
734	A	T	..	?	chain *brîm* U. 9863	frontlet U. 9863	..
736	B	T	..	3·60	..	..	..
737	B	T	..	5·70	ear-ring U. 9931	..	U. 9932
739	A	T	..	5·70	ear-ring U. 9942	chain *brîm* U. 9936	..
740	B	T	..	5·50	..	..	..
743	A	T	..	5·70	..	ear-ring	..
745	B	T	..	5·70	ring U. 9949	ear-ring U. 9948	√, shell rings
751	B	T	head NW.	3·60	..	..	..
753	A	T	head NE.	3·50	..	ear-ring U. 9968	..
755	A	WC	NW.×SE. head NW.	6·75	dagger U. 10014, pin 1 U. 10005, helmet U. 10000, axe A 15 U. 10018, axe A 3 U. 10025, hair-rings U. 10019, finger-ring U. 10029, wreath U. 10027, monkey U. 10010, vessels U. 10001:7, U. 10002:9, U. 10003:7, U. 10004:115, U. 10013, U. 10034:9	belt, hair-rings U. 10019, finger-rings U. 10030, ribbon, wreath U. 10026, lump of silver U. 10012, vessels U. 10024:115, U. 10031:7, U. 10032:7, U. 10033:7, U. 10035:84, U. 10052:7	U. 10006, U. 10007, U. 10028
758	A	T	..	5·00	ear-ring U. 9879, drinking tube U. 11201	ear-ring U. 9880, bowl	U. 9889

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
721	..	.. ..	20, 23, 50	38, 108	..	bellum with 3 seats and a copper punt-pole U. 9956; it was painted with white, showing planks, &c., clay colander; p. 154
722	..	dagger 7	..	..	..	whetstone
723	..	pins 4, 7, arrow butts U. 9918, nails U. 9916, U. 9917	..	..	..	
724	U. 9740	dagger 7, pin 1, ring U. 9738, reticule U. 9741, toe-rings U. 9744	4	5, 78, 100, 148	U. 9743:16	
726	U. 9808	pin 1, ear-ring U. 9807	..	..	..	
730	..	.. ..	..	5, 16, 45, 83, 100, 108, 123	..	carved wood with red inlay
734	..	adze 1, axe A 1, chisel 2	..	..	..	
736	U. 9878	pin, ear-ring	..	4, 100, 187	..	
737	..	dagger U. 9933, tweezers	..	..	..	whetstone
739	..	dagger 7, tweezers U. 9937	..	..	..	whetstone
740	..	razor U. 9876, bracelet	..	108, 174	..	loom weight?
743	U. 9943	dagger U. 9944, toilet set U. 9946	..	..	..	whetstone; mixed up with PG/739, 741, 745
745	..	razors U. 9947, toilet set U. 9951	..	..	..	cockle-shell, whetstone
751	U. 9893	pin 1, ear-rings	..	100, 174	..	cockle-shells
753	U. 9970	axe A 3	..	5, 108	..	bellum
755	U. 10011	axe A 2, A 3, arrows 1, 4, chisels 2, 4, saw, spears 1, 8, razors, daggers U. 10020, U. 10021, U. 10022, U. 10050, U. 10058	17, 21, 24, 30, 33, 63, 76, 81, 82, 84, 96, 118	67	U. 10060:50, U. 10061:50, U. 10062:49, U. 10063:50, U. 10064:91, U. 10065:92, U. 10066:60, U. 10067:61, U. 10068:85, U. 10069:85, U. 10070:87, U. 10071:85, U. 10072:85, U. 10073:79, U. 10074:85, U. 10075:91, U. 10076:4, U. 10077:4	see detailed description, p. 155; lapis whetstone U. 10015, lapis frog U. 10008, lapis ram U. 10009, whetstones U. 10078, U. 10079, copper rod
758	..	dagger 7, adze 2, axe S 19, ear-ring U. 9881	115	..	U. 9888:16	whetstone, head rested on a block of calcite U. 11202

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
760	A	T	..	..	hair-ribbon, ear-rings, leaf wreath U. 11230	comb, pins U. 11230	'dog collar' necklaces U. 11230 √√√
765	A	T	..	4·50	..	..	..
777	A	Royal Tomb	..	..	diadem U. 9781, flower diadem U. 9787, ring wreath U. 9783	vessel 89 U. 9797, chain *brîms* U. 9798, plating, ribbon, comb U. 9785, ear-rings U. 9966, pins 7 U. 9962, U. 10176, flower diadem U. 9786	U. 9782, U. 9784, U. 9798, U. 9959, U. 9960, U. 9965
778	A	T	..	3·20	..	..	..
779	A	Royal Tomb	..	11·50	ostrich shell U. 11154, ring U. 11156, ear-rings U. 11158, U. 11172, cup 117 U. 11161, binding U. 11170, leaf U. 11177	razors U. 10992, pins 1 U. 10999, U. 11168, pins 7 U. 11000, U. 11151, U. 11171, ostrich shell U. 11155, ear-rings U. 11166, hair-rings U. 10993, U. 11152, vessel U. 10998: 43	U. 11153, U. 11157, U. 11165
780	A	T	..	..	..	ring U. 10164	U. 10171, U. 10172
783	A	T	..	4·70	leaf ear-ring U. 9971	..	√
784	A	T	..	4·10	..	..	..
787	A	T	head W.	3·00	ear-rings U. 10838	..	U. 10840
788	A	WC	..	5·40	frontlets U. 9895, ear-rings U. 9896	..	U. 9894
789	A	Royal Tomb ('The King's Grave')	..	..	spears U. 10411, head-dresses U. 10580, U. 10582, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, head-dresses U. 10751, U. 10752,	vessels U. 10463: 115, U. 10464: 7, U. 10554: 7, U. 10573: 4, U. 10583: 42, U. 10823: 43, spear 2 U. 10472, ox collars, pins 1 U. 10579, U. 10580,	U. 10550, U. 10563, U. 10564, U. 10579, U. 10580, U. 10582, U. 10583, U. 10584, U. 10586, U. 10587, U. 10588, U. 10589, U. 10590,

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
760	..	.. ..	..	95, 100, 208	..	
765	..	spear 5, knob (?) U. 10362	..	..	..	clay cones
777	..	dagger 3, pins 1, 4, 7, axe A 4, razor U. 9789, spear-butts U. 9963, ear-ring	1, 4, 23, 26, 41, 42, 46, 69, 86, 93, 97	5, 7, 18, 21, 61, 63, 108, 208	U. 9790:64, U. 9793:19, U. 9794	see detailed description, p. 53; cockle-shells, ostrich shells, human teeth, box casing?
778	..	dagger 7, axe A 3, chisel 2, spear 2	4, 115	1, 110, 210	..	whetstone, cockle-shell
779	U. 11159, U. 11174, U. 11175, U. 11175B, U. 11176, U. 11178	pins 1, 7, spear 2, adze 2, toilet set U. 11160, razors, U. 10991, U. 10994	4, 11, 94,	5, 104, 105	U. 10995:87, U. 10996:87	see detailed description, p. 57; shell staff-heads U. 10988, U. 10989, ostrich shell, oyster shell, whetstone, roundels U. 11167, cockle-shell, shell plaques U. 11159, gaming board U. 11162, standard U. 11164, broken marrow-bones
780	U. 10168	dagger 7, pin 1, axe A 3, reticule	35	108, 174	U. 10162: 92	flint U. 10169, animal bones; descr., p. 160
783	..	axe A 1	4	5, 108	..	bellum
784	..	dagger, axe, chisels 3, 4	..	..	..	whetstone
787	..	pin 4	..	..	..	celt U. 10837
788	..	dagger 7, chisel 3	4	..	..	
789	U. 10804, U. 10822, U. 10823	daggers 4, 7, daggers U. 10553, U. 10814, pins 1, 2, 3, 7, axe A 3, spears 1, 2, 3, 6, helmets U. 10809, U. 10825, U. 10826, U. 10827, tweezers, rings from belt, razor U. 10830, copper bolts U. 10555	4, 115	1, 90, 223	U. 10498:89, U. 10580, U. 10581, U. 10584:19, U. 10589:47, U. 10593, U. 10595, U. 10597, U. 10598, U. 10599, U. 10800, U. 10803, U. 10807,	see detailed description, p. 62; bull's head with shell plaques U. 10577, gaming board U. 10557, wagons, reins U. 10590, cockle-shells, shell lamp U. 10820, bull's leg in ivory U. 10582, copper boat, shell staff-head, copper object U. 10475,

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
789					frontlet U. 10558, hair-rings U. 10560, U. 10595, ear-rings U. 10559, U. 10562, U. 10580, U. 10582, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, U. 10752, *brîm* chain U. 10561, bull U. 10556, rings U. 10571, U. 10599, U. 10824, U. 10831, dog-collar U. 10807, ribbons U. 10572, U. 10580, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, U. 10751, U. 10801, wreaths U. 10572, U. 10580, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, U. 10751, U. 10752	U. 10582, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, U. 10589, U. 10598, U. 10751, U. 10752, U. 10800, U. 10806, U. 10807, U. 10815, U. 10816, U. 10819, U. 10822, U. 10823, U. 10824, U. 10831, *brîms* U. 10810, U. 10812, U. 10813, U. 10815, hair-rings U. 10580, U. 10582, U. 10584, U. 10585, U. 10586, U. 10587, U. 10588, U. 10592, U. 10593, U. 10594, U. 10597, U. 10598, U. 10752, U. 10800, U. 10801, U. 10803, U. 10805, U. 10807, U. 10808, U. 10810, U. 10815, U. 10816, U. 10817, U. 10818, U. 10819, U. 10820, U. 10821, U. 10822, U. 10823, U. 10824, U. 10829, U. 10830, U. 10831, U. 10832, U. 10833,	U. 10591, U. 10592, U. 10593, U. 10594, U. 10595, U. 10596, U. 10597, U. 10598, U. 10599, U. 10751, U. 10752, U. 10800, U. 10801, U. 10802, U. 10803, U. 10804, U. 10805, U. 10806, U. 10808, U. 10811, U. 10815, U. 10816, U. 10818, U. 10819, U. 10820, U. 10821, U. 10822, U. 10823, U. 10824, U. 10829, U. 10830, U. 10831, U. 10832, U. 10833, U. 12056, U. 12057

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
789					U. 10819: 22, U. 10820, U. 10821, U. 10822: 22, U. 10823, U. 10824, U. 10832, U. 10833, U. 10834, U. 10844: 66	rein-ring U. 10551, whetstone U. 10552, U. 10812, mosaic object U. 10582, handle U. 10574, shell roundels U. 10576, bones of oxen

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
789						hair-rings U. 10834, bracelet U. 10801, U. 10804, U. 10821, boat U. 10566, combs U. 10580, U. 10584, U. 10586, U. 10587, U. 10588, U. 10751, U. 10752, U. 10824, finger-rings U. 10820, U. 10823, razor U. 10830, rein-ring U. 10551, ribbon U. 10823, harness U. 10835	
791	A	T	..	6·80	..	ear-rings	U. 11183
792	B	T	..	4·20	..	ear-rings U. 10155	U. 10150
796	A	BC	..	4·50	..	bangles U. 10301, ear-rings U. 10306	U. 10304
798	B	T	..	4·30	..	..	..
800	A	Royal Tomb ('Shub-ad's Grave')	..	..	Queen's head-dress U. 10934, pins 1 U. 10870, U. 10940, U. 10941, U. 10984, pins 5 U. 10938, gazelles U. 10943, fish U. 10944, rings U. 10443, U. 10877, U. 10878, U. 10949, U. 10950,	vessels U. 10455:101, U. 10456:83, U. 10457:7, U. 10458:32, 42, 83, U. 10460:114 (var.), U. 10461, U. 10462:10, U. 10855:52, U. 10857:43, U. 10858:43, 96 U. 10860:84, U. 10861:43, U. 10862:32, U. 10863:42, U. 10864:7, U. 10865:4, U. 10886:115,	U. 9979, U. 9981, U. 9985, U. 9997, U. 9999, U. 10089, U. 10090, U. 10330, U. 10339, U. 10347, U. 10351, U. 10401, U. 10403, U. 10424, U. 10425, U. 10426, U. 10532, U. 10537, U. 10544, U. 10866, U. 10879,

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
789						
791	U. 11182, stamp seal U. 11181	.. ..	..	..	..	
792	U. 10153	pin 1, axe A 3, rings U. 10156, reticule	4, 42, 96	54	..	cockle-shells
796	U. 10302, U. 10303	adze 3, pin U. 10305	bowl	45, 88	..	shell inlay U. 10308, the inlay belonged to the handle of the adze
798	..	pin, ear-ring	..	88, 100, 101	..	
800	U. 10448, U. 10530, U. 10871, U. 10872, U. 10939	ear-ring, chisel 2, spear 3, spear-butts U. 10466, saws, razors, pins 1, 3, 7, pin U. 10097, bodkins U. 10332, U. 10342, dagger 7, reticule, tools 2, drill U. 10467, adze 3, axe A 12	4, 6, 7, 16, 23, 32, 33, 42, 43, 49, 53, 59, 70, 74, 83, 94, 102, 104, 115	4, 5, 6, 7, 45, 59, 61, 88, 100, 101, 109, 186, 203, 223, 243	U. 10480, U. 10481: 50, U. 10482: 51, U. 10483: 51, U. 10484: 16, U. 10485: 1, U. 10486: 1, U. 10487: 16, U. 10488: 26, U. 10489: 45, U. 10490: 86, U. 10491: 86, U. 10492: 85, U. 10493: 89, U. 10494: 61, U. 10495: 16, U. 10496: 79, U. 10497: 41, U. 10499: 41, U. 10500: 35, U. 10501: 13,	see detailed description, p. 73; lapis fish U. 10945, lapis bull U. 10985, ostrich shell, cockle-shells, shell plaques U. 10447, U. 10917, U. 11222, lapis handle U. 10952, ostrich egg, lapis tube U. 10911, shell roundels U. 10881, shell staff-head U. 10881, chariot U. 10438, stone offering-table, gaming board U. 10478, gold and lapis tube, small bottle of burnished black pottery U. 10098, whet-

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
800					ear-rings U. 9977, U. 9983, U. 9991, U. 9992, U. 10094, U. 10331, U. 10340, U. 10344, U. 10349, U. 10448, U. 10538, U. 10865, U. 10866A, U. 10869, U. 10933, hair-rings U. 10868, U. 10890, U. 10942, animal diadem U. 10948, belt-rings U. 10867, U. 10879, *brîms* U. 10449, U. 10873, U. 10874, U. 10875, U. 10876, vessels U. 10451:88, U. 10452:99, U. 10453:43, U. 10454:91, U. 10850:8, U. 10851:7, U. 10930:7, U. 10931:97, comb U. 10937, spiral bead stud U. 10986, cockle-shells U. 10932, saw U. 10428, chisels 2, U. 10429, U. 10430, chisels 4, U. 10431, U. 10432, U. 10433, drinking tubes, pommel from dagger U. 10427,	vessels U. 10891:7, U. 10892:43, U. 10893:43, U. 10894:43, U. 10895:43, U. 10896:43, U. 10897:43, U. 10898:43, U. 10899:43, U. 10900:43, U. 10902:4, U. 10903:4, U. 10904:4, U. 10905:4, U. 10906:4, U. 10907, U. 10908:4, U. 10909:4, U. 10910:52, U. 10912:4, U. 10912:28, U. 10913:43, U. 10914:101, U. 10915:113, U. 10918:4, U. 10953:4, U. 10974:115, pins 1 U. 9982, U. 9984, U. 9996, U. 10093, U. 10352, U. 10887, U. 10888, tubes U. 10450, U. 10915, silver and gold bowl, cockle-shells U. 10901, saucer U. 10859, bull's head U. 10916, lionesses'heads U. 10465, arrows, arrow-butt U. 10466, ear-rings U. 9980, U. 9998, U. 10334, U. 10404, U. 10535, U. 10536, rings U. 9986,	U. 10880, U. 10889, U. 10929, U. 10935, U. 10936, U. 10947, U. 10951, U. 10975, U. 10976, U. 10977, U. 10978, U. 10979, U. 10980, U. 10981, U. 10982, U. 10983

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
800					U. 10502:94, U. 10503:32, U. 10506:51, U. 10507:50, U. 10508:14, U. 10509:34, U. 10510:41, U. 10511:41, U. 10512, U. 10513, U. 10514, U. 10515:16, U. 10516, U. 10517:44, U. 10518, U. 10519:51, U. 10520:51, U. 10521:100, U. 10522:10, U. 10523:10, U. 10525:105, U. 10526:75, U. 10527:19, U. 10528:51, U. 10529:65, U. 10852:74, U. 10853:89, U. 10854:87, U. 10882:76, U. 10883:88, U. 10884:87, U. 10885:87, U. 10919:61, U. 10920:89, U. 10921:3, U. 10922:2, U. 10923:89, U. 10924:89, U. 10925:76, U. 10926:72, U. 10927:87, U. 10958:16, U. 10959:15, U. 10960:66, U. 10961:3, U. 10962:16, U. 10963:22, U. 10964:19, U. 10965:103, U. 10967:19, U. 10968, U. 10969, U. 10970, U. 10971:68, U. 10972:19, U. 10973, limestone dish, tumbler	stones U. 10417, U. 10419, U. 10422, U. 10471, U. 10533, U. 10539, U. 10928, wooden balls U. 10434, red pigment U. 10505, toilet box U. 10436, metal rods U. 10445, copper collar U. 10468 ring base U. 10524, lapis and gold belt U. 10426, lapis calf U. 10946, copper and lapis tube U. 10911, cow's teeth, harp U. 10412, shell handle U. 10437, decoration of wardrobe box U. 10441, U. 10442

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
800					toilet set U. 10423, head-dresses U. 9978, U. 9988, U. 9994, U. 9995, U. 10095, U. 10096, U. 10328, U. 10329, U. 10337, U. 10343, U. 10346, U. 10348, U. 10350, wreaths U. 9979, U. 9987, U. 10338, U. 10935, U. 10935 A, U. 10936, cones U. 10440, foil U. 10444	U. 10335, hair-rings U. 9990, diadem, fillet, leaf wreath, comb, rein-ring U. 10438	
822	A	T	..	3·80	ear-ring U. 10316	rings U. 10314	U. 10313, U. 10315
823	A	WC	..	..	leaf ear-ring U. 10778, toilet set U. 10782	chain	U. 10779
832	B	BC	..	4·70	..	ear-ring U. 10357	U. 10356
839	A	T (?)	..	5·00	..	..	..
840	A	T	..	3·00	ear-rings U. 10723	rings U. 10725	U. 10721, U. 10722
844	A	T	..	3·80	..	..	..
845	A	T	..	4·70	..	paint-box U. 11214	..
851	A	WC	..	6·70	binding U. 11130, bracelet U. 11128, ear-ring U. 11129, bands U. 11130	ear-rings U. 11146 (traces of head-dress)	U. 11127, U. 11147
855	A	T	..	4·10	..	..	..
860	B	T	..	5·70	..	..	U. 10737
861	A	BC	..	6·20	..	hair-ring	U. 11115
863	B	T	..	8·30	ear-rings U. 10846, ribbon plait U. 10847	..	U. 10848
865	B	T	..	8·20	..	..	..
866	A	T	..	5·70	hair-ring U. 11219	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
800						
822	U. 10323	axe A 3	21, 76	60, 132	U. 10319: 16, U. 10320: 91	ear-ring of gold and lapis was unique
823	..	dagger 5	4, 7, 23, 42, 56, bowl	..	U. 10783: 61, U. 10784: 92	whetstone, ear-ring unique
832	U. 10359	pin 8	4	5, 144, 227	..	cockle-shells
839	..	chisel 2	92	..	U. 11140: 92, U. 11141: 60	incised on the chisel a cuneiform sign
840	U. 10727	pin 1, toe-ring U. 10728	7	41	..	
844	..	adze 5, bangles U. 10369		..	..	
845	..	dagger 7, axe A 1,	double pot U. 11214	..	..	
851	..	spear 3	..	..	U. 11132	burials in the annexe suggest that this had been a royal tomb (?)
855	..	arrow 6, bangles U. 11133	..	109	..	cockle-shells
860	..	pin 1, axe S 5, reticule	..	5	..	cockle-shell
861	U. 11107, U. 11110, U. 11112	dagger 7, pin 1, reticule, bangle, ring	4, 21	4, 100, 117, 142	U. 11114: 55	ostrich skull, bone pin U. 11116
863	..	pin 8	4	76	..	
865	U. 10987	pin	..	..	..	
866	..	adze 3, axe A 3	..	5	..	in the filling of PG/800

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
867	A	T	..	6·20	hair-rings U. 10767	bracelet U. 10766	U. 10762
869	B	T (child)	..	7·55	..	..	..
887	B	T	..	6·20	..	..	..
893	B	T	..	2·40	..	..	U. 10389
894	B	T	..	5·70	..	..	..
895	A	T	..	?	..	..	U. 10705
902	B	T	..	5·40	frontlet U. 11206, ear-ring U. 11207	ear-ring U. 11207	U. 11205
903	B	T	..	6·40	..	..	U. 10365
904	B	T	..	5·50	ring U. 11211	..	U. 11211
955	B	T	NW.×SE. head NW.	1·00	..	..	..
984	B	T	NW.×SE. head SE.	1·80	..	..	..
1000	A	T	..	1·70	..	..	..
1005	B	T	..	2·30	..	..	..
1015	A	T	..	2·00	..	..	..
1016	B	T	NE.×SW. head SW.	2·80	..	ear-rings, rings	U. 11472
1017	B	T	NE.×SW. head SW.	2·50	..	..	..
1019	B	T	NW.×SE. head NW.	2·80	..	..	√
1020	B	T	NW.×SE. head NW.	2·50	..	..	√
1027	A	T	..	2·70	..	..	U. 11489
1035	B	T	NE.×SW. head SW.	2·70	..	..	..
1038	A	T	NW.×SE. head NW.	3·40	..	..	U. 11485
1040	A	T	NE.×SW. head SW.	3·30	..	..	U. 11477
1043	A	T	NE.×SW. head SW.	3·40	ear-rings U. 11500	ring	U. 11501
1046	B	T	..	3·50	..	..	..
1047	A	T	NE.×SW. head SW.	3·60	..	..	..
1050	A	Royal Tomb	..	7·00	..	pin 7, hair-ring, ear-rings	U. 12063, U. 12064, U. 12065, U. 12066, U. 12067, U. 12068, U. 12069, U. 12070, U. 12071,

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
867	U. 10764, U. 10765, U. 10766	pin 1, reticule U. 10771, rings	4, 7	..	U. 10768: 3	see detailed description, p. 161; cockle-shells, cylinder seal U. 10766 worn on bracelet
869	..	bangles, ear-rings	..	21, 31, 76	..	
887	..	pin 1, axe	..	4, 78, 100	..	
893	..	pin 1, ear-rings, ring	..	45, 174	U. 10388: 51	
894	..	.. ..	4	..	U. 10399: 16	bellum
895	U. 10708	pins 1, 7	4	243	U. 10711: 78	cockle-shells, buttons U. 10712, shell rings U. 10749, by head a clay figurine U. 10747 (handle of a vase of Kish type); detailed description, p. 161
902	..	pin 1, bangles U. 11208	..	..	..	
903	U. 10367	reticule	..	..	..	
904	..	.. ..	..	187	..	
955	..	.. ..	..	5, 7, 193	..	see detailed description, p. 162
984	..	dagger	..	16, 49	..	
1000	..	axe A 3	..	100	..	
1005	..	.. ..	..	223	..	
1015	U. 11490	pin 1	..	..	..	
1016	(decayed)	pins	bowl	45, 76, 117, 197	..	cockle-shells
1017	..	pins 1, 8	..	5, 45, 110	..	two bodies together
1019	..	.. ..	bowl	5	U. 11469: 84	
1020	..	.. ..	..	76	..	
1027	U. 11488 (shell decayed)	.. ..	36	..	U. 11487: 66	
1035	U. 11476	axe S 5, dagger 8	..	30, 108, 174	..	
1038	..	adze 3, pin 1	115	108	..	
1040	(shell decayed)	axe A 3, ear-ring	4	..	..	
1043	U. 11499 (shell decayed)	pin 8	bowl	5, 7, 100	U. 11497: 86 U. 11498: 19	
1046	U. 11496	dagger 7, reticule				
1047	..	tool 3 b, dagger 6	..	108	..	whetstone
1050	U. 11825 (inscr. *a-kalam-dug*), √	chisel, pin 7	7, 46	5, 7, 23, 100, 102, 108, 173, 179, 209, 215, 231	U. 11760: 85, U. 11761: 87, U. 11762: 92	see detailed description, p. 91; clay boats U. 11832, U. 11833, animal bones, teeth of cattle, gazelle horns, ostrich shell

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1050							U. 12073, U. 12074, U. 12075, U. 12076, U. 12077, U. 12078
1054	A	Royal Tomb	..	..	daggers U. 11512, U. 11513, headband U. 11735, hair-rings U. 11736, tumbler U. 11902:43, pin 7 U. 11903, ribbon U. 11905, diadem U. 11906, wreaths U. 11907, U. 11908, ear-rings U. 11909, rings U. 11912, *brîm* U. 11914, pendant U. 11742	tube, ditto with gold mouth-piece U. 11913, vessel 43	U. 11742, U. 11743, U. 11744, U. 11910, U. 11911
1061	A	T	NE.×SW. head SW.	4·20	..	..	U. 11522 (*brîm*)
1065	B	T	..	4·10	diadem U. 11521	..	U. 11521
1066	A	T	..	4·00	..	..	U. 11520
1068	A	T (child)	NW.×SE.	3·90	vessel U. 11551:16 (var.), pins 1 U. 11552, U. 11553, wreaths U. 11557, U. 11559, ring wreath U. 11558, hair-rings U. 11556, rings U. 11555	vessels U. 11550:7, 42	U. 11559, U. 11560, U. 11561, U. 11562, U. 11563
1069	A	T	NW.×SE. head NW.	4·80	..	..	..
1070	B	T (child)	..	4·50	..	..	U. 11531
1075	A	L	..	5·10	hair-rings U. 11534	..	U. 11535
1076	A	T	..	4·70	..	..	shell ring
1081	B?	T	..	4·40	..	..	..
1082	B	L	NE.×SW.	4·80	ring U. 11706	hair-rings U. 11706	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1050						
1054	U. 11528, U. 11734, U. 11751 (inscr. *mes-kalam-dug*), U. 11904 (gold)	daggers 3, 7, adze, pins 1, axes A 3, A 10, toilet set U. 11527, razor, spears 2, scale pans U. 11916, ladle U. 11923, copper rods	4, 7, 11, 25, 27, 32, 42, 45, 55, 67, 75, 84, 96, 115, spouted bowls U. 11917	5,6,62,68, 69, 106, 108,148, 154,169, 174,193, 208,243	U. 11510: 87, U. 11511: 91, U. 11567: 60, U. 11568: 50, U. 11730: 26, U. 11731: 92, U. 11732: 60, U. 11733: 50, U. 11870: 42, U. 11926: 19, U. 11927: 93, U. 11928: 101, 85	see detailed description p. 97; whetstones, cockle-shells, drain-pipe, bones and teeth of animals
1061	..	daggers and adze U. 11523	4	5, 108, 174	..	
1065	..	.. ..	..		..	
1066	..	pin 1	..	..	U. 11519: 2	cockle-shells
1068	U. 11554	.. ..	4, 7	..	U. 11543: 96, U. 11544: 99, U. 11545: 51, U. 11546: 50, U. 11547: 60, U. 11548: 86, U. 11549: 50	see detailed description, p. 162; lined with mud bricks
1069	..	axe A 3, razor, mirror (?), drill	4, 7, 96	5, 108, 174	U. 11541: 60, U. 11542: 43	see p. 164; shell drill-head
1070	..	pin 1	..	47	U. 11529: 3, U. 11530: 54	
1075	..	axe S 14, pin 1	bowl	..	U. 11537: 41	
1076	..	dagger 4, pin 1	..	..	..	shell lamp with bird U. 11597
1081	U. 11565, U. 11566	.. ..	bowl	..	..	
1082	..	.. ..	bowl	..	U. 11705: 58	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1083	A	T	NE.×SW. head SW.	4·70	..	..	..
1086	B	T	NE.×SW. head NE.	3·30	..	..	..
1087	B	L	..	5·10	ear-ring U. 11576 (gold and copper)	..	U. 11576 (*brîm*)
1088	A	T	NE.×SW. head SW.	5·30	..	..	U. 11702
1091	B	T	..	4·70	..	..	..
1096	A	L	NE.×SW.	5·20	..	..	..
1100	B	T	NW.×SE. head NW.	5·30	ear-ring (unique type) U. 11584	..	U. 11585
1104	B	T	NW.×SE. head NW.	4·60	..	..	U. 11717
1109	A	T (infant)	..	5·00	spiral pendant U. 11713	..	U. 11713
1111	A	T	NE.×SW. head SW.	5·60	..	ear-rings	U. 11710
1112	A	T	NW.×SE. head NW.	5·40	..	..	..
1116	A	T	NW.×SE. head SE.	4·90	pin 1 U. 11726, ear-ring U. 11727	..	U. 11728
1119	A	WC	NE.×SW. head SW.	5·50	..	..	..
1123	B	T	..	3·80	..	..	..
1129	B	T	..	4·60	..	..	..
1130	A	T	NW.×SE. head NW.	7·00	ribbon U. 11771, ring wreath U. 11770, animal diadem U. 11776, diadem U. 11772, ear-rings U. 11767, rings U. 11768	pendant rings from belt U. 11778 vessels U. 11792: 3, U. 11794: 4	U. 11769, U. 11779, U. 11780
1133	A	WC (child)	NE.×SW. head NE.	5·00	chain *brîms* U. 11809, ear-rings U. 11810, filigree and cloisonné disks U. 11806, sceptre U. 11824,	vessels U. 11821: 7, U. 11822: 4	U. 11807

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1083	U. 11600	pin 8, ear-rings	..	108, 173, 243	..	
1086	U. 11582	knife	..	108	..	
1087	..	.. ..	bowl U. 11575	..	..	
1088	..	dagger 4, axe A 3	4, 7, 23, 96, 111	5, 143	..	wooden comb
1091	..	.. ..	..	76, 95, 148	..	
1096	..	dagger 7, spear 2	..	..	..	
1100	..	.. ..	4, 20	..	U. 11586, U. 11587: 90, U. 11588: 91, U. 11589: 24	cockle-shell; roof of mud bricks supported by timber; see detailed description, p. 164
1104	..	.. ..	..	..	U. 11716: 48	
1109	..	ring	4	..	U. 11711: 61	
1111	(shell, decayed)	pin 1	..	186	..	cockle-shells
1112	..	axe A 3	..	108	..	
1116	..	.. ..	..	..	..	
1119	..	dagger, axe A 3	bowls	..	..	
1123	..	.. ..	..	76, 108, 138, 197	..	close by, in soil disturbed by plunderers(?), a Dungi brick, *S.A.K.I.*, 190 b.
1129	..	.. ..	..	7, 108, 142	U. 11752: 85, U. 11753: 19	cockle-shells
1130	U. 11773, U. 11774	pin 1, axe A 3, offering-table	4, 23, 26, 96, 101, 115	100, 108, 174	U. 11784: 78, U. 11785: 3, U. 11786: 61, U. 11787: 61, U. 11789: 14, U. 11790: 14	see detailed description, p. 165; harp U. 11781, encrusted ostrich shell U. 11782
1133	..	cockle-shells U. 11823	√√√	5, 148, 150, 209	U. 11811: 12, U. 11812: 12, U. 11813: 61, U. 11814: 60, U. 11815: 16, U. 11816: 61, U. 11817: 25, U. 11818: 16, U. 11819: 15, U. 11820: 79,	see detailed description, p. 167; animal bones

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1133					pendant U. 11808		
1134	B	T	..	4·80	..	..	..
1135	B	T	..	4·20	..	..	..
1136	A	WC	NW.×SE. head NW.	6·80	chain *brîm* U. 11799, hair-ring U. 11800	bottle	..
1138	A	T	..	4·10	..	..	..
1139	B	T	..	4·30	..	..	..
1140	B	L	NW.×SE.	5·00	..	..	..
1142	A	T	NE.× SW. head SW.	6·70	..	ear-rings U. 11855, pin 1 U. 11835, vessels U. 11837: 32, U. 11837: 84	U. 11836
1143	B	T	NW.×SE. head NW.	6·30	..	..	..
1145	A	T	NW.×SE. head NW.	6·70	..	..	..
1148	B	T	..	4·80	..	..	..
1150	A	T	..	7·00	..	wreath (beech), wreath (willow), ear-rings, hair-rings	U. 11839
1151	A	T	NE.×SW. head SW.	6·20	..	silver plate	*brîm* U. 11878
1152	B	BC	NE.×SW. head SW.	5·00	..	..	..
1153	A	T	NE.×SW. head SW.	5·80	..	..	ear-rings
1155	A	T	..	5·20	..	..	..
1156	A	T	NE.×SW. head SW.	6·00	ear-rings U. 11854, (gold and copper)	..	U. 11855, U. 11856
1157	A	Death-pit	..	..	..	hair-rings U. 12432	U. 12432
1158	A	T	..	5·50	..	..	..
1160	A	T	NE.×SW. head SW.	..	..	..	..
1162	A	WC	NW.×SE. head NW.	5·40	..	ear-ring	..
1163	A	WC	NE.×SW. head SW.	5·50	..	diadem	U. 11873
1166	B	T	NE.×SW. head SW.	5·30	..	..	..
1167	A	T	..	7·10	..	hair-ribbon, wreath, ear-rings	U. 11884

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1133					U. 11834:61	
1134	..	.. ..	..	100	U. 11796:90	alabaster lamp with human head U. 11795, basket, cockles, wooden comb U. 11797
1135	..	.. ..	..	108, 147	..	
1136	U. 11828	axe A 3	7	150	U. 11802:85, U. 11803:91	whetstone U. 11801
1138	..	pin 1	4, 111	..	..	
1139	..	.. ..	..	66, 125	..	
1140	..	.. ..	bowl	5, 60, 100,173	√√	cockle-shells
1142						
1143	..	.. ..	..	5, 223	..	black staff-head
1145	..	.. ..	4, 27	5, 60	U. 11841	cockle-shells, clay boat
1148	..	.. ..	..	108, 193	..	clay boat U. 11840
1150						
1151	..	dagger, axe A 3, razor	4, 27, 42, 96	5, 101, 108, 143	..	harp U. 12351; see detailed descr., p. 168
1152	U. 11846	dagger 7, reticule	..	100, 141	..	
1153	..	pin 7	..	45, 108, 208	U. 11849:22	
1155	..	.. ..	74	5, 44, 174	U. 11850:60, U. 11851:25	basket
1156	..	.. ..	4, 14	71	U. 11857:71, U. 11858:69, U. 11859:60, U. 11860:3,	wooden box, cockle-shells; see detailed description, p. 168
1157	(shell, decayed)	daggers, pin 7, axe	115	..	U. 12492:48	whetstone; see detailed descr., p. 168
1158	..	.. ..	4, 7, 27, 96, 115	..	..	
1160	..	.. ..	bowl	32, 211	..	
1162	U. 11868	dagger 7, axe A 1, reticule	4	108	..	
1163	U. 11871	dagger, axe A 1, reticule	7, 27, 44, 96	108, 117	U. 11875:16	
1166	..	.. ..	..	100, 110	..	
1167	..	.. ..	..	..	..	grave lying 1·40 m. above the vault of the NE. chamber of PG/775 (possibly subsidiary, perhaps later)

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1168	A	T	..	4·00	..		..
1170	B	T	..	3·70	..	..	U. 11894
1172	B	T	..	2·80	..	ear-ring	U. 11900
1173	B	T	..	5·70	..	..	..
1177	B	T	NW.×SE. head NW.	6·30	..	ear-rings	..
1178	A	T	NW.×SE. head NW.	6·10	ear-rings U. 11940	diadem	U. 11939
1179	A	T	NW.×SE.	6·10	..	ring	..
1180	B	L	NE.×SW.	6·20	ear-rings U. 11929	rings	U. 11930
1181	A	WC	NE.×SW. head SW.	..	ear-ring (unusual type) U. 11945	bowl, diadem, *brîm* U. 11944, belt	..
1184	B	T	..	3·20	..	..	..
1186	B	T	..	4·00	..	..	..
1187	B	L	NW.×SE. head NW.	4·90	..	pin 1 U. 11953	..
1189	B	T	NE.×SW. head SW.	4·80	..	ear-rings	..
1194	A	L	NW.×SE. head NW.	5·30	..	ear-ring	..
1195	A	T	NE.×SW. head SW.	6·80	filigree disk U. 11968, pin 5 U. 11963, ear-ring U. 11965	bowls	U. 11962, U. 11964
1196	A	T	NE.×SW.	6·80	..	ear-rings	U. 11971
1197	B	T	..	4·80	..	..	..
1198	A	T	NW.×SE. head SE.	1·60	..	..	..
1208	B	T	NW.×SE. head NW.	?	..	..	..
1216	B	T	NE.×SW. head SW.	2·00	..	..	U. 12012
1217	A	T	NE.×SW. head NE.	2·00	..	..	..
1219	B	L	NE.×SW.	1·90	..	..	U. 12006
1221	A	L	NE.×SW.	6·50	..	ear-rings, *brîm* U. 12001	..
1225	A	T	NW.×SE. head NW.	2·00	..	..	..
1227	A	T	NW.×SE. head NW.	1·90	..	..	..
1232	A	Death-pit	..	..	..	hair-ring U. 12257, pins U. 12257, vessel U. 12441:7	U.12257,reins
1234	A	BC	NE.×SW. head SW.	7·80	ear-rings U. 12043,	pin 7 U. 12044, U. 12045,	bracelet U. 12046,

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1168	..	adze 3, pin	..	143	..	roundels of staff-head U. 11883
1170	(shell, decayed)	.. ..	..	108, 243	..	
1172	U. 11899	pin	4	5, 49, 108	U. 11898: 78	
1173	U. 11896, U. 11897	.. ..	..	..	..	
1177	..	pins	4	5	U. 11946: 78	cockle-shell
1178	U. 11938	pin 1	27	5, 100	U. 11941: 14, U. 11942: 1, U. 11943: 27	bird's bones
1179	(shell, decayed)	pin, axe A 6	..	5, 100, 249	..	
1180	..	pin 1	bowl	5, 45	..	shell lamp, cockle-shells
1181	..	dagger 3	..	5, 102	..	flint-flakes
1184	..	tool U. 11947, binding, borers U. 11947	..	49	..	whetstone
1186	..	pin 1, ladle	4, 71	108, 174	U. 11949: 19	cockle-shell
1187	U. 11952	.. ..		..	..	
1189	..	pin	4	108	..	cockle-shell
1194	U. 11978	dagger 7, pin, reticule	4	..	..	
1195	..	chisel 2	42	150	..	lapis fish U. 11966, whetstone U. 11967
1196	U. 11970	pin 7	..	..	..	
1197	U. 11973	.. ..	..	..	U. 11972: 87	
1198	(shell, decayed)	dagger 7, reticule, pin,	..	..	..	
1208	U. 11983,	U. 11983	4	100, 102	..	
1216	U. 12011	pins 1, 2	4	243	U. 12007: 80, U. 12009: 24	
1217	(shell, decayed)	adze 3, dagger 7	..	..	..	
1219	..	.. ..	..	100, 110, 143	..	
1221	..	axe A 2	..	..	..	whetstone
1225	..	pin 2	4	5, 100, 110	U. 12024: 60, U. 12025: 7, U. 12026: 19, U. 12027: 61	cockle-shells and paint
1227	U. 12053	axe A 3	4	108, 243	..	
1232	..	axes A 3, S 6 (?), chisel 2, adze 2, razor, spear	23, 27, 66, 77, 78	5, 108, 173	..	wagon, animal bones, fish bones; see detailed description, p. 108
1234	..	.. ..	4	223	U. 12043: 48	see detailed description, p. 171

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1234					ear-rings U. 12352, wreath U. 12049, ribbon U. 12042	comb U. 12050	U. 12047, U. 12048
1236	A	Royal Tomb	..	..	wreaths U. 12443, U. 12451, sceptre U. 12442, girdle, roundels U. 12450, chains U. 12449, U. 12459, binding U. 12457, U. 12459, wire U. 12443, hair-rings U. 12443	hair-rings, pin 1	U. 12444, U. 12452, U. 12453, U. 12454, U. 12455, U. 12456, U. 12458, U. 12459, U. 12460
1237	A	Death-pit ('The Great Death-pit')	..	..	hair-rings U. 12281, U. 12374, U. 12375, U. 12380, U. 12389, U. 12429, ear-rings U. 12359, U. 12360, U. 12362, U. 12364, U. 12365, U. 12366, U. 12368, U. 12372, U. 12373, U. 12374, U. 12375, U. 12379, U. 12380, U. 12381, U. 12382, U. 12384, U. 12385, U. 12386, U. 12387, U. 12388, U. 12392, U. 12394, U. 12395, U. 12397, U. 12398, U. 12399, U. 12402, U. 12403, U. 12404, U. 12406,	pins 1 U. 12281, U. 12362, U. 12375, U. 12397, U. 12399, U. 12406, U. 12421, U. 12422, U. 12423, U. 12427, pins 3 U. 12429, pins 7 U. 12365, U. 12366, U. 12368, U. 12375, U. 12377, U. 12379, U. 12380, U. 12381, U. 12382, U. 12383, U. 12385, U. 12386, U. 12387, U. 12388, U. 12392, U. 12394, U. 12395, U. 12396, U. 12402, U. 12404, U. 11405, U. 12407, U. 12408, U. 12409,	U. 12359, U. 12360, U. 12361, U. 12362, U. 12363, U. 12365, U. 12366, U. 12367, U. 12368, U. 12369, U. 12370, U. 12372, U. 12373, U. 12374, U. 12375, U. 12376, U. 12377, U. 12379, U. 12380, U. 12381, U. 12382, U. 12383, U. 12384, U. 12385, U. 12386, U. 12387, U. 12388, U. 12389, U. 12390, U. 12391, U. 12392, U. 12393, U. 12394, U. 12395, U. 12396, U. 12397, U. 12398, U. 12399,

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1234						
1236	U. 12330, U. 12448 (shell, decayed), U. 12461	daggers, pins 1, razors	84, 115	5, 7, 18, 61, 105, 106, 211	√√, box-lid U. 12491	see detailed description, p. 111; whetstones, animal bones, 105 and 106 are ribbed bottles of the usual Royal Tomb type, ostrich shell
1237	U. 12371, U. 12372, U. 12373, U. 12374, U. 12380, U. 12381, U. 12382, U. 12383, U. 12384, U. 12385, U. 12386, U. 12387, U. 12390, U. 12413, U. 12427,	pins 1, 3, 7, tool U. 12358, dagger 7, axes S 19, A 3, razor	77 fragments of many vessels	5, 108, 143	U. 12361, U. 12363, U. 12364, U. 12369, U. 12371, U. 12376, U. 12377, U. 12386, U. 12392, U. 12394, U. 12405, U. 12406, U. 12408, U. 12410, U. 12413, U. 12415, U. 12417, U. 12421, U. 12427, U. 12428	see detailed description, p. 113; harps U. 12353, U. 12354, U. 12355, 'rams in thicket' U. 12357, baking pan, *dibs* press, whetstone, cockle-shells with green paint, shell lamp, shell rings, jar stopper, rubbing stone, ostrich shell U. 12379, fragments of canopy U. 12358, shell staff-head U. 12431, copper stags U. 12356

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1237					ear-rings	pins 7	U. 12400,
					U. 12407,	U. 12411,	U. 12402,
					U. 12408,	U. 12412,	U. 12403,
					U. 12409,	U. 12413,	U. 12404,
					U. 12411,	U. 12414,	U. 12405,
					U. 12412,	U. 12415,	U. 12406,
					U. 12413,	U. 12419,	U. 12407,
					U. 12414,	U. 12420,	U. 12408,
					U. 12415,	U. 12421,	U. 12409,
					U. 12416,	U. 12426,	U. 12410,
					U. 12417,	U. 12429,	U. 12411,
					U. 12419,	finger-rings	U. 12412,
					U. 12420,	U. 12366,	U. 12413,
					U. 12421,	U. 12370,	U. 12414,
					U. 12423,	U. 12394,	U. 12415,
					U. 12424,	U. 12397,	U. 12416,
					U. 12425,	U. 12398,	U. 12417,
					U. 12426,	U. 12402,	U. 12418,
					U. 12427,	U. 12406,	U. 12419,
					U. 12428,	U. 12409,	U. 12420,
					dog-collars	U. 12420,	U. 12421,
					U. 12365,	U. 12425,	U. 12422,
					U. 12366,	U. 12429,	U. 12423,
					U. 12368,	hair-rings	U. 12424,
					U. 12372,	U. 12359,	U. 12425,
					U. 12373,	U. 12360,	U. 12426,
					U. 12374,	U. 12363,	U. 12427,
					U. 12377,	U. 12365,	U. 12428,
					U. 12379,	U. 12367,	U. 12429
					U. 12380,	U. 12369,	
					U. 12381,	U. 12371,	
					U. 12382,	U. 12373,	
					U. 12383,	U. 12376,	
					U. 12384,	U. 12378,	
					U. 12385,	U. 12384,	
					U. 12386,	U. 12385,	
					U. 12388,	U. 12390,	
					U. 12392,	U. 12391,	
					U. 12394,	U. 12392,	
					U. 12395,	U. 12393,	
					U. 12396,	U. 12396,	
					U. 12397,	U. 12402,	
					U. 12398,	U. 12406,	
					U. 12402,	U. 12410,	
					U. 12403,	U. 12418,	
					U. 12404,	U. 12419,	
					U. 12405,	U. 12425,	
					U. 12406,	U. 12427,	
					U. 12407,	U. 12428,	
					U. 12408,	combs	
					U. 12409,	U. 12364,	
					U. 12411,	U. 12365,	
					U. 12412,	U. 12366,	
					U. 12413,	U. 12380,	
					U. 12414,	U. 12382,	
					U. 12415,	U. 12383,	
					U. 12420,	U. 12385,	
					U. 12421,	U. 12395,	
					U. 12424,	U. 12397,	
					U. 12426,	U. 12398,	
					U. 12427,	U. 12405,	

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1237						

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1237					dog-collars U. 12428, finger-rings U. 12281, U. 12374, U. 12375, U. 12380, U. 12423, pins 1 U. 12374, U. 12380, rosettes U. 12362, U. 12365, U. 12366, U. 12380, U. 12388, U. 12397, U. 12398, U. 12407, U. 12411, U. 12420, U. 12421, ribbon U. 12364, U. 12365, U. 12366, U. 12372, U. 12373, U. 12381, U. 12382, U. 12383, U. 12384, U. 12385, U. 12388, U. 12392, U. 12394, U. 12395, U. 12397, U. 12398, U. 12405, U. 12406, U. 12407, U. 12408, U. 12409, U. 12412, U. 12413, U. 12414, U. 12420, U. 12421, U. 12423, U. 12424, wreaths U. 12364, U. 12365, U. 12366, U. 12372, U. 12373, U. 12380, U. 12381, U. 12382,	combs U. 12407, U. 12408, U. 12409, U. 12412, U. 12413, U. 12414, U. 12420, U. 12421, U. 12423, ribbon U. 12359, U. 12363, U. 12370, U. 12410, U. 12419, U. 12425, wreaths U. 12365, ear-rings U. 12361 frontlet U. 12360	

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1237						

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1237					wreaths U. 12383, U. 12385, U. 12388, U. 12392, U. 12394, U. 12395, U. 12397, U. 12398, U. 12405, U. 12406, U. 12407, U. 12408, U. 12409, U. 12413, U. 12414, U. 12420, U. 12421, U. 12423, flowers U. 12381, bracelet U. 12380		
1237 B	B	..	..	..	hair-rings, finger-rings	pin 1	..
1241	A	BC	NE.×SW. head NE.	2·70	..	..	..
1242	A	T	NW.×SE. head NW.	3·00	..	..	√, frog amulet
1243	A	T	NE.×SW. head SW.	4·50	..	..	..
1247	A	WC	NW.×SE. head NW.	5·70	..	ear-rings	U. 12111
1248	A	L	NW.×SE.	5·00	..	..	√
1250	A	T	..	4·60	..	..	..
1254	A	T	NW.×SE. head NW.	5·60	..	..	..
1258	A	T	NW.×SE. head NW.	5·00	..	..	..
1261	A	T	NW.×SE. head NW.	5·30	..	..	..
1262	B	L	NW.×SE. head NW.	5·60	..	..	..
1264	A	T	NW.×SE. head NW.	5·45	..	..	..
1266	A	T	NW.×SE. head NW.	5·50	diadem U. 12126, hair-rings U. 12133, filigree ring U. 12134	pin 1 U. 12128	U. 12127, shell-rings U. 12137
1267	A	WC	NE.×SW. head SW.	5·40	ribbon U. 12144	..	U. 12145
1269	B	T	NW.×SE.	4·90	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1237						
1237B	..	needle	66 cockle-shells	5	..	baking pan, rubbing-stone
1241	U. 12084,	pin 1, axe A 3	bowl	108	√	
1242	..	adze 3, pin	..	..	√	
1243	U. 12100	adze 3	bowl	108	..	stone saw
1247	√	spears 1, 2, arrows 1, 4, harpoon, adze 3	4, 7, 23, 51, 96	5	U. 12110: 42	see detailed description, p. 171
1248	..	pin	27	..	U. 12113: 3	inlay from box U. 12176, fragments of small vase with bands of red paint round shoulder
1250	..	axe A 3, object U. 12109	..	108, 143	..	
1254	..	dagger 7, axe A 3	4	5, 100, 134	..	
1258	..	axe A 3	4	5, 141	..	
1261	..	adze 5	4	143	..	cockle-shells
1262	..	dagger 7	√	5, 108	..	
1264	..	axe A 3,	4	108, 147	..	
1266	..	dagger U. 12178, pin 1, razors,	4, 23, 26, cockle-shell U. 12136	..	U. 12129: 39, U. 12132: 85	alabaster lamp with bull figure U. 12135, three bodies side by side in the grave; see detailed description, p. 172
1267	..	dagger 7, pin 1, spear 2, axe A 3, arrow butts U. 12147	7, 77, 96	5, 101, 108, 147	U. 12140: 61	
1269	..	.. ..	..	108, 143	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1270	A	Composite	..	6·00	..	..	U. 12169, U. 12255
1272	B	T	NW.×SE. head SE.	5·40	..	..	..
1273	A	L	NE.×SW. head SW.	5·50	..	..	..
1276	B	T	NW.×SE. head NW.	4·30	..	..	U. 12154
1277	A	T	NE.×SW. head SW.	6·60	..	..	..
1278	A	T	NW.×SE.	5·50	..	..	..
1280	A	T	?	6·00	..	..	..
1281	A	T	NE.×SW. head SW.	6·00	..	..	..
1282	A	T	?	5·70	..	..	..
1287	A	T	NE.×SW. head SW.	6·30	..	..	..
1290	A	T	NE.×SW. head SW.	6·50	..	..	U. 12196, U. 12200
1291	A	L	NW.×SE. head NW.	6·20	..	..	..
1293	A	T	NW.×SE. head NW.	7·40	ear-ring U. 12214	chain *brîm* U. 12213	..
1294	A	T	NE.×SW.	5·80	..	..	U. 12216
1296	B	..	NE.×SW. head SW.	6·30	..	..	..
1297	B	T	?	6·30	..	..	..
1298	A	WC	NW.×SE. head NW.	6·90	..	..	..
1299	A	WC	NW.×SE. head NW.	6·40	..	..	*brîm* U. 12221
1300	A	T	NE.×SW. head SW.	6·70	..	..	..
1302	B	WC	NE.×SW. head NE.	6·60	ring	..	..
1304	A	T	NW.×SE. head NW.	6·30	..	ear-rings	U. 12237
1305	A	L	NE.×SW. head SW.	6·60	..	..	..
1306	A	T	?	7·00	..	..	..
1307	B	T	?	5·70	..	..	U. 12245 (glazed), shell rings U. 12246
1308	A	T	NE.×SW. head SW.	6·50	..	..	..
1311	A	L	NW.×SE.	6·50	..	..	..
1312	A	WC	NW.×SE. head NW.	7·60	wreath U. 12256,	pin 1 U. 12256	√, U. 12256

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1270	..	dagger 7, pin 1	4, 7	5, 108, 143, 150	U. 12172, U. 12173: 37, U. 12174: 92	probably large T grave of Mes-kalam-dug type with fragments of an intrusive larnax burial; cf. p. 155
1272	..	pin 1	..	223	..	
1273	..	.. ..	..	108	..	painted pot Susa II type U. 12175
1276	U. 12157, U. 12158	dagger 7, pin 2, reticule, toe rings, ladle	bowl	108, 147, 194	..	cockle-shell
1277	..	.. ..	..	..	5	shell lamp with bird U. 12167, cockle-shells
1278	..	dagger 7, axe A 3	bowl	143	U. 12179: 13	whetstone
1280	..	.. ..	27, 51	223	U. 12161	
1281	..	dagger 7	..	..	U. 12150: 42	
1282	..	axe A 3	bowls	144	..	
1287	..	dagger 5, axe A 3	..	..	U. 12193	whetstone, cockle-shells, ostrich shell
1290	..	dagger 7, pin 1, axe S 19, spear 2, toilet set U. 12199	7	..	..	
1291	..	axe A 3, toilet set	..	5, 108	..	whetstone
1293	..	dagger, adze 3, axe A 3, spear 1, bolt U. 12212, toilet set	4	..	..	whetstone, single drain-pipe ring under the head (cf. the Domed Tomb, PG/1054, p. 101)
1294	..	.. ..	4	..	U. 12215: 22	cockle-shells
1296	..	.. ..	..	142, 206	..	
1297	..	pin	..	223	..	
1298	..	pin 3	4	109	U. 12219: 60, U. 12220: 37	cockle-shells
1299	..	dagger 7, axe A 3	bowl	143	..	
1300	..	dagger, adze 3, pin, axe A 3, razor, toilet set	7, 23	..	U. 12223, U. 12226: 92	obsidian flake
1302	..	.. ..	..	5, 7, 46, 108, 143	..	
1304	..	pin 1, adzes 1, 2,	4, 7, 22	5, 144, 243	U. 12236: 66, U. 12238: 92	two bodies buried together
1305	..	dagger 7, spear 1, adze 5, toilet set	4	5, 147	..	
1306	..	dagger, axe A 3	4, 96	..	√	whetstone
1307	..	pin 1	..	108	U. 12244: 48	
1308	..	pin 1, toilet set	..	100, 108	U. 12249: 76	
1311	..	dagger U. 12253, spear 1	..	..	..	
1312	U. 12256	dagger, axe A 3, fish-hook U. 12256	115	5, 102, 108, 243	U. 12256: 19, U. 12256: 61	whetstone, ostrich shell, 2 clay pedestal

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1312					frontlet U. 12256, ear-rings U. 12256, *brîm* U. 12256		
1313	A	T	..	7·70	..	..	..
1314	B	WC	NE.×SW. head SW.	7·20	..	..	U. 12259 (gold wire bead)
1315	A	WC	NW.×SE.	7·50	wreath, ribbon, hair-rings, ear-rings, rings, U. 12258	pins 3, comb	bracelets, dog-collar, necklaces
1316	A	WC	NE.×SW. head SW.	8·00	..	ear-rings	U. 12263, U. 12264
1318	A	L	NE.×SW.	8·20	..	..	U. 12266
1319	B	WC	NE.×SW. head SW.	?	..	..	..
1320	A	WC	NW.×SE. head NW.	8·00	..	diadem and ribbon *brîm* U. 12276	U. 12278
1321	A	WC	NW.×SE. head NW.	7·90	ear-ring U. 12282, *brîm* U. 12283	belt, ear-ring U. 12291	..
1322	B	T	NE.×SW. head SW.	8·60	..	..	U. 12297
1324	B	L	NW.×SE. head NW.	5·90	..	..	..
1325	A	WC	NW.×SE.	9·60	..	..	..
1327	A	WC	NE.×SW.	10·00	..	*brîm* U. 12304, belt	U. 12303, U. 12304
1329	A	WC	NE.×SW. head SW.	10·50	..	rings, pin 7 U. 12509, ear-rings U. 12312	U. 12307, U. 12308
1330	A	T	?	9·60	..	..	..
1332	A	Death-pit	..	..	..	ear-rings U. 12433, U. 15406, pins U. 12433, U. 15406 hair-rings U. 12433, U. 15406	U. 12433, U. 15406
1337	B	T	?	3·50	..	rings U. 12603	U. 12600
1338	B	T	?	3·00	..	..	..
1344	B	T	NE.×SW. head SW.	4·50	..	..	..
1350	A	T	N.×S. head N.	4·10	ring U. 12619	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1312						vases (fragments only); see detailed description, p. 173
1313	..	axe A 3	4	109	..	
1314	..	.. ..	..	102	..	
1315	U. 12258	.. ..	7	61	U. 12258: 16	see detailed description, p. 174; cockle-shells
1316	..	.. ..	bowl	..	U. 12260: 51, U. 12261: 5, U. 12265: 66	
1318	..	dagger 4, axe A 3, spear 2, chisels 2, 4, saw	98	5	U. 12267: 27	
1319	..	.. ..	77	141	U. 12276	
1320	..	dagger 7, chisel 2	115	..	..	
1321	..	dagger 7, axes S 19, A 3, chisels 1, 2, adze 3, razors, saw	7, 42, 108, 115	61, 107	..	shell lamp, whetstone
1322	U. 12296	.. ..	..	5, 108, 208	(fragment)	
1324	(shell, decayed)	dagger 7	4	5, 147	..	
1325	..	.. ..	27	62, 108	U. 12315: 45, U. 12319: 101	cockle-shells, shell lamp with bird U. 12316
1327	(shell, decayed)	dagger 4, axe A 3	27, 32, 42, 54, 84, 96, 115	61, 243	√	whetstone
1329	..	cockle-shells	54	..	U. 12310: 5, U. 12311, U. 12322	cockle-shells, shell lamp
1330	..	.. ..	23, 55	108	U. 12313: 91, U. 12314: 91	
1332	U. 12433	pins 3, 7, curved copper objects (? musical), dagger	..	..	U. 12433	see detailed description, p. 124; harp, copper calf's head and plaques, cockle-shells
1337	..	pin 1	4	..	U. 12601: 5	shell lamp
1338	..	.. ..	..	76, 130, 136	..	
1344	..	.. ..	..	5, 108, 151	..	
1350	..	pin, ring, bangles	27	83	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1351	B	T	NE.×SW. head SW.	4·40	..	ear-rings U. 12621, ring	U. 12622
1360	B	T	?	5·60	..	ear-rings	√, U. 12635
1367	B	T	NE.×SW. head SW.	4·75	..	..	..
1371	B	T	NE.×SW. head SW.	5·00	..	..	U. 12642
1373	A	T	?	5·80	..	..	..
1374	A	T	NW.×SE. head NW.	6·90	ear-rings U. 12645	bracelet U. 12657, coil ring U. 12658	U. 12646, U. 12647
1378	A	T	NW.×SE.	5·20	..	..	..
1381	B	T	NW.×SE. head NW.	6·10	..	..	U. 12668
1382	A	T	NE.×SW. head SW.	6·80	..	ear-ring, rings U. 12676	..
1385	A	T	?	6·50	..	..	..
1387	A	T	NE.×SW. head SW.	7·40	..	..	U. 12680
1388	A	T	?	5·80	ear-ring U. 12738	..	..
1391	B	T	NE.×SW. head SW.	7·20	..	ear-rings	U. 12693
1392	A	T	?	6·80	..	..	..
1395	A	T (child)	NE.×SW. head SW.	7·10	..	ear-rings	U. 12696
1398	B	T	NE.×SW. head SW.	7·00	..	..	U. 12699
1399	B	T	NE.×SW. head SW.	6·50	..	..	..
1400	B	T	NW.×SE. head NW.	6·90	ear-rings U. 12701	bracelets, ring frontlet, torque U. 12701	U. 12701
1401	B	T	NW.×SE. head SE.	7·00	ear-rings U. 12702	rings U. 12702	U. 12702
1402	A	T	?	6·40	..	ear-rings, ring U. 12703	U. 12703
1403	A	T	NE.×SW. head SW.	7·00	ribbon U. 12704	rings, needle, frontlet, ear-rings U. 12704	U. 12704 (with silver wire pendants)
1404	B	T	NW.×SE. head NW.	6·90	..	..	U. 12705
1405	B	T	?	6·70	..	frog amulet	U. 12706
1406	B	T	NE.×SW. head SW.	7·30	..	..	..
1407	A	T	NW.×SE. head NW.	7·20	..	ear-rings, rings	U. 12707, *brîm*

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1351	..	pin 8, bangles, toe-rings	4	76, 138	..	bellum
1360	..	pin 1, bangle, ear-rings	..	5, 83, 108, 125	√	cockle-shells
1367	(shell, decayed)	pin 1	..	5, 151	..	
1371	(shell, decayed)	reticule	√	5, 108, 110	√	
1373	..	axe A 2	4	100, 173	..	
1374	U. 12654, U. 12658	pin 1, axe A 3	4, 7, 23, 27, 46, 51, 96	5, 100, 108, 129	U. 12648, U. 12649: 6, U. 12660: 66	see detailed description, p. 174; comb (ivory?) U. 12652, pot marks on 129 ++, on 100 A, cylinder U. 12657 attached to silver bracelet
1378	(shell, decayed)	axe A 3	..	..	..	
1381	U. 12666, U. 12667	.. ..	..	100	..	
1382	U. 12674, U. 12675	pin 1, axe A 1	4, 7, 22	108	U. 12673: 18	shell lamp
1385	U. 12678 (shell, decayed)	pins 1, 7	87, 115	..	bowl with notched rim, U. 12678: 48	
1387	U. 12680	pin 1, axe A 1, reticule	bowl	5, 108, 151	U. 12680: 24	
1388	..	.. ..	..	100	U. 12737: 86	
1391	..	pin 1	bowl	100, 243	..	
1392	..	axe A 3	115	..	..	
1395	..	pin 4	4	5, 108	U. 12696: 1	
1398	..	pin, ring	..	197	..	
1399	..	pins 1, 3	..	108, 173	..	
1400	U. 12701	pin 1, bracelet	4	5, 108	U. 12701: 60, 20	see detailed description, p. 175; bones and teeth of sheep or goats
1401	..	pin 1	..	..	..	
1402	..	pin 1	..	..	U. 12703: 87	
1403	U. 12704	pin 1	4, 46	..	U. 12704: 3, U. 12704: 54, U. 12704: 84	
1404	U. 12705	dagger 7, pin 1, spindle, reticule	4, 77	..	..	
1405	U. 12706	pin 1	4	..	..	
1406	..	pin 1, axe S 6, razors	..	5, 108, 173	..	
1407	U. 12707	dagger 7, pin 1, axe A 2, holdfasts	4, 7, 23, 44, 77, 96, 115	5, 108	U. 12707: 15, U. 12707: 86	see detailed description, p. 176

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1408	B	T	?	7·20	..	..	U. 12708
1409	A	T	NE.×SW. head SW.	7·50	..	..	..
1410	A	T	NW.×SE. head NW.	7·70	..	ear-rings	..
1412	A	T	NW.×SE. head NW.	7·50	..	ear-rings	*brîm* U. 12711
1413	A	T	NE.×SW. head SW.	7·80	..	ear-rings	..
1414	A	T	NW.×SE. head NW.	7·90	..	hair-ribbon, ear-rings	U. 12715
1416	A	..	?	7·20	..	..	..
1417	B	T	NW.×SE. head NW.	8·70	..	..	..
1421	A	WC	NW.×SE. head NW.	8·80	pin 1 U. 12732, rings U. 12734, ear-rings U. 12733	..	U. 12728, U. 12729, U. 12730, U. 12731
1490	B	T (burnt)	N.×S. head N.	2·65	..	..	U. 13523
1497	A	T	..	..	..	..	..
1500	A	T (burnt)	N.×S. head S.	3·00	..	..	..
1503	A	L	..	3·20	..	..	U. 13546
1511	B	T	..	..	..	..	..
1512	B	T (3 confused burials)	..	3·30	..	..	..
1513	A	L	..	3·20	..	..	..
1515	A	L (burnt)	..	3·70	..	..	..
1516	B	T	..	2·60	..	..	..
1517	A	T	NW.×SE. head NW.	3·20	..	..	U. 13531
1520	A	T	N.×S. head S.	3·20	..	..	..
1523	B	L	NE.×SW. head SW.	3·50	..	..	..
1524	A	T	..	3·40	..	..	U. 14073
1525	A	T	E.×W. head W.	3·80	..	..	..
1527	B	T	N.×S. head S.	4·00	..	..	U. 13540
1528	B	T (burnt)	N.×S. head N.	4·00	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1408	..	pin 1	23, 77	..	..	
1409	(shell, decayed)	dagger 7, pin 1, axe A 2	4	5, 108, 110, 147	..	4 clay models of boats and a stand goblet
1410	..	pins 1, 2, axe A 2	4	5, 108, 151	..	
1412	U. 12711	dagger 7, pin 1, axe A 3, reticule	4, 23, 44	100	U. 12711: 14, U. 12711: 19, U. 12711: 61, U. 12711: 78	
1413	..	chisels 1, 2, 4, adze 3, saw	4	60, 85	..	haematite weights and pebbles U. 12712, fragments of lead; grave proper separated from annexes by (broken) burnt bricks, plano-convex, 0·13 wide and more than 0·20 long
1414	..	pin 7	42	..	..	
1416	..	.. ..	..	87, 100, 151	..	
1417	..	.. ..	..	108, 141, 209	..	see detailed description, p. 177
1421	..	.. ..	7, 32, 84, 96	5	U. 12726: 61, U. 12727: 87	
1490	..	dagger 7, pin 8	..	108	28	
1497	..	pin 4, ear-rings	..	76	..	
1500	..	axe A 3	..	5	..	
1503	..	pin 8	7	..	U. 13545: 1	
1511	..	axes	..	209	..	
1512	..	.. ..	..	4, 110, 147	..	
1513	..	axe A 3	7	5, 7, 108	..	
1515	..	axe A 3, ear-ring	..	108	..	
1516	..	.. ..	..	83, 100, 125	..	
1517	(decayed)	axe A 3, ear-ring	4	108	U. 13533: 22, U. 13534: 92	
1520	..	pin 1, adze 5	4	108	U. 13527: 26	
1523	..	pin 1	..	101, 108, 143	..	cockle-shell
1524	(decayed)	axe A 3	4, 7, 50, 96	5, 67, 81, 108, 136, 150	U. 14071: 50, U. 14072: 89	large square pit, above it mud bricks 0·18 × 0·09 × 0·075 and 0·18 × 0·15 × 0·05, perhaps a royal tomb, remains of at least 2 bodies; see detailed descr., p. 178
1525	√	axe A 3, spear 1	4	5, 100, 108, 109	U. 13536: 92, U. 13538: 19	cockle-shell, wooden box
1527	U. 13542	pin 8, axe S 6	..	5, 66, 108, 129	..	
1528	..	.. ..	..	67, 100, 108	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1530	B	T (burnt)	..	3·20	..	..	..
1531	A	T	N.×S. head N.	3·70	..	..	..
1533	A	T	E.×W. head W.	3·60	..	..	..
1534	A	T	NW.×SE. head NW.	3·90	..	..	U. 13548
1537	B	T	E.×W. head E.	4·20	..	..	..
1538	A	T	?	4·20	..	..	..
1546	B	T	?	4·40	..	..	..
1548	B	T	E.×W. head W.	4·10	..	..	..
1554	A	T	?	7·10	..	..	..
1556	A	WC	NW.×SE. head NW.	4·50	..	..	U. 13558
1559	B	foundation-bowl	..	..	..	..	..
1562	A	..	..	..	..	..	..
1563	B	T (burnt)	E.×W. head W.	3·90	..	..	U. 13556
1564	B	L	N.×S. head N.	..	..	..	..
1572	A	WC (burnt)	NE.×SW. head SW.	5·10	..	..	..
1573	B	WC	..	5·35	..	..	..
1574	A	L	NW.×SE. head NW.	5·30	..	..	..
1582	B	L	NW.×SE. head NW.	5·00	..	..	..
1584	A	T	N.×S. head S.	4·70	..	ear-rings	..
1586	A	L	NW.×SE. head NW.	5·75	..	..	..
1588	A	WC	NE.×SW. head SW.	6·10	..	pin 1	U. 13594
1589	B	T	N.×S. head N.	..	..	ear-rings	√
1591	B	WC (burnt)	NE.×SW. head SW.	5·50	..	..	..
1593	A	T	?	5·50	..	..	..
1594	A	WC	NW.×SE. head NW.	5·80	ear-rings U. 14010	..	..
1595	A	T	NW.×SE. head NW.	5·60	..	..	..
1597	A	T	NE.×SW. head NE.	5·10	..	..	..
1600	A	T	E.×W. head E.	6·30	..	..	√, shell rings U. 15408
1602	A	T	..	6·10	..	..	..
1603	B	T	NE.×SW. head SW.	5·30	..	..	U. 14007
1605	A	WC	NW.×SE. head NW.	6·20	..	..	..
1608	A	L	E.×W. head W.	6·00	ear-rings U. 14031	..	U. 14029
1609	A	L	N.×S. head S.	5·80	..	..	U. 14006
1613	A	T	?	5·90	..	..	..
1615	A	T	NE.×SW. head SW.	6·15	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1530	..	.. ..	..	5, 67, 108	..	
1531	(decayed)	dagger 6	..	..	..	
1533	U. 13552	pin 4	..	..	..	
1534	..	.. ..	..	..	U. 13549:41	
1537	..	.. ..	..	5, 21, 67, 108	16	cockle-shells, shell lamp
1538	..	axe A 3, dagger 3	..	108	..	
1546	..	.. ..	..	147	√	cockle-shells
1548	..	.. ..	..	92, 110	..	
1554	..	.. ..	..	5, 61, 108, 110, 208, 243	U. 13579:45	cockle-shells
1556	..	pin 7, razor	7	5, 83, 108, 208, 243	U. 13564:49, U. 13569:22	cockle-shells, sheep's jaw, shell rings U. 13560
1559	..	.. ..	..	67, 208	..	
1562	..	.. ..	..	..	U. 14019:76, U. 14020:87	
1563	..	.. ..	..	61	..	cup
1564	..	.. ..	..	60, 61	√√	cockle-shells
1572	..	dagger, axe A 3	4	..	..	whetstone
1573	..	.. ..	4	..	U. 13580:20, U. 13582:60	
1574	..	dagger 7, spear 2	4	..	..	
1582	..	arrow 1	..	147	..	
1584	..	pin 7, razor	..	..	..	cockle-shells
1586	U. 13574	axe A 3	..	61, 108	..	
1588	..	pin 1	..	243	U. 13592:66, U. 13593:89	
1589	..	.. ..	..	7, 125, 208	..	
1591	..	.. ..	..	61, 243	16	shell lamp, cockle-shells
1593	..	spear 2	..	..	..	
1594	..	dagger 7, spear 2	..	..	22	whetstone, cockle-shells
1595	..	axe A 3	4	..	..	
1597	..	arrow 1, adze 3	..	..	..	
1600	..	pin 7, spear 2	4	5, 7, 109	..	
1602	..	dagger 7, adze 3	..	109	..	
1603	..	pin 1	..	92, 243	spill vase (broken)	
1605	..	axe A 3	..	108	U. 14016:89, U. 14017:63	cockle-shells
1608	..	pin 1	..	..	U. 14033:22, U. 14034:30	cockle-shells
1609	..	dagger 7	..	..	√	weights U. 14003, shell lamp
1613	..	.. ..	4	..	U. 14028:6	
1615	..	pin 1, chisel 2	..	110	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1618	A	Royal Tomb	..	7·30	ribbon bandeau U 13790, hair-rings U. 13791, ear-ring U. 13792, chains U. 13793, U. 13794, U. 13795, U. 13796, dagger 7 U. 13788, button (?)	..	U. 13794, U. 13795, U. 13797, U 14405, U. 14406
1619	A	T	N.×S. head S.	6·50	..	..	U. 14075
1622	A	?	..	5·65	..	..	..
1623	A	T	?	6·20	..	..	..
1625	A	WC	NE.×SW. head SW.	6·00	ear-rings U. 14037, ribbon U. 14038	..	U. 14036
1627	A	L	NW.×SE. head NW.	6·00	..	..	..
1628	B	WC (burnt)	NW.×SE. head NW.	6·00	..	..	U. 14066
1629	A	WC	..	5·00	ring U. 14025	..	U. 14026
1630	B	T	..	5·50	ring	..	..
1631	A	Royal Tomb	..	..	..	..	..
1633	A	T	NW.×SE. head SE.	6·30	..	..	..
1634	A	L	E.×W. head W.	6·20	ear-rings U. 14050	..	U. 14047
1635	A	WC	E.×W. head W.	5·90	..	..	..
1636	B	T	NE.×SW. head SW.	6·45	..	..	U. 14056
1637	A	L	..	5·90	..	..	..
1639	B	T	NE.×SW. head SW.	6·65	..	..	..
1641	A	L	NW.×SE. head NW.	6·70	..	..	..
1642	A	T	N.×S. head S.	6·20	ear-rings U. 14083	..	..
1646	A	T (burnt)	NE.×SW. head SW.	6·30	..	..	U. 14086
1648	A	Royal Tomb	..	7·30	..	pin 1 U. 13781, hair-rings	U. 13783, U. 13784

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1618	..	dagger 7, pin 7, axe A 3, chisel 2, spear 1	7, 46, 49, bucket, ladle	5, 61, 108	U. 13785 : 19, U. 13799 : 6, U. 14401 : 8, U. 14402 : 84, U. 14403, U. 14404	see detailed description, p. 128; whetstone U. 13789, shell lamp U. 13786
1619	..	dagger 7, arrow 5	4	5, 108	U. 14078 : 48	
1622	..	.. ..	..	105	..	
1623	..	axe	..	5, 147, 150	..	
1625	U. 14041	pins 1, 7, axe A 3, spear 2	4, 25, 46	243	U. 14035 : 16, U. 14044 : 61	cockle-shells, shell lamp
1627	U. 14013	dagger 7, axe A 3, toilet set	..	..	..	whetstone
1628	..	dagger 7	..	..	..	whetstone
1629	..	axe A 3, reticule	26	5, 7, 108, 147, 153	U. 14024 : 89	animal bones
1630	√	pin 1 ..	..	16, 108	..	cockle-shells
1631	..	.. ..	..	5, 16, 61, 106, 208	U. 14059 : 19	see detailed description, p. 130; ostrich shell (decorated); clay offering table; sheep's skull; the tomb is later in date than PG/1236
1633	..	.. ..	..	94, 105, 108, 110, 208	U. 14058 : 29, U. 14059 : 19	cockle-shells
1634	..	.. ..	4	..	U. 14048 : 64, U. 14049 : 3, U. 14051, U. 15771 : 24	
1635	..	.. ..	..	108	U. 14046 : 22	some mud bricks near the coffin
1636	..	pin 1, axe S 20	..	243	U. 14057 : 59	
1637	..	axe A 3	..	5	..	
1639	..	dagger 7	..	5, 110, 147	..	
1641	..	dagger, axe A 3, toilet set	115	..	..	
1642	..	ear-ring	..	146	..	shell lamp
1646	U. 14087	dagger 5, axe S 19	..	..	..	cockle-shell
1648	..	pin 7, arrow 5, tripod U. 13782	4, 21	5, 61, 106, 108, 208	U. 13770 : 19, U. 13771 : 19, U. 13772 : 45, U. 13773 : 19,	see detailed description, p. 133; shell lamp U. 13786, cockle-shells U. 13787, clay

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1648							
1650	B	L	..	7·05	..	..	U. 14088
1651	A	T	N.×S. head S.	6·60	ear-rings U. 14091	..	U. 14096
1654	A	T	NW.×SE. head NW.	6·60	..	..	..
1655	A	T	?	6·60	..	..	√
1658	A	L	E.×W. head W.	6·60	..	..	..
1661	A	T	N.×S. head N.	6·90	..	..	..
1664	A	T	N.×S. head S.	6·70	..	..	..
1665	A	T	NE.×SW. head SW.	6·50	..	ear-ring	U. 14215
1666	A	T	?	6·70	..	..	U. 14219
1667	A	T	NE.×SW. head SW.	6·70	..	..	..
1668	A	T	E.×W. head W.	6·80	..	..	U. 14221
1671	A	T	N.×S. head N.	7·00	..	..	..
1682	B	?	?	7·00	..	..	..
1685	A	L	N.×S. head S.	7·40	..	..	U. 14233
1686	A	L	E.×W. head W.	6·90	..	..	..
1687	A	T	N.×S. head N.	7·20	..	..	..
1689	B	T	NE.×SW. head SW.	7·10	..	..	..
1692	A	L	NE.×SW. head SW.	7·30	..	..	..
1697	A	WC	NE.×SW. head NE.	7·40	..	..	√
1698	A	L	E.×W. head W.	7·60	..	..	U. 14256
1702	A	WC	N.×S. head S.	8·00	..	..	U. 14258, U. 14259 (horn claws), U. 14262
1704	A	T	?	7·30	..	..	..
1705	B	T	?	7·00	..	..	..
1708	A	T	NE.×SW. head SW.	7·10	..	..	clay bead
1711	A	T (baby in basket)	..	7·50	..	open-work disks U. 15411	U. 15410
1722	A	WC	NW.×SE. head NW.	8·10	..	..	..
1726	A	L	N.×S. head S.	8·25	ear-rings U. 14274	..	U. 14273
1733	A	L	N.×S. head N.	7·80	..	..	..
1736	A	L	E.×W. head W.	8·20	..	..	..
1738	A	T	NE.×SW. head SW.	8·30	..	..	U. 14303

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1648					U. 13774: 45, U. 13775: 19, U. 13776: 19, U. 13777: 19, U. 13780: 19, U. 13785: 19	offering-table, animal bones, button
1650	U. 14090	pin 1	..	16	√	shell lamp
1651	..	pin U. 14095	..	110	U. 14092: 89, U. 14093: 19	
1654	..	axe A 3	..	7	..	
1655	..	adze 3	..	..	..	shell lamp
1658	..	adze 3	..	..	..	
1661	..	pin 3	..	..	U. 14206: 41, U. 14207: 48	
1664	..	dagger 7	..	61	U. 14209: 89	cockle-shell
1665	U. 14216	arrows 1, axe A 3, ear-ring	4, 7	5, 7, 83, 100, 129, 136	..	bellum, grain and dates
1666	..	.. ..	..	..	U. 14218: 42	cockle-shells
1667	..	.. ..	..	5	U. 14220: 96	dates
1668	..	pin 1	..	..	U. 14222, U. 14223: 89, U. 14224: 89	cockle-shell
1671	U. 14226	dagger 7, adze 3	..	5	..	whetstone
1682	..	.. ..	..	209	√√ U. 15772: 19	wheeled clay cow vase
1685	..	dagger 7, axe A 3	..	5	√	
1686	..	.. ..	..	108	U. 14235: 89	cockle-shells
1687	..	dagger 7, pin 4, axe A 3, tool 2, chisels 1, 2, saw	..	..	..	whetstone, cockle-shells
1689	..	.. ..	..	5, 7, 61, 108	..	
1692	..	axe A 3, tool 3 b, mirror (?) U. 14248, awl U. 14249	..	..	√	
1697	..	.. ..	..	7, 243	U. 14466: 76	
1698	..	dagger 7, axe S 20	7	5, 108	U. 14253: 9	whetstone
1702	..	head decoration U. 14257, U. 14258, chisel	..	108	..	whetstone, cowrie shell, sheep's head
1704	..	dagger 7, axe A 3	..	..	..	
1705	..	.. ..	..	5	U. 14265: 19	cockle-shells
1708	..	pin 4, axe A 3	..	..	..	cockle-shells
1711	..	pin 1, ear-ring	..	..	..	
1722	..	axe A 3, chisel 2, spear 2	..	..	U. 14279: 61, U. 14280: 50, U. 14281: 48, U. 14284: 16	cockle-shells, clay boat U. 14283
1726	..	.. ..	..	..	U. 14275: 16, U. 14291: 48	
1733	U. 14293	spear 2	..	..	U. 14294: 89	
1736	..	dagger 7, pin 1, ear-ring U. 14299	4	..	U. 14297: 22	
1738	..	pin 1 axe A 3	..	..	..	

GRAVE NUMBER	PERIOD	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS
1739	A	T	N.×S. head S.	8·30	..	..	..
1744	A	L	E.×W. head W.	8·50	..	ear-rings	U. 14306
1749	A	..	..	..	ear-rings U. 14471, ribbon U. 14472, pin 1 U. 14473, hair-rings U. 14474, rings U. 14476, wreath U. 14482, wire U. 14484	head ornament U. 14470	U. 14475, U. 14477, U. 14478, U. 14479, U. 14480, U. 14485
1750	A	WC	N.×S. head S.	8·60	frontlet U. 14315	..	*brîm* U. 14316, U. 14317
1751	A	L	E.×W. head W.	8·60	..	ear-ring U. 14324	U. 14321
1753	A	T	E.×W. head W.	8·60	..	..	..
1754	A	L	NE.×SW. head SW.	9·00	..	..	..
1755	A	T	N.×S. head N.	9·20	..	..	..
1759	A	L	E.×W. head W.	9·00	..	..	U. 14336, U. 14339
1774	A	L	N.×S. head S.	9·60	..	..	..
1776	A	..	?	10·2	..	..	..
1803	A	L	NE.×SW. head SW.	11·70	..	..	..
1809	A	T	NW.×SE. head SE.	11·40	..	..	..
1810	A	T	N.×S. head S.	12·30	..	..	..
1811	B	T	NE.×SW. head NE.	12·40	..	..	..
1814	B	T	N.×S. head S.	11·80	..	..	..

GRAVE NUMBER	CYLINDER SEALS	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1739	..	adze 3	..	108	..	
1744	..	dagger 7, pins 1, 3	4	..	U. 14307:19, U. 14309:61	
1749	U. 14473 A	.. ..	..	..	U. 14467:61, U. 14468:3	ostrich shell U. 14469, paint-box U. 14483
1750	U. 14319	.. ..	..	..	U. 14464:64	whetstone
1751	..	dagger 7, axe A 3	..	108	..	whetstone
1753	U. 14327	dagger 7	..	83	..	
1754	..	dagger 7, chisel 2	..	..	..	cockle-shell
1755	..	.. ..	..	..	U. 14331:40, U. 14331:70, U. 14332:16	
1759	..	toilet instrument 5	..	..	..	mother of pearl plaque U. 14338
1774	U. 14443	pin 7	..	16	U. 14442:41	
1776	..	.. ..	..	204, 234	..	
1803	..	.. ..	..	..	U. 14446:31, U. 14451:41	
1809	..	.. ..	..	..	U. 14453:22	
1810	..	.. ..	..	..	U. 14447:16, U. 14448:94, U. 14449:19, U. 14450:24, U. 14451:41	
1811	..	.. ..	..	..	U. 14452:14	
1814	..	.. ..	..	..	U. 14455:22, U. 14456:16, U. 14457	

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GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
643	T	..	3·50	..	ear-ring U. 9569	..	U. 9567, U. 9568
695	T	..	4·20	..	ear-ring	U. 9696	U. 9693, U. 9694
711	T	..	5·00	..	..	..	..
715	T	..	6·00	..	..	..	..
735	BC	..	3·50	..	ear-ring	U. 9930	U. 9923
871	T	..	7·60	ear-rings U. 10758 diadem U.10754 plaited ribbon U. 10755 bracelet U. 10756	pin U. 10759	U. 10753	U. 10757
1420	WC	NE.×SW. head SW.	8·30	..	ear-ring U. 12722	*brîm* U. 12721	U. 12720
1422	WC	NW.×SE. head NW.	9·50	diadems U. 12463, U. 12464 amulet U. 12469 plaited ribbon U. 12465 bracelets U. 12472 ear-rings U. 12467, U. 12468 hair-ring U. 12466	bracelets U. 12473, pin 1 U. 12480 axe A 8 U. 12478 vessel 4, vase, belt?	U. 12474, U. 12475, U. 12476, U. 12477	U. 12470, U. 12471
1425	T	..	9·50	..	..	..	..
1845	square pit with various burials at different levels	..	..	plaited ribbon U. 15301, U. 15310 ear-rings U. 15301 rings U. 15301, U. 15310 diadem U.15319	ring, bangle	U. 15301, U. 15306, U. 15310, U. 15317	U. 15302, U. 15307, U. 15308, U. 15309, U. 15318, U. 15320
1846	square pit with various burials at different levels	..	..	diadem U. 15311 ear-ring U. 15311	bracelets	U. 15312	..
1847	square pit with various burials at different levels	..	..	ear-rings U. 15304, U. 15305, U. 17660, U. 17801, U. 17803, U. 17804, U. 17805, U. 17806, U. 17807, U. 17810,	bracelet U. 17813	U. 15303, U. 15305, U. 17660, U. 17800, U. 17801, U. 17803, U. 17804, U. 17805, U. 17806, U. 17807, U. 17808,	U. 15303, U. 17649, U. 17650, U. 17656, U. 17806, U. 17811, U. 17812, U. 17815, U. 17817

OF SECOND DYNASTY GRAVES

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
643	arrows 2, 4, 8, hasps U. 9574	4	4, 44, 50, 58, 76, 156, 199, 224	..	clay tablet, animal bones; see detailed description, p. 181
695	axe A 3, copper ring U. 9698, reticule U. 9695	4	5, 45, 201	..	carved wood with red inlay
711	dagger 7, spear 2	..	50	..	
715	spear 2	51	83, 233	..	animal bones
735	dagger 7, axe A 3, pin 1, ring U. 9925	39	5, 44, 76, 197	U. 9924: 5	binding, bellum; see detailed description, p. 182
871	.. ..	4, 46, 49, 98	21, 45	..	alabaster lamp U. 10746, wood inlay; see detailed description, p. 182
1420	pin 3, axe A 1, reticule U. 12719, razors U. 12490	4, 7, 22, 44, 96	5, 108	U. 12724: 6, U. 12717: 41	see detailed description, p. 183
1422	daggers 2, 7, axes A 8, A 9, arrow 3, chopper U. 12484	4, 10, 20, 31, 49, 57, 66, 81, 100, 110	44, 60, 76, 83, 200	..	2 complete skeletons of sheep and goats; see detailed description, p. 184
1425	.. ..	..	5, 44, 200	..	
1845	axes S 6, S 13, S 14, S 16, pins 1, 8, razors, arrows U. 15633, ring, bracelet	4	5, 32, 44, 50, 76, 108, 196, 200	..	see detailed description, p. 187
1846	axe A 11, coffin (?) rings U. 15316, pronged fork U. 15313	11, 15, 48, 64, 69	38, 76, 94, 108, 200, 248	..	fragment of clay head in relief; see detailed description, p. 190
1847	axes A 3, S 6, S 8, S 10, S 11 (variant), S 15, S 16, S 19, dagger 7, pin 1, ring U. 17800, bracelets U. 17808	4, 69	21, 24, 34, 41, 44, 50, 76, 79, 80, 81, 97, 110, 124, 133, 161, 198, 199	..	2 clay tablets U. 17653, clay figurine U. 17657, 2 clay tablets U. 17818; see detailed description, p. 192

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
1847		..	..	ear-rings U. 17811, U. 17812, U. 17813, U. 17816 rings U. 17804, U. 17807, U. 17815, U. 17816 plaited ribbon U. 17800, U. 17804, U. 17807, U. 17813, U. 17815, U. 17816 diadems U. 17807, U. 17813, U. 17814, U. 17815, U. 17816		U. 17810, U. 17811, U. 17812, U. 17813, U. 17815, U. 17816, U. 17817	
1849	square pit (unfinished)	..	..	plaited ribbon U. 17801, U. 17810 ear-rings U. 17660, U. 17801, U. 17811 rings U. 17806, U. 17811	ear-ring U. 17810	U. 17660, U. 17801, U. 17805, U. 17806, U. 17810, U. 17811	U. 17660, U. 17805, U. 17806, U. 17811
1850	square pit	..	..	plaited ribbon U. 17911, U. 17930 ear-rings U. 17909, U. 17912, U. 17913, U. 17917, U. 17930 rings U. 17917 diadems U. 17910, U. 17911, U. 17912, U. 17917	ring U. 17811 pin U. 17911 bracelets U. 17911, U. 17912, U. 17917	U. 17907, U. 17908, U. 17911, U. 17912, U. 17917, U. 17930	U. 17904, U. 17912
1851	T	..	..	plaited ribbon U. 17915 ear-rings U. 17915	..	U. 17906, U. 17915	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1847					
1849	dagger U. 17810, bracelets U. 17660, U. 17801	26	36, 161, 219	..	
1850	trident U. 17926, axe A 3, spear 7, dagger 1	1, 4, 7, 19, 37, 62, 65, 68 bowl U. 17930 bases U. 17917	4, 23, 29, 41, 42, 44, 53, 75, 76, 81, 83, 97, 98, 110, 117, 126, 191, 193, 198, 202, 221, 223	..	5 copper bulls' heads U. 17887, terra-cotta figurine U. 17888, steatite boss U. 17928; see detailed description, p. 199; gazelle bones
1851	.. ..	..	40, 41, 44, 76, 95	..	

TABULAR ANALYSIS

GRAVE NUMBER	TYPE OF OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
14	..	..	1·80	..	..	..	U. 7656
17	..	..	0·50	..	..	..	..
23	T	E.×W.	0·80	..	..	..	U. 7923
26	..	..	1·00	..	..	..	U. 7927
34	T	..	1·00	..	..	..	..
54	T	..	1·20	..	..	..	..
59	T	..	1·00	..	hair-ring U. 8095	..	U. 8093, U. 8094
62	T	..	1·50	..	..	..	..
67	T	..	0·90	..	hair-rings U. 8039	U. 8040	U. 8041
70	T	..	1·80	..	..	..	..
72	T	..	2·00	..	..	..	..
73	T	NE.×SW.	0·50	..	..	..	..
83	T	..	2·20	..	..	..	..
85	T	N.×S.	2·10	..	..	..	..
98	T	..	2·80	..	..	..	..
124	T	..	0·50	..	..	..	..
127	L	E.×W.	2·30	..	..	U. 8154	..
137	T	..	0·50	..	..	one white shell	..
138	T	NW.×SE. head NW.	3·00	..	bowl U. 8253	..	..
150	T	NE.×SW. head SW.	3·80	..	..	..	..
186	..	..	..	..	..	..	..
192	T	..	0·50	..	..	..	..
195	T	NE.×SW. head SW.	3·10	..	hair-rings (spiral)	..	..
206	T	..	0·60	..	..	..	..
215	T	..	0·05	..	..	2 lapis conoids	..
216	T	N.×S. head S.	0·50	..	..	..	..
224	T	NW.×SE. head SE.	1·50	..	..	..	..
225	MC	E.×W.	1·95	..	ear-ring U. 8382	..	U. 8385
228	T	..	3·80	..	..	..	..
232	L	NW.×SE. head SE.	1·00	..	..	..	..
238	T	..	1·00	..	..	..	..
254	T	NW.×SE. head SE.	6·00	..	..	..	..
257	T	N.×S. head S.	1·70	..	..	..	..
272	T (infant)	..	3·50	..	..	..	..
280	T (several)	N.×S. head N.	2·70	..	..	..	..
298	?	..	0·50	..	..	..	..
322	WC	NE.×SW. head SW.	4·40	..	..	..	..
328	T	NE.×SW. head NE.	4·00	..	..	..	..
339	T	..	1·80	..	..	..	..
340	T	..	3·00	..	..	..	..
344	T	NW.×SE.	4·00	..	..	..	..
360	T	NW.×SE. head NW.	4·80	..	..	..	..

OF SARGONID GRAVES

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
14	reticule U. 7860	..	..	..	cockle-shell
17	pin, axe S 8, reticule U. 7856	..	76, 156, 251	..	
23	.. ..	..	32, 45, 63, 81, 99, 109 variant, 187, 226	..	
26	dagger 7, axe S 5		51, 252	..	
34	.. ..	..	3	..	
54	.. ..	..	83, 108	..	
59	pin 1, bracelets U. 8096	..	44, 108, 129	..	
62	.. ..	4	108	..	
67	axes S 2, S 17, pin 1, reticule U. 8037	4	50, 108, 174	..	
70	razor U. 7932	..	52	..	
72	.. ..	..	108, 158	..	
73	.. ..	..	76, 100, 108, 187	..	
83	.. ..	..	108	U. 8151: 18	
85	axe S 6	..	50, 108	..	
98	.. ..	60	7	..	
124	.. ..	..	108, 224	..	
127	pin 1	..	50, 108, 130	U. 8153	shell lamp with bird's head U. 8198
137	pin 1	..	5	U. 8134: 33	cockle-shells
138	dagger 7	..	..	U. 8257: 46	whetstone, bone kohl pin (?), clay pot cover, plano-convex burnt brick 0·225×0·125×0·04
150	.. ..	..	5, 52, 108	..	
186	.. ..	..	157	U. 8413	
192	.. ..	..	5, 108, 123	..	
195	.. ..	..	5, 26	..	
206	.. ..	..	2, 5, 108	..	
215	.. ..	..	5, 100	..	
216	pin	4	5, 44	..	
224	.. ..	..	85, 94, 109, 187	..	
225	axe S 17, ear-ring, reticules	..	..	U. 8380: 91	
228	.. ..	..	48, 83, 121, 187	..	
232	.. ..	..	5, 45, 48, 50, 121, 226	..	
238	.. ..	..	44, 75	..	
254	axe S 19	bowl	84	U. 8452: 46 U. 8453: 20	inlay plaques and gaming pieces U. 8454, U. 8509
257	pin 1	bowl	5, 17, 45, 108, 150	U. 8517: 73	
272	ring	..	50	..	
280	.. ..	..	100	36	
298	.. ..	..	4, 50, 76, 108, 251	..	
322	dagger 7	..	5, 7, 50, 88, 108	..	cockle-shells
328	.. ..	..	50, 108	..	
339	.. ..	bowl	5, 199, 224	..	
340	.. ..	..	52, 76, 129	..	
344	.. ..	..	50, 108, 150	..	
360	.. ..	..	108, 113, 119	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
376	T	..	4·96	..	..	..	..
378	T	..	1·00	..	..	..	..
382	T	NE.×SW. head NE.	1·65	..	..	..	..
384	T	NW.×SE. head NW.	1·65	..	..	√, U. 8748	U. 8747
388	T	NW.×SE. head NW.	5·30	..	..	..	..
393	T	..	0·60	ear-rings U. 8658	..	U. 8659	..
396	T	NW.×SE. head NW.	1·70	diadem U. 8752	ear-rings U. 8754	U. 8753	..
399	T	..	0·80	..	..	..	U. 8673
401	T	..	0·90	ear-rings U. 8684	..	U. 8686	button seal U. 8685
403	T	NNE.×SSW. head NNE.	2·20	..	ear-ring U. 9276	..	..
408	T	NW.×SE. head SE.	1·50	..	ear-ring	..	..
409	BC	NW.×SE.	2·80	..	..	..	..
412	T	E.×W. head W.	1·25	..	..	U. 9022	..
414	T	NE.×SW. head SW.	1·90	..	..	U. 8781	..
422	T	NW.×SE. head NW.	2·00	..	..	..	..
427	T	N.×S. head S.	2·50	..	..	..	U. 8699
430	WC (?)	..	5·70	..	..	bone rings	..
431	T	..	0·65	..	..	..	..
433	T	NW.×SE. head NW.	2·00	..	..	U. 8974	..
435	BC	NE.×SW. head SW.	2·10	..	ear-rings U. 8922 bracelets U. 8924	U. 8918, U. 8919, U. 8920, U. 8921	U. 8916, U. 8917
438	T	N.×S. head N.	0·90	..	..	..	..
439	T	NW.×SE. head NW.	1·90	ear-rings U. 8952	ear-rings U. 8952 finger-ring U. 8953	U. 8954	..
441	..	..	0·70	..	..	..	..
442	T	E.×W. head W.	1·30	..	..	..	..
443	T (child)	NE.×SW. head SW.	1·40	..	finger-ring, ear-rings	√	..
444	T	..	1·50	..	..	..	..
445	T	N.×S. head S.	1·00	..	ear-rings U. 8928	U. 8927	U. 8926
447	T	NE.×SW. head NE.	2·70	..	..	..	..
452	..	?	1·20	..	..	..	..
454	..	?	1·60	..	..	..	..
461	T	NE.×SW. head NE.	2·00	..	..	..	√
463	T	..	2·00	..	..	..	..
464	T	NW.×SE. head NW.	0·85	..	..	..	..
465	T	E.×W. head W.	1·10	frontlet U. 8790 ear-ring U. 8791	..	..	..
469	T	..	0·80	..	..	..	..
470	T	E.×W. head E.	0·80	..	..	..	..
471	T	NW.×SE. head NW.	1·90	..	..	..	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
376	.. ..	..	50, 108	√	
378	.. ..	..	40, 216, 247	..	bellum
382	axe S 12	4	4, 23, 76	..	animal bones
384	pin 1, ear-ring	..	72, 76	..	
388	dagger 7	..	32, 108	..	stone quern U. 8741
393	bracelets U. 8660	..	..	..	
396	pin 1	..	7, 76	..	
399	.. ..	..	120, 131	..	
401	.. ..	..	..	..	
403	dagger U. 9200, axe S 17, reticule	..	5, 108, 187	..	cockle-shells
408	axe S 17, pin 8	5	76	..	animal knuckle-bone
409	reticule	..	12, 69, 108, 130, 150, 156	U. 8682: 18 U. 8683: 56	
412	pin 1	..	50, 100	..	boar's tusk
414	.. ..	..	81, 108	..	
422	awl U. 8783	..	50, 240	..	
427	dagger 7, axe S 6	..	52, 108	..	
430	.. ..	..	50	bowl	baskets, encrusted ostrich shell U. 9255
431	dagger	18	5	..	whetstone
433	axe S 17, ear-ring	..	5, 44	U. 8973: 57	
435	pin 1, toe-ring U. 8925	bowl	50	..	cockle-shells, ivory comb, engraved shell plaque U. 8915 B; head rested on 3 mud bricks 0·20×0·175; see detailed description, p. 204
438	dagger	..	45	..	
439	pin 1	4		..	
441	.. ..	..	131	..	bellum
442	.. ..	..	11, 150	..	
443	pins	..	45, 76, 108	..	
444	axe S 17	..	114, 120	..	
445	pin	bowl	20, 76	..	
447	pin	..	108, 172, 174	..	engraved shell plaque U. 8915 A
452	.. ..	..	109, 216, 232	..	bellum
454	.. ..	..	22, 75	..	
461	axe S 17	..	..	..	
463	pin 1, ear-rings	..	5, 110	..	
464	chisel U. 9055, toilet instrument 4	..	7, 20, 224	..	clay cone?
465	axe S 13	69	251	..	
469	.. ..	..	48, 75	..	pot 48 has combed pattern on shoulder
470	pin 8, bracelet	..	32, 75, 93	..	
471	pin 8, chisel (?)	..	50, 75, 110, 131, 187, 195	..	

GRAVE NUMBER	TYPE OF OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
472	T	E.×W. head E.	1·90	..	..	..	..
474	T	..	0·90	..	..	..	..
475	T	..	2·00	..	..	..	..
476	T	NE.×SW. head SW.	0·90	..	..	..	..
477	T	E.×W. head E.	1·70	..	..	..	..
478	T	N.×S. head S.	1·20	..	ear-ring U. 9014	U. 9012	..
479	T	..	1·00	..	..	U. 8794	..
480	?	..	1·80	..	..	..	..
481	T	..	1·20	..	..	..	U. 8793
483	T	NW.×SE. head SE.	2·00	..	ear-ring	..	..
484	T	..	3·60	..	..	..	..
484 *bis*	T	NW.×SE. head NW.	1·40	..	..	..	U. 9024
486	T	NW.×SE. head SE.	1·60	..	..	..	..
487	BC	NE.×SW. head NE.	1·30	..	..	..	..
489	T (child)	NE.×SW. head SW.	1·40	ear-rings U. 8969	..	U. 8970	U. 8971
490	T	N.×S. head S.	1·10	..	..	..	glazed frit U. 9268
494	T	NE.×SW. head SW.	1·00	..	finger-ring U. 9226	..	..
496	L	NE.×SW. head SW.	1·00	..	..	..	U. 9010
501	T	..	3·00	..	..	..	..
502	T	N.×S. head S.	1·50	..	..	..	..
503	BC	NE.×SW. head SW.	3·30	..	finger-ring	..	U. 8988 inscribed 'Servant of Daughter of Sargon of Akkad'
504	T	NE.×SW. head NE.	1·60	..	ear-rings	U. 9233	..
505	T	NW.×SE. head NW.	1·75	..	..	..	U. 8991
506	T	E.×W. head E.	1·70	..	ear-rings	U. 9231	U. 9056
507	T	NW.×SE. head NW.	4·00	..	..	..	..
510	T	..	1·60	..	..	..	..
514	T	NW.×SE. head NW.	2·50	..	..	..	U. 9026
515	T	..	0·80	..	..	..	..
516	T	NW.×SE. head NW.	2·50	..	..	U. 9030	U. 9027
517	T	?	1·30	..	..	..	..
518	T	?	2·80	..	..	..	..
520	T	NW.×SE. head NW.	3·00	..	ear-ring U. 9074	..	..
521	BC	NE.×SW. head NE.	2·50	..	..	..	U. 8993
522	T	E.×W. head E.	2·20	..	ear-ring U. 9061	..	U. 9060
524	T	NE.×SW. head SW.	2·00	..	..	U. 9209	..
527	T	..	2·70	..	..	..	..
529	T	..	2·00	..	..	..	U. 9120
538	T	?	3·00	..	..	..	..
540	T	NW.×SE. head NW.	2·70	ring U. 9062	..	..	U. 9064
541	T	E.×W. head W.	3·00	..	..	..	U. 9158

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
472	pin 8, axe	..	93	..	broken jar with pierced lug handles
474	axe S 17, pin 1	..	41	..	cockle-shells, PG/464, 474, 476, at same level and touching each other.
475	.. ..	..	45, 242, 244	..	
476	pin 1	..	50, 187, 195, 224, 251	..	pot 50 not from same grave but at same level
477	axe S 16	..	7, 150	..	
478	bracelets U. 9013, ear-rings U. 9015	..	251	..	
479	pin 8, bracelet U. 8796, ear-rings U. 8797	..	..	..	
480	.. ..	..	41, 109, 216	..	
481	pin 8, knife U. 9009	..	..	..	
483	axe S 6	..	119, 188, 226	..	
484	reticule U. 9246	4	45, 195	U. 9245 : 19	
484 *bis*	ear-ring	..	5, 44, 100	..	
486	pin 1, ear-rings	..	187	..	
487	dagger 7, pin 1	..	35, 170	..	
489	pin 1	4	44	..	
490	pin 8, ear-ring	..	..	..	
494	pin 8, ear-ring, fish gaff U. 9004, crescent on stem U. 9005	4	..	..	
496	.. ..	4	..	..	
501	pin 1	..	150, 224	..	
502	.. ..	..	4, 75, 100	..	
503	axe A 3, tool 1, razors U. 8985, bracelets U. 8986, ear-ring, reticule-ring	4	..	..	
504	axe S 16	..	..	51	
505	pin 1	..	45, 50, 160, 226	..	
506	pin 1, ring U. 9230	..	..	..	
507	pin 3, ring	..	5, 224	..	cockle-shells
510	pin 1, axe U. 9221	..	83, 156, 216	..	
514	.. ..	..	..	..	
515	razor U. 8989	..	27, 128, 150	..	
516	pin 1	..	110, 172	..	cockle-shells
517	axe S 16, ring	..	83, 114, 182	..	
518	.. ..	..	50, 156, 195, 215	..	
520	axes S 12, S 17, chisel 4	..	76, 172, 199	..	
521	pin 8	4	108	..	
522	axe S 16, pin 1, ear-ring U. 9061	..	45, 132, 156, 195	..	
524	axe S 5, bangle U. 9208	..	..	..	
527	.. ..	12	37, 38, 69, 83, 164, 195, 201	..	bellum, ostrich egg
529	dagger 7	..	..	..	
538	.. ..	..	44, 50, 84, 93, 187, 201	..	2 ellums
540	pin 1, ear-rings U. 9063	..	93, 198	..	bone pin, bone inlay, bone comb
541	pin 1, ring U. 9159, ear-rings U. 9162	4	108, 174	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
547	BC	E.×W. head E.	3·20	..	..	..	..
552	T	N.×S. head N.	3·00	..	ear-ring U. 9093	U. 9093, U. 9094	U. 9092
553	T	..	2·20	..	..	..	..
554	T	NW.×SE. head NW.	2·00	..	pin 8, ear-rings U. 9204, finger-rings U. 9203, U. 9205	U. 9201, U. 9202	..
557	T	N.×S. head S.	2·10	..	..	..	U. 9290, U. 9291, U. 9292
558	T	E.×W. head E.	2·60	..	ear-ring U. 9273	..	..
561	T (child)	..	2·20	..	..	..	..
562	..	..	..	..	..	..	..
563B	BC	N.×S.	3·20	..	..	..	..
564	T	NW.×SE. head SE.	4·00	..	..	..	..
571	?	..	3·00	..	..	..	..
573A	T	N.×S. head N.	3·50	..	..	√	..
574	BC	NW.×SE. head SE.	3·20	..	..	√	U. 9261
575	T	E.×W. head W.	2·20	..	..	√	U. 8897
576	T	N.×S. head N.	2·10	..	ear-rings U. 9325	U. 9327	U. 9326
577	T	N.×S. head N.	3·20	..	ear-rings	√	..
578	T	N.×S. head S.	3·10	..	..	..	..
579	T	..	2·80	..	rings	..	..
581	T	E.×W. head E.	2·70	..	..	..	..
583	T	E.×W. head E.	2·90	..	..	..	U. 9266
585	T	E.×W. head W.	3·40	..	ear-rings	..	U. 9330
587	T	N.×S.	3·40	..	..	..	U. 8845
592	L	..	0·30	..	..	√	..
594	T	..	0·75	..	..	√	..
595	T	..	0·50	..	..	..	..
596	L	..	0·50	..	..	..	..
597	T	..	0·75	..	..	..	..
599	..	..	0·40	..	..	..	..
601	T	..	..	..	..	..	..
602	T	..	1·00	..	..	..	..
604	T	..	*c.* 1·00	..	..	..	..
605	T	..	1·70	..	..	..	..
607	T	N.×S. head N.	1·75	ear-ring U. 9514	ear-ring, ring	U. 9515	U. 9513
608	T	..	*c.* 1·50	..	..	..	..
609	T	..	1·80	..	..	U. 9520	..
614	T	..	*c.* 1·75	..	..	..	..
619	T	..	1·80	..	..	..	..
620	?	..	2·50	..	..	..	..
622	T	..	1·90	ear-ring U. 9531	ear-rings U. 9532, U. 9533	U. 9537	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
547	pin 1	..	5, 108, 241	..	stone mace-head U. 9168
552	pin 1	..	..	..	
553	dagger 7, axe S 17	..	83, 195	..	
554	pin	4	..	..	
557	pin 1, reticule U. 9293	4, 21	5, 199	..	
558	dagger 7, pin 8, ring U. 9274	..	44, 198	..	bellum
561	bracelets U. 9297	..	5, 226	..	
562	.. ..	..	33, 84, 156, 187	..	pot 156 had crescent moon stamped on shoulder
563 B	.. ..	..	199	..	wooden tumbler
564	axe S 6, pin	..	84	..	
571	.. ..	..	131, 174	..	
573 A	axe S 10, reticule U. 9260	..	5	..	
574	pin 1, ear-rings, ring	..	5, 69, 132, 157, 174, 241	..	
575	pin 1, tool 1, reticule U. 8895	..	44, 50, 184, 202, 239	..	
576	pin	4	45, 132	..	cockle-shells
577	pin	..	88, 172, 174, 179, 184, 244, 246	..	cockle-shells
578	pin 1	..	84	..	
579	axe S 5	..	63, 132	..	
581	.. ..	..	44	..	
583	pin 1, rings 9267	..	174	..	
585	axe S 5	4	..	..	cockle-shells
587	axe S 13	..	..	..	bellum U. 8846
592	rings	..	39	..	position suggests Larsa date
594	.. ..	..	224	..	
595	ring	..	45, 83, 110, 115, 132, 224, 226	..	bellum
596	.. ..	..	39, 52, 195, 199, 226	..	cockle-shell
597	axe S 16, razor U. 9506	..	76, 122	..	
599	.. ..	..	237	..	
601	.. ..	..	76, 83, 199	..	
602	.. ..	..	41, 75, 83, 94, 171	..	
604	.. ..	..	41, 83, 216	..	
605	arrows 2	..	41	..	bellum
607	axe S 15	..	..	..	
608	axe S 5, bangles U. 9512	..	103, 226	..	
609	pin 1, bangles U. 9521	..	199	..	
614	.. ..	..	103, 119, 174, 184, 192, 220	..	cylindrical clay strainer. A mixture of graves; pots 119 and 220 belong together but not necessarily to the rest of the group.
619	chisel 4	..	115	..	
620	.. ..	..	57, 195, 216	..	
622	axe S 13, pin 1, staple U. 9534	4	44, 76, 199	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
624	T	..	1·70	..	..	..	..
625	T (child)	..	2·00	..	..	..	..
626	T	N.×S. head N.	1·40	..	ear-rings U. 9547	..	..
627	T	..	..	..	..	..	..
632	T	..	2·80	..	ear-rings U. 9543, ring U. 9544	U. 9545	(shell, decayed)
633	T	NE.×SW. head NE.	..	..	..	..	..
635	T	..	2·50	diadems U. 9554, U. 9555, ear-rings U. 9556	coiled ribbon	U. 9558	U. 9551, U. 9552
636	T	..	1·90	..	ear-ring U. 9540	..	..
638	T	..	2·50	..	..	..	..
639	T	N.×S. head S.	1·95	..	..	..	..
640	T	..	2·50	..	..	..	..
641	T	..	2·90	..	..	..	..
642	T several mixed burials	..	2·80	..	..	..	..
644	T	..	2·00	..	..	..	..
645	T	NE.×SW. head NE.	2·60	..	..	..	..
646	T	..	2·80	..	ear-rings U. 9563, ring	U. 9561	(shell, decayed)
647	T	E.×W. head W.	3·20	..	..	U. 9581	U. 9578
648	T	..	2·50	..	pin 8 U. 9565	..	..
650	T	..	2·50	..	..	..	U. 9583
652	T	..	3·90	..	..	..	U. 9586, U. 9587
653	T	E.×W. head E.	3·60	..	..	..	..
656	T	..	2·40	..	..	U. 9590	..
657	T	..	?	..	..	..	..
658	T	..	2·40	..	..	..	U. 9592
659	L	..	3·00	..	..	..	..
661	T	..	3·00	..	..	..	..
666	T	..	4·30	ear-rings U. 9601, U. 9602, ring U. 9603	ring U. 9604	U. 9607	..
667	T	NE.×SW. head SW.	3·00	..	..	..	U. 9652
668	T	..	3·65	..	..	..	..
671	BC	NE.×SW. head SW.	3·30	plaited ribbon U. 9636, ring U. 9638, ear-ring U. 9637	..	U. 9639	U. 9642
672	T	..	4·00	phallus U. 9610, ear-rings U. 9611	ear-rings U. 9611	U. 9612	(decayed)
673	T	..	2·95	plaited ribbon U. 9625, ear-rings U. 9626	frontlet, bracelets U. 9630, rings U. 9631, U. 9635, pin 8 U. 9632	U. 9627, U. 9628, U. 9629	U. 9634

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
624	.. ..	..	32, 44, 50, 83, 110, 195	..	
625	barbed fish-hook U. 9530	..	76, 83	..	
626	.. ..	..	195	..	
627	.. ..	..	32, 81, 83, 117, 201, 228	..	bellum, cylindrical clay strainer; descr., p. 204
632	pin 8	..	195	..	
633	.. ..	..	32, 45, 76, 83	..	bellum, knucklebone
635	pin 1, axe U. 9555	4	76	..	bellum
636	.. ..	..	44, 195	U. 9539	
638	axe	..	50, 75, 189, 202	..	
639	.. ..	..	45, 52, 76, 83	..	
640	axe S 16	..	100, 132	..	
641	.. ..	bowl	52, 76	..	definitely later than PG/643 which ran underneath it
642	axe S 16	..	50, 83, 195	..	
644	.. ..	..	83, 171, 195	..	
645	.. ..	..	45, 76	..	wood inlay box U. 9591
646	pin 1, ring	35	195	..	
647	dagger U. 9579, reticule, toe-ring U. 9580	..	..	..	
648	axe S 16, pin 8	..	75	..	
650	pin, axe, ring	105	..	..	
652	axe S 8, pin 1	..	5, 45	..	bone pin U. 9589, cockle-shells
653	pin 1	..	5, 199	..	bellum
656	.. ..	4	50, 195, 202	..	
657	.. ..	..	4, 5, 100, 174	..	bellum
658	pin 8	..	..	..	clay loom-weight; 2 graves mixed up
659	.. ..	..	26, 37, 45, 76, 198, 214	..	detailed descr., p. 205
661	.. ..	..	5, 14, 100, 174, 195	..	
666	pin 8, bangles U. 9606, ring U. 9605	..	50, 83, 108, 202, 222	..	
667	axe S 8, ring U. 9653	..	174	..	
668	.. ..	..	32, 44, 48, 81	..	a handled clay cup, exact type uncertain
671	pins 1, 8, bracelets U. 9641	4	44	..	see detailed description, p. 205
672	dagger 7, pin 8	4	158, 195, 202	..	
673	.. ..	4, 37	5, 76, 83, 84, 198	..	bellum

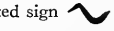
GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
675	T	..	4·00	..	..	..	(shell, decayed)
680	T	..	2·70	..	..	..	..
687	?	..	3·90	..	..	..	..
691	T	NE. × SW. head SW.	3·80	..	..	..	U. 9688
694	BC	..	4·70	..	..	..	..
696	T	..	4·60	plaited ribbon U. 9667, ear-rings U. 9665	ear-ring	U. 9666	..
699	BC	head W.	4·00	ear-rings U. 9755 (gold and silver)	..	U. 9752, U. 9753, U. 9754	U. 9750, U. 9751
700	BC	..	4·90	..	..	(copper)	U. 9717
702	T	..	4·10	..	..	..	..
703	T	..	5·30	frontlet U. 9810, hair ribbon U. 9811, ear-rings U. 9814, U. 9815, rings U. 9819	pin 8 U. 9816 bangle U. 9818	U. 9812	U. 9813
704	T	..	4·80	frontlet U. 9705 plaited ribbon U. 9706, ear-rings U. 9707, ring U. 9709	pin 1 U. 9711, ring, bracelet	U. 9704 A, B	U. 9710
705	T	..	5·40	..	..	..	..
707	T	..	5·40	..	..	..	..
709	T	..	4·60	..	..	U. 9855	U. 9851, √ (shell, decayed)
710	T	..	4·80	..	..	..	..
713	T	..	3·80	..	..	..	..
716	T	..	4·30	..	..	..	(shell, decayed)
720	T	..	4·80	..	..	..	U. 9749
725	T	..	1·80	..	ear-rings U. 9869	..	..
727	T	..	1·80	..	..	..	..
729	L	..	1·40	..	..	..	..
731	T	..	3·70	..	..	..	..
738	T	..	3·00	..	..	..	..
744	T	..	1·00	..	..	..	..
746	BC	..	2·00	..	..	..	..
747	T	head NW.	3·00	..	ear-ring	U. 9954	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
675	hasps U. 9655, rings	4	10, 41, 45, 60, 100, 215	..	bellum, cockle-shells
680	.. ..	..	81, 195, 201	..	
687	.. ..	..	5, 100, 119, 174	..	
691	axe A 14	4	5, 50, 142, 187	..	axe type (lunate) unique; on one of the pots 142 is an incised crescent
694	sandal fasteners U. 9729	..	44, 100, 195	..	cockle-shells
696	.. ..	..	44	..	
699	dagger, pin 1, axe, reticule U. 9760, toe-rings, bracelets U. 9759	110, U. 9757	45, 100, 201	..	
700	axe S 8, dagger 7, reticule U. 9718	..	48, 100	..	
702	.. ..	..	48, 119, 174, 229, 230, 231	..	bellum
703	pin 8	21, 38, 61, 69	4	..	
704	pin 1, bangles U. 9708	4	224	..	
705	axe S 3, bracelet	..	197	..	cockle-shell
707	axe S 3	4	..	..	
709	dagger 7, pin 1, axes S 3, S 23, ear-rings U. 9853	..	100, 174	..	ass's teeth, also animal bones in pot
710	pin 8, ear-ring, ring	..	44, 45, 76, 93, 110, 220	..	
713	.. ..	..	4, 70, 100	√	
716	pin 1, reticule U. 9731	..	45, 63, 100	..	
720	dagger 7, axe S 6	4	215	..	
725	axe S 17, pin 1, rings U. 9868	..	..	..	
727	axe S 5, pin 1, ear-rings U. 9872	..	..	..	
729	.. ..	..	15, 174, 185	..	
731	.. ..	..	58, 100	..	two graves confused (one above the other)
738	.. ..	..	7, 179, 187, 226, 232	..	
744	axe S 13, pin 8, razor U. 9864, chisel U. 9865	..	5	..	
746	.. ..	..	198, 201	..	fragment of inscribed Larsa brick found in filling 0·50 above the floor of the grave
747	axe S 5	..	50, 110	..	

GRAVE NUMBER	TYPE OF OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
748	T	..	3·50	..	..	..	..
761	T	..	3·20	..	..	..	..
766	T	..	3·40	..	..	..	U. 10192
781	T	..	4·00	..	ear-rings	√	..
782	T	head NW.	3·80	..	..	..	U. 10188
790	T	..	3·00	ear-rings U. 10190	..	U. 10189	..
794	BC	..	3·80	ear-ring U. 9900	..	U. 10161	..
825	T	..	11·50	ring U. 10790, ribbon and diadem U. 10788, roundel U. 10795, nails	bangle U. 10791, pin 8 U. 10792	U. 10789, U. 10793	U. 10796
829	T	..	11·00	plaited ribbon and 2 diadems U. 11102	bangle	U. 11101	U. 11104
830	T	..	4·00	..	..	√	U. 10355
834	T	..	3·00	..	..	√	U. 11148
842	T	..	..	..	ear-ring	..	U. 10718 (copper)
847	T	..	8·55	..	..	..	..
848	T	..	4·60	..	ear-rings U. 10375	U. 10376	..
850	T	..	4·00	..	..	..	..
852	T	..	4·50	..	ear-ring U. 10735	U. 10729	..
856	T	..	4·30	..	..	..	..
857	T	..	4·00	..	..	..	U. 11143
859	T	..	4·00	..	..	U. 11124	U. 11123
868	T	..	3·20	..	..	U. 10701	..
876	T	..	4·95	..	..	..	..
879	T	..	4·80	..	..	..	..
884	T	..	4·00	ear-rings U. 10371	..	U. 10370	..
885	T	..	3·00	..	..	..	..
886	T	..	4·10	..	..	..	..
888	T	..	4·00	..	..	√	..
892	T	..	5·00	..	..	..	..
896	T	..	4·30	..	..	..	..
897	T	..	2·30	..	..	..	..
898	T	..	5·00	..	..	√	..
899	T	..	2·30	..	..	..	..
901	T	..	2·30	..	..	..	U. 10397
906	T	..	2·00	ear-ring U. 10745	dog amulet on necklace U. 10742	U. 10742	..
907	T	..	6·20	..	..	..	..
908	T	..	6·50	..	..	U. 10377, U. 10378	..
909	T	..	5·70	..	..	(paste)	(shell, decayed)
912	T	NW. × SE. head NW.	3·75	..	..	..	..
950	T	E. × W. head W.	0·50	..	..	..	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
748	.. ..	..	5, 174, 215	..	cockle-shells
761	.. ..	..	44, 50	..	
766	pin 1, reticule U. 10193	..	..	..	
781	pin 1, rings	..	76	..	wooden comb
782	pin 1	..	..	..	
790	pin 1	..	33, 44, 115	..	
794	pin 8, bangles U. 10186	..	..	..	
825	dagger 7, axe S 13, gaff U. 10797	20, bowl, bucket	103, 184, 251	..	depths of PG/825 and PG/829, reckoned from wagon-head, may be somewhat exaggerated
829	axe S 20	4	24, 44, 76	..	according to field notes PG/825 and PG/829 should be contemporary, the cylinder seals are almost identical
830	axes S 3, S 15	..	5, 108, 129, 251	..	
834	.. ..	..	44	..	
842	dagger 7, axe S 3, reticule U. 10720	..	44	..	
847	.. ..	..	215	..	bellum
848	pin 1	4, bowl	60, 108, 174, 201	..	cockle-shells; see detailed description, p. 205
850	.. ..	..	184, 187, 199	..	cockle-shells
852	pin 1, toe-ring	4	..	U. 10732: 56	
856	pin 1, axe S 3	..	110, 174	..	the pot 174 may not belong to this grave
857	pin 8, bangle	..	110	..	
859	pins 1, 8	..	..	..	
868	pin, bangles, ear-ring U. 10703	..	40	..	bone pin U. 10702
876	.. ..	..	76	..	
879	pin, axe	38	..	..	
884	pin 8	..	198, 226	..	date-stones in pot 198
885	axe S 13, pin 8	..	44	..	
886	dagger 7, axe U. 10545, reticule	..	9, 81, 100, 108, 129, 184	..	
888	axe S 13, razor	..	32, 44, 47, 222	..	2 bellums
892	pin 1	..	44, 81	..	
896	pin 1, tool 5, axe S 3, toilet instrument 4	..	..	..	
897	dagger	..	217	..	
898	axe S 13	..	50	..	
899	.. ..	..	..	U. 10547: 54	
901	axe S 3, reticule	..	..	..	
906	bangles	4	..	..	
907	.. ..	..	50, 84, 155, 246	..	clay crescent
908	pin 1	..	44	..	
909	pin 1, axe S 6	4	..	..	cockle-shell
912	axe S 5	..	5, 100	..	
950	ear-ring	..	8, 52, 120	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
951	T	E.×W. head E.	0·60	..	..	..	..
953	T	head W.	0·80	..	..	..	..
954	T	NW.×SE. head NW.	0·85	..	..	..	..
956	T	..	1·00	..	..	..	..
957	BC	NW.×SE. head SE.	1·00	..	..	..	..
958	T	NW.×SE. head SE.	1·20	..	..	..	..
961	T	NW.×SE. head NW.	1·00	..	..	..	..
962	T	NE.×SW. head SW.	1·00	..	..	√	..
963	T	NW.×SE. head NW.	1·10	..	ring	U. 11411, U. 11412	U. 11410
964	T	..	1·40	..	..	..	U. 11428
965	BC	NE.×SW. head SW.	2·10	frontlet U. 11422, ear-ring U. 11423	bracelet	..	..
966	T	NE.×SW. head SW.	1·40	..	..	..	..
967	T	?	1·40	..	..	..	..
968	T	NE.×SW. head SW.	2·30	..	..	U. 11417	U. 11418
969	T	NW.×SE. head NW.	1·80	..	..	..	..
971	T	?	1·40	..	..	..	..
972	T	?	1·40	..	..	..	..
973	BC	..	1·80	..	..	U. 11427	U. 11426
974	T	NW.×SE. head NW.	1·30	..	..	..	U. 11420
975	T	NE.×SW. head NE.	1·80	..	..	..	..
976	T	..	1·75	..	..	..	..
978	L	..	1·40	..	..	..	..
980	T	NW.×SE. head NW.	2·00	..	..	..	..
981	T	..	2·00	..	..	..	..
982	T	..	2·00	..	..	..	..
983	T	..	1·60	..	..	..	..
985	T	NE.×SW. head SW.	2·30	..	..	U. 11450	U. 11447, stamp seal U. 11449
986	T	..	1·90	..	hair-ring	√	U. 11452
987	T	?	1·40	..	..	..	..
989	T	NE.×SW. head SW.	1·70	..	ear-rings	U. 11451	..
991	T	NE.×SW.	1·75	..	ear-rings (double)	U. 11444	U. 11442, U. 11443
992	T	..	1·80	..	..	..	..
993	T	NE.×SW. head SW.	1·60	..	..	..	..
997	L	NW.×SE. head NW.	2·00	..	..	..	(shell, decayed)
999	T	..	2·10	..	..	..	..
1001	T	NE.×SW. head SW.	2·10	..	..	..	U. 11448
1002	T	NW.×SE. head NW.	2·00	plaited ribbon U. 11441	..	U. 11441	U. 11456
1003	T	NE.×SW. head SW.	3·50	..	..	..	U. 11457, U. 11458

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
951	ring	..	83, 131	..	
953	.. ..	..	52, 80	..	
954	.. ..	..	12, 26, 110, 222	..	
956	.. ..	..	228	..	
957	.. ..	..	37, 38	..	bellum
958	copper roundel	..	44, 51, 117	..	stone palette and pounder, flint knives, &c.; these are the material of a bead-maker's outfit U. 11414; descr., p. 206
961	.. ..	..	50	..	
962	ring	..	5, 13, 44, 57, 76, 83, 176	..	dates in pots, and cow's bone
963	pin 8, bracelet, ring	2	..	..	immediately below PG/961
964	axes S 3, S 16, drill U. 11431	..	43	..	
965	axe S 16, rings U. 11425	bowl	43, 44	..	
966	pin 1, reticule	..	5, 238	..	two bodies together
967	.. ..	..	5, 76, 139, 199	..	
968	pin, toe-rings U. 11419	bowl	76	..	
969	.. ..	..	76, 194	..	
971	.. ..	..	43, 76	..	
972	.. ..	..	12, 33, 80, 81, 128, 237	..	
973	pin, ear-rings	..	..	..	
974	pin U. 11421	..	195	..	
975	reticule	..	5	..	
976	.. ..	..	121, 231	..	
978	.. ..	..	192	..	
980	bracelets, bangles	..	100, 110	..	cockle-shells
981	.. ..	..	60	..	
982	.. ..	..	5, 50	..	
983	.. ..	..	45, 142	..	45 seems to belong to an earlier ruined grave; on the shoulder of one 142 pot was incised sign
985	ring, ear-ring	..	5, 100	..	underneath PG/980; woman and child in grave
986	pin 1, ear-ring	..	..	..	
987	.. ..	..	44, 76, 83	..	
989	pin	..	5	..	shallow basket
991	axe S 6, pin, reticule	..	100	..	wooden pin
992	axe S 19	..	76	..	one pot with black painted sign 
993	axe	..	20	..	
997	pin	..	76, 108, 174	..	cockle-shells
999	axe S 6	..	50, 76, 100, 197	..	
1001	.. ..	..	100	..	
1002	pin 8	..	..	..	
1003	axe S 6, pin 8	..	19, 117, 155, 196, 226	..	wooden comb

GRAVE NUMBER	TYPE OF OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
1004	T	..	2·30	..	..	..	..
1006	L	NW.×SE. head NW.	2·10	..	fillet, ear-rings	U. 11468 (with lapis frog amulet)	..
1007	T	..	2·70	..	..	..	..
1009	T	NW.×SE. head SE.	2·20	..	..	..	..
1012	T	NW.×SE. head SE.	2·30	ear-ring U. 11465 (gold and copper)	..	U. 11466	U. 11464
1013	BC	NW.×SE.	2·30	..	..	..	..
1018	T	..	1·50	..	..	..	..
1025	T	..	2·20	..	..	..	..
1026	T	..	2·80	..	..	..	..
1028	T	E.×W. head W.	2·60	..	..	..	(shell, decayed) U. 11483
1029	T	N.×S. head S.	2·70	..	..	..	..
1031	L (child)	..	1·75	..	..	..	..
1032	T	..	2·35	..	..	..	..
1033	?	..	2·00	..	..	..	..
1034	T	..	3·00	..	..	..	..
1039	L	NW.×SE. head SE.	2·10	..	..	U. 11503	..
1041	T	NE.×SW. head SW.	3·40	..	ear-rings	..	U. 11480
1042	T	?	3·20	..	..	..	..
1045	T	NW.×SE. head NW.	1·20	..	hair-ring, ear-rings U. 11493	U. 11493	U. 11492
1048	T	..	3·50	..	..	..	..
1049	T	..	1·75	..	..	..	..
1058	T	..	3·50	..	..	√	U. 11515
1060	T	..	3·00	..	..	..	U. 11516 (copper)
1062	..	?	2·85	..	..	..	..
1063	..	?	3·10	..	..	..	..
1067	T	..	3·10	..	..	√	U. 11598
1071	T	NE.×SW. head SW.	3·40	..	ear-rings frontlet	..	..
1078	T	NW.×SE.	4·70	..	..	..	..
1084	T	NE.×SW. head SW.	3·40	..	..	..	U. 11596
1085	L	..	..	..	..	..	..
1089	T	NE.×SW. head SW.	3·20	frontlet U. 11594	frontlet, ear-rings	√	..
1090	T	..	3·50	..	..	..	..
1092	T	..	3·50	..	..	..	U. 11590 (inscribed), U. 11591
1093	T	..	3·60	..	..	..	..
1094	T	NW.×SE. head NW.	4·30	ear-rings U. 11577	ear-rings, ring	U. 11579	U. 11580, U. 11581
1095	T	NE.×SW. head SW.	3·80	..	ear-rings	U. 11593	U. 11592
1105	T	NE.×SW. head NE.	4·00	..	..	..	U. 11715
1106	T	..	5·30	..	..	..	..
1108	T	..	4·20	..	..	U. 11714	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1004	pin 8	..	100	..	
1006	pin 1	bowl	..	..	
1007	.. ..	..	5, 50, 100, 233	..	
1009	.. ..	..	76, 79	..	
1012	pin 1, rings	..	..	..	cockle-shells
1013	.. ..	..	19, 100, 132	..	
1018	reticule	..	100	..	
1025	.. ..	..	76, 100, 158	..	
1026	.. ..	..	32, 50, 76	..	
1028	dagger U. 11482, reticule	..	..	..	
1029	toilet instrument 6, axe S 22, tool 4, awls, chisel	..	..	..	pebble hone
1031	.. ..	..	5, 76	..	
1032	.. ..	..	55	..	underneath PG/1031
1033	.. ..	..	76, 83	..	bellum. Connexion of 76 with bellum not certain
1034	axe S 16	..	83	..	
1039	bangle, rings	..	118, 225	..	
1041	pins, tool U. 11481	..	..	..	
1042	.. ..	..	69, 76, 100	..	
1045	axe S 17	bowl	..	..	
1048	.. ..	..	14, 50, 75, 83, 131, 152, 183, 224	..	
1049	.. ..	..	116	..	
1058	axe S 6, reticule	..	76, 108	..	
1060	.. ..	..	5	U. 11518: 43	shell lamp
1062	arrow 4	..	32, 81	..	bellum
1063	.. ..	..	44, 228	..	shell lamp
1067	pin, axe S 3	..	..	..	
1071	axe S 6	..	192	..	
1078	arrows 1, 4	..	142, 228	..	
1084	pin, ear-rings	..	117	..	
1085	.. ..	..	196, 218	..	
1089	reticule	4	45	..	wooden combs U. 11595
1090	axe S 16, pin	..	73, 83	..	
1092	.. ..	..	..	..	
1093	.. ..	..	5, 45, 58, 100, 155	..	
1094	toe-ring U. 11578	..	..	..	
1095	axe S 16, pin 1	bowl	76	..	
1105	dagger, pin	..	5, 108	..	
1106	.. ..	..	5, 76, 122, 184, 198	..	
1108	.. ..	4	174	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
1110	T	NE.×SW. head NE.	4·20	..	ear-rings	..	U. 11709
1113	T	..	4·20	..	..	..	..
1117	T	NW.×SE.	4·50	..	..	..	..
1120	T	?	3·70	..	..	..	..
1127	T	..	4·00	..	..	..	..
1128	T	..	4·40	..	..	..	..
1154	BC	NE.×SW. head SW.	4·70	..	..	U. 11844	U. 11843
1165	T	NW.×SE. head NW.	1·50	..	..	..	..
1174	T	NW.×SE.	2·40	..	..	..	..
1183	T	NE.×SW. head SW.	6·10	ear-rings U. 11934 (gold and silver)	diadem	U. 11935	(shell, decayed)
1191	L	NE.×SW. head SW.	..	..	ear-rings	U. 11974, U. 11975	..
1192	T	..	0·90	..	..	..	..
1199	T	NW.×SE. head NW.	1·35	frontlet U. 11991, plaited ribbon U. 11992, ear-ring U. 11993	bracelet U. 11995	U. 11994	..
1202	T	..	1·00	..	..	..	..
1203	T	..	0·60	..	..	U. 11989 (glazed)	..
1204	T	NE.×SW.	1·00	..	..	..	..
1205	T	NW.×SE. head NW.	1·60	..	..	U. 11984	U. 11987
1207	T	NW.×SE.	2·00	ear-ring U. 11982	..	√	..
1209	T	..	1·30	..	..	√	..
1210	T	..	1·00	..	..	..	..
1211	T	..	1·30	..	..	..	..
1213	T	NE.×SW. head SW.	1·30	..	..	U. 12003	U. 12004
1218	T	NE.×SW. head SW.	1·90	..	..	..	(shell, decayed)
1220	L	NE.×SW.	..	..	..	U. 12039	U. 12040
1222	T	?	1·30	..	..	..	..
1224	L (child)	..	2·10	..	..	..	..
1226	T	..	2·00	..	..	U. 12035	U. 12041
1228	T	NW.×SE. head NW.	1·90	..	..	..	..
1229	T	N.×S. head S.	2·10	..	..	..	U. 12023
1240	T	NE.×SW. head NE.	2·10	..	..	..	..
1252	T	NW.×SE.	2·80	..	..	..	..
1263	T	N.×S. head S.	3·80	..	..	..	..
1275	L	NE.×SW. head NE.	4·80	..	..	..	..
1284	T	NW.×SE. head NW.	6·30	diadem U. 12184, plaited ribbon U. 12185, ear-rings U. 12186	rings	U. 12187, U. 12188	..
1292	T	NE.×SW. head SW.	5·50	..	..	U. 12206	..
1334	T	?	2·40	small ear-rings U. 12340	bangle	U. 12341, U. 12342	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1110	dagger 7, pin 1	..	..	..	
1113	harpoon U. 11750, arrow-head U. 11750, drill U. 11750	..	..	..	
1117	.. ..	..	108, 159	..	
1120	.. ..	..	34, 38, 74, 117, 134, 226	..	
1127	.. ..	..	34, 48, 83, 128, 159, 192, 235	..	
1128	.. ..	..	76, 100, 171, 246	..	
1154	pins 1, 8, axe S 15, square-ended blade	4	76	..	
1165	pins, ear-rings	..	5, 100, 132	..	
1174	axe S 16, reticule	..	76	√	
1183	dagger 7, pin	50	..	U. 11933: 80	sheep's skull
1191	dagger	..	228	..	
1192	.. ..	..	50, 76	..	
1199	.. ..	4	44, 108, 197, 243	..	
1202	pin, ear-rings	..	5, 83, 108	..	
1203	axe S 3	..	..	..	
1204	axe S 13	..	98	..	
1205	pin 1, axe S 3	..	..	..	
1207	.. ..	..	83, 121	..	
1209	axe S 21	√	76, 83, 110	..	
1210	.. ..	..	76, 83, 108	..	
1211	ring	4	124, 131	U. 12021: 15	cockle-shells
1213	pin 2, ear-rings, rings	..	5, 131	..	cockle-shells
1218	axe S 6	..	52, 83, 100	..	
1220	axe S 1	..	50	..	
1222	.. ..	..	108, 199	..	bellum
1224	.. ..	..	44, 110	..	
1226	pin 1	..	83, 100, 159	√	cockle-shells
1228	axe S 13	..	100	..	
1229	dagger 7, pin 8	..	108	..	
1240	axe S 13	..	76, 108, 117, 202, 213	..	
1252	.. ..	20, 47	76, 202	..	
1263	holdfasts and chape (?)	√	58	..	
1275	dagger, pin, axe	..	52, 108	..	
1284	.. ..	bowl	..	..	
1292	axe S 12	4	5, 100	..	
1334	bangle				

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
1335	T	?	2·40	frontlet U. 12343, plaited ribbon U. 12344, ear-rings U. 12346	..	U. 12345	
1339	T	NW.×SE. head NW.	3·60	..	..	..	..
1342	?	..	3·80	..	..	..	..
1346	T (child)	NW.×SE. head NW.	4·60	..	..	..	..
1348	T	NW.×SE. head NW.	4·50	ring U. 12614 ear-rings U. 12616	..	U. 12615, U. 12617	..
1352	T	?	4·00	..	..	..	..
1359	T	NW.×SE. head NW.	5·60	ear-rings U. 12633, plaited ribbon U. 12634	pin 1	U. 12632	..
1363	T	NW.×SE. head?	5·80	..	hair-rings	..	(shell, decayed)
1364	T	NW.×SE. head NW.	5·30	..	..	..	U. 12637, √
1366	T	NE.×SW. head SW.	5·30	..	ear-ring	U. 12638	..
1379	T	NE.×SW. head SW.	5·80	..	rings	U. 12664	U. 12664
1383	T	NW.×SE.	6·10	..	ear-rings U. 12677	U. 12677	U. 12677
1386	T	NW.×SE. head SE.	6·10	..	ear-ring	..	U. 12679
1396	T	NE.×SW. head SW.	6·35	..	..	..	(shell, decayed)
1411	T	?	7·00	..	..	..	..
1462	T	NE.×SW. head NE.	1·25	..	..	..	U. 13516
1463	T	NE.×SW. head NE.	1·60	..	..	..	..
1464	T	NE.×SW. head NE.	1·30	frontlet U. 13508, ear-ring U. 13510	..	U. 13509	..
1465	T	?	1·40	..	..	..	..
1466	T	N.×S. head N.	1·00	..	..	..	..
1467	T	NE.×SW head NE.	1·00	..	..	..	..
1470	T	NE.×SW. head NE.	1·20	..	ear-rings	U. 13511	U. 13513
1471	T	NE.×SW. head SW.	1·20	..	..	..	..
1477	T	NW.×SE. head SE.	1·65	..	..	..	..
1478	T	N.×S. head S.	1·60	..	..	..	..
1481	T	NE.×SW. head NE.	1·50	..	..	..	..
1483	T	NE.×SW. head NE.	1·35	..	..	..	..
1485	T	NE.×SW. head SW.	2·30	..	..	..	U. 13519, √
1490	T (burnt)	N.×S. head S.	2·65	..	..	U. 13523	..
1491	T	N.×S. head N.	2·60	..	..	..	U. 13522
1506	L	..	3·60	..	..	..	..
1507	BC	..	?	..	..	√	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1335	.. ..	..	..	..	
1339	pin 2, ring	4	44, 52	..	
1342	.. ..	..	222	..	
1346	bangles, ear-ring	..	97	..	
1348	axe S 3	..	76	..	
1352	.. ..	..	76, 117, 184	..	
1359	.. ..	..	76	..	
1363	daggers, pin 1, chisel	4	100	..	
1364	reticule	..	60, 108, 196	..	
1366	pin 2	..	5, 228	..	
1379	pin 3, ear-rings	..	45, 100	..	wooden comb
1383	pin	..	108, 110	..	
1386	dagger 5, arrow 2	..	100, 226	..	bellum
1396	pin 1, mirror (?) U. 12697	..	5, 100, 174	U. 12697: 80	whetstone
1411	.. ..	..	5, 45, 83, 108, 158, 226	..	bellum
1462	dagger 7	..	76	..	
1463	bangle U. 13584	4	26	..	whetstone; body lay 0·90 below the *jûs* floor of a granary in the Nebuchadnezzar wall
1464	axe S 19	15	76	..	the pot contained dates
1465	pin 1	..	5, 76, 140	..	
1466	.. ..	..	109, 140	..	
1467	pin 1	..	50, 76	..	the grave described as in the upper rubbish stratum
1470	pin 1	..	..	..	the top of the skull had been cut away by the Larsa brick rubbish
1471	.. ..	..	50, 76, 79	..	
1477	razor	..	50, 76	..	
1478	.. ..	..	44, 76, 135, 194, 199	..	
1481	.. ..	..	26, 33, 34	..	
1483	.. ..	..	44, 45, 76, 131, 175	..	
1485	pin 1	..	76, 97, 123	..	
1490	dagger 7, pin 8	..	108	28	
1491	pin 1	..	110	..	pot 110 shows traces of vertical streaks of red paint
1506	pin 1	..	50	..	
1507	pin, toe-ring	..	50, 69, 73, 76, 100, 110, 117, 202	..	

GRAVE NUMBER	TYPE OF GRAVE	DIRECTION	DEPTH METRES	GOLD	SILVER	BEADS	CYLINDER SEALS
1509	T	..	2·60	..	..	..	..
1543	T	NE.×SW. head SW.	4·80	..	..	..	..
1550	T	E.×W. head W.	5·30	..	..	√	..
1557	T	N.×S. head S.	3·70	..	..	..	..
1568	T	?	5·20	..	..	..	..
1789	L	NW.×SE. head NW.	3·00	..	..	..	..
1793	T	NW.×SE. head SE.	4·50	..	..	..	..
1795	T	?	4·00	..	..	..	..
1796	L	..	2·90	..	..	..	..
1817	L	..	2·90	..	..	..	..
1852 (=1932: 80)	T	NW.×SE. head NW.	9·50	..	..	√	..

GRAVE NUMBER	BRONZE AND COPPER TOOLS, WEAPONS, ORNAMENTS, ETC.	COPPER VESSELS	POTTERY VESSELS	STONE VESSELS	VARIA AND NOTES
1509	.. ..	..	45, 239	..	
1543	.. ..	..	..	38	cockle-shell
1550	pin	..	41, 76	..	
1557	axe S 16	4	..	..	
1568	.. ..	..	50, 108, 109	..	
1789	ear-ring	..	32	U. 15152: 20	
1793	.. ..	..	76, 199	..	
1795	.. ..	..	50, 56, 73	..	
1796	.. ..	..	226	..	
1817	.. ..	..	226	..	
1852 (=1932: 80)	pin, bracelets, finger-rings	..	110, 198	..	bone toggle U. 17927, date-stones

APPENDIX B

'GROUPS' OF GRAVES

The 'groups' of graves lying vertically one above the other which serve as a basis for the chronology of the cemetery are as follows: the graves are given in order beginning at the top.

GROUP 1. Graves PG/1496, 1491, 1492, 1498, 1817, 1505, 1542, 1547, 1607, 1603, 1620, 1676, 1602, 1580, 1684, 1703, 1691, 1701, 1711, 1737, 1753, 1759, 1774, 1754, 1809, 1803, 1815, 1816, 1818.

2. Graves 1515, 1531, 1525, 1502, 1545, 1540, 1582, 1591, 1599, 1647, 1606, 1646, 1705.
3. Graves 1514, 1520, 1657, 1673, 1656, 1693, 1735.
4. Graves 1364, 1363, 1496, 1407, 1410, 1422, 1425.
5. Graves 1340, 1351, 1466, 1317, 1397, 1394, 1420.
6. Graves 1170, 1148, 1162, 1178, 1180, 1177.
7. Graves 1045, 1033, 1020, 1060, 1059, 1076, 1133, 1137, 1075, 1142, 1150.
8. Graves 953, 976, 1019, 1030, 1038, 1083.
9. Graves 959, 1045, 972, 990, 1049, 973, 1025, 1009, 1028, 1027, 1026, 1041, 1048, 1186, 1065, 1108, 1079, 1187, 1110, 1190.
10. Graves 960, 978, 991, 980, 982, 985, 1007, 1144, 1136.
11. Graves 957, 958, 964, 975, 986, 969, 981, 1004.
12. Graves 961, 963, 967, 983, 1005, 1017, 1035, 1043.
13. Graves 951, 954, 956, 974, 996, 998, 1230, 1055, 1069, 1103.
14. Graves 1202, 1208, 1243, 1274, 1248.
15. Graves 1226, 1241, 1170, 1171, 1256, 1288, 1289, 1306, 1325.
16. Graves 1205, 1228, 1216, 1224, 1265, 1247, 1281, 1295.
17. Graves 1198, 1227, 1260, 1271, 1268, 1279, 1299.
18. Graves 1192, 1204, 1222, 1199, 1215, 1218, 1242, 1129, 1269, 1267, 1272, 1295.
19. Graves 1209, 1255, 1251, 1266, 1262, 1296, 1297, 1284, 1308, 1277, 1318.
20. Graves 1239, 1244, 1316, 1322, 1323, 1326, 1328.
21. Graves 1238, 1231, 1275, 1292, 1294, 1424.
22. Graves 622, 633, 638, 645, 676, 728, 735, 679, 689, 722, 743, 745, 757, 739, 741.
23. Graves 628, 629, 620, 677, 664, 672, 675, 695, 724, 730.
24. Graves 612, 605, 606, 609, 636, 635, 685, 711.
25. Graves 641, 643, 714, 878, 880, 707, 873, 861, 867.
26. Graves 625, 632, 668, 852, 843, 826, 742.
27. Graves 762, 764, 732, 768, 766, 912, 794, 747, 782, 786, 784, 855, 722, 792, 798.
28. Graves 744, 727, 738, 757, 753, 736, 751, 783.
29. Graves 1508, 1510, 1501, 1569, 1592, 1593, 1598, 1594, 1605, 1644.
30. Graves 1522, 1499, 1500, 1503, 1528, 1543, 1590, 1570, 1571, 1568, 1633.
31. Graves 1352, 1364, 1368, 1379, 1403, 1416.
32. Graves 991, 1015, 1013, 1012, 1115, 1100, 1163, 1145.
33. Graves 593, 626, 607, 615, 644, 634, 640, 648.
34. Graves 594, 602, 604, 603, 624, 637, 680, 678, 692, 701.

The 'groups' taken as evidence of the Royal Tombs were classed apart because though all the graves recorded come above the royal tomb in question they do not necessarily lie one above the other in a vertical succession but are at different depths inside the (larger) area covered by the royal tomb;

they are here given in the order of depth but the argument is limited to the royal tomb.

GROUP R. 1. Graves 901, 893, 891, 911, 849, 823, 851, 755.

2. Graves 885, 733, 731, 713, 857, 830, 781, 886, 854, 856, 836, 838, 833, 872, 820, 796, 870, 858, 898, 797, 902, 904, 866, 864, 860, 887, 791, 789, and 800.
3. Graves 953, 1019, 1038, 1114, 1118, 1280, 1232.
4. Graves 950, 1203, 951, 959, 960, 956, 957, 958, 952, 974, 966, 970, 971, 978, 987, 996, 1018, 1165, 977, 983, 989, 990, 991, 975, 1176, 1228, 980, 982, 1001, 1006, 965, 1025, 1008, 985, 1230, 1028, 1007, 1029, 1060, 1188, 1086, 1003, 1055, 1186, 1168, 1079, 1053, 1107, 1081, 1070, 1243, 1250, 1274, 1146, 1082, 1189, 1097, 1190, 1258, 1096, 1194, 1088, 1112, 1098, 1273, 1099, 1281, 1221, 1144, 1312, 1054.
5. Graves 1031, 1037, 1032, 1067, 1063, 1089, 1072, 1071, 1084, 1090, 1092, 1093, 1085, 1105, 1113, 1110, 1135, 1139, 1128, 1117, 1129, 1104, 1091, 1134, 1140, 1155, 1158, 1153, 1237.
6. Graves 1490, 1497, 1546, 1567, 1587, 1551, 1578, 1628, 1619, 1661, 1659, 1618, 1648.

APPENDIX C

EVIDENCE FOR THE CHRONOLOGY OF POTTERY AND STONE VESSELS AND METAL OBJECTS

IN these Tables are shown the Pottery, Stone, and Metal Types with, first, the number of graves in which they are found. In further columns are detailed the instances of their occurrence in graves which can, on external evidence, safely be assigned to one or another of the main periods of the Cemetery, i.e. to the early part of the Predynastic Cemetery (A), to the Predynastic Cemetery as a whole (B), to the Second Dynasty, or to the Sargonid period. Where types are known to persist into the Third Dynasty, the fact is noted in the last column. Occurrences in graves which could not be dated by external evidence are disregarded for purposes of chronology, and thus the number of graves appearing in the chronological analysis does not necessarily equal the total number shown. In a few cases the types of objects were identified only late and with doubtful accuracy; these have been entered on the Tabular Analysis of Graves but have not been utilized as evidence for chronology.

The normal evidence is that of the association of any one object in a grave with other objects in that grave dated by the group system explained in Chapter II. Where the phrase 'By group' is employed, this implies that there are no associated objects of known date, but that the grave itself falls within a group area and is dated by its relative position. The phrase 'By depth' implies that the grave, though not falling within a group area, is dated by its positive depth in relation to neighbouring graves; this argument is used very sparingly and only in extreme cases.

A number of types are identical with those found in the al-'Ubaid Cemetery and therefore occur in the period prior to that of the great cemetery at Ur. In these cases there will be found, in the column headed 'Pre-cemetery', reference to the Type Series published in the al-'Ubaid volume (*Ur Excavations*, Volume I, 'al-'Ubaid', Plates LV–LXII). In the case of Types of which variants are shown, information relative to the distribution of each variant is recorded (see Plates 232–67).

(*a*) EVIDENCE FOR THE CHRONOLOGY OF POTTERY VESSELS

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
1	TO. XX	5	2	3	..	..	..
2	..	1	..	..	..	1 by group	..
3	..	1	..	..	..	1 by group	..
4a	TO. I	19	2 { 2 }	5 +1 by group { 5+1 by group }	2 { – }	6 { 6 }	..
4b			{ – }	{ – }	{ 2 }	{ – }	..
5a			17 { 6 }	18 { 7 }	1 { – }	3 { – }	
5b	TO. II TO. III	47	{ 11 }	{ 11 }	{ 1 }	{ 3 }	..
6		1	1	..	..	..	..
7a	TO. IV		9 { 5 }	23 { 11 }	..	5 { 3 }	
7b	TO. V		{ 2 }	{ 10 }		{ 2 }	
7c	TO. VI	50	{ 2 }	{ 1 }	..	{ – }	..
7d	TO. VIII		{ – }	{ 1 }		{ – }	
8	..	1	..	..	..	1	..
9	..	1	..	..	..	1	..
10	TO. IX	1	..	..	..	1	..
11	..	1	..	..	..	1 by group	..
12	TO. XII	3	..	..	..	3	..
13	..	1	..	..	..	1	..
14a						2 { 1 }	
14b	..	2	..	..	..	{ 1 }	..
15	..	2	..	1	..	..	1
16	..	7	3 +1 by group	2	..	..	..
17	..	1	..	..	..	1	..
18a	TO. XVI		2 { 1 }				
18b	TO. XV	2	{ 1 }	..	..	..	..
19	..	2	..	..	..	2	..
20a						1 { 1 }	
20b	..	3	..	..	..	{ – }	..
21	..	9	2	4 +1 by group	1	..	..
22	..	1	..	1	..	..	..
23	..	2	..	..	1	1	..
24	..	2	..	..	1	1	..
25	..	1	..	..	..	1	..
26	..	5	..	..	..	3	..
27	..	2	..	1	..	..	..
28	TO. XXI	1	1	..	..	..	..
29	..	1	..	..	1	..	..
30	..	1	..	1 by group	..	..	..
31	..	1	..	1	..	..	..
32a			1 { 1 }		1 { – }	7 +1 by group { 2+1 by group }	
32b	..	13	{ – }	..	{ 1 }	{ 5 }	..
33a				1 { – }		4 { – }	
33b	..	5	..	{ 1 }	..	{ 4 }	..
34	..	4	..	..	1	3	..
35	..	1	..	..	..	1 by group	..
36	..	1	..	..	1	..	..
37	..	3	..	..	..	3	..
38a				2 { 1 }	1 { 1 }	3 { 2 }	
38b	..	6	..	{ 1 }	{ – }	{ 1 }	..
39	..	1	..	..	..	1	..
40	..	5	2	..	1	1	..
41a			1 { 1 }		3 { – }	5 +1 by group { 2+1 by group }	
41b	..	13	{ – }	..	{ 3 }	{ 4 }	..
42	..	1	..	..	1	..	..
43	..	3	..	..	..	2 +1 by group	..
44a			1 { 1 }		8 { 4 }	23 +1 by group { – }	
44b			{ – }		{ 1 }	{ 4 }	
44c	..	45	1 { – }	..	{ 5 }	{ 19+1 by group }	..

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
45	..	54	3	11 +2 by group	2	17 +5 by group	..
46	..	2	..	1	..	..	..
47	..	1	..	..	..	..	..
48	..	7	..	..	..	5	..
49 a	TO. XLVIII	9	2 2	4 3	..	..	..
49 b			–	1			
50 a	TO. XLIX	50	..	1 –	4 4	24 +6 by group 22+6 by group	1 1
50 b				1	–	2	–
51 a	TO. XLVI	3	..	..	..	1 –	..
51 b	TO. XLIV					1	
52 a	TO. XLIII	12	..	..	..	4 +2 by group –	..
52 b	TO. XLV					4+2 by group	
53	..	1	..	..	1	..	..
54	..	1	1	..	..	..	..
55	..	1	..	..	..	1 by group	..
56	..	1	..	..	..	1	..
57	..	2	..	..	..	2	..
58	..	3	..	..	1	1 by group	..
59	..	1	1	..	..	..	..
60	..	11	2	3 +1 by group	1	3	..
61	TO. XXXIII	36	21	9	..	..	..
62	..	2	2	..	..	..	..
63	TO. XXXIV	7	4	..	..	1	..
64	TO. XXX	2	1	..	..	..	..
65	..	1	..	1 by depth	..	..	..
66	..	2	..	2	..	..	..
67	TO. XXIX	15	5	..	..	..	..
68	..	1	1	..	..	..	..
69	..	3	..	..	..	2	..
70	..	1	..	..	..	1 by group	..
71	..	1	1	..	..	..	..
72	..	2	..	..	..	1 by depth	..
73	..	2	..	..	..	2	..
74	..	1	..	..	..	1	..
75	..	11	..	..	1	8	..
76	..	17	..	2	1	8 +2 by group	..
77	..	1	..	1	..	..	..
78	..	2	..	2	..	..	..
79	..	3	..	..	1	1 +1 by group	..
80	..	3	..	..	1	2	..
81	..	16	2	2	2	8	..
82	..	1	..	..	..	..	..
83 a	..	54	–	–	1	3+1 by group	
83 b			5	5	–	17+3 by group	
83 c			7 1	7 +1 by group 2+1 by group	2 2	26 +5 by group 4	..
83 d			1	–	–	2+1 by group	
84	..	7	..	..	..	5	..
85	..	3	..	1	..	..	..
86	TO. LII	4	2	2	..	..	..
87	..	1	..	1	..	..	..
88 a	..	4	..	2 1	..	2 1	..
88 b				1		1	
90	..	1	1	..	..	..	..
91	..	1	..	1	..	..	..
92	TO. LIII	5	2	3	..	..	..
93	..	5	..	..	..	4	..
94	..	5	1 +1 by group	..	1	1	..
95	..	3	1	1	1	..	..
96	..	1	..	1	..	..	..
97	..	3	..	..	1	..	..

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
98	..	2	..	..	1	1	..
99	..	7	1	2	..	1	..
100 a	..	111	20 { 2	24	..	29	..
100 b			18	+3 by group { 2		+9 by group { —	
				22+3 by group		29+9 by group	
101	..	15	7	6 +1 by group	..	..	..
102	..	4	2	..	..	..	..
103	..	3	..	..	..	3	..
104	..	1	1	..	..	..	..
105	..	3	2	..	..	..	..
106 a	..	4	4 { 2	..	..	..	..
106 b			2				
107	..	6	3	1	..	..	..
108 a	TO. LX	18	2 { —	3 { —	1 { 1	4 { 1	..
108 b	TO. LIX		1	1	1 —	2	
108 c	TO. LXI		1	2	—	1	
109 a	TO. LXVIII	30	7	7	..	5 { —	..
109 b	TO. LXII		+1 by group { 4+1 by group	+2 by group { 1+2 by group		—	
109 c	TO. LXIII		3	4		5	
110 a	TO. LVIII	41	7 { 2	7 { 3	1 { —	10 { —	..
110 b			—	—	—	+7 by group { 1+1 by group	
110 c			5	+1 by group { 4+1 by group	1	9+6 by group	
110 d			1	—	—	—	
111	TO. LXXI	1	..	1	..	..	..
112	TO. LVII	1	1	..	..	..	..
113	..	2	..	..	..	1	..
114	..	2	1	..	..	1	..
115	..	3	..	..	..	1	1
116	..	1	..	..	..	1 by group	..
117	..	12	2	..	1	7 +1 by group	..
118	TO. XXVIII	1	..	..	..	1 by depth	..
119 a	..	5	..	..	..	3 { 1	..
119 b						2	
120 a	..	3	..	..	..	3 { 2	..
120 b						1	
121	TO. LXV	8	1	2	..	2	..
122	TO. XCII	3	..	..	..	2	1
123	..	3	..	1	..	1	..
124	..	2	..	..	1	1	..
125	TO. LXVII	8	2	4	..	..	..
126	..	1	..	..	1	..	..
127	..	1	..	1	..	..	..
128	TO. LXX	6	1	..	..	2	..
129	TO. LXXIII	6	2	2	..	2	..
130	TO. LXIX	19	9	7	..	2	..
131	..	9	..	..	..	5 +1 by group	..
132 a	..	16	4 { —	1 { —	..	5	..
132 b			4	1		+1 by group { 2+1 by group	
						3	
133	..	1	..	..	1	..	..
134	..	2	..	1	..	1	..
135	..	1	..	..	..	1	..
136 a	TO. LXXII	5	2 { —	2 { 2	..	..	..
136 b	TO. LXVI		2	—			
137	TO. LXXIV	1	..	1	..	..	..
138	..	2	..	2	..	..	..
139	..	1	..	..	..	1	..
140	..	1	..	..	..	1 by depth	..
141	..	4	..	3	..	..	..
142	..	6	1	2	..	2 +1 by group	..

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
143	..	13	5 +1 by group	5 +1 by group	..	..	..
144	..	3	1	2	..	..	..
145	TO. XXIII	12	5	2	..	..	..
146	TO. XXXII	1	1 by group	..	..	..	..
147	..	13	3	6 +1 by group	..	..	..
148	..	3	1	2	..	..	..
149	TO. XXII	7	4	1	..	..	..
150 a	..	24	12 5	5 1	..	6 —	..
150 b			7	4		6	
151	..	5	1	2	..	..	..
152	..	1	..	..	..	1	..
153	..	2	2	..	..	..	..
154	..	1	1	..	..	..	..
155	..	3	..	..	..	3	..
156	..	6	..	..	1	5	..
157	TO. XXXVI	2	..	..	..	1	..
158	TO. XLII	4	..	..	..	2 +1 by group	..
159	..	2	..	..	..	2 by group	..
160	..	1	..	..	..	1	..
161	..	1	..	..	1	..	..
162	..	7	1	2	..	..	..
163	..	2	1	..	..	..	..
164	TO. LVI	1	..	..	..	1	..
165	..	1	..	1	..	..	..
166	..	1	..	1 (?)	..	..	..
167	..	1	..	1	..	..	..
168	..	1	..	..	..	..	1
169	..	1	1	..	..	..	..
170	..	1	..	..	..	1	..
171	..	2	..	..	..	2	..
172	..	4	..	..	..	2	..
173	..	10	3	3 +1 by group	..	..	..
174	..	36	7	4 +4 by group	..	14 +1 by group	1
175	..	1	..	..	..	1	..
176	..	1	..	..	..	1	..
177	..	1	..	1	..	..	..
178	..	1	..	1 (burnt burial)	..	..	..
179 a	..	4	..	..	..	2 — 1 by depth	..
179 b						+1 by depth 2	
180	..	1	1	..	..	..	..
181	..	1	1	..	..	..	..
182	..	1	..	..	..	1	..
183	..	1	..	..	..	1	..
184	..	8	..	..	..	7 +1 by group	..
185	..	1	..	..	..	1	..
186	TO. XXIV	4	2	1	..	..	..
187	..	28	5	3 +2 by group	..	10	..
188	..	1	..	..	..	1	..
189	..	1	..	..	..	1	..
190	..	1	..	1	..	..	..
191	..	1	..	..	1	..	..
192	..	4	..	..	..	2 +2 by group	..
193	..	4	1	1 by group	1	..	..
194	..	3	..	1 +1 by group	..	1	..
195	..	23	..	..	..	16 +4 by group	..
196	..	4	..	..	1	2 +1 by group	..
197	..	5	..	..	1	..	..

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
198 a	..	9	..	..	2 1	7 2	..
198 b					1	5	
199	..	15	..	..	2	6 +2 by group	..
200	..	4	..	..	3	1	..
201	..	8	..	..	1	4 +1 by group	..
202	..	8	..	..	1	6	..
203	TO. XXV	3	1	1	..	..	..
204	..	1	1	..	..	..	..
205	..	1	1	..	..	..	..
206	..	1	..	1 by depth	..	..	..
207	..	1	1	..	..	..	..
208	TO. LXXIX	23	14 +1 by group	6	..	..	..
209 a	TO. LXXVI	14	6 1	5 3	..	..	..
209 b	TO. LXXVIII		5	3			
210	..	1	1	..	..	..	..
211	TO. LXXXIV	2	1	..	..	..	..
212	TO. LXXXIII	1	..	1	..	..	..
213	..	1	..	..	..	1	..
214	..	2	..	1	..	1	..
215	..	5	..	..	..	2	..
216	..	6	..	..	..	2 +1 by group	..
217	..	1	..	..	..	1 by depth	..
218	..	1	..	..	..	1	..
219	..	1	..	..	1	..	..
220	..	2	..	..	..	2	..
221	..	1	..	..	1	..	..
222	..	4	..	..	..	4	..
223	..	9	4 +2 by group	1 by group	1	..	..
224	..	11	..	..	1	5 +1 by group	..
225	..	1	..	..	..	1 by depth	..
226 a	..	14	..	..	..	9 3	..
226 b						+1 by group 7+1 by group	
227	..	1	..	1	..	..	..
228	..	6	..	..	..	2 +1 by group	..
229	..	1	..	..	..	1	..
230	..	1	..	..	..	1	..
231	..	4	1	1	..	1 +1 by group	..
232	..	2	..	..	..	2	..
233	..	2	..	..	1	1	..
234	..	1	1	..	..	..	..
235	..	1	..	..	..	1	..
236	..	1	1	..	..	..	..
237	..	2	..	..	..	1 +1 by depth	..
238	..	1	..	..	..	1 by group	..
239	..	2	..	..	..	1	..
240	TO. XCVII	1	..	..	..	1	..
241	..	1	..	..	..	1	..
242	TO. XCVIII	1	..	..	..	1 by depth	..
243	..	30	19	7 +1 by group	..	1	..
244 a	..	2	..	..	..	2 1	..
244 b						1	
245	..	1	1	..	..	..	..
246	..	3	..	..	..	3	..
247	..	1	..	..	..	1	..
248	..	1	..	..	1	..	..
249	..	1	..	1	..	..	..
251	..	7	..	..	..	6	..
252	..	1	..	..	..	1	..

(*b*) EVIDENCE FOR THE CHRONOLOGY OF STONE VESSELS

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
1	..	4	3	1	..	..	..
2 a		4	1 —	2 1	..	..	..
2 b	TO. V		1	1			
3	..	13	10	2	..	..	..
4	TO. III	2	2	..	..	..	..
5	TO. II	4	2	..	1	..	..
6	..	4	2	..	1	..	..
7	..	3	3	..	..	..	..
8 a	TO. VI	4	4 3	..	..	..	..
8 b			1				
9	..	1	1	..	..	..	..
10	..	1	1	..	..	..	..
11	..	1	1	..	..	..	..
12	..	1	1	..	..	..	..
13	..	2	2	..	..	..	..
14	..	8	7	1	..	..	..
15 a	TO. XIX	9	7 6	1 —	..	1 —	..
15 b			1	1		1	
* 16 a	TO. XVIII	25	14 +1 by group 10+1 by group	8 4	..	..	..
16 b	TO. XVII		3	2			
16 c	TO. XIII		2	2			
17	..	1	1	..	..	..	..
18	TO. XVI	2	..	..	..	1	..
† 19 a	TO. VIII	30	21 +1 by group 3	5 1	..	..	..
† 19 b	TO. XXI		3	2			
† 19 c	TO. XXIII		3	1			
† 19 d	TO. IX		14+1 by group	1			
20 a	TO. XXII	6	1 —	2 1	..	3 3	..
20 b	TO. X		1	1		—	
21	TO. XXVI	1	1	..	..	..	..
22 a	TO. XII	28	10 +1 by group 1 9+1 by group	8 +1 by group 2	..	..	..
22 b				5			
22 c	TO. XI		4	1+1 by group			
24	TO. XXV	9	4	3	..	..	..
25	TO. XXIV	2	2	..	..	..	..
26	..	3	2	1	..	..	..
27	..	2	1	1	..	..	..
28	TO. XXX	2	..	1	..	1 by group	..
29	cf. TO. XLI	3	3	..	..	..	..
30	..	1	1	..	..	..	..
31	..	1	1	..	..	..	..
32	..	2	1	1	..	..	..
33	..	1	..	..	..	1 by depth	..
34	..	2	2	..	..	..	..
35	..	1	1	..	..	..	..
36	..	1	..	..	..	1 by depth	..
37 a	..	4	2 2	1 —	..	..	..
37 b			—	1			
38	TO. VII	1	..	..	..	1 by group	..
39	..	1	1	..	..	..	..
40	..	1	1	..	..	..	..
41	..	11	3 +2 by group	4	1	..	..
42	..	7	4 +1 by group	..	..	..	..
43	..	2	1	..	..	1 by group	..
44	..	1	1	..	..	..	..
45	..	4	3	1	..	..	..
46	..	2	..	..	..	1	..
47	..	11	3	5	..	..	..

* Also occurs twice (a and c) in Jemdet Nasr level.

† d occurs twice in Jemdet Nasr level.

TYPE NO.	PRE-CEMETERY	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY	3RD DYNASTY
48	..	13	9	2 +1 by group	..	..	..
49	..	5	2	1	..	..	..
50	..	8	7	1	..	..	..
51	..	9	7	..	..	..	..
52	..	1	..	..	..	1 by depth	..
53	..	1	..	1	..	..	..
54	..	4	3	1 by group	..	..	..
55	..	2	1	1 by group	..	..	..
56	..	5	..	1 +1 by group	..	1	..
57	..	1	..	..	..	1	..
58	..	1	..	1 by group	..	..	..
59	..	6	2	2	..	..	..
60 a	..	18	13 1	2 –	..	..	..
60 b			12	2			
61 a	..	27	19 9	4 –	..	..	..
61 b			10	4			
62	..	2	1	..	..	..	..
63	..	3	1	1	..	..	..
64	..	4	2	1	..	..	..
65	..	1	1	..	..	..	..
66	..	9	6	2	..	..	..
67	In rubbish stratum below graves.	1	..	..	..	..	..
68	..	1	1	..	..	..	..
69	..	1	1	..	..	..	..
70	..	2	2	..	..	..	..
71	..	1	1	..	..	..	..
72	TO. XXXVII	2	2	..	..	..	..
73	..	1	..	..	..	1	..
74	..	1	1	..	..	..	..
75	..	1	1	..	..	..	..
76	..	4	2 +1 by group	1	..	..	..
77	..	1	..	1	..	..	..
78 a	..	5	3 2	2 2	..	..	..
78 b			1	–			
79	..	2	2	..	..	..	..
80	..	2	..	..	..	1 by group	..
81	..	..	..	..	..	..	Kassite period
82	..	1	1	..	..	..	..
83	..	..	..	..	..	..	Kassite period
84	..	4	2	1 +1 by group	..	..	..
85	..	5	4	1	..	..	..
86	..	8	4	1	..	..	..
87	TO. I	9	7	1	..	..	..
88	TO. XXXVIII	1	1	..	..	..	..
89	TO. XXXIX	13	7	4	..	..	..
90 a	TO. XL	7	3 3	3 2 +1 by group	..	..	..
90 b			1	+1 by group 1			
91 a	..	3	2 1	..	..	1 1	..
91 b			1			–	
92	..	15	9	4	..	..	..
93	..	1	1	..	..	..	..
94	..	2	1	1	..	..	..
95	..	1	1	..	..	..	..
96	..	2	2	..	..	..	..
97	..	2	1	1	..	..	..
98	..	1	..	1	..	..	..
99	..	1	1	..	..	..	..
100	..	1	1	..	..	..	..
101	..	6	4	1 by group	..	..	..
102	..	1	1	..	..	..	..
103	..	1	1	..	..	..	..

(*c*) EVIDENCE FOR THE CHRONOLOGY OF METAL VESSELS

TYPE NO.	NO. OF GRAVES	PREDYNASTIC CEMETERY		2ND DYNASTY	SARGONID CEMETERY
		A	B		
1	1	1	..	..	..
2	1	..	..	..	1 by group
3	1	1	..	..	..
4	185	68 +1 by group	55 +5 by group	6	25 +3 by group
5	1	..	..	..	1
6	1	1	..	..	..
7	57	44	5 +2 by group	1	..
10	1	..	..	1	..
11	3	2	..	1	..
12	2	..	..	1	1
13	2	2	..	..	..
14	2	2	..	..	..
15	2	..	..	1	..
16	2	2	..	..	..
17	1	1	..	..	..
18	1	..	..	..	1 by depth
20	4	..	1	1	2
21	9	6	1	..	2
22	4	3	..	1	..
23	14	11	2	..	..
24	1	1	..	..	..
25	4	2	..	..	..
26	5	4	1	..	..
27	18	12 +2 by group	3	..	..
31	1	..	..	1	..
32	7	7	..	..	..
33	1	1	..	..	..
35	3	1	1	..	1
36	1	1	..	..	..
37	1	..	..	..	1
38	2	..	..	..	1
39	1	..	..	1	..
41	1	1	..	..	..
42	14	12	1	..	..
43	4	4	..	..	..
44	3	3	..	..	..
45	1	1	..	..	..
46	9	7	..	1	..
47	1	..	..	..	1
48	1	..	..	1	..
49	8	4	2	2	..
50	3	1	1	..	1
51	4	3	..	1	..
53	1	1	..	..	..
54	2	1	1	..	..
55	3	3	..	..	..
56	1	1	..	..	..
57	1	..	..	1	..
58	1	1	..	..	..
59	1	1	..	..	..
60	1	..	..	..	1 by depth
61	1	..	..	..	1
63	1	1	..	..	..
64	1	..	..	1	..
66	3	2	..	1	..
67	1	1	..	..	..

TYPE NO.	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY
69	4	..	..	2	2
70	1	1	..	..	..
71	1	..	1	..	..
73	1	1	..	..	..
74	3	2	1	..	..
75	1	1	..	..	..
76	1	..	1	..	..
77	7	4	2	..	..
78	1	1	..	..	..
79	5	4	..	..	..
80	1	1	..	..	..
81	1	1	..	..	..
84	8	8	..	..	..
85	1	..	1	..	..
86	1	1	..	..	..
87	1	1	..	..	..
88	2	2	..	..	..
89	1	1	..	..	..
90	1	1	..	..	..
92	1	1	..	..	..
93	1	1	..	..	..
94	2	2	..	..	..
96	31	24	6	1	..
97	2	1	1	..	..
98	2	..	1	1	..
100	1	..	..	1	..
101	1	1	..	..	..
102	1	1	..	..	..
103	1	1	..	..	..
104	1	1	..	..	..
105	1	..	..	..	1
106	1	1	..	..	..
107	1	..	1	..	..
108	1	1	..	..	..
110	3	1	..	1	1
111	2	1	..	..	..
112	1	1	..	..	..
113	1	1	..	..	..
114	1	1	..	..	..
115	25	22	3	..	..

(*d*) EVIDENCE FOR THE CHRONOLOGY OF METAL TOOLS, WEAPONS, ORNAMENTS, ETC.

TYPE NO.	NO. OF GRAVES	PREDYNASTIC CEMETERY A	PREDYNASTIC CEMETERY B	2ND DYNASTY	SARGONID CEMETERY
Adze 1	3	2	1	..	..
Adze 2	6	4	..	..	..
Adze 3	18	4 +1 by group	4 +4 by group	..	..
Adze 5	7	1	3	..	..
Arrow 1	8	4	3	..	1
Arrow 2	3	..	..	1	1 +1 by group
Arrow 3	2	1	..	1	..
Arrow 4	6	3	..	1	2
Arrow 5	3	3	..	..	..
Arrow 6	2	..	1 by group	..	..
Arrow 7	1	..	..	1	..

TYPE NO.	NO. OF GRAVES	PREDYNASTIC CEMETERY		2ND DYNASTY	SARGONID CEMETERY
		A	B		
Arrow 8	1	..	..	1	..
Axe A 1	11	4 +1 by group	2 +1 by group	1	..
Axe A 2	7	2 +1 by group	3	..	..
Axe A 3	111	53 +4 by group	19 +4 by group	4	1
Axe A 4	2	1	1	..	..
Axe A 5	2	2	..	..	..
Axe A 6	1	1	..	..	..
Axe A 8	1	..	..	1	..
Axe A 9	1	..	..	1	..
Axe A 10	1	1	..	..	..
Axe A 11	1	..	..	1	..
Axe A 12	1	1	..	..	..
Axe A 14	1	..	..	..	1
Axe A 15	1	1	..	..	..
Axe A 16	1	..	1	..	..
Axe S 1	1	..	..	..	1
Axe S 2	1	..	..	..	1
Axe S 3	14	..	..	..	4 +5 by group
Axe S 4	1	..	..	..	1
Axe S 5	12	..	2 +1 by group	..	2 +2 by group
Axe S 6	18	1	2	2	8 +1 by group
Axe S 7	1	..	..	..	..
Axe S 8	6	..	1 +1 by group	1	2
Axe S 9	1	..	1	..	..
Axe S 10	2	..	..	1	1
Axe S 11	1	..	..	1	..
Axe S 12	3	..	..	..	2
Axe S 13	12	..	..	1	8 +2 by group
Axe S 14	2	1	..	1	..
Axe S 15	4	..	..	1	1 +1 by group
Axe S 16	17	..	..	2	8 +1 by group
Axe S 17	12	..	..	..	6 +1 by group
Axe S 18	1	..	1	..	..
Axe S 19	14	6 +1 by group	..	1	3
Axe S 20	2	1	..	..	..
Axe S 21	1	..	..	..	1 by group
Axe S 22	1	..	..	..	1 by group
Axe S 23	1	..	..	..	1
Chisel 1	5	1	4	..	..
Chisel 2	26	17 +1 by group	7	..	..
Chisel 3	4	2	1 +1 by group	..	..
Chisel 4	12	5	4	..	2
Dagger 1	2	1	..	1	..
Dagger 2	1	..	..	1	..
Dagger 3	6	3	3	..	..
Dagger 4	8	5 +1 by group	1	..	..

TYPE NO.	NO. OF GRAVES	PREDYNASTIC CEMETERY		2ND DYNASTY	SARGONID CEMETERY
		A	B		
Dagger 5	6	1 +1 by group	2	..	1
Dagger 6	3	..	1 +1 by group	..	1
Dagger 7	118	34 +3 by group	38 +3 by group	4	14
Dagger 8	2	..	1	..	..
Pin 1	237	68 +2 by group	54 +8 by group	3	48 +11 by group
Pin 2	9	1	3	..	3 +1 by group
Pin 3	14	8	1	1	1
Pin 4	12	2	3	..	..
Pin 5	4	4	..	..	..
Pin 6	1	1	..	..	..
Pin 7	29	24	3	..	..
Pin 8	61	7	9 +3 by group	1	20 +3 by group
Razor	34	17 +1 by group	5	..	6
Saw	11	7	4	..	..
Spear 1	7	5	1	..	..
Spear 2	24	14 +1 by group	2 +1 by group	2	..
Spear 3	3	2	1 by group	..	..
Spear 4	2	2	..	..	..
Spear 5	3	1	1	..	..
Spear 6	3	2	1	..	..
Spear 7	1	..	..	1	..
Spear 8	1	1	..	..	..
Toilet instrument 1	1	1	..	..	..
Toilet instrument 2	1	..	1	..	..
Toilet instrument 3	1	..	..	..	..
Toilet instrument 4	2	..	..	..	2
Toilet instrument 5	2	1 +1 by group	..	..	..
Toilet instrument 6	1	..	..	..	1 by group
Tool 1	2	..	..	..	1
Tool 2	2	..	2	..	..
Tool 3	3	1	2	..	..
Tool 4	1	..	..	..	1 by group
Tool 5	1	..	..	1	..
Brîm	32	20 +1 by group	8	1	..
Gold or silver frontlet	36	15	6	4	10 +1 by group
Gold or silver ribbon	6	6	..	..	..
Gold wreath headdress	21	15 +1 by group	3	..	..
Twisted gold ribbon	14	..	..	3	7

CATALOGUE

THE catalogue has been made as succinct as possible. The clay vessels, copper vessels, and most of the copper tools found in the graves are omitted here because their catalogue and type numbers are given under their respective grave-numbers in the tabular analysis and their dimensions are not so variable or so important as to call for separate record. Common objects which answer to a general description, such as finger-rings, hair-rings, &c., of silver or copper are also omitted here but appear in the tabular analysis. All objects referred to in the text or illustrated in the plates and all objects possessing interest in themselves or in their associations not described elsewhere in the text are recorded. Stone vessels and beads are catalogued fully because the material of the former and the material, shape, and order of the latter is not given in the tabular analysis of the graves. Objects found in the cemetery area but known not to belong to the cemetery period have not been entered but are reserved for a later volume.

Capital letters in round brackets show to which Museum the object in question was allotted. Where the Museums have supplied their own registration or catalogue numbers of the objects allotted to them, these also are quoted. (B.) = Baghdad, (L. *BM.*) = London—viz. the British Museum, (P.) = Philadelphia.

U. 24. Gold pendant, shaped as a fruit (?), with attachment for a two-row string of beads, l. 0·018 m. Found loose in the soil at a depth of 2·50 m. in the first trench cut in the cemetery area. Pl. 220.

U. 34. (A) Gold amulet in the form of a reclining ram, hollow and made of thin metal, pierced for threading, l. 0·016 m. (B) Beads: a string of 43 gold and 45 lapis-lazuli double conoids with a circular gold pendant, a ring enclosing a floral rosette the petals of which were probably once filled in with stone cloisons. (C) Beads; 40 carnelians with 2 gold terminals, 4 gold pear-shaped pendants, 2 carnelian pear-shaped pendants on gold stems, 1 carnelian disk pendant with bleached design. (D) Beads: 10 gold and 20 lapis-lazuli ribbed balls, 6 lapis pear-shaped pendants on gold stems and 1 lapis fly amulet. (E) Beads: 2 rows of small lapis-lazuli with 2 lapis spacers, 8 gold beech-leaf pendants, a triangular gold spacer, 1 lapis bead bound with spiral gold wire, 1 triple gold bead. All found at the same level (depth 3·00–3·50 m. below the surface) and within an area of about one square metre in the cemetery site. Pl. 134. (B.) (P.) (L. *BM.* 116581, 121423.)

U. 35. Stone bowl, veined calcite, Type 66, ht. 0·05 m., rim d. 0·105 m. Found with U. 36–8, from one grave.

U. 36. Stone bowl, coarse white calcite, Type 20, ht. 0·09 m., rim d. 0·023 m. Fragmentary. Part of a group with U. 35, 37, 38.

U. 37. Bronze axe, Type A 3, l. 0·152 m. Found with U. 35, 36, 38.

U. 38. Shell cut to form a lamp or ladle, cf. Pl. 102, but without the bird's-head ornament. Found with U. 35–7.

U. 51. Beads: agate lunar pendant, 13 gold-plated copper balls, 12 carnelian, and 18 lapis-lazuli. In original order. Grave TTA. 2.

U. 52. Gold ear-ring, a spiral hoop with broad flattened ends, but instead of being lunate these have a central rib making them like the leaf of a plant, d. 0·012 m. TTA. 2. (L. *BM.* 116567.)

U. 53. Gold frontlet, of thin plate metal, oval with elongated ends pierced for attachment, l. 0·13 m., width 0·038 m. TTA. 2. (L. *BM.* 116569.)

U. 54. Cylinder seal, lapis-lazuli, l. 0·024 m. Presentation scene. TTA. 2.

U. 55. Silver ear-ring, made of 4 small ear-rings of the normal lunate type intertwined. In bad condition. TTA. 2. (L. *BM.* 116590.)

U. 57. Silver bracelets, a pair, penannular hoops of silver rod round in section and grooved longitudinally along the outer face, the ends cut off square, d. 0·07 m. TTA. 2.

U. 59. Bronze axe, Type A 3, l. 0·136 m. TTA. 2.

U. 64. Stone bowl, yellowish calcite, Type 24, ht. 0·065 m., rim d. 0·18 m. In bad condition. Found loose in the soil at 3·00 m. level in the cemetery site.

U. 71. Shell cylinder or handle (?), decorated with incised lines, l. 0·063 m., d. 0·01 m. Found loose in the soil at depth of 3·50 m. and probably older than the cemetery period. Pl. 221.

U. 2918. Lapis-lazuli amulet, reclining bull, pierced in three places for suspension, ht. 0·02 m., l. 0·02 m. Found loose in soil, not in the cemetery area but evidently of the cemetery period. Pl. 142. (L. *BM.* 119258.)

U. 7626. Cylinder seal, dark steatite, l. 0·024 m., d. 0·013 m. Adoration of Nannar. Loose in upper soil. (B. 3527.)

U. 7637. Stone bowl, white calcite, Type 14, d. 0·195 m. PG/5. (B. 3533.)

U. 7638. Stone vase, white calcite, Type 84, ht. 0·165 m. PG/5. Pl. 179. (B. 3534.)

U. 7641. Cylinder seal, jadeite, carinated, l. 0·03 m., d. 0·017 m. Loose in soil. Pl. 209. (P. *CBS.* 16861.)

U. 7644. Beads: 12 carnelian and 5 silver double conoids and 1 date-shaped bead of basic diorite. PG/12. (L. *BM.* 120615.)

U. 7645. Stone vase, white calcite, Type 4, ht. 0·135 m. PG/1. Pl. 178. (B. 3537.)

U. 7646. Stone vase, white calcite, Type 48, ht. 0·10 m. Loose in soil. (L. *BM.* 121869.)

U. 7647. Stone vase, white calcite, Type 20, ht. 0·20 m. PG/12. (L. *BM.* 121875.)

U. 7648. Stone vase, white calcite, Type 54, ht. 0·135 m. PG/12. Pl. 178. (P. *CBS.* 17156.)

U. 7649. Stone vase, white calcite, Type 89, ht. 0·14 m. PG/12. Pl. 179. (L. *BM.* 121858.)

U. 7650. Stone vase, basic diorite, chipped, Type 37, ht. 0·085 m. PG/4. (B. 3538.)

U. 7651. Stone vase, basic diorite, broken and riveted in antiquity, Type 38, ht. 0·175 m. PG/1. (B. 3539.)

U. 7652. Stone vase, basic diorite, Type 12, ht. 0·215 m. Loose in soil. (B. 3540.)

U. 7654. Stone vase, veined white calcite, broken and riveted in antiquity, part of rim missing, Type 60, ht. 0·13 m. PG/4. Pl. 179. (B. 3541.)

U. 7655. Stone bowl, greenish calcite, semi-translucent, Type 25, ht. 0·18 m. Loose in soil.

U. 7656. Cylinder seal, mottled grey and black marble, slightly carinated, l. 0·03 m., d. 0·02 m. PG/14. Pl. 216. (P. *CBS.* 16865.)

U. 7657. Cylinder seal, lapis-lazuli, l. 0·029 m., d. 0·01 m. PG/15. Pl. 200. (B. 3542.)

U. 7667. Miniature clay vase in form of a nut, dark greenish clay. Found with pottery types 108 and 7. Ht. 0·075 m., rim d. 0·035 m. (P.)

U. 7693. Beads: gold, carnelian, and lapis-lazuli, found with U. 7694–6 at a depth of 1·00 m. below the surface. (B. 3562.)

U. 7694. Two gold frontlets, plain, perforated at each end, l. 0·06 m., greatest width 0·01 m. *v.* U. 7693. (P. *CBS.* 17703.)

U. 7695. Three gold ear-rings, small lunate. *v.* U. 7693. (B. 3563.) (L. *BM.* 120549.)

U. 7696. Gold pendant with cones of spirally twisted wire; cf. Pl. 134. *v.* U. 7693. (B. 3564.)

U. 7840. Stone bowl, white calcite, Type 39, ht. 0·065 m., d. 0·13 m., inscribed on the side *...nanna.* PG/33. Pl. 176. Cf. p. 316.

U. 7852. Bronze axe, Type A 3, l. 0·127 m. PG/3. (B. 3586.)

U. 7853. Bronze arrow butt, cf. Pl. 149, fig. b, l. 0·062. PG/3. (B. 3587.)

U. 7854. Bronze (?) chisel, Type 1, l. 0·355 m. PG/3. (B. 3588.)

U. 7855. Bronze axe, Type A 3, l. 0·155 m. PG/9. (L. *BM.* 120721.)

U. 7858. Copper reticule containing four copper toilet utensils fastened on to a ring. L. of reticule 0·07 m. PG/17. Pl. 231.

U. 7862. Dagger, Type 7, l. 0·20 m. Part of the wooden handle remained with copper studs decorating the pommel. PG/10. (L. *BM.* 120775.)

U. 7863. Copper pin, Type 1, with ball head of lapis-lazuli and gold, l. 0·173 m. PG/1. Pl. 231. (B. 3592.)

U. 7864. Copper pin, Type 1, with ball head of shell set in silver, l. 0·095 m. PG/5. In bad condition. (B. 3593.)

U. 7869. Copper colander, Type 96, bowl pierced with 6 rows of small holes, the handle originally set in wood, d. of bowl 0·12 m., depth 0·35 m., l. of handle 0·105 m. PG/13. (B. 3594.)

U. 7878. Dagger, Type 7, 3 rivets for attachment, l. 0·20 m., width 0·035 m. PG/2. (B. 3602.)

U. 7893. Beads: lapis-lazuli rings with a few double conoids and one large ball, 52 in all. PG/15. (B. 3611.)

U. 7896. Cylinder seal, haematite, l. 0·021 m., d. 0·01 m. A standing goddess approached by a kilted warrior behind whom is a naked Ishtar. Loose in soil. (P. *CBS.* 16883.)

U. 7899. Stamp seal, steatite, ht. 0·015 m., base 0·015×0·014 m. Two birds reversed and a scorpion. Loose in soil. (B. 3614.)

U. 7900. Shell plaque, 0·075 m.×0·046 m., engraved with a figure of a naked priest facing rt. who holds a libation-vase up in front of a post mounted apparently on a tripod (only 2 legs of the tripod are shown); on the other side of the post hang (perhaps from a cross-bar not shown) 2 cords with loops at the ends. *v.* p. 282. Loose in soil. Pl. 102. (L. *BM.* 120850.)

U. 7923. Cylinder seal, brown and black marble, slightly carinated, l. 0·037 m., d. 0·024 m. PG/23. Pl. 213. (B. 3626.)

U. 7925. Spear, Type 1, l. 0·46 m., greatest thickness 0·02 m. PG/25. (B. 3627.)

U. 7926. Spear, Type 6, flat blade with slight central rib, rounded haft, and tang square in section, total l. 0·22 m., l. of blade 0·14 m., greatest width 0·035 m. PG/25. (B. 3628.)

U. 7927. Cylinder seal, crystal, slightly carinated, l. 0·03 m., d. 0·021 m. One copper cap preserved. Inscription. *v.* p. 315. PG/26. Pls. 191, 205. (B. 3629.)

U. 7935. Ring, silver, composed of 2½ spiral coils

of wire, d. of ring 0·028 m., thickness of wire 0·008 m. PG/58. (B. 3635.)

U. 7936. Stone vase, yellowish veined calcite, Type 61, ht. 0·125 m., rim d. 0·092 m., base 0·045 m. PG/58. (B. 3636.)

U. 7937. Stone bowl, white calcite, Type 63, ht. 0·065 m., rim d. 0·07 m., base 0·035 m. PG/19. (L. *BM.* 121868.)

U. 7938. Stone bowl, white calcite, part of rim missing, Type 61, ht. 0·13 m. PG/40. (B. 3637.)

U. 7939. Stone vase, bluish diorite, Type 49, rim d. 0·17 m. PG/64. (L. *BM.* 121879.)

U. 7940. Stone vase, white calcite, part of rim missing, Type 60, ht. 0·11 m., rim d. 0·065 m. PG/64. (P.)

U. 7943. Stone bowl, white limestone, Type 47, rim d. 0·084 m. PG/36. (P. *CBS.* 17173.)

U. 7944. Beads: 93 lapis-lazuli double conoids, 11 carnelian rings, 1 carnelian cylinder, 2 lots of silver balls in groups of 4 and 3. PG/36.

U. 7945. Beads: 10 lapis-lazuli double conoids, 6 carnelian double conoids, 2 carnelian rings. PG/88. (P. *CBS.* 16808.)

U. 7946. Stone vase, white limestone, Type 60, ht. 0·12 m. PG/88. (L. *BM.* 121859.)

U. 7947. Stone bowl, white limestone, broken and imperfect, Type 22, ht. 0·09 m., rim d. 0·16 m., base 0·04 m. PG/88. (P. *CBS.* 17305.)

U. 7948. Ring, silver, of 3 spiral coils of thin wire, d. 0·025 m. PG/8. (P. *CBS.* 16769.)

U. 7951. Gold frontlet, an oval strip of gold leaf with rounded ends and a hole at each end, decorated with repoussé dots along the edges, l. 0·158 m., greatest width 0·031 m. To this was attached a gold ribbon, width 0·007 m., originally with a hole at each end for fastening to the frontlet, but it is broken and one end is missing. It was found on the skull with the frontlet on the forehead. PG/35.

U. 7952. Ear-rings, a pair, a spiral ring of gold with thickened lunate ends is twisted into a second similar ring from which hangs a ring of similar shape but of silver (the silver ring is in each case broken), d. of each ring 0·013 m., total l. 0·025 m. PG/35. Cf. Pl. 219, Type 4.

U. 7953. Cylinder seal, rock crystal, with copper caps. The central hole is filled with white paste in which are chevron bands of red pigment, the pattern showing through the walls of the cylinder. Carinated; l. (without caps) 0·033 m., d. 0·022 m. Inscribed. *v.* p. 314. PG/35. Pls. 191, 205. (L. *BM.* 120529.)

U. 7954. Cylinder seal, lapis-lazuli, with 1 gold cap, l. 0·03 m., d. 0·011 m. PG/35. Pl. 206.

U. 7955. Cylinder seal, lapis-lazuli, l. 0·018 m. Poor engraving. PG/35. Pl. 204.

U. 7956. Cylinder seal, lapis-lazuli (broken), l. 0·045 m., d. 0·011 m. PG/35. Pl. 206. (P. *CBS.* 16856.)

U. 7957. Cylinder seal, lapis-lazuli, l. 0·013 m. Poor engraving. Found with the bracelet U. 7958 against the arm-bone. PG/35. Pl. 215. (L. *BM.* 120557.)

U. 7958. Beads: 2 long carnelian cylinders, 4 jasper date-shaped, 4 silver balls, 1 gold-plated copper ball bead (decayed). Found under the arm-bones. PG/35.

U. 7959. Beads: 8 gold cylinders, 0·04 m. long, 4 carnelian ditto, and small gold and carnelian balls. Necklace. PG/35.

U. 7962. Beads: double conoids of gold (32), carnelian, and lapis, of different sizes, and 2 large gold-plated copper ball beads; the stone and metal beads apparently alternated. Necklace. PG/35.

U. 7963. Beads: small lapis-lazuli and carnelian balls with some carnelian rings, together with small balls of copper gold-plated; most of the latter are destroyed by the swelling of the cores. One or two necklaces of the same pattern, one gold bead to every one or two of stone according to size. Found under the skull. PG/35. (L. *BM.* 120620, 123631.)

U. 7971. Pin, Type 1, with ball head of lapis-lazuli and gold. In bad condition. PG/35. (L. *BM.* 120830.)

U. 7977. Bracelets, a pair, of copper and silver respectively. Each is made of three spiral coils of plain wire, and on each hung a small ring of 3 spiral coils of thin gold wire. PG/31. (B. 3638.)

U. 7985. Cylinder seal, lapis-lazuli, l. 0·04 m. PG/31. Pl. 200. (B. 3646.)

U. 7986. Cylinder seal, pink limestone, l. 0·05 m. Design in two registers too worn to be recognized. PG/31. (B. 3647.)

U. 7989. Cylinder seal, dark steatite, l. 0·03 m. With silver caps. Part of the linen thread on which it had been strung was preserved in the hole. PG/33. Pl. 205. (P. *CBS.* 16864.)

U. 7990. Cylinder seal, of fossilized coral, much worn. Crossed goats and three persons pouring libations. PG/33. (P. *CBS.* 16789.)

U. 7992. Cylinder seal, white shell, l. 0·042 m., d. 0·032 m. PG/43. Pl. 197. (L. *BM.* 120530.)

U. 7994. Copper bowl, Type 7, ht. 0·07 m., l. 0·215 m., width 0·124 m. In good condition. On one side there is incised on the outer face a bull's leg, on the other is an inscription *id nannar*, 'the property of Nannar'. PG/43. Pl. 190. (P. *CBS.* 17406.)

U. 7996. Stone pot, Type 19, coarse white limestone, containing black pigment, ht. 0·07 m., d. 0·06 m. PG/35. (P. *CBS.* 17164.)

U. 7997. Stone pot, white calcite, Type 16, containing yellow pigment, ht. 0·037 m., d. 0·065 m. PG/55. (P. *CBS.* 17137.)

U. 7998. Stone vase, white calcite, Type 8, containing green pigment and covered with a cockle-shell, ht. 0·055 m., d. 0·065 m. PG/55. (L. *BM.* 120865.)

U. 7999. Stone bowl, white calcite, blackened by fire, containing black pigment, Type 19, ht. 0·05 m., d. 0·10 m. PG/55. (L. *BM.* 120869.)

U. 8000. Three silver cockle-shells, one inside the other; the innermost contains red pigment; natural size; d. *c.* 0·04 m. PG/55.

U. 8002. Gold and lapis-lazuli chain. Six lengths of very fine chain square in section made of gold wire links alternating with 5 lapis-lazuli double conoid beads. Total l. 0·30 m. PG/55. Pl. 159. (L. *BM.* 120585.)

U. 8003. Gold fillet, of fairly thick strip gold, plain except for a border of minute punctures; l. 0·37 m., width 0·007 m. PG/55. (L. *BM.* 120685.)

U. 8004. Bead, a large ribbed sphere of lapis-lazuli with gold caps, d. 0·031 m. PG/55. (L. *BM.* 120601.)

U. 8005. Gold ornament. A pear-shaped bead (?) pierced longitudinally, on which is perched a bird pecking at the fruit. In spite of the minute scale the work is most detailed, the eye and feathers of the bird being accurately rendered. Total ht. 0·012 m., l. of bird 0·0085 m. The grave is early, and the gold bird is to be classed with the gold animals of Queen Shub-ad's second diadem. PG/55. Pl. 142. (B. 3649.)

U. 8006. Cylinder seal, lapis-lazuli, l. 0·033 m., d. 0·019 m. PG/55. Pl. 200. (P. *CBS.* 16889.)

U. 8007. Silver plaque. A disk of filigree work in plain and twisted wire, total diam. 0·09 m. In the centre is a raised electrum boss surrounded by 6 silver bosses; these rest upon filigree work; round them is a border of 2 double bands in low relief with fine radial lines joining them. When found there was folded over this and corroded on to it a second disk of silver, plain, with copper backing, which would seem to have been broken off from the first disk where the rim of the latter is missing; a copper pin 0·075 m. long was corroded on to the back but does not necessarily belong to it. The object may have been a buckle, the two disks side by side forming a figure-of-eight design. The plaque is in bad condition but has been cleaned, and the pattern is clear. PG/55. Pl. 219. (P. *CBS.* 16770, 17462.)

U. 8008. Beads: lapis-lazuli, very small balls, with lapis spacers for threading in three parallel strings. PG/55. (P. *CBS.* 16815.)

U. 8009. Beads: white shell, hundreds of minute rings. PG/55. (P. *CBS.* 17622.)

U. 8010. Beads: carnelian, mostly minute ring beads but with them a few small balls. PG/55. (P. *CBS.* 17667.)

U. 8011, 8012. Beads: lapis-lazuli and carnelian; there were 4 parallel strings of very large double conoid carnelians and one or two cylinders, with 2 gold double conoids, apparently alternating with lapis balls. The order was not quite certain. Some of the lapis beads are ribbed. PG/55. (P. *CBS.* 16805, 16811.)

U. 8013. Silver antelope's head, &c. *v.* p. 301. PG/55. Pl. 168. (L. *BM.* 123639.) (P. *CBS.* 16838, 17084.)

U. 8014. Silver pin, Type 6, with top in the shape of a human hand with the thumb raised, l. 0·19 m. PG/55. Pl. 189. (L. *BM.* 120699.)

U. 8016. Pin, copper, Type 1, with ball head of carnelian set in gold. The shaft decayed and broken. PG/55. (L. *BM.* 123638.) (P. *CBS.* 16765.)

U. 8018. Beads: gold, lapis-lazuli, carnelian, and agate bugles with gold between, small carnelian and gold balls. PG/55. (L. *BM.* 120598, 120606.)

U. 8020. Two gaming-pieces; a square of shell inlaid with 5 black dots and 1 of black shale inlaid with 5 white (shell) dots. PG/55. Cf. Pl. 98.

U. 8021. Cuttle-fish bones, probably used for toilet purposes, perhaps as a depilatory. PG/55.

U. 8027. Pin, Type 1, with lapis ball head set in silver, l. 0·14 m. PG/71. (P. *CBS.* 17467.)

U. 8028. Stone vase; white calcite, Type 87, ht. 0·155 m., rim d. 0·085 m. PG/71. (P. *CBS.* 17117.)

U. 8029. Stone vase, white calcite, Type 87, ht. 0·205 m., rim d. 0·11 m. PG/71. (P. *CBS.* 17109.)

U. 8030. Stone vase, white calcite, Type 92, ht. 0·225 m., rim d. 0·07 m. PG/71. Pl. 179. (L. *BM.* 121853.)

U. 8031. Stone bowl, diorite, well polished, broken in antiquity and riveted, Type 51, ht. 0·12 m., d. 0·18 m., foot d. 0·065 m. PG/71. (P. *CBS.* 17149.)

U. 8032. Stone bowl, fine white limestone, with small horizontal lug handles, Type 60, 0·35 m. × 0·22 m. PG/71. Pl. 177. (P. *CBS.* 17179.)

U. 8033. Figure of a bull, very finely carved in the round out of white shell. The animal is in exactly the position of the bulls in the copper frieze from the al-'Ubaid temple, lying down with the left leg bent at the knee and the left hoof planted firmly on the ground as if in the act to rise; the body is in profile, the head turned to the front. H. 0·03 m., l. 0·035 m. *v.* p. 375. PG/55. Pl. 142. (L. *BM.* 120851.)

U. 8034. Copper axe; the specimen shows the transition from the cast to the hammered type of weapon; the metal was bent round the haft and welded, the overlap being brought over the edges of the blade. On each side of the blade were remains of coarse matting, perhaps merely matting in which it was wrapped but perhaps part of a matting sheath. Type S. 2, l. 0·185 m. PG/67. (B. 3650.)

U. 8040. Beads: 3 carnelian and a number of small lapis-lazuli balls. PG/67. (B. 3655.)

U. 8041. Cylinder seal, white steatite, l. 0·032 m., d. 0·018 m. Loose in soil. Pl. 213. (B. 3656.)

U. 8044. Beads: small rings of green-glazed frit, a few lapis beads, 1 carnelian and 1 shell. PG/71.

U. 8047. Stone pot, white limestone, with carinated sides, Type 8, ht. 0·08 m., d. 0·12 m. PG/89. (P. *CBS.* 17163.)

U. 8048. Gold hair-ring, of 3 coils of gold wire, d. 0·033 m. PG/89. (P. *CBS.* 16840.)

U. 8049. Stone tumbler, dark steatite (?), Type 13, ht. 0·13 m., rim d. 0·16 m., base d. 0·065 m. PG/89. (P. *CBS.* 17148.)

U. 8050. Beads: 10 large double conoids of lapis-lazuli and 2 similar of silver (one broken). PG/89. (B. 3658.)

U. 8052. Stone bowl, basic diorite, broken and riveted in antiquity. PG/89.
U. 8053. Cylinder seal, lapis-lazuli, l. 0·034 m. Loose in the soil close to PG/89, but not belonging to it. Pl. 200. (P. *CBS*. 16866.)
U. 8054. Beads: mixed lapis-lazuli and carnelian (small cylinders, balls, fluted balls, barrels, and double conoids) with 2 lapis amulets in the shape of frogs. PG/69. (P. *CBS*. 16791.)
U. 8056. Cylinder seals, three, all of white shell in very bad condition. One has 4 animals, of which the centre 2 are heraldically crossed. PG/69. Pl. 196. (L. *BM*. 120538.) (P. *CBS*. 16882, 16891.)
U. 8059. Copper bowl, shallow, with fluted sides and a centre now crushed flat but originally umbilical; a handle, now missing, was attached to the rim; part of one side missing; Type 86; ht. 0·04 m., d. 0·135 m. PG/69.
U. 8062. Stone bowl, white limestone, of poor quality, much decayed, Type 19, but with slight ring to base, ht. 0·085 m., d. 0·165 m. PG/69. (P.)
U. 8069. Stone bowl, white limestone, Type 19, ht. 0·05 m., d. 0·105 m. PG/71. (P. *CBS*. 17176.)
U. 8070. Beads: 130, lapis-lazuli, small balls, conoids, and a few cylinders. PG/91.
U. 8071. Stone bowl, white limestone, poor quality, Type 22, ht. 0·04 m., d. 0·11 m. PG/91. (B. 3663.)
U. 8072. Amulet, of grey slate, roughly cut in the form of a bird, l. 0·036 m. PG/91. Pl. 219. (P. *CBS*. 16806.)
U. 8074. Stone bowl, white limestone, coarse, and damaged by fire, Type 16, ht. 0·075 m., d. 0·125 m. PG/91. (B. 3665.)
U. 8075. Stone bowl, white limestone, Type 22, ht. 0·065 m., d. 0·14 m. PG/91. (B. 3666.)
U. 8082. Stone bowl, white limestone, Type 22, ht. 0·035 m., d. 0·085 m. PG/37. (P. *CBS*. 17159.)
U. 8083. Beads: 2 large ball beads of frit originally glazed blue. PG/37. (P. *CBS*. 16837.)
U. 8084. Beads: lapis-lazuli, double conoids and some balls. PG/37. (P. *CBS*. 16793.)
U. 8085. Cylinder seal, yellowish quartzite, l. 0·044 m. PG/37. Pl. 195. (L. *BM*. 120508.)
U. 8089. Beads: lapis-lazuli, large faceted date-shaped. PG/37. (L. *BM*. 120628–9.)
U. 8093. Cylinder seal, steatite, l. 0·026 m. PG/59. Pl. 214. (B. 3674.)
U. 8094. Cylinder seal, shell, l. 0·03 m. Bad condition. Two hunters fighting a lion and a bull. PG/59. (B. 3675.)
U. 8097. Beads: very long cylinders, 1 gold, 2 lapis-lazuli, 3 carnelian (one of the latter faceted), and 7 small balls, 3 gold and 4 silver; in the original order. PG/57. (P. *CBS*. 16792.)
U. 8098. Gold finger(?)-ring, a plain circlet of gold wire, the ends thickened and overlapping by half the circle, d. 0·026 m. PG/57. (L. *BM*. 120672.)
U. 8099. Beads: shell rings, *c*. 0·02 m. in diam., much decayed. PG/57. (L. *BM*. 123650.)
U. 8100. Stone bowl, white limestone, Type 47, d. 0·10 m. PG/76. (B. 3678.)
U. 8101. Beads: lapis-lazuli, 16 double conoids. PG/76. (P. *CBS*. 16812.)
U. 8110. Beads: lapis-lazuli, large double conoids, faceted, 2 only; l. 0·048 m. PG/114. (L. *BM*. 120626–7.)
U. 8116. Beads: 47 gold double conoids, 12 ribbed gold balls, 184 lapis-lazuli double conoids, 14 carnelian date-shaped, 1 agate double conoid, large. Re-strung in original order. PG/156. (B. 3685.)
U. 8119. Cylinder seal, lapis-lazuli, l. 0·038 m., d. 0·014 m. PG/156. Pl. 194. (B. 3687.)
U. 8120. Two gold rings, each made of 4 rounds of spirally coiled wire, d. 0·033 m. PG/156. (B. 3688.)
U. 8121. Pin, Type 1, with ball head of lapis-lazuli capped with gold, l. 0·213 m. PG/156. (B. 3689.)
U. 8122. Stone vase, white calcite, blackened by fire and with part of the rim missing, Type 87, ht. 0·21 m. PG/156. (B. 3690.)
U. 8126. Stone bowl, white calcite, blackened by fire and part of the rim missing, Type 87, ht. 0·155 m. PG/158.
U. 8127. Beads: 51 gold double conoids, 1 gold faceted double conoid, 153 lapis-lazuli double conoids. Necklace, re-strung in original order. PG/158. (P. *CBS*. 16795.)
U. 8128. Gold hair-ring, 3 rounds of spirally coiled wire; d. 0·035 m. PG/158. (L. *BM*. 120678.)
U. 8130. Beads: 23 lapis-lazuli small double conoids, cylinders, and ribbed barrel beads, 3 carnelian ring beads. Necklace. PG/80. (B. 3692.)
U. 8132. Pin, Type 1, with glass ball head, l. 0·27 m. Loose in soil.
U. 8134. Stone bowl, white calcite, chipped and blackened by fire, Type 33, ht. 0·068 m., rim d. 0·048 m., base 0·022 m. PG/137. (B. 3694.)
U. 8135. Stone bowl, green steatite, having 3 bull's legs engraved on the side; part of rim broken and mended; Type 50, d. 0·22 m. PG/135. Pl. 177. (B. 3695.)
U. 8137. Beads: necklace of 90 lapis-lazuli beads, double conoids, balls, and a few date-shaped beads. PG/176. (B. 3697.)
U. 8141. Cylinder seal, shell, l. 0·045 m., d. 0·023 m. Poor condition. PG/160. Pl. 197. (B. 3701).
U. 8142. Stone bowl, white limestone, Type 41, ht. 0·08 m., rim d. 0·12 m., base 0·044 m. PG/160. (B. 3702.)
U. 8143. Stone bowl, white limestone, Type 22, rim d. 0·13 m. PG/147. (L. *BM*. 120866.)
U. 8146. Seventeen shell rings, perhaps from a belt. PG/147.
U. 8147. Beads: a necklace of 90 carnelian rings, 7 haematite rings, 12 silver double conoids, date-shaped and cylindrical beads, and 1 poppy-head. PG/147. (L. *BM*. 120646.)
U. 8149. Stone bowl, grey veined calcite, broken and riveted in antiquity, Type 19, ht. 0·064 m., rim d. 0·14 m., base 0·075 m. PG/168. (P. *CBS*. 17155.)
U. 8151. Stone mortar, coarse limestone, Type 18, ht. 0·075 m., rim d. 0·13 m. PG/83.

U. 8153. Stone bowl, miniature, very roughly made and apparently cut down from the broken base of a larger vase, ht. 0·015 m., rim d. 0·06 m. PG/127. (B. 3705.)

U. 8154. Beads: a necklace of 2 strings of lapis-lazuli beads with a few carnelian. Re-strung in original order. PG/127. (B. 3706.)

U. 8156. Stone bowl, limestone, blackened by fire, Type 21, d. 0·115 m. PG/91. (B. 3708.)

U. 8159. Beads: small lapis-lazuli balls. PG/91. (B. 3711.)

U. 8160. Shell cut as a lamp. PG/71. (B. 3712.)

U. 8162. Silver pin, Type 1, with fluted ball head of lapis-lazuli capped with gold. A small carnelian ring bead is fixed by corrosion against one end of the hole pierced through the top end of the shaft; it looks as if a string had passed through the shaft with a bead at the end of it to prevent its slipping out. In that case the pin was probably used as a toggle. Pl. 231. PG/125. (P. *CBS.* 16835.)

U. 8163. Stone bowl, white limestone. In fragments. PG/125.

U. 8164. Beads: 180 lapis-lazuli and carnelian double conoids, silver double conoids, treble ball beads, and imitation shells. Order, silver, lapis, carnelian, lapis, silver, &c. PG/125.

U. 8165. Silver finger-ring; filigree work, 6 strands of fine wire soldered together in the hoop; d. 0·018 m. PG/125.

U. 8168. Beads: small lapis and gold, found together in the soil. (B. 3713.)

U. 8169. Cylinder seal, lapis-lazuli, l. 0·019 m. Fine cutting. PG/153. Pl. 203. (B. 3714.)

U. 8170. Stone vase, white limestone, much decayed, Type 90, ht. 0·11 m., d. of rim 0·09 m. PG/153. (B. 3715.)

U. 8172. Beads: 4 gold and 7 carnelian disk beads, 4 lapis-lazuli rectangular beads, and 2 lapis cylinders. They were found fixed by the corrosion of the metal to the copper pin U. 8171, lying along its shaft, and were probably originally fastened to it. PG/153. (B. 3717.)

U. 8173. Gold diadem. A strip of fairly thick gold *c.* 0·32 m. long (a fragment is missing) by 0·028 m. wide, with rounded ends; holes at each end and in the middle for attachment. Round the edge small relief dots, the field occupied by a scene in impressed design. *v.* p. 299. PG/135. Pl. 139. (P. *CBS.* 16686.)

U. 8174. Stone vase, basic diorite, Type 16, broken but complete; ht. 0·08 m., d. 0·16 m. PG/153. (B. 3718.)

U. 8175. Stone vase, white limestone, Type 60. ht. 0·175 m., rim d. 0·10 m. In the mouth was fixed a copper bowl ht. 0·055 m., d. 0·075 m., broken. PG/151. (B. 3719.)

U. 8177. Beads: small lapis-lazuli balls, carnelian date-shaped and 1 carnelian cylinder with artificially bleached bands. PG/151. (B. 3721.)

U. 8178. Beads: 2 lapis and 1 gold faceted date-shaped, l. 0·085 m. Clearly part of a man's *brîm. v.* p. 243. PG/121. (B. 3722.)

U. 8184. Dagger, Type 7, l. 0·15 m. (the tip missing), width 0·04 m. Remains of the wooden handle secured by rivets and decorated at the pommel with copper studs; the blade had been in a wooden sheath, now completely perished. PG/121. (B. 3728.)

U. 8187. Stone vase, white calcite, Type 61, ht. 0·115 m., rim d. 0·075 m. Chipped, and surface decayed. PG/121. (B. 3731.)

U. 8188. Loom-weight (?) of grey stone. PG/121. Pl. 221. (B. 3732.)

U. 8190. Stone bowl, limestone, Type 22, but with rounded base, ht. 0·05 m., d. 0·12 m. PG/143. Pl. 177. (P. *CBS.* 17036.)

U. 8191. Shell cut as a lamp. A piece is left bridging the opening and is carved to represent a bird's head, the eye inlaid with lapis. PG/143. Pl. 101. (P. *CBS.* 17194.)

U. 8193. Shell rings, used as beads, or from a belt. PG/143. (P. *CBS.* 17030.)

U. 8194. Small shells, pierced for threading. PG/143. (P. *CBS.* 17038.)

U. 8195. Stone vase, miniature, white limestone; very roughly made, apparently cut down from the base of a larger vase; rim broken, ht. 0·017 m., d. 0·04 m. PG/143. (P. *CBS.* 17039.)

U. 8196. Stone bowl, white limestone, Type 47, ht. 0·067 m., d. 0·13 m. PG/75. (P. *CBS.* 17158.)

U. 8197. Stone bowl, white limestone, Type 73, ht. 0·145 m., rim d. 0·15 m., full d. 0·23 m. PG/117. (B. 3734.)

U. 8198. Shell cut as a lamp with bird's head as U. 8191, but the inlay missing from the eye, l. 0·16 m. PG/127. Pl. 101. (B. 3735.)

U. 8200. Copper bracelets, a pair. A hoop of thick wire with a thinner wire twisted spirally round part of its length; the second is a spiral of 2½ coils also with thinner wire twisted round it at intervals (broken). PG/149.

U. 8201. Beads: small rings of silver and lapis-lazuli and carnelian with others of glazed frit. PG/143.

U. 8202. Cylinder seal, shell, much decayed, l. 0·024 m. Gilgamish and Enkidu fighting a lion and a bull. PG/143. (L. *BM.* 120561.)

U. 8204. Stone bowl, white limestone, Type 22, ht. 0·045 m., d. 0·093 m. PG/123. (B. 3736.)

U. 8206. Stone bowl, white limestone, Type 47, ht. 0·065 m., d. 0·165 m. PG/111.

U. 8207. Stone bowl, white limestone, Type 22, ht. 0·055 m., d. 0·125 m. PG/119. (B. 3738.)

U. 8209. Gold hair-rings, a pair; made of 2½ spiral turns of gold wire. Found one on each side of the head against the ear. D. 0·027 m. PG/159. (P. *CBS.* 16832.)

U. 8210. Beads: large balls of lapis-lazuli. They seemed to have been on the top of the head, as a chaplet, connected with the silver comb U. 8212. PG/159.

U. 8211. Beads: lapis-lazuli and carnelian from separate strings. PG/159. (P.)

U. 8212. 'Comb' or head ornament in silver, gold, and lapis. The body, consisting of a stem broadening into a flat palm with 5 finger-like projections, is of silver; at the tip of each

'finger' is a ball of lapis capped with gold. It was stuck into the hair above the right ear, and above the left ear there was a similar comb, found broken and decayed. L. of stem 0·11 m., total l. 0·22 m., total width 0·10 m. *v.* p. 240. PG/159. Pl. 137. (P. *CBS.* 16790.)

U. 8213. Amulet, crescent-shaped and flat, of light pinkish stone. PG/159. Pl. 221. (P. *CBS.* 16830.)

U. 8214. Silver rings with bead-spacers attached, resembling the gold rings of Shub-ad's head-dress, cf. Pl. 129. PG/159. (P. *CBS.* 16704.)

U. 8215. Stone vase, white calcite, Type 61, ht. 0·10 m., rim d. 0·07 m. PG/159. (L. *BM.* 121861.)

U. 8216. Stone bowl, of strongly veined stalagmitic calcite, Type 66, ht. 0·115 m., d. 0·165 m. PG/159. Pl. 179. (L. *BM.* 121865.)

U. 8217. Offering-table, white limestone, made in two pieces, bowl and stem being separate. On the stem is a tree pattern, lightly incised. PG/159. Pl. 180.

U. 8218. Stone bowl, translucent white quartzite, Type 41, ht. 0·10 m., d. 0·195 m. PG/159. (L. *BM.* 121874.)

U. 8219. Stone bowl, white limestone, Type 47, ht. 0·07 m., d. 0·13 m. PG/159. (P. *CBS.* 17045.)

U. 8220. Stone bowl, white limestone, Type 15, ht. 0·11 m., d. 0·28 m. PG/159. (L. *BM.* 121876.)

U. 8221. Stone vase, white calcite, Type 78, ht. 0·11 m., d. 0·105 m. PG/159. Pl. 179. (P. *CBS.* 17124.)

U. 8223. Stone offering-table, Type 101; only the stem left, and that not perfect; on it, a scratched design of palm-leaves. Ht. 0·19 m., base d. 0·11 m. PG/161. Pl. 221. (B. 3740.)

U. 8224. Beads: lapis-lazuli and carnelian small balls, date-shaped and cylindrical, and a few gold ribbed ball beads. PG/161. (B. 3741.) (L. *BM.* 120605.) (P. *CBS.* 16809.)

U. 8225. Stone bowl, white limestone, Type 24, ht. 0·03 m., d. 0·095 m. PG/165. (B. 3742.)

U. 8226. Silver pin, Type 1, with ball head of lapis-lazuli capped with gold; l. 0·175 m. Seven beads found just by it may have been fixed to it by a thread passing through the hole in the shaft. PG/165. (B. 3743.)

U. 8228. Cylinder seal, lapis-lazuli, l. 0·03 m. PG/165. Pl. 196. (B. 3746.)

U. 8229. Beads: gold double conoids, lapis-lazuli double conoids and one large lapis faceted date-shaped bead. PG/165. (B. 3747.)

U. 8233. Clay offering-table, Type 243; the stem decorated with incised design of palm-leaves; broken but complete, ht. *c.* 0·32 m. PG/175.

U. 8237. Stone bowl, white limestone, broken, d. 0·13 m. PG/165.

U. 8238. Stone bowl, white limestone, broken, d. *c.* 0·18 m. PG/165. (B. 3751–2.)

U. 8239. Stone vase, white limestone, the sides vertically fluted, Type 82, ht. 0·105 m., rim d. 0·045 m. PG/169. Pl. 177.

U. 8240. Stone bowl, dark steatite, well polished, Type 49, ht. 0·10 m., d. 0·22 m. PG/139.

U. 8241. Clay pot, of thick rough ware, with 2 loops below the base and an upturned spout, ht. 0·085 m., d. 0·13 m. Found loose in the soil at depth of *c.* 2·00 m.

U. 8242. Stone bowl, fine white limestone, Type 42, ht. 0·06 m., d. 0·115 m. PG/171. (B. 3753.)

U. 8243. Stone bowl, white limestone, Type 97, ht. 0·075 m., l. 0·22 m., width 0·165 m. The type, with its flat base and straight parallel sides converging to a spout, may be a translation into stone of a wooden original. PG/75. (L. *BM.* 121851.)

U. 8244. Ostrich-shell (broken) cut open at one end and used as a vase; the rim and base encrusted with small tesserae, squares, and triangles, of shell, lapis-lazuli, and pink paste (or limestone?). Cf. U. 9255, Pl. 156. PG/189. (L. *BM.* 123665.) (P. *CBS.* 16743.)

U. 8245. Clay offering-table, Type 243. There are 2 vertical slits in the stem and round holes below them in the splayed base; on the base and half-way up the stem is roughly incised decoration, then a band in relief on which were 4 figures, modelled in the round, of seated gazelles (one missing). Broken and imperfect, ht. 0·35 m., d. of bowl 0·31 m., d. of base 0·29 m. Found low down loose in the soil. Pl. 180. (P. *CBS.* 17310.)

U. 8246. Copper knife, broken, l. 0·135 m.; on blade are well-preserved traces of a woven rush sheath covered with linen. PG/181. Pl. 224.

U. 8249. Stone bowl, white limestone, Type 47, ht. 0·04 m., d. 0·095 m. PG/169. (L. *BM.* 120867.)

U. 8250. Beads: 28, lapis and shell. Found together in a basket. PG/169.

U. 8253. Silver bowl, with a handle of silver wire inserted through 2 holes on either side perforated immediately below the rim, ht. 0·07 m., rim d. *c.* 0·115 m., base 0·045 m. Fragmentary, type doubtful. PG/138. (B. 3758.)

U. 8257. Stone bowl, white limestone, Type 46, but with double instead of single lugs, ht. 0·078 m., rim d. 0·175 m., base 0·065 m. PG/138. (B. 3762.)

U. 8260. Stone bowl, white limestone, Type 48, with notched rim, ht. 0·05 m., rim d. 0·114 m. PG/172. (P. *CBS.* 17171.)

U. 8264. Beads: 40 rings of blue-glazed frit, 1 gold double conoid, 1 carnelian date-shaped and 1 rock crystal ring. PG/190.

U. 8265. Stone vase, white calcite, Type 86, part of rim missing, ht. 0·19 m., rim d. 0·11 m., base 0·06 m. PG/188. (L. *BM.* 121856.)

U. 8267. Beads: 49, lapis and carnelian double conoids, 2 gold double conoids, 1 small silver ball, and a number of minute carnelian rings. Found loose in the soil near PG/184 and at the same level. They may have belonged to the ruined grave from which came U. 8269, &c. (B. 3765.)

U. 8269. Gold pendant in the form of a seated bull.

The body is in profile l. and the head is turned to the front over the left shoulder. A false beard is tied beneath the chin by a cord which is shown passing across the muzzle. The attitude of the animal is that of the bulls in the copper frieze from the al-'Ubaid temple; it is a favourite pose with the Sumerian sculptor, cf. U. 8033 and Shub-ad's diadem. It is of remarkably fine work. Originally there were 4 small gold beads adhering to the right side of the body, by the suspension-hole; the amulet therefore hung on a string of gold beads. Found loose in the soil, at a depth of 3·00 m. and 3·00 m. to the east of PG/184. It probably came from the same ruined grave as the beads, &c., U. 8267–8274. Ht. 0·018 m., l. 0·015 m. Pl. 143; Fig. 2, p. 45. (P.)

U. 8270. Gold 'beech-leaf' pendant, from a wreath, l. 0·03 m. *v.* U. 8269.

U. 8271. Gold beads; 27 in all, double conoids, cylinders, minute rings, and a minute rectangular rod spacer. *v.* U. 8269.

U. 8272. Gold wire ring, d. 0·03 m., thickness of wire 0·001 m. *v.* U. 8269.

U. 8273. Stone bowl, white limestone, with indented rim, Type 47, ht. 0·052 m., rim d. 0·092 m., base 0·052 m. *v.* U. 8269. (L. *BM.* 120868.)

U. 8274. Beads: about 250, mostly small; 5 minute gold balls, 1 large faceted lapis-lazuli date-shaped, 18 lapis double conoids, 14 lapis date-shaped, 18 carnelian double conoids and cylinders, a few ribbed lapis barrels and many small lapis and carnelian rings; also a fragment of lapis inlay with incised concentric arcs. *v.* U. 8269. (B. 3767.) (L. *BM.* 120607.) (P. *CBS.* 16825.)

U. 8275. Stone bowl, white calcite, Type 61, ht. 0·13 m. PG/180. (B. 3768.)

U. 8276. Offering-table of white limestone, Type 101, made in two pieces, a flat plate and a foot fastened together with bitumen; broken and incomplete, ht. *c.* 0·27 m. PG/180. (B. 3769.)

U. 8277. Stone bowl, white limestone, Type 97, ht. 0·15 m., l. 0·57 m., width 0·33 m. PG/183. (B. 3770.)

U. 8279. Silver pin, Type 1, with lapis-lazuli ball head, l. 0·15 m. PG/183. (B. 3772.)

U. 8283. Stone bowl, white calcite, Type 16, ht. 0·148 m., rim d. 0·186 m., base 0·065 m. PG/182. (B. 3778.)

U. 8290. Cylinder seal, pinkish shell, blackened by fire, l. 0·04 m., d. 0·017 m. Bad condition. Half of the circumference of the seal has one register only. PG/168. Pl. 204. (P. *CBS.* 16863.) (B. 3783.)

U. 8293. Stone bowl, white limestone, Type 47, with indented rim, part of which is missing; d. 0·082 m. PG/178. (B. 3784.)

U. 8296. Stone bowl, white limestone, with indented rim, Type 48, rim d. 0·122 m. PG/196. (L. *BM.* 121871.)

U. 8297. Stone bowl, white limestone, Type 22, ht. 0·072 m., rim d. 0·20 m. PG/196. (P. *CBS.* 17178.)

U. 8300. Stone vase, white calcite, Type 61, ht. 0·125 m., rim d. 0·09 m. PG/196. (P. *CBS.* 17121.)

U. 8301. Shell roundel, formed as a flower rosette with 8 petals of which 5 are marked with engraved circles; the face is slightly convex, the edge serrated, and there is a hole through the centre, d. 0·054 m. PG/169. Pl. 221. (B. 3787.)

U. 8306. Silver chain, fragments of; made with the same sort of crochet link as the gold chain U. 8002, giving a square section, but this is heavier and thicker; total length 0·11 m. It was certainly in 2 lengths and was attached to the beads which were found with it, i.e. 3 large double conoids, 2 of lapis-lazuli and 1 of silver, and 3 carnelian rings, the whole forming a man's *brîm*. A sard cylinder bead was found with the rest but can hardly have belonged. PG/179. (B. 3791.)

U. 8310. Beads: one carnelian, a few lapis-lazuli, and a number of very small shell rings. PG/181. (B. 3795.)

U. 8311. Stone bowl, white limestone, Type 22, ht. 0·05 m., rim d. 0·105 m. PG/155. (B. 3796.)

U. 8313. Shell duck. The body is made of a large conch shell cut open above; the head is of pink limestone and was fixed on by a peg driven through a hole in the top end of the shell; below the attached head there is encrustation work imitating the bird's breast-feathers in lapis-lazuli and shell, small diamond and triangular pieces set in bitumen. Some of the tesserae were preserved in position, others, which had fallen off, have been replaced, but the entire pattern is original. L. 0·21 m. PG/183. Pl. 102. (B. 3798.)

U. 8319. Stone bowl, white limestone, Type 19, ht. 0·055 m., d. 0·12 m. PG/163. (L. *BM.* 121872.)

U. 8320. Stone bowl, white limestone, with indented rim, Type 19, ht. 0·075 m., d. 0·122 m. PG/177. (P. *CBS.* 17306.)

U. 8321. Stone bowl, white limestone, Type 47, ht. 0·065 m., rim d. 0·13 m. PG/131. (B. 3800.)

U. 8323. Two pottery crescents, the larger one having incised marks. PG/171. Pl. 221. (L. *BM.* 120915.) (P. *CBS.* 16831.)

U. 8325. Amulet, lapis-lazuli, in the form of a seated bull; a false beard is attached to the chin, ht. 0·012 m., l. 0·018 m. Loose in soil. (P. *CBS.* 16802.)

U. 8326. Stone bowl, white limestone, with indented rim, Type 48, ht. 0·04 m., d. 0·125 m. PG/119. (B. 3803.)

U. 8328. Stone bowl, white limestone, with indented rim, Type 48. Found on matting about 3·30 m. below the surface, from a plundered grave. (P. *CBS.* 17174.)

U. 8329. Arrow-heads, copper, a set of 8 found together, of 2 slightly different types, 5 b and 5 c, 1 having a more angular shoulder than the other. The tangs fitted into reed shafts, of which traces were visible in the soil. L. 0·137 m. PG/203. (L. *BM.* 120760.) (P.)

U. 8331. Stone vase, white calcite, Type 7, ht. 0·08 m., d. 0·10 m. PG/201. Pl. 180. (L. *BM.* 121866.)

U. 8332. Silver object, possibly a mirror, of thin flat metal; the silver was completely decayed and the edges are ragged and irregular, but the shape is fairly definite and approaches that of U. 11484 on Pl. 230. A razor of silver is improbable, and a mirror seems the more likely explanation. L. 0·24 m., width 0·09 m., l. of handle 0·09 m. PG/203.

U. 8339. Cylinder seal, lapis-lazuli, l. 0·044 m. PG/209. Pl. 207. (B. 3808.)

U. 8340. Stone bowl, white limestone, Type 61, l. 0·20 m., width 0·15 m., ht. 0·07 m. PG/205. (B. 3809.)

U. 8342. Cylinder seal, mottled grey steatite, l. 0·031 m., d. 0·021 m. PG/193. Pl. 210. (L. *BM.* 120543.)

U. 8345. Cylinder seal, lapis-lazuli, l. 0·012 m., d. 0·007 m. Loose in the soil. Pl. 208. (L. *BM.* 120559.)

U. 8346. Stone bowl, veined white calcite, Type 66, ht. 0·065 m., d. 0·11 m. PG/213. (B. 3811.)

U. 8347. Stone bowl, dark greenish steatite, the edge ornamented by nicking in a chevron pattern, Type 19, ht. 0·08 m., d. 0·16 m. PG/213. (B. 3812.)

U. 8349. Clay phallus, a fragment only, broken off from some object, perhaps a figurine; interesting as showing circumcision. Found 5·00 m. down, in fairly clean soil (the filling of the grave) immediately above PG/213. The figurines of the pre-cemetery period being unbaked whereas this is of baked clay, it may be contemporary with the graves.

U. 8351. Stone vase, white calcite (the surface much decayed), Type 4, ht. 0·18 m., d. 0·11 m. PG/219. (B. 3813.)

U. 8352. Stone bowl, white calcite (the surface much decayed), Type 55, ht. 0·05 m., d. 0·16 m. PG/219. (B. 3814.)

U. 8359. Cylinder seal, lapis-lazuli, l. 0·039 m. Seal of *arad* ^{d}*bau*. The cylinder was worn strung on a bangle of thin flattened silver wire (now distorted and broken). PG/219. Pl. 204. (B. 3822.)

U. 8361. Gold ear-rings, a pair, loops with overlapping thickened lunate ends; cf. Pl. 219, Type 2. PG/219. (B. 3824.)

U. 8363. Spindle-whorl with plain domed top, of glazed frit now bleached white. PG/219. (B. 3826.)

U. 8364. Beads: a small set of mixed lapis-lazuli and carnelian. PG/219.

U. 8366. Copper saw, with solid tang; the tip missing. The teeth are simply nicked and not set; l. (as incomplete) 0·32 m., width 0·085 m. Cf. Pl. 229, Tool 3. PG/121. (P. *CBS.* 17445.)

U. 8367. Cylinder seal, lapis-lazuli, l. 0·042 m., d. 0·022 m. Fine work. PG/221. Pl. 203. (B. 3828.)

U. 8368. Amulet, lapis-lazuli, in the form of a seated bull; the body is in profile, the head turned over the shoulder to the front; a formally curled square beard is tied under the animal's chin by a cord passing over its muzzle, l. 0·027 m., ht. 0·02 m. PG/221. Pl. 142. (B. 3829.)

U. 8369. Gold hair-rings, a pair, each made of 2½ spiral coils of gold wire thinned to points at the ends, d. 0·018 m. PG/221. (B. 3830.)

U. 8371. Stone vase, white calcite, Type 61, ht. 0·09 m., rim d. 0·075 m. On one side the surface is badly perished. PG/221. (B. 3832.)

U. 8372. Stone bowl, white calcite, Type 19, ht. 0·035 m., rim d. 0·075 m., base 0·04 m. Irregularly made and apparently cut down from a larger pot. PG/221. (B. 3833.)

U. 8373. Stone bowl, of strongly veined stalagmitic calcite, Type 24, ht. 0·10 m., d. 0·14 m. The surface much decayed. PG/221. (B. 3834.)

U. 8374. Silver pendant; filigree wire work with spiral whorls standing in high relief, hung on a quadruple band of silver and lapis beads. Poor condition. PG/221. Pl. 219. (B. 3835.)

U. 8375. Beads: 1 carnelian and 1 lapis-lazuli large ball and 6 flat diamond-shaped lapis beads. PG/221. (B. 3836.)

U. 8376. Beads: small lapis-lazuli cylinders and carnelian rings, originally forming a wreath with silver pendant rings. PG/221. (B. 3837.)

U. 8376 B, C. Beads: large lapis-lazuli and carnelian and silver date-shaped beads and some quadruple silver tubes (the last perhaps went with U. 8374). PG/221. (B. 3838.)

U. 8376 D. Beads: lapis-lazuli double conoids and 2 carnelians. PG/221. (B. 3840.)

U. 8380. Stone vase, white calcite, Type 91, ht. 0·13 m., d. 0·08 m. PG/225. Pl. 180. (B. 3844.)

U. 8385. Cylinder seal, shell, l. 0·03 m. PG/225. Pl. 207. (B. 3849.)

U. 8386. Stone bowl, white limestone, Type 43, unusual breast-cup form with 4 small horizontal lugs, vertically pierced, projecting from the rim, ht. 0·10 m., d. 0·13 m. PG/227. (B. 3850.)

U. 8387. Stone vase, white calcite, roughly made, Type 80, ht. 0·10 m., rim d. 0·06 m. PG/227. Pl. 180. (B. 3851.)

U. 8388. Cylinder seal, shell, l. 0·053 m. Burnt and blackened and much defaced. PG/227. Pl. 192. (B. 3852.)

U. 8389. Cylinder seal, translucent green calcite (?), l. 0·04 m. PG/227. Pl. 196. (B. 3853.)

U. 8391. Beads: lapis-lazuli rings and double conoids, carnelian double conoids, cylinders, faceted cylinders and rings. PG/227. (B. 3855.)

U. 8396. Reticule; the case is of copper originally covered with very thin red leather, of which traces were preserved; it contains 4 instruments of silver: the rings at the top of the latter are made by thinning out the shaft, looping it over, and then twisting the fine wire-like end round the stem. Total l. *c.* 0·08 m. PG/231. (L. *BM.* 120764.)

U. 8397. Copper bird, a silhouette in thin sheet metal with the front wing added in relief. It was possibly the head of a pin, and a fragment of a copper pin was actually found close to it. PG/231. Pl. 219.

U. 8399. Stone vase, white calcite, Type 11, ht. 0·14 m., rim d. 0·075 m. PG/237. (P.)

U. 8400. Beads: lapis-lazuli and carnelian, 14 in all. Found at the neck. PG/237.

U. 8401. Stone bowl, white calcite with marked yellow veins, Type 64; ht. 0·10 m., rim d. 0·12 m., base 0·07 m. PG/208. (B. 3860.)

U. 8402. Stone bowl, white calcite, Type 54, ht. 0·04 m., rim d. 0·095 m. PG/208. (B. 3861.)

U. 8403. Beads: 75 roughly shaped lapis-lazuli balls and a few carnelian rings. PG/208. (B. 3862.)

U. 8404. Silver pin, Type 1, with ball head of stone capped with gold. PG/208. (B. 3863.)

U. 8406. Stone vase, white calcite, Type 92, ht. 0·215 m., rim d. 0·084 m. PG/202. (B. 3865.)

U. 8407. Stone mortar, white limestone, Type 37, very thick and heavy, d. 0·12 m. PG/202. (B. 3866.)

U. 8409. Beads: 11, lapis-lazuli double conoids, gold and carnelian cylinders. PG/202. (B. 3868.)

U. 8410. Cylinder seal, white limestone, l. 0·034 m., d. 0·02 m. Men and bulls fighting. Poor condition. PG/202. (B. 3869.)

U. 8413. Stone bowl, white limestone, broken, ht. 0·09 m., rim d. 0·10 m. PG/186.

U. 8416. Cylinder seal, green steatite, l. 0·032 m. Slightly carinated. One end chipped. Inscribed. *v. Ur: Royal Inscr.* 269 and p. 312. Found loose in the soil. Pl. 209. (P. *CBS.* 16870.)

U. 8417. Cylinder seal, lapis-lazuli, l. 0·026 m., d. 0·013 m. An obliterated inscription. Loose in the soil at depth of 1·00 m. Pl. 216. (B. 3873.)

U. 8420. Cylinder seal, lapis-lazuli, l. 0·19 m., d. 0·01 m. PG/226. Pl. 207. (B. 3874.)

U. 8421. Beads: 35, mostly minute rings of lapis-lazuli with 2 lapis cylinders, 2 carnelian cylinders, and 2 carnelian balls. PG/226. (B. 3875.)

U. 8424. Stamp seal, rectangular, with pierced knob handle, 0·019 m.×0·021 m., ht. 0·002 m. Found loose in soil. Pl. 199. (B. 3878.)

U. 8425. Cylinder seal, black steatite, l. 0·018 m., d. 0·009 m. A seated deity and two worshippers. Found loose in the soil. (B. 3879.)

U. 8428. Silver axe-head, Type A 3, l. of shaft 0·09 m., l. of blade over all 0·14 m. PG/250.

U. 8429. Beads: 13, 1 gold faceted double conoid and 2 of lapis-lazuli, 2 lapis double conoids, 1 ribbed ball and 1 barrel; 1 carnelian barrel and 2 banded agates. PG/241. (L. *BM.* 120592.)

U. 8430. Amulet (?), a crescent of baked clay, span, 0·09 m., ht. 0·04 m. PG/241. (L. *BM.* 121882.)

U. 8432. Beads: 5 gold and 2 carnelian double conoids. PG/247. (L. *BM.* 120604.)

U. 8435. Stone bowl, white limestone, Type 90, ht. 0·10 m., rim d. 0·65 m. PG/243. (B. 3883.)

U. 8438. Beads: 47 in all; 13 lapis-lazuli double conoids came together, then 2 lapis ribbed balls, 1 carnelian with bleached pattern, 2 lapis ribbed balls, gold ditto and 2 lapis ditto, 1 bleached carnelian, 2 lapis and 2 gold ribbed balls, 2 lapis ditto, &c. PG/248. (B. 3886.)

U. 8439. Beads: 29, 4 silver double conoids, 10 carnelian barrels, the rest lapis double conoids. Re-strung in original order. PG/249. (B. 3887.)

U. 8441. Beads: 29, gold balls, barrels, and cylinders, carnelian and lapis-lazuli double conoids and rings. Re-strung in original order. PG/260. (B. 3889.)

U. 8443. Stone vase, white calcite, Type 2, ht. 0·16 m., rim d. 0·09 m., base 0·08 m. PG/258. (P.)

U. 8445. Stone vase, white calcite, Type 7, ht. 0·075 m., rim d. 0·085 m., base 0·10 m. PG/286.

U. 8446. Beads: 178, lapis-lazuli double conoids, barrels, and cylinders, carnelian barrels, and 4 minute gold balls. Originally 3 necklaces, re-strung in their original order. PG/286. (P. *CBS.* 16803.)

U. 8447. Stone vase, white calcite, Type 60, ht. 0·13 m. PG/286. (P. *CBS.* 17118.)

U. 8452. Stone bowl, grey limestone, Type 46, having below the rim on each side a lug handle twice pierced vertically, rim d. 0·16 m. PG/254. (B. 3894.)

U. 8453. Stone bowl, grey limestone, Type 20, ht. 0·07 m., rim d. 0·17 m. PG/254. (B. 3895.)

U. 8454. Four shell plaques 0·019 m. sq., with engraved designs on one face, Pl. 221. Six disks of black shale, d. 0·024 m., each originally inlaid with a dot of white shell (?) in the centre of the top face (the inlay missing from 3 examples); and fragments of a slender bone rod, square in section, with engraved pattern. They are clearly parts of a game; *v.* p. 279. PG/254. Cf. U. 8509. (B. 3896.)

U. 8455. Stone bowl, greyish calcite, Type 20, broken, riveted, and stuck together with bitumen in antiquity (3 rivets), ht. 0·10 m., rim d. 0·22 m., base 0·11 m. PG/118. (B. 3897.)

U. 8456. Stone bowl, grey limestone, Type 36, d. 0·10 m. PG/282. (P. *CBS.* 17170.)

U. 8461. Cylinder seal, grey steatite, l. 0·034 m., d. 0·012 m. Found loose in the soil at depth of 3·00 m. Pl. 200. (L. *BM.* 120550.)

U. 8463. Stone bowl, white calcite, Type 14, rim d. 0·135 m. PG/288. (B. 3899.)

U. 8464. Cylinder seal, lapis-lazuli, l. 0·022 m., d. 0·011 m. PG/288. Pl. 204. (B. 3901.)

U. 8465. Beads: 5, 2 carnelian and 1 lapis-lazuli barrels, 1 carnelian double conoid and a lapis bead (?) in the form of an eye-socket. PG/288. (B. 3902.)

U. 8466. Weights: 1 silver date-shaped, 1 haematite date-shaped, 1 conoid, 1 ovoid, and 1 roughly cylindrical, of haematite. PG/288. (B. 3903.)

U. 8469. Beads: 2 lapis-lazuli balls and 2 double conoids, 1 carnelian double conoid. PG/264. (P. *CBS.* 16824.)

U. 8471. Amulet, a squatting monkey, of glazed frit, originally greenish blue, now bleached white, ht. 0·031 m. It was found loose in the soil, deep down, not in connexion with any grave; but it should belong to the cemetery period rather than to an earlier. The type is well known in the IIIrd Dynasty and rather earlier, and may go far back; cf. the gold monkey from the grave of Mes-kalam-dug, Pl. 165. (P. *CBS.* 17200.)

U. 8476. Cylinder seal, black steatite, l. 0·02 m.,

d. 0·008 m. Illegible inscription. Found at the level of PG/304 and 0·50 m. away from it; possibly belonging to the grave. Pl. 215. (P. *CBS.* 16887.)

U. 8481. Copper vase, Type 96, ht. 0·13 m. There was a handle at the top fixed into a hole in the neck of the vase. Broken and mis-shapen. PG/250. (B. 3909.)

U. 8486. Amulet, a crescent of baked clay, d. 0·085 m. PG/220.

U. 8488. Clay rattle, circular, with slightly convex sides and indented rims; a type common in the later periods but occasionally found early. The specimen was found close to PG/304, and may have belonged to the grave. D. 0·09 m., thickness 0·05 m. (B. 3913.)

U. 8492. Stone bowl, white limestone, Type 47, with indented rim, rim d. 0·105 m. PG/320. (B. 3917.)

U. 8494. Cylinder seal, shell, blackened by fire, l. 0·029 m., d. 0·015 m. PG/326. Pl. 201. (B. 3918.)

U. 8495. Beads: 'dog-collar' necklace of gold and lapis-lazuli triangles, and 3 plain strings of lapis double conoids, graded in size. PG/332. (B. 3919.)

U. 8496. Gold hair-rings, a pair, of $2\frac{1}{2}$ spiral coils of thick gold wire, d. 0·027 m. PG/332. (B. 3920.)

U. 8497. Beads: 6 gold and 6 lapis-lazuli rectangular oblong spacers strung with minute lapis balls and carnelian rings, threaded alternately. The string was worn across the forehead over a silver diadem which had decayed completely. PG/332. (B. 3921.)

U. 8498. Stone vase, white calcite, Type 63, translucent, rim d. 0·082 m. PG/332. (B. 3922.)

U. 8504. Stone vase, white calcite, Type 66, ht. 0·07 m., rim d. 0·11 m. PG/261. (L. *BM.* 120864.)

U. 8509. Gaming-pieces. Six squares of shell, 0·017 m. sq., 4 plain, 1 engraved (Pl. 221); 9 roundels of black shale, d. 0·021 m., 1 plain, the rest inlaid each with 7 white dots, 6 round the edge and 1 in the centre (Pl. 221); a bone rod, square in section, with engraved lines, l. 0·06 m. *v.* U. 8454. PG/261.

U. 8510. Gold stiletto and tweezers, l. 0·067 m. The tweezers are made out of 2 strips of metal welded together but left separate at the lower end, thus forming a spring; the ends are bevelled to an edge and flattened out to an extreme width of 0·0045 m. The stiletto is square in section and tapered to a point. The rings which attach them together are made by drawing out the metal of the shaft into a long wire which is looped over and twisted round itself. PG/261. Pl. 218.

U. 8513. Cylinder seal, shell, much decayed; in the upper register an inscription, *v. Ur: Royal Inscr.* No. 270, and p. 316. PG/261. Pl. 197. (P. *CBS.* 16869.)

U. 8517. Stone vase, white calcite, Type 73, bad condition, ht. 0·105 m., rim d. 0·10 m., full d. 0·16 m. PG/257. (L. *BM.* 121864.)

U. 8519. Clay pot, of egg-shell ware, light pinkish drab, with a narrow band of light red paint round the shoulder. The vase was found broken into small fragments, and the shape is doubtful. It was apparently in the grave PG/261, but may have belonged to the older rubbish in which the grave was dug. The type of ware, and the decoration, are characteristic of a much older period, coming soon after Jemdet Nasr; if it is to be attributed to the grave, it is a survival not paralleled in the cemetery; in the rubbish it would be in its expected environment.

U. 8520. Stone vase, white calcite, Type 86, ht. 0·225 m., rim d. 0·115 m. PG/263. (B. 3926.)

U. 8521. Stone vase, white calcite, Type 87, ht. 0·185 m., rim d. 0·095 m. PG/263. (B. 3927.)

U. 8522. Copper pin, type 1, with ribbed ball head of lapis-lazuli capped with gold, l. 0·16 m. PG/263. (B. 3928.)

U. 8523. Silver hair-rings, a pair, made of $3\frac{1}{2}$ spiral coils of plain wire, d. 0·036 m. PG/263. (B. 3929.)

U. 8524. Silver frontlet, an oval of thin plate 0·022 m. × 0·18 m., with holes at the ends for attachment; it was worn over the forehead. With it a silver ribbon 0·005 m. wide twisted in a spiral; this must have been wound round a lock of hair brought across the front of the head above the frontlet, though it seemed to have slipped to the back of the head when found. In bad condition. PG/263. (B. 3930.)

U. 8525. Beads: 5 carnelian and 4 gold long double conoids (l. 0·052 m.) and 1 carnelian flattened ovoid, strung with small fluted balls of gold and lapis between them. PG/263. (B. 3931.)

U. 8526. Beads: gold and lapis-lazuli double conoids, probably 2 strings. PG/263. (B. 3932.)

U. 8527. Beads: a 'dog-collar' in the antique fashion but differently made. Sixteen gold triangles each made up of 21 minute gold ball beads soldered together, and between them triangles formed of minute lapis-lazuli and carnelian ring beads. PG/263. Pls. 133, 220. (B. 3933.)

U. 8528. Wreath of 15 gold ring pendants strung with small lapis-lazuli balls and carnelian rings in the usual order. PG/263. Pl. 220. (B. 3934.)

U. 8529. Cylinder seal, lapis-lazuli, l. 0·02 m. Anciently broken in half and the broken end ground down smooth. The lower parts only of 3 seated figures visible. PG/263. (B. 3935.)

U. 8533. Stone bowl, white limestone, Type 102; broken and in bad condition, ht. 0·07 m., l. 0·32 m., width 0·19 m. PG/263. (B. 3939.)

U. 8534. Stone bowl, dark steatite, Type 19, ht. 0·04 m., d. 0·07 m. PG/239. (B. 3940.)

U. 8535. Clay offering-table, reddish clay, broken but virtually complete; incised decoration on stem. PG/123.

U. 8536. Clay offering-table, reddish clay, broken but virtually complete; incised decoration on stem. PG/175. (L. *BM.* 121750.)

U. 8537. Clay offering-table, red clay, broken but virtually complete; incised decoration on stem. PG/237.

U. 8538. Conch shell cut into the form of a lamp (?); above the opening is a crude carving of a bird's head, the eye inlaid with lapis-lazuli. Cf. Pl 102. PG/265. (B. 3941.) (L. *BM.* 120861.)

U. 8539. Beads: 10, double conoids and 1 diamond of lapis-lazuli. PG/265. (B. 3942.)

U. 8540. Stone bowl, of strongly veined stalagmitic calcite, Type 24, ht. 0·11 m., d. 0·195 m. PG/267. (B. 3943.)

U. 8544. Stone bowl, white limestone, Type 19, with notched rim. PG/271. (B. 3946.)

U. 8551. Beads: heavily ribbed large balls of glazed frit, probably originally blue, now discoloured. PG/285. (B. 7999.)

U. 8552. Beads: shell rings, d. *c.* 0·025 m. PG/285.

U. 8553. Stone bowl, white limestone, Type 42, ht. 0·06 m., d. 0·12 m. PG/297. (P. *CBS.* 17177.)

U. 8554. Beads: large shell rings, and a number of small shells pierced for threading. PG/277. (B. 3951.)

U. 8557. Limestone plaque, fragment of, with scenes sculptured in low relief. The plaque, which was probably originally about square, is 0·27 m. wide and 0·025 m. thick; there are holes at the bottom corners for attachment and a square hole in the centre, its lower edge coming 0·13 m. from the base of the stone. The lower part only of the plaque, broken into two pieces, was found, loose in the soil at the top of the grave stratum (but in it) on the upper slope of the original rubbish mound at the extreme north-west limits of the cemetery; it was close to a circular patch of pavement made of plano-convex burnt bricks and enclosed by a plano-convex mud-brick wall, but at a rather lower level, and probably had no connexion with it. For description *v.* p. 376; for date *v.* p. 377. Pl. 181. (P. *CBS.* 17086.)

U. 8558. Stone vase, white calcite, Type 86, ht. 0·18 m., rim d. 0·09 m. PG/273. (B. 3952.)

U. 8561–2. *Brîm*, consisting of 2 lengths of gold chain, normal type, and 2 lapis-lazuli and 1 gold faceted date-shaped beads and 2 carnelian rings. PG/317. (B. 3955–6.)

U. 8564. Gold hair-ring, or ear-ring, 1½ spiral coils of gold wire thickened towards the ends and then pointed, d. 0·015 m. PG/317. (B. 3957.)

U. 8565. Chain of 6 lapis-lazuli rectangular bar and 4 carnelian flat date-shaped beads, angular in section, supporting a gold centre-piece, a disk of cloisonné work, flower design, with inset lapis petals and carnelian between the petals (2 of the carnelians missing); one of the attachment rings of the disk missing. PG/317. Pl. 133. (B. 3958.)

U. 8567. Gold pendant, of thin flat wire, in the form of a rosette enclosed in a ring; with attachments for 2 strings of beads, d. 0·02 m. PG/319. (B. 3960.)

U. 8568. Gold leaves and flowers from a wreath; 3 leaves of thin gold with the stem bent over to make a spacer for a double string of beads, and 5 flower rosettes from the same string (the attachment of one missing). PG/319. Pl. 220. (B. 3961.)

U. 8569. Beads: gold and lapis-lazuli, small squares with a spiral pattern engraved on the gold beads and carved in relief on the lapis. Probably strung up with small rings and perhaps with U. 8567. PG/319. Pl. 134. (B. 3962.)

U. 8570. Gold ear-ring, Type 5, d. 0·014 m. PG/319. Pl. 219. (B. 3963.)

U. 8571. Beads: 11 gold and many lapis-lazuli double conoids, 1 gold rectangular bead, and some mixed carnelians; found in disorder together. PG/319. (B. 3694–5.)

U. 8572. Beads: 1 gold, 3 carnelian, and 8 lapis-lazuli. PG/319. (B. 3966–7.)

U. 8575. Cylinder seal, shell, l. 0·028 m., d. 0·017 m. very archaic style. PG/319. Pl. 195. (B. 3970.)

U. 8578. Stone saw, of red chert, set in bitumen. PG/319. Pl. 221. (B. 3973.)

U. 8584. Cylinder seal, lapis-lazuli, l. 0·021 m. PG/323. Pl. 203. (L. *BM.* 120553.)

U. 8585. Beads: gold, 19 small balls, 14 flat disks, and 1 large double conoid, some carnelian diamonds and small balls and lapis-lazuli small balls. PG/323. (P. *CBS.* 16816, 16820.)

U. 8588. Stone bowl, white limestone, broken, ht. 0·16 m., d. 0·15 m. PG/287.

U. 8591. Stone bowl, white limestone, broken, d. 0·115 m. PG/303. (P.)

U. 8592. Beads: small lapis-lazuli and carnelian balls strung in pairs of alternate colours. PG/303.

U. 8598. Silver pin, Type 5, with the top edge of the triangular head rolled over perhaps to hold a feather (?). Cf. the gold example from Queen Shub-ad's tomb, Pl. 160. PG/333. (P.)

U. 8602. Beads: very small lapis-lazuli balls. PG/333. (B. 3981.)

U. 8603. Beads: 1 large gold faceted date-shaped, 1 carnelian, and a number of lapis-lazuli double conoids. PG/333. (B. 3982.)

U. 8605. Silver, fragments of finely twisted two-ply wire, and of a tube, probably double pipes; *v.* pp. 258–9 and Fig. 68. PG/333. (P. *CBS.* 17554.)

U. 8608. Stone bowl, white limestone, Type 42, ht. 0·13 m., d. 0·075 m. PG/333. (L. *BM.* 121870.)

U. 8611. Clay offering-table, with decorated stem; the tray part missing—it may possibly have been of wood. Cf. Pl. 180. PG/315.

U. 8612. Gold ribbon, from a woman's head-dress; much broken. PG/337. (P. *CBS.* 16775.)

U. 8613. *Brîm*, consisting of two lengths of gold chain (l. 0·115 m. each), 2 lapis-lazuli and 1 silver long faceted date-shaped beads and 4 carnelian rings; the silver decayed. Strung on one of the chains was a gold ear-ring with lunate ends. PG/337. (L. *BM.* 120593.)

U. 8614. Beads: 3 gold squares (0·033 m. sq.) and 3 lapis-lazuli diamonds; they appeared to have been strung together with the cylinder seal U. 8615. PG/337. (P. *CBS.* 16829.)

U. 8615. Cylinder seal, lapis-lazuli, l. 0·039 m. PG/337. Pl. 194. (P. *CBS.* 16828.)

U. 8616. Gold ear-rings, a pair, large lunate type; cf. Pl. 219, Type 1. PG/337. (L. *BM.* 120675.) (P. *CBS.* 16708.)

U. 8617. Silver pin, type 5; cf. U. 8598. PG/337.

U. 8618. Gold finger-rings, 3; plain circlets of gold wire. Two of them were found in the coil of one of the ear-rings U. 8616; but they are of a type often found on the hand, though these may have been twisted in the hair, as were the coiled hair-rings. PG/337. (P. *CBS.* 16842.)

U. 8619. Silver pin, type 1, with fluted ball head of lapis-lazuli capped with gold; l. 0·155 m. PG/337. (L. *BM.* 120698.)

U. 8620. Beads: carnelian and a few silver large double conoids, the silver much decayed. PG/337. (L. *BM.* 120600.)

U. 8621. Beads: small double conoids of lapis-lazuli and silver, the latter much decayed. PG/337.

U. 8622. Wreath of silver rings (in bad condition) strung between double rows of small silver, lapis-lazuli, and carnelian ball beads and cylinders; d. of rings 0·022 m. PG/337.

U. 8623. Stone vase, white calcite, Type 90, ht. 0·145 m., rim d. 0·08 m. PG/337. (L. *BM.* 121857.)

U. 8628. Copper vase of a shape probably derived from a water-skin, enclosed in a network of twisted silver wire, Type 114, ht. 0·30 m., max. d. 0·175 m. PG/337.

U. 8632. Roundels, 7 of black shale inlaid with 5 white shell spots, 7 of shell inlaid with 5 lapis spots; d. 0·022 m. They were found lying in a row arranged in alternate colours; probably they had been in a wooden box which had perished. PG/341. Pl. 95.

U. 8633. Gaming-pieces; 7 flattened spheres of white shell marked on the top with an incised cross, and 4 black shale solid triangles with slightly convex faces having a white spot (shell) inlaid at two of the points; each side measures 0·016 m. The latter seem to be dice and the former may be counters. PG/341.

U. 8634. Stone bowl, white calcite, Type 16, ht. 0·09 m., d. 0·18 m. PG/293. (B. 3985.)

U. 8638. Stone bowl, white limestone, Type 20, ht. 0·055 m., d. 0·14 m. PG/315. (B. 3988.)

U. 8641. Stone bowl, white limestone, Type 19, ht. 0·055 m., d. 0·05 m. Found loose in the soil at depth of 1·00 m. (B. 3990.)

U. 8642. Shell carving, in the round, of a panther's head. The line of the mane was filled in with black paste, the tongue is of red limestone, and the eyes inlaid with red and black. The piece is complete, the head being cut off smoothly at the neck, and it is clearly meant to be affixed to a body of a different material. Very fine miniature work. Muzzle to crown 0·025 m., width 0·025 m. Found loose in the soil. Pl. 143. (B. 3991.)

U. 8643. Cylinder seal, shell, l. 0·042 m. PG/357. Pl. 195. (B. 3992.)

U. 8644. Beads: lapis-lazuli cylinders, silver double conoids, and carnelian rings. Re-strung in original order. PG/357. (B. 3993.)

U. 8645. Stone bowl, white limestone, triangular with spout, Type 98, l. 0·28 m., width 0·20 m. PG/357. (P. *CBS.* 17165.)

U. 8646. Cylinder seal, shell, l. 0·023 m. Very much worn. PG/383. Pl. 204. (B. 3994.)

U. 8647. Beads: small lapis-lazuli date-shaped and one or two carnelian rings. PG/383. (B. 3995.)

U. 8648. Stone bowl, white limestone, Type 22, with notched rim, ht. 0·04 m., d. 0·115 m. PG/383. (B. 3996.)

U. 8653. Beads: 10 gold, 10 silver, and 3 carnelian, small beads, the silver much decayed. They were found in a group and apparently composed a pattern, so that they would seem to have been sewn as bead embroidery on to a cloth background. PG/381. Pl. 219.

U. 8654. Stone vase, white calcite, Type 92, ht. 0·20 m., rim d. 0·08 m. PG/381. (B. 3997.)

U. 8655. Stone vases, white calcite, Type 3, ht. 0·22 m., d. 0·12 m. PG/381. (B. 3998.)

U. 8656. Cylinder seal, lapis-lazuli, l. 0·037 m. PG/381. Pl. 203. (L. *BM.* 120551.)

U. 8657. Beads: 1 gold, 2 carnelian, and 2 lapis-lazuli date-shaped beads strung as a bracelet with 2 small lapis balls between each pair of larger beads. PG/381. (L. *BM.* 120596.)

U. 8658. Gold ear-rings, a pair; spiral coils with lunate ends, d. 0·01 m. PG/393. (B. 3999.)

U. 8659. Beads: small balls of gold and carnelian strung alternately, 10 of each. PG/393. (B. 4000.)

U. 8661. Conch shell cut as a lamp, with bird's head carved above the opening, the eye inlaid with lapis-lazuli. Poor condition. PG/391.

U. 8662. Cylinder seal, pink limestone, l. 0·026 m. PG/391. Pl. 199. (L. *BM.* 120562.)

U. 8663. Stone bowl, white limestone, Type 22, ht. 0·055 m., d. 0·16 m. Found loose in the soil. (B. 4002.)

U. 8666. Cylinder seal, lapis-lazuli, with gold caps, l. 0·033 m. PG/395. Pl. 205. (B. 4005.)

U. 8667. Beads: small lapis-lazuli and carnelian with 1 chalcedony, 1 silver disk (broken), and two or three ball beads of copper plated with gold (in bad condition). Re-strung in original order. PG/395. (B. 4006.)

U. 8668. Cylinder seal, shell, l. 0·023 m. In bad condition. PG/397. Pl. 203. (B. 4007.)

U. 8669. Beads: 2 large carnelian, 2 lapis-lazuli, and some copper balls. PG/397. (B. 4008.)

U. 8670. Beads: crystal, lapis-lazuli, carnelian, gold-plated copper, and one agate date-shaped bead with gold caps. Re-strung in original order. PG/397. (B. 4009.)

U. 8672. Copper fish-hook; found against the side of a grave-shaft and probably belonging to the cemetery period. Pl. 230. (L. *BM.* 120806.)

U. 8673. Cylinder seal, dark steatite, l. 0·027 m. Poor rough work. PG/399. Pl. 202. (B. 4011.)

U. 8679. Conch shell, cut as a lamp, with a bird's head carved above the opening. PG/335. Cf. Pl. 101. (B. 4017.)

U. 8680. Gold pin, Type 1. The shaft gold, the head a large fluted lapis-lazuli ball capped with gold; l. 0·21 m. PG/417. Cf. Pl. 231. (L. *BM.* 120663.)

U. 8681. Cylinder seal, lapis-lazuli, l. 0·029 m. Found loose in the soil. Pl. 207. (B. 4018.)

U. 8682. Stone bowl, dark steatite, Type 18, ht. 0·03 m., d. 0·047 m. A small straight-sided unguent-pot containing green paint. PG/409. (B. 4019.)

U. 8683. Stone bowl, white calcite, Type 56, ht. 0·035 m., d. 0·115 m. PG/409. (B. 4020.)

U. 8684. Gold ear-rings, a pair, Type 5, cf. Pl. 219; d. 0·012 m. PG/401. (B. 4021.)

U. 8685. Stamp seal, circular button type, grey steatite, d. 0·023 m. A bull. PG/401. Pl. 216. (B. 4022.)

U. 8686. Beads: a mixed lot of lapis-lazuli, carnelian, sard, steatite, &c., from a single string. PG/401. (B. 4023.)

U. 8687. Beads: 2 lapis-lazuli, 2 carnelian, and 1 gold large date-shaped beads separated by small carnelian rings. PG/389. (P. *CBS.* 16961.)

U. 8688. Finger-ring of plain gold wire, a single loop. PG/389.

U. 8689. Beads: 36 gold and many lapis-lazuli double conoids, strung together. PG/389. (P. *CBS.* 16956.)

U. 8690. Silver tweezers and stiletto, l. 0·047 m. and 0·05 m. respectively. Each has at the top of the shaft a loop of twisted wire for attachment. PG/389. (P. *CBS.* 16957.)

U. 8693. *Brîm* composed of two lengths (0·013 m.) of gold imitation chain and 3 large date-shaped beads, 2 of lapis-lazuli, 1 gold, and small carnelian rings. The 'chains' are rigid, being really made each of 4 pieces of twisted two-ply gold wire soldered together; the soldering has come undone at one end of one piece. The effect is a very successful imitation of the proper link chain normally employed. PG/429. Pl. 134. (P. *CBS.* 16798.)

U. 8694. Gold ear-ring; spiral, with small lunate ends made by flattening and pointing the wire of the hoop; d. 0·02 m. Only this one was found in the grave which, as is shown by the *brîm*, was that of a man. PG/429. (P. *CBS.* 16845.)

U. 8696. Roundel of baked clay with incised pattern. PG/429. Pl. 221.

U. 8697. Stone bowl, green steatite, Type 50, ht. 0·11 m., d. 0·22 m. PG/429. (L. *BM.* 121878.)

U. 8699. Cylinder seal, mottled brown steatite, l. 0·034 m. PG/427. Pl. 215. (L. *BM.* 120534.)

U. 8701. Cylinder seal, shell, l. 0·043 m., d. 0·013 m. Broken and decayed; design mostly obliterated. Two registers: above, geometric pattern of circles and lines; below, doubtful. PG/314. (B. 4025.)

U. 8702. Beads: 62 lapis-lazuli beads strung with two groups of 3 and 4 silver beads respectively. PG/314. (B. 4026.)

U. 8703. Stone bowl, white calcite, Type 59, broken, d. 0·115 m. PG/312. (B. 4027.)

U. 8704. Beads: 26 gold and 111 lapis-lazuli double conoids; gold and lapis alternated in the middle of the necklace. PG/354. (L. *BM.* 120578.)

U. 8705. Gold hair-rings, a pair; $2\frac{1}{2}$ coils of spirally twisted fairly thick gold wire, d. 0·03 m. PG/354. (P. *CBS.* 16841.)

U. 8707. Beads: 1 ribbed gold ball bead and 236 lapis-lazuli beads, mostly small balls. PG/356.

U. 8708. Gold hair-rings; a pair; each of $2\frac{1}{2}$ loops of spirally twisted thick gold wire; d. 0·021 m. PG/356. (B. 4029.)

U. 8709. Stone vase, white calcite, Type 61, rim d. 0·087 m. PG/356. (B. 4030.)

U. 8710. Stone bowl, black steatite, Type 22; broken and riveted in antiquity, rim d. 0·15 m. PG/356. (B. 4031.)

U. 8711. Stone bowl, white limestone, Type 48, with notched rim. Fragmentary. PG/356. (B. 4032.)

U. 8713. Cylinder seal, shell, l. 0·038 m., d. 0·009 m. Found loose in the soil. Pl. 202. (P. *CBS.* 16862.)

U. 8714. Cylinder seal, rock crystal, l. 0·013 m., d. 0·013 m. PG/362. Pl. 192. (P. *CBS.* 17033.)

U. 8716. Beads: 12, of lapis-lazuli double conoids, rings, a barrel, and 1 discoid. PG/362. (P. *CBS.* 17031.)

U. 8717. Stone bowl, white limestone, Type 22, rim d. 0·18 m. PG/362. (P. *CBS.* 17032.)

U. 8719. Beads: 4, carnelian flattened double conoids. PG/347.

U. 8721. Cylinder seal, black steatite, l. 0·032 m., d. 0·018 m. PG/347. Pl. 204. (L. *BM.* 120541.)

U. 8723. Beads: 5, 1 silver, 2 lapis-lazuli, and 1 baked clay double conoids, 1 baked clay cylinder. PG/365.

U. 8724. Stone bowl, white limestone, Type 15, ht. 0·08 m., l. 0·165 m., width 0·11 m. PG/365.

U. 8725. Stone bowl, white limestone, Type 17, with notched rim, ht. 0·04 m., rim d. 0·075 m., base 0·035 m. PG/365. (P. *CBS.* 17172.)

U. 8728. Beads: a necklace of 27 lapis-lazuli double conoids and barrel beads. PG/368. (B. 4034.)

U. 8729. Bone pin, fragment of. The shaft is round in section with engraved parallel lines running obliquely down it, the lines filled in with white paste. PG/368. (B. 4035.)

U. 8731. Stone paint-box (?). A rectangular table of grey limestone, 0·08 m. × 0·07 m. stands on 4 low legs (total ht. 0·038 m.). In the top are 5 circular holes, 1 in the centre and 1 at each corner, d. 0·02 m., depth 0·025 m. Two horizontal ribs with notched decoration run round the sides. Found 2·50 m. below the surface, loose in the soil. Pl. 221. (P. *CBS.* 17221.)

U. 8732. Baked clay model shrine. A clay box, open in front and with a rounded top, the façade decorated with rosettes and the opening arched. Fixed against the back of the interior is a snake-like strip of clay representing the cult figure. Part of the top broken away. Ht. 0·09 m., width of base 0·053 m., depth 0·05 m. Found loose in the soil. (P. *CBS.* 17214.)

U. 8733. Stone vase, white limestone, Type 15, broken and mended in antiquity with bitumen cement and copper rivets of which parts remain embedded in plaster of Paris, ht. 0·08 m., rim d. 0·22 m., base 0·095 m. PG/358.

U. 8735. Beads: 2, large lapis-lazuli faceted double conoids. PG/358.

U. 8738. Spacer-bead, lapis-lazuli; a conical disk,

d. 0·016 m., ht. 0·014 m., with 3 hatched triangles engraved on it. It is pierced in two directions, at right angles, to form the centre-piece of cross strings. PG/338. (P. *CBS*. 16849.)

U. 8739. Stone bowl, white limestone, Type 22, ht. 0·04 m., rim d. 0·11 m., base 0·03 m. PG/369. (B. 4038.)

U. 8741. Grindstone or rubber, limestone, shaped like a duck-weight but with no duck's head, l. 0·23 m., width 0·16 m. PG/369. (B. 4040.)

U. 8744. Copper arrow-butt, of the normal forked type but with a bone ring at the base of the fork to cap the shaft; traces of wood on the tang, l. 0·064 m. PG/380. (B. 4043.)

U. 8747. Cylinder seal, mottled marble, l. 0·035 m. PG/384. Pl. 215. (L. *BM*. 120540.)

U. 8748. Beads: 30, silver balls, lapis-lazuli balls, date-shaped and double conoids, a carnelian cylindrical and long date-shaped and a barrel bead of carnelian with bleached pattern. The cylinder seal U. 8747 was also strung with them. Re-strung in original order. PG/384.

U. 8752. Gold frontlet. An oval of thin plate, 0·315 m.×0·005 m. A hole for attachment at each end. PG/396. (B. 4047.)

U. 8753. Beads: small lapis-lazuli and silver double conoids. PG/396. (B. 4048.)

U. 8761. Beads: necklace of 58 beads, lapis-lazuli date-shaped, double conoids, and ribbed balls, and small plain balls; carnelian double conoids, barrels, and rings. Re-strung in original order. PG/428. (L. *BM*. 120608.)

U. 8762. Gold hair-rings, a pair, each of 2½ hoops of spirally twisted fairly thick gold wire, d. 0·017 m. PG/428. (L. *BM*. 120679.)

U. 8763. Stone vase, dark green steatite, Type 32, ht. 0·09 m., rim d. 0·075 m., base 0·08 m. PG/428. (L. *BM*. 121881.)

U. 8764. Stone bowl, dark green steatite, Type 51, ht. 0·11 m., rim d. 0·15 m., base 0·06 m. PG/428. (P. *CBS*. 17161.)

U. 8765. Stone vase, white calcite, Type 92, ht. 0·15 m., rim d. 0·07 m., base 0·03 m. Adjoining PG/428 and at the same level, but apparently not belonging to the grave. (B. 4054.)

U. 8770. Stone vase, yellowish calcite, Type 61, ht. 0·19 m., rim d. 0·10 m., base 0·045 m. PG/420. (B. 4057.)

U. 8771. Stone bowl, grey limestone, Type 22, ht. 0·06 m., rim d. 0·16 m., base 0·05 m. PG/420. (B. 4058.)

U. 8772. Stone bowl, white calcite, Type 47, with notched rim, ht. 0·045 m., rim d. 0·12 m. PG/420. (B. 4059.)

U. 8773. Stone bowl, white limestone, Type 22, ht. 0·06 m., rim d. 0·16 m., base 0·07 m. PG/420. (B. 4060.)

U. 8775. Beads: a two-tier necklace of 83 roughly shaped ball beads of lapis-lazuli in graded sizes. PG/420. (B. 4062.)

U. 8776. Clay offering-table, of light drab clay, the hollow stem decorated with incised hatching, part of base missing, ht. 0·26 m., rim d. 0·235 m. PG/420.

U. 8780. Stone bowl, white calcite, Type 47, broken and part of rim missing, ht. 0·052 m., rim d. 0·125 m., base 0·04 m. PG/416. (L. *BM*. 121873.)

U. 8781. Beads: 3, 1 gold and 1 lapis-lazuli cylinder and 1 lapis double conoid. PG/414. (B. 4063.)

U. 8783. Bradawl, the blade is of copper (the tip missing) and the handle of bitumen, l. of handle 0·08 m. PG/422. Pl. 229. (P. *CBS*. 17463.)

U. 8785. Beads: 144 balls of paste; burnt. PG/418. (L. *BM*. 120614.)

U. 8786. Ear-rings, or hair-rings (?), a pair. Each consists of 2½ hoops, d. 0·015 m., of thin gold wire spirally coiled slung on a similarly coiled ring of fairly thick copper wire, d. 0·028 m. PG/456.

U. 8790. Gold frontlet, an oval of thin plate, broken and imperfect; a hole at each end for attachment, l. 0·105 m., width 0·035 m. PG/465.

U. 8791. Gold ear-ring, 2 crescents suspended on a thin gold wire. PG/465. Cf. hair-ring, Pl. 219. (L. *BM*. 120669.)

U. 8792. Cylinder seal, shell, l. 0·042 m. Found loose in the soil. Pl. 200. (L. *BM*. 120536.)

U. 8793. Cylinder seal, black steatite, l. 0·027 m., d. 0·015 m. PG/481. Pl. 210. (B. 4066.)

U. 8794. Beads: a necklace of 18 gold and 18 lapis-lazuli ball, ring, and double conoid beads strung in alternate colours. PG/479. (B. 4067.)

U. 8798. Beard, of frit, originally glazed blue, now bleached white; a fragment, the upper part missing, two rows of curls at the bottom; intended for inlay on a composite statuette, l. 0·042 m., width 0·042 m. Found loose in the soil. The date of the piece is doubtful, but it may belong to the Sargonid period; cf. U. 8787. Pl. 218. (P. *CBS*. 17213.)

U. 8799. Cylinder seal, black steatite, l. 0·026 m., d. 0·011 m. Introduction scene with one seated and two standing figures; an inscription obliterated. Found loose in the soil. (B. 4070.)

U. 8800. Cylinder seal, yellowish shell, l. 0·018 m., d. 0·011 m. Found loose in the upper levels of the soil. Pl. 216. (L. *BM*. 120568.)

U. 8802. Loom-weight (?), a ring of baked clay apparently inscribed *nigin*. Found loose in the soil. (B. 4071.)

U. 8845. Cylinder seal, shell, l. 0·024 m. Illegible. PG/587. (B. 4075.)

U. 8846. Bitumen boat, l. 0·65 m., width in middle 0·20 m., ht. 0·13 m. PG/587. Cf. Pls. 19, 20, 86. (P. *CBS*. 17314.)

U. 8897. Cylinder seal, shell, l. 0·027 m. PG/575. Pl. 213. (P. *CBS*. 16868.)

U. 8898. Copper fish-hook, with no barb but the top of the shaft flattened and broadened to secure the gut. Found loose in the soil.

U. 8899. Copper object, use unknown. Found loose in the soil. (B. 4080.)

U. 8902. Silver lamp, in the form of a shell; base metal, l. 0·17 m., ht. 0·02 m. PG/429. Cf. Pl. 163.

U. 8904. Beads: small lapis-lazuli and carnelian, with a lapis-lazuli phallic amulet. PG/405. Pl. 219. (B. 4082.)

U. 8910. Cylinder seal, grey stone, l. 0·035 m. Much worn. Found loose in the soil. Pl. 199. (B. 4086.)

U. 8911. Cylinder seal, light brown pebble; l. 0·022 m. Found loose in the soil. Pl. 208. (L. *BM.* 120566.)

U. 8912. Cylinder seal, light greenish-grey stone, l. 0·02 m. Found loose in the soil. Pl. 210. (B. 4087.)

U. 8913. Gold frontlet. An oval of fairly heavy sheet gold, 0·185 m.×0·065 m., having in the centre a star rosette rendered with impressed lines; at each end is a hole through which pass twisted gold wires for fastening behind the head. It is from the cemetery and almost certainly from PG/389. (B. 4088.)

U. 8914. Handle; a knob of white steatite from which projects a copper rod; on this were strung rings of black shale and white shell alternately, 5 of each, and beyond them on the copper there were traces of wood. With these there lay loose 13 shell cone-shaped disks like spindle-whorls. The object may have been a ritual flail with the disks strung on its thongs. Found loose in the soil at a depth of 2·00 m., not connected apparently with any grave. Cf. U. 8935; *v.* p. 260. (L. *BM.* 120844–5, 123641–7.) (P. *CBS.* 16970.)

U. 8915. Two shell plaques, 0·027 m.×0·022 m., engraved with figures of goats in wooded country; rather poor rough work. One was found in PG/435 and one in PG/447, but probably they belong to neither of these graves but to an older grave destroyed when these were dug. Pl. 100. (L. *BM.* 120849–50.)

U. 8916. Cylinder seal, lapis-lazuli, l. 0·024 m. PG/435. Pl. 212. (B. 4089.)

U. 8917. Cylinder seal, green stone, l. 0·038 m. PG/435. Pl. 214. (P. *CBS.* 16867.)

U. 8918. Beads: a necklace of small flat gold disks and lapis-lazuli diamonds strung alternately in front; lapis only at the back. PG/435. (L. *BM.* 120586.)

U. 8919. Beads: a necklace of moderately large balls of copper plated with gold foil (in bad condition) and lapis-lazuli, with a few carnelian balls and 1 cylinder with gold caps. PG/435.

U. 8920. Beads: a necklace of small date-shaped beads of lapis-lazuli and copper plated with gold foil (in bad condition) strung in alternate groups of 6. PG/435. (L. *BM.* 120594.)

U. 8921. Beads: small silver and carnelian balls. PG/435.

U. 8924. Silver bracelets, a pair; plain hoops of thin strip metal 0·007 m. wide. PG/435.

U. 8926. Cylinder seal, lapis-lazuli, l. 0·027 m. PG/445. Pl. 213. (B. 4090.)

U. 8927. Beads: small silver balls and disks and small lapis-lazuli balls. Re-strung in original order. PG/445.

U. 8931. Beads: a quantity found in disorder; 5 pendants of carnelian with bleached patterns, set in gold, 2 fluted pear-shaped lapis-lazuli pendants set in gold, 1 plain carnelian pendant set in gold, 1 gold leaf pendant, 1 gold ring pendant (U. 8930), 1 gold cylinder, 4 very small gold balls, carnelian rings, lapis double conoids, balls, and cylinders, and 1 large square. PG/453. See Pl. 220. (B. 4092.) (P. *CBS.* 16797, 16799.)

U. 8932. Stone vase, white calcite, Type 92, ht. 0·175 m., rim d. 0·07 m. PG/451. (B. 4093.)

U. 8935. Three handles (?), each made of rings alternately of white shell and black shale strung on a reed, ending in a shell mushroom-shaped knob. PG/449. Pls. 103, 221. (B. 4096.) (P. *CBS.* 16749.)

U. 8936. Stone vase, white calcite, Type 92, ht. 0·25 m., rim d. 0·10 m. PG/497. Pl. 177. (P. *CBS.* 17107.)

U. 8937. Stone vase, white calcite, Type 92, ht. 0·25 m., rim d. 0·085 m. PG/497. (P.)

U. 8938. Stone vase, white calcite, Type 92, ht. 0·21 m., rim d. 0·08 m. PG/497. (P. *CBS.* 17114.)

U. 8939. Stone vase, white calcite, Type 89, ht. 0·10 m., d. 0·055 m. PG/497. (L. *BM.* 121860.)

U. 8940. Stone vase, white calcite, Type 90, ht. 0·185 m., d. 0·115 m. PG/497. (B. 4097.)

U. 8941. Stone vase, white calcite Type 90, ht. 0·10 m., d. 0·085 m. PG/497. (L. *BM.* 121862.)

U. 8942. Stone vase, white calcite, Type 92, ht. 0·19 m., d. 0·08 m. PG/497. (L. *BM.* 121853.)

U. 8943. Stone vase, white calcite, Type 92, ht. 0·20 m., rim d. 0·095 m. PG/497. (B. 4098.)

U. 8944. Stone vase, white calcite, Type 92, ht 0·18 m., d. 0·073 m. PG/497. (P. *CBS.* 17115.)

U. 8945. Stone vase, white calcite, Type 92, ht. 0·12 m., rim d. 0·055 m. PG/497. (B. 4099.)

U. 8946. Stone vase, white calcite, Type 92, ht. 0·165 m., d. 0·07 m. PG/497. (L. *BM.* 121854.)

U. 8947. Stone vase, white calcite, Type 72, ht. 0·105 m., rim d. 0·085 m. PG/497. (B. 4100.)

U. 8948. Stone vase, white calcite, Type 72, ht. 0·10 m., rim d. 0·075 m. PG/497. Pl. 177. (L. *BM.* 121863.)

U. 8949. Stone vase, white calcite, Type 3, ht. 0·32 m., rim d. 0·13 m. PG/497. Pl. 177. (B. 4101.)

U. 8950. Stone vase, green steatite, Type 8; the surface is decorated with an all-over pattern probably derived from basket-work; ht. 0·093 m., d. 0·14 m. PG/497.

U. 8951. Stone vase, green steatite, Type 29; the surface is decorated with an all-over pattern of horizontal bands of zigzags alternating with bands of dots in high relief; ht. 0·13 m., rim d. 0·12 m., base 0·14 m. PG/497. (B. 4102.)

U. 8952. Ear-rings, a pair; each consists of the normal silver coil with lunate ends, but inside this is a smaller similar coil of thin gold, d. 0·014 m. PG/439.

U. 8954. Beads: 1 large carnelian cylinder and a number of mixed small beads of silver, lapis-lazuli, and carnelian. PG/439.

U. 8957. Beads: a child's necklace of 1 copper ball with gold, 1 onyx, 2 crystal, and lapis-lazuli and carnelian. PG/493. (B. 4104.)

U. 8959. Gold fillet, a plain ribbon, 0·007 m. wide, of thin gold leaf; with holes at the ends for

attachment. Found on the skull. PG/495. (L. *BM.* 120686.)

U. 8960. Gold ear-rings, normal lunate type. PG/495. (L. *BM.* 120667.)

U. 8962. Beads: small mixed gold, silver, carnelian, and lapis-lazuli, re-strung in original order. PG/495.

U. 8964. Silver bracelet, a plain hoop of thin silver tubing, d. 0·082 m. PG/495. (L. *BM.* 120713.)

U. 8965. Cylinder seal, lapis-lazuli, l. 0·015 m. PG/345. Pl. 210. (L. *BM.* 120558.)

U. 8966. Gold spoon, from a toilet set; the top of the shaft was drawn out into a wire and brought over to make a loop, the end being twisted round the stem in a spiral; it hung on a silver ring, l. 0·075 m. Found about 5·00 m. down near traces of a completely ruined grave.

U. 8967. Copper fish-hook, barbed, and the tang flattened and widened for fixing the gut. PG/491. Pl. 230. (B. 4105.)

U. 8969. Gold ear-rings, a pair; small, normal type with $1\frac{1}{2}$ coils and lunate ends, d. 0·012 m. PG/489.

U. 8970. Beads: small copper balls plated with gold foil and lapis-lazuli balls, strung in sets of 2 and 4 of a sort. PG/489. (L. *BM.* 123632.)

U. 8971. Cylinder seal, lapis-lazuli, l. 0·022 m. It had silver caps, and a silver tube ran through the hole in the stone. Broken and mended. PG/489. Pl. 214.

U. 8973. Stone bowl, white calcite, Type 57, ht. 0·05 m., d. 0·18 m. PG/433. (B. 4107.)

U. 8974. Beads: small copper balls plated with gold foil (in bad condition) and lapis-lazuli balls. PG/433.

U. 8977. Stone bowl, white limestone, Type 42, ht. 0·085 m., d. 0·20 m. PG/389. (B. 4109.)

U. 8978. Stone vase, white calcite, Type 3, ht. 0·33 m., d. 0·12 m. PG/497.

U. 8979. Stone vase, white calcite, Type 3, ht. 0·245 m., rim. d. 0·14 m. PG/511. (B. 4110.)

U. 8980. Stone vase, white calcite, Type 62, ht. 0·10 m., d. 0·12 m. PG/511. Pl. 177. (B. 4111.)

U. 8981. Cylinder seal, lapis-lazuli, l. 0·04 m. Two registers: above, hunter fighting with lions, and the inscription *nin-TUR nin*; below, a hunter with animals. This seal of the wife of Mes-anni-padda, first king of the Ist Dynasty of Ur, was found loose in the soil at a depth of 1·40 m. from the modern surface, i.e. on the level of the higher Sargonid graves and in or a little above the stratum of Ist Dynasty rubbish which covers the older cemetery. In any case it had probably been disturbed by the Sargonid grave-diggers, and it could not be determined whether it originally belonged to a grave of which no trace remains or to the Ist Dynasty rubbish stratum in which were found, in another part of the cemetery, seal-impressions of her and of her husband's seals. The latter is far more probable, as there is no evidence here of Ist Dynasty graves, much less of Ist Dynasty royal graves. *v. Ur: Royal Inscr.* No. 268, and p. 312. Pl. 207. (P. *CBS.* 16852.)

U. 8988. Cylinder seal, lapis-lazuli. It was broken and incomplete, only 2 fragments being found in the grave, lying apart, and the gold caps belonging to it also apart; the grave appeared otherwise undisturbed. Animals, and inscription of (a servant of ?) the daughter of Sargon of Akkad. *v. Ur: Royal Inscr.* No. 271, and p. 311. PG/503. Pl. 212. (L. *BM.* 120572.) (P. *CBS.* 16788.)

U. 8991. Cylinder seal, dark mottled steatite, l. 0·025 m. PG/505. Pl. 209. (P. *CBS.* 16859.)

U. 8993. Cylinder seal, dark greenish steatite, l. 0·041 m., d. 0·028 m. PG/521. Pl. 208. (P. *CBS.* 16875.)

U. 8996. Shell roundel, d. 0·024 m., convex above and decorated with an incised 8-pointed star rosette, the petals inlaid with lapis and red paste, 3 red and 5 blue, the inlay of one of the latter missing. Found loose in the soil. (B. 4114.)

U. 8997. Shell roundel, like U. 8996, but with all inlay missing from the petals; mounted on a ring of red limestone, d. 0·021 m. Found loose in the soil.

U. 8998. Stone vase, white calcite, Type 92, ht. 0·175 m., rim d. 0·075 m. PG/509. (L. *BM.* 121855.)

U. 8999. Cylinder seal, dark steatite, l. 0·027 m. Inscribed *[k]urub* ^{iu}*šamaš mār-a-da-gul dam-kar-k.* Son of A, merchant. Found loose in top soil. *v.* p. 315. Pl. 191.

U. 9000. Gaming-board, originally of wood, which has perished completely, encrusted with a mosaic of shell, bone, lapis-lazuli, and red paste and red limestone, set in bitumen, l. 0·27 m., d. 0·12 m. For description see p. 276. When found the board lay face upwards and on a slant; the upper part, neck, and 3 rows of shell plaques of the lower or larger part were complete and in place except for 1 plaque in the third row; of the fourth row there was left only the broken corner of 1 plaque. The rest of the broken plaque and the 3 missing ones were found close by. Also close to the board was found part of a row of elongated shell triangles originally separated by triangles of red limestone, now completely decayed; the white triangles had their points upwards and faces outwards, their bases close along where the end of the board should have been; the wood to which they had been affixed had clearly been broken off from the main board and bent back; so that they must have decorated the under-side of the box of which the board proper was the lid; cf. Queen Shub-ad's board, p. 275. PG/513. Pl. 95.

U. 9001. Gold ear-ring, small lunate type, d. 0·015 m. Found loose in the soil. (B. 4115.)

U. 9004. Copper fish-spear, trident-shape, l. 0·26 m., width 0·125 m. Found with U. 9005 in a completely ruined inhumation grave close to PG/494 and 0·50 m. below the surface. Pl. 230.

U. 9005. Copper gaff, l. 0·10 m., width 0·05 m. Found with U. 9004. Pl. 230.

U. 9007. Stone vase, yellowish calcite, Type 92, ht. 0·132 m., rim d. 0·06 m., base 0·02 m. From

a larnax grave 6·30 m. below the surface. (P. *CBS.* 17119.)

U. 9008. Beads: 42 lapis-lazuli double conoids, date-shaped beads, and roughly shaped balls, blackened by fire, and 1 large carnelian ring. Found with U. 9007. (P.)

U. 9010. Cylinder seal, lapis-lazuli, l. 0·025 m., d. 0·015 m. Inscribed *ur-igi-gal.* PG/496. Pls. 191, 213. (P.)

U. 9012. Beads: 5, 2 copper balls, 2 carnelian cylinders, and 1 carnelian ball. PG/478. (P. *CBS.* 17041.)

U. 9018. Beads: 19, small gold, lapis-lazuli, and carnelian barrels, rings, and 2 large copper balls. PG/473. (B. 4118.)

U. 9020. Stone bowl, basic diorite, Type 53, with decoration of concentric circles round the rim; ht. 0·135 m., rim d. 0·15 m. PG/473. (B. 4120.)

U. 9022. Beads: necklace of copper beads plated with gold foil, double conoids, lapis-lazuli double conoids, and 1 date-shaped bead. PG/412. (L. *BM.* 120595.)

U. 9023. Cylinder seal, lapis-lazuli, l. 0·023 m., d. 0·016 m. Found loose in the soil. Pl. 201. (B. 4121.)

U. 9024. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·014 m. PG/484 *bis.* Pl. 216. (B. 4122.)

U. 9026. Cylinder seal, green and white marble, l. 0·032 m., d. 0·02 m. PG/514. Pl. 216. (P. *CBS.* 16876.)

U. 9027. Cylinder seal, lapis-lazuli, l. 0·027 m., d. 0·014 m. PG/516. Pl. 212. (B. 4124.)

U. 9028. Cylinder seal, black steatite; l. 0·024 m., d. 0·012 m. PG/473. Pl. 204. (B. 4125.)

U. 9030. Beads: about 20 minute carnelian and lapis-lazuli ball beads and 1 carnelian barrel. PG/516. (B. 4127.)

U. 9037. Gold finger-ring, a double hoop of gold wire, d. 0·018 m. Found loose in the soil. (P. *CBS.* 16839.)

U. 9038. Gold ear-ring, thin wire centre with hollow lunate ends, d. 0·014 m. Found loose in the soil. (B. 4130.)

U. 9039. Gold hair-ring, 1½ hoops of spirally twisted gold wire, d. 0·011 m. Found loose in the soil. (B. 4131.)

U. 9049. Cylinder seal, shell, l. 0·022 m., d. 0·006 m. Linear design with 6 drilled holes. Found loose in the soil at depth of 2·00 m. (B. 4138.)

U. 9050. Cylinder seal, shell, l. 0·022 m., d. 0·01 m. One seated and 3 standing figures; poor condition. Found loose in the soil at depth of 1·50 m. (B. 14569.)

U. 9051. Cylinder seal, limestone, l. 0·023 m., d. 0·011 m. Found loose in the soil at depth of *c.* 1·60 m. Pl. 199. (B. 4140.)

U. 9053. Bone bodkins, fragments of, with feather and herring-bone patterns incised on the shafts. PG/208. (B. 4141.)

U. 9056. Cylinder seal, green steatite, l. 0·014 m., d. 0·008 m. PG/506. Pl. 210. (B. 4143.)

U. 9060. Cylinder seal, black steatite, l. 0·029 m., d. 0·016 m. PG/522. Pl. 214. (B. 4146.)

U. 9062. Finger-ring of copper plated with gold foil, d. 0·02 m. PG/540.

U. 9064. Cylinder seal, lapis-lazuli, l. 0·018 m., d. 0·012 m. PG/540. Pl. 213.

U. 9065. Copper pin, Type 1, with silver ball head capped with copper, l. 0·28 m. PG/540. (B. 4148.)

U. 9069. Cylinder seal, shell, l. 0·019 m., d. 0·012 m. Much worn. PG/526. Pl. 208. (B. 4151.)

U. 9077. Gold pendant; disk with 4 cones in relief formed of spirally twisted gold wire secured by cross wires; suspender for 3 strings of beads. Cf. Pl. 134. Found 0·50 m. away from PG/550, at depth of 2·60 m. (L. *BM.* 120589.)

U. 9078. Gold amulet, in the form of a dove, the tail made of lapis-lazuli let in. Very fine miniature work, l. 0·015 m., ht. 0·011 m. PG/544. Pl. 142. (B. 4167.)

U. 9082. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·013 m. PG/544. Pl. 204. (B. 4160.)

U. 9083. Cylinder seal, black steatite, l. 0·027 m., d. 0·017 m. PG/544. Pl. 205. (B. 4161.)

U. 9088. Beads: minute gold balls and minute carnelian barrels, strung with 1 carnelian between every 3 gold. PG/544. (B. 4166.)

U. 9089. Beads: 85, silver and lapis-lazuli lozenge-shaped beads, lapis barrel and double conoid, carnelian ditto and 1 banded sard and 2 carnelian cylinders. Re-strung in original order. PG/544.

U. 9091. Bone comb. Cf. Pl. 219. PG/544. (B. 4170.)

U. 9092. Copper pin, Type 1, l. 0·245 m., on to whose shaft is fixed by the corrosion of the metal a small lapis-lazuli lentoid cylinder seal (with animal figures) which must have hung from the hole in the shaft of the pin. PG/552. (P. *CBS.* 17489–90.)

U. 9094. Beads: 2 necklaces, 1 of silver and 1 of lapis-lazuli minute balls. PG/552.

U. 9100. Cylinder seal, black marble, l. 0·034 m., d. 0·02 m., slightly concave. Found loose in the soil immediately below the IIIrd Dynasty packing. Pl. 210. (P. *CBS.* 16878.)

U. 9109. Beads: thin date-shaped beads of silver and lapis-lazuli. PG/513.

U. 9112. Shell plaques. Four engraved with figures of animals (2 bulls, 1 gazelle, 1 stag) in wooded landscapes; the engraved lines were filled in with colour, black for the animals, red for the scenery. These were attached together, with strips of lapis-lazuli between them and as a border on the left side, and a border of pink limestone on the right. With them were 2 plaques with 'eye' design whose position is not certain; they have been restored on the left of the animal plaques on the supposition that the pink was an outside border. Also with them was a strip or rod of mother-of-pearl having a circle engraved on one side at one end and circles on both sides at the other end. Found loose in the soil at depth of 3·65 m. Pl. 103. (B. 4177.)

U. 9113. Stone vase, white calcite, Type 86, ht. 0·29 m., rim d. 0·10 m. PG/519. (B. 4178.)

U. 9114. Stone bowl, grey steatite, Type 15, ht. 0·085 m., d. 0·175 m. PG/519. (B. 4179.)

U. 9117. Cylinder seal, shell, l. 0·023 m. Banquet scene. PG/525. Pl. 203. (B. 4182.)

U. 9120. Cylinder seal, shell, l. 0·027 m. PG/529. Pl. 208. (L. *BM.* 120539.)

U. 9122. Electrum spear-head, Type 2 a, l. 0·395 m. Broken in half and mended. *v.* pp. 292, 298. PG/580. Pl. 227.

U. 9124. Beads: 2 long faceted date-shaped, 1 lapis-lazuli, 1 silver over a bitumen core. PG/533.

U. 9129. Beads: small carnelian rings and long cylinders, and small mixed lapis-lazuli. PG/539. (P.)

U. 9130. Gold chisel, Type 3, l. 0·095 m., width 0·005 m., thickness 0·003 m. PG/580. (L. *BM.* 120688.)

U. 9131. Gold chisel, Type 4 b, l. 0·093 m., greatest thickness 0·003 m., width of cutting-edge 0·002 m. Broken in half. PG/580. (P. *CBS.* 16687.)

U. 9137. Copper mace-head; a cylinder of heavy metal with projecting stud points; l. 0·075 m., d. 0·045 m. Remains of the end of the wooden haft were found in the socket. Unique example; *v.* p. 306. PG/580. Pl. 224. (P. *CBS.* 17361.)

U. 9139. Iron: fragments of a tool wrought from meteoric iron; shape doubtful. Found corroded on to a copper saw and other tools. *v.* p. 293. PG/580. (B. 4187.) (L. *BM.* 120833.)

U. 9142. Beads: flat small diamond-shaped plate beads of lapis-lazuli and of gold-plated copper alternately; the latter in bad condition. PG/543.

U. 9143. Beads: small date-shaped beads of lapis-lazuli, carnelian, and gold-plated copper, strung in sets of 6 of a kind. PG/543. (B. 4190.)

U. 9144. Beads: very small balls of lapis-lazuli and gold, with a circular pendant of artificial cat's-eye (haematite and shell) set in copper. PG/543. (B. 4191.)

U. 9145. Cylinder seal, green stone, l. 0·027 m. PG/543. Pl. 205. (B. 4192.)

U. 9146. Gold and silver ear-ring, small spiral lunate type in gold interlaced with similar ring in silver; d. 0·009 m. PG/543. (B. 4193.)

U. 9147. Copper box, circular, the lid provided with a central knob, ht. 0·05 m., d. 0·065 m. PG/543. Type 110, Pl. 240. (B. 4194.)

U. 9148. Stone vase, white calcite, Type 3, ht. 0·16 m., d. 0·10 m. PG/543. (L. *BM.* 121867.)

U. 9149. Cylinder seal, silver, l. 0·023 m. Too much oxidized to be clear, but apparently an introduction scene. PG/543. (B. 4196.)

U. 9150. Cylinder seal, lapis-lazuli, l. 0·018 m. PG/543. Pl. 205. (B. 4197.)

U. 9151. Copper pin, Type 1, with lapis-lazuli ball head capped with gold. The stem is pierced and through the hole passes a copper ring from which hangs a very slender copper chain (almost entirely destroyed) which runs along the shaft to the point where a silver cylinder seal (U. 9149) was found fixed by corrosion to the pin, having apparently been suspended by the chain. This is the most striking illustration of the (late) custom of carrying the cylinder seal tied to the pin. *v.* p. 247. PG/543. Pl. 231. (B. 4198.)

U. 9152. Silver bracelets and finger-rings; 2 bracelets, open hoops of plain wire, d. 0·065 m. Four finger-rings each made of 2 hoops of spirally coiled plain wire, 1 ring of flat strip metal with raised edges. PG/543. (B. 4199.)

U. 9153. Beads and seal: 1 carnelian and 1 jasper very long double conoid, 2 crystal rings and 2 gold balls; attached to them a silver button seal with lower face engraved but design effaced by oxidization. PG/543. (B. 4200.)

U. 9154. Inlay. Remains of a small wooden box (the wood all perished) inlaid with small strips and squares of bone (0·003 m. sq.). Restored from the impression left in the soil. PG/543. (B. 4201.)

U. 9157 Beads: small rings and balls of bone. PG/543. (B. 4204.)

U. 9158. Cylinder seal, black steatite, l. 0·031 m. PG/541. Pl. 210. (B. 4205.)

U. 9160. Gaming pieces; square shell plaques 0·023 m. sq. inlaid each with 5 dots of lapis-lazuli. Found loose in the soil at depth of 2·50 m. Cf. Pl. 98. (B. 4207.)

U. 9163. Gold nail; the head circular and convex, d. 0·022 m., the stem square in section, bent and broken off at l. 0·02 m. Very solid and heavy. Found loose in the soil at depth of 3·00 m. (B. 4210.)

U. 9164. Pendant, shaped as an acorn, of lapis-lazuli and carnelian, d. 0·018 m. The 'nut' of carnelian, the 'cup' of lapis. Found loose in the soil at depth of 2·40 m. Pl. 132. (B. 4211.)

U. 9165 A. Beads: small string of mixed types of lapis-lazuli and carnelian. PG/535. (B. 4212.)

U. 9165 B. Cylinder seal, steatite, l. 0·032 m. PG/535. Pl. 210.

U. 9166. Cylinder seal, pink stone, l. 0·024 m. Poor work and much worn. Found loose in upper soil. Pl. 201. (P. *CBS.* 16853.)

U. 9167. Gold frontlet. Plain narrow gold ribbon, l. 0·22 m., width 0·007 m., with a hole at each end. Found loose in the soil. (B. 4213.)

U. 9168. Mace-head, of white marble, egg-shaped, with flattened base, ht. 0·065 m. PG/547. (P. *CBS.* 17098.)

U. 9174. Beads: 1 large cylinder of glazed frit and a few small ball beads mostly glazed. PG/545. (B. 4218.)

U. 9177. Beads: 4 gold, some lapis-lazuli, and 2 small cylinders of red and white banded agate. Found together in the soil at depth of 3·40 m., close to U. 9178–9. (B. 4220.)

U. 9178. Cylinder seal, black and white granite, l. 0·037 m., with copper caps. Inscription of the steward (?) of the daughter of Sargon of Akkad. Found loose in the soil, at depth of about 3·40 m., but associated with U. 9177, 9179, and a little below U. 9163. The first three at any rate probably belonged to the same grave which has been entirely destroyed. *v. Ur: Royal Inscr.* No. 272, and p. 311. Pl. 212. (B. 4221.)

U. 9179. Stone bowl, white calcite, Type 16. *v.* U. 9178. (P. *CBS.* 17130.)

U. 9183. Cylinder seal, lapis-lazuli with gold caps

(damaged), l. 0·037 m. PG/549. Pl. 205. (P. *CBS.* 16854.)

U. 9185. Copper toilet instrument, Type 2, the head made rather like a human hand with the fingers bent slightly forwards, l. 0·125 m. PG/549. Pl. 231. (L. *BM.* 123640.)

U. 9186. Cylinder seal, dark steatite, l. 0·023 m.; poor work. Found loose in the soil. Pl. 210. (B. 4222.)

U. 9187. Cylinder seal, shell, in very bad condition, being burnt and reduced to lime, l. 0·037 m. Scene, fighting animals. Found loose in the soil close to U. 9177–9, but seems not to go with them. (P. *CBS.* 16871.)

U. 9192. Stone bowl, green-grey diorite, Type 49, much broken and imperfect, ht. *c.* 0·12 m., d. *c.* 0·25 m. PG/531. (B. 4226.)

U. 9201. Beads: 38, a necklace of silver double conoids alternating with carnelian rings and a few barrels; in the centre a banded sard. PG/554. (B. 4232.)

U. 9202. Beads: silver double conoids and small balls, and lapis-lazuli lozenge-shaped beads. PG/554. (B. 4233.)

U. 9209. Beads: 61, 11 gold and 50 lapis-lazuli double conoids. PG/524. (P. *CBS.* 16807.)

U. 9210. Gold ear-ring (?) or hair-ring; 1½ hoops of spirally coiled gold wire, fairly thick. Found with U. 9211 loose in the soil at depth of 5·40 m. (B. 4238.)

U. 9211. Beads: 1 gold and 2 lapis-lazuli large faceted date-shaped beads, from a *brîm.* Found loose in the soil. *v.* U. 9210. (B. 4239.)

U. 9212. Stone bowl, white calcite, Type 56, ht. 0·03 m., l. 0·145 m. PG/556. (B. 4240.)

U. 9214. Bone inlay, 0·04 m. sq. by 0·002 m. thick. PG/556. Pl. 222. (B. 4241.)

U. 9218. Stone vase, white calcite, Type 89, ht. 0·125 m., rim d. 0·07 m., base 0·03 m. PG/462. (B. 4244.)

U. 9219. Stone bowl, white limestone, Type 97, with lip spout, l. 0·24 m., width 0·18 m. PG/406.

U. 9220. Stone vase, white calcite, Type 78, ht. 0·10 m. PG/468. (B. 4245.)

U. 9231. Beads: lapis-lazuli lozenges, 1 carnelian cylinder, and copper balls. PG/506. (B. 4250.)

U. 9233. Beads: a necklace of lozenge-shaped lapis-lazuli beads with a few double conoids of copper plated with gold leaf. PG/504.

U. 9234. Amulet, of baked clay, in the form of a crescent; one side flat, the other slightly convex. From PG/364, one of the circular ribbed pots which seem to be not graves but dedication-deposits. (P. *CBS.* 17218.)

U. 9236. Stone bowl, white limestone, Type 70, ht. 0·055 m., l. 0·15 m., width 0·11 m., base 0·08 m. PG/183. (B. 4251.)

U. 9239. Offering-table of white limestone, ht. 0·46 m., dish d. 0·44 m., base d. 0·27 m. The dish and the foot were made separately and fixed together with bitumen; part of the dish missing. PG/348.

U. 9242. Cylinder seal, lapis-lazuli, l. 0·021 m., d. 0·01 m. PG/482. Pl. 204. (B. 4254.)

U. 9243. Gold pendant, circle with 4 cones of spirally wound wire; cf. Pl. 134, d. 0·018 m. PG/482.

U. 9244. Beads: 8 lapis-lazuli and 1 gold double conoids; 3 lapis, 2 carnelian, and 2 banded sard cylinders. PG/482. (B. 4255.)

U. 9245. Stone bowl, basic diorite, Type 19, ht. 0·07 m., rim d. 0·145 m., base 0·065 m. PG/484. (B. 4256.)

U. 9247. Silver axe, Type A 3, miniature, l. 0·105 m., ht. of socket 0·055 m. PG/560.

U. 9249. Stone bowl, dark grey steatite, Type 51. Fragmentary. PG/560.

U. 9250. Stone vase, white calcite, Type 90, ht. *c.* 0·13 m., rim d. 0·056 m. PG/560.

U. 9252. Donkey's ear, in lapis-lazuli; socketed for fitting into a composite figure, l. 0·06 m., width 0·025 m. PG/568. (B. 4259.)

U. 9253. Beads: about 70 lapis-lazuli double conoids. PG/568. (B. 4261.)

U. 9255. Ostrich egg, cut open to serve as a vase; the rim decorated with encrustation of small squares and triangles of shell and bitumen. Cf. U. 8244. Pl. 156. PG/430. (B. 4262.)

U. 9256. Gold ear-rings, a pair, each made of 1½ hoops of spirally coiled gold wire, d. 0·022 m. PG/570.

U. 9261. Cylinder seal, shell, l. 0·026 m., d. 0·014 m. PG/574. Pl. 206. (P. *CBS.* 16892.)

U. 9262. Cylinder seal, green steatite, l. 0·02 m., d. 0·012 m.; slightly carinated. Found loose in the soil. Pl. 210. (P. *CBS.* 16860.)

U. 9263. Cylinder seal, black steatite, l. 0·023 m., d. 0·01 m. Found loose in the soil. Pl. 207. (P. *CBS.* 16855.)

U. 9264. Cylinder seal, black steatite, l. 0·024 m., d. 0·012 m. Found loose in the soil. Pl. 199. (B. 4264.)

U. 9265. Button seal, black shale, ht. 0·004 m., d. 0·016 m. On the convex side 4 sets of concentric circles. Found loose in the soil. Pl. 216. (L. *BM.* 120576.)

U. 9266. Cylinder seal, white limestone, l. 0·036 m., d. 0·021 m. PG/583. Pl. 210. (B. 4265.)

U. 9268. Cylinder seal, frit, originally glazed, l. 0·021 m., d. 0·011 m. In bad condition; standing figures and crescent moon. PG/490. (B. 4267.)

U. 9269. Stone bowl, dark steatite, Type 51, ht. 0·18 m., rim d. 0·095 m. PG/504. (B. 4266.)

U. 9278. Silver chain, 2 fragments of, square in section with 'crochet' links, from a *brîm*; total l. 0·04 m. Found loose in the soil near PG/559 but probably not belonging to it. (B. 4273.)

U. 9279. Beads: lapis-lazuli and silver, with 1 carnelian. PG/559. (B. 4274.)

U. 9280. Beads: very small lapis-lazuli and gold balls. PG/559. (B. 4275.)

U. 9281. Beads: small double conoids of gold and lapis-lazuli, 1 carnelian cylindrical and 1 large lapis date-shaped bead with gold caps and gold wire let into a groove cut spirally round the length of the bead. PG/559. Pl. 220. (B. 4276.)

U. 9282. Cylinder seal, dark mottled steatite, l. 0·04, with copper caps. PG/559. Pl. 206. (L. *BM.* 120544.)

U. 9283. Cylinder seal, black steatite; l. 0·034 m., d. 0·022 m. Defaced inscription. PG/559. Pl. 205. (B. 4277.)

U. 9284. Gold ear-ring, small lunate type, d. 0·013 m. PG/559. (B. 4278.)

U. 9290. Cylinder seal, shell, l. 0·029 m. Poor condition. PG/557. Pl. 215. (B. 4284.)

U. 9291. Cylinder seal, haematite, l. 0·018 m. PG/557. Pl. 212. (B. 4285.)

U. 9292. Cylinder seal, haematite, l. 0·038 m. Inscription intentionally erased. PG/557. Pl. 215. (B. 4286.)

U. 9295. Gold ear-ring, small lunate type; d. 0·014 m. Found loose in soil. (L. *BM.* 120670.)

U. 9296. Gold ring, a plain circlet of gold wire, d. 0·02 m. Found loose in soil. (B. 4288.)

U. 9298. Cylinder seal, green stone, l. 0·025 m. PG/563. Pl. 209. (P.)

U. 9306. Two shell plaques, 0·03 m. sq., engraved one with a figure of a goat and one with a leopard; originally mounted in bitumen. With them were 3 strips of bone inlay for border and 4 pieces of lapis-lazuli strip border. Found loose in the soil. Pl. 98. (B. 4292.)

U. 9307. Gold frontlet, an oval of thin metal, l. 0·115 m., width 0·04 m. PG/563 A. (P. *CBS.* 17007.)

U. 9308. Gold ear-ring, lunate type, rather large, d. 0·021 m. PG/563 A. (P. *CBS.* 17008.)

U. 9309. Beads: gold balls, plain and fluted, lapis-lazuli and carnelian balls, in the centre a crescent amulet of agate capped with gold and a gold date-shaped bead 0·065 m. long. PG/563 A. (P. *CBS.* 17006.)

U. 9310. Cylinder seal, shell, l. 0·021 m. Four figures, 2 fighting, 1 standing, and 1 reclining; inscription: *ur-^{d}nidaba.* PG/563 A. Pls. 191, 206. *v.* p. 314. (P. *CBS.* 17009.)

U. 9311. Stone vase, white calcite, Type 4, ht. 0·13 m., d. 0·08 m. PG/563 A. (P. *CBS.* 17181.)

U. 9314. Gold frontlet; with uniform width and square corners, cut slightly on the curve from a thin sheet of plain gold; l. 0·10 m., width 0·029 m. Found loose in the soil. (B. 4293.)

U. 9315. Cylinder seal, lapis-lazuli, l. 0·039 m. Found in disturbed soil but seems to belong to PG/580. Pls. 191, 200. *v.* p. 49. (B. 4294.)

U. 9318. Stone vase, white calcite, Type 59, ht. 0·05 m., d. 0·10 m. PG/569. (B. 4297.)

U. 9320. Gaming-piece; a lapis plaque, 0·024 m. sq., with 5 shell dots inlaid. Found loose in the soil. Cf. Pl. 98. (P. *CBS.* 16972.)

U. 9321. Cylinder seal, lapis-lazuli, l. 0·022 m. Found loose in the soil. Pl. 208. (B. 4299.)

U. 9322. Gold nail; circular convex head, d. 0·005 m., l. of shaft 0·01 m. Found loose in the soil. (B. 4300.)

U. 9324. Copper rein-ring, from the pole of a chariot; cf. the representation on the stone relief U. 8557; ht. 0·105 m., width 0·10 m. Found with the bones of a buffalo at a depth of *c.* 5·00 m. close to PG/580, to which grave it may have belonged. Fig. 3, p. 48. (P.)

U. 9326. Cylinder seal, lapis-lazuli, l. 0·016 m. PG/570. Pl. 210. (L. *BM.* 120555.)

U. 9327. Beads: very small gold balls, small lapis-lazuli balls and disks, and 1 jasper tube. Restrung in original order. PG/576. (P. *CBS.* 16801.)

U. 9330. Cylinder seal, haematite, l. 0·03 m. PG/585. Pl. 209. (L. *BM.* 120542.)

U. 9333. Gold binding from the handles of weapons. They were set at intervals of *c.* 0·05 m. round wooden staves covered between the gold bands with gesso painted red. They are made of plain thin sheet metal bent round and secured with minute gold nails; the longest was fixed to the wood by a copper nail. Width varies from 0·08 m. to 0·03 and 0·016 m. PG/580. Pl. 153. (L. *BM.* 120689.)

U. 9334. Two silver jugs, Type 84, ht. 0·11 m. One is badly damaged, the other remarkably well preserved except that the spout is bent back to the body of the jug. PG/580. (B. 4302.)

U. 9335. Copper axe, l. 0·145 m., now restored with wooden handle, l. 0·47 m., and gold binding U. 9333. PG/580. Pl. 153. (L. *BM.* 120689.)

U. 9336. Copper harpoons, Type 4, l. 0·137 m. They are hollow socketed, and at the base of the socket are clearly seen the marks of the (sinew ?) binding which secured them to the shaft. PG/580. Pl. 227. (B. 4303.) (P. *CBS.* 17528.)

U. 9337. Copper lance-heads, square poker Type 1, l. of blade 0·13 m., total l. 0·175 m. On the tangs clear marks of the shafts into which they were fixed; these were apparently of reed. PG/580. (B. 4304.) (L. *BM.* 123633–7.) (P. *CBS.* 17519.)

U. 9339. Gold adze, Type 5, l. 0·15 m., l. of socket 0·078 m. With it lay 3 pieces of gold binding from the shaft, widths 0·03 m., 0·04 m., 0·075 m., and a large-headed copper nail or stud which must have formed the end of the pommel. PG/580. Pl. 165. (P. *CBS.* 16691.)

U. 9340. Reticule, gold. The cone-shaped case is decorated with chased designs and appliqué filigree work; l. 0·08 m., d. of opening 0·012 m. In it, hanging together from a silver ring, were 3 toilet instruments of gold, a prick, spoon, and tweezers. *v.* p. 51. It was suspended from the silver girdle to which the dagger and the cylinder seal also were attached. PG/580. Pls. 137, 151. (B. 4306.)

U. 9341. Cylinder seal, shell, very much decayed, but part of design preserved enough to show a lion, stag, and leopard in bold style of cutting. Found attached to the silver belt by a silver band. PG/580. (B. 4307).

U. 9351. Beads: a large collection found scattered in the filling and on the floor of the grave PG/580. Of gold, the chief are: ring pendants from a wreath, circular pendant with 12-petalled flower design in open work, intended for inlay with lapis and carnelian, but inlay all gone, pendants of cones of spirally coiled wire, pear-shaped gold, lapis, and carnelian pendants mounted on gold spacers, gold triangles from a

'dog-collar' made by soldering together minute ball beads, tear-shaped pendants, fluted balls, rings, &c. Lapis-lazuli disk pendants with cones engraved with spiral lines, leaf-shaped beads, and many lapis and carnelian beads of all types. These have been re-strung arbitrarily in different strings. (L. *BM.* 120580, 120597, 120599.) (P. *CBS.* 16794, 16800, 16804, 16819.)

U. 9354. Stone bowl, dark steatite, Type 50. Fragmentary. PG/580. (L. *BM.* 121636.)

U. 9355. Plaque, black shale, a gaming-piece inlaid with 5 small shell dots, 0·022 m. sq. Also fragments of shell plaques, one bearing traces of red paint and engraved with a figure of an eagle attacking the back of a bull; 0·028 m.× ?. PG/570.

U. 9356. Gold pendants, circles set with 4 cones of spirally coiled gold wire; cf. Pl. 134. Also a few lapis-lazuli double conoid beads, cylinders, and barrels, 3 small carnelians and a banded sard. Found at depth of 5·00 m. close to PG/568, and perhaps belonging to the grave. (L. *BM.* 120587.)

U. 9359. Beads: 1 gold double conoid, 3 lapis-lazuli, and 2 carnelian cylinders and 2 carnelian rings. PG/586.

U. 9360. Copper object resembling 4 wheels fixed on a single axle, the outer face of each outer wheel being convex, d. of 'wheels' 0·04 m., total l. 0·06 m. A trivet from the collar of a draught animal. Found loose in the soil at depth of 4·95 m., 0·50 m. below the floor of PG/586. (P. *CBS.* 17388.)

U. 9361. Gold dagger and sheath. The hilt of the dagger is of lapis-lazuli set with gold studs, the blade of gold; the sheath is of gold, plain on the back except for two lines of beading, but of rich filigree design in front, *v.* p. 51. L. of dagger 0·37 m., width of blade 0·055 m., l. of sheath 0·253 m., width 0·053 m. PG/580. Pl. 151. (B.)

U. 9362. Set of toilet instruments in silver: tweezers, knife, and two stilettos suspended from a silver ring; no case found, maximum l. 0·07 m. Found loose in soil. Pl. 159.

U. 9363. Stone vase, translucent white calcite, Type 73. Found loose in soil. Pl. 176.

U. 9364. Silver bowl or lamp (?), Type 87; the shallow bowl is finely fluted and chased with bands of zigzags, on the base is chased an 8-petalled rosette. Ht. 0·02 m., d. 0·10 m., l. of trough spout 0·035 m. Found between two copper bowls and so well preserved. PG/337. Pl. 170.

U. 9365. Decorated silver disk with central boss of electrum, d. 0·09 m. In poor condition. Found loose in soil. Pl. 219. (P.)

U. 9501. Cylinder seal, black steatite, l. 0·033 m., d. 0·018 m. Inscription of *lugal-dug-ga* son of *ud-da.* Found loose in the upper soil. Pls. 191, 216. *v.* p. 315. (L. *BM.* 121556.)

U. 9502. Cylinder seal, green stone, l. 0·03 m., d. 0·018 m. Inscription: *a-mur-ru-um.* Found loose in the upper soil. Pls. 191, 209. (P. *CBS.* 16873.)

U. 9503. Cylinder seal, shell, l. 0·024 m., d. 0·014 m. Standing human figure and two large scorpions; star on pole. Found loose in the upper soil close to tombs of Larsa date. (B. 14309.)

U. 9504. Cylinder seal, dark steatite, l. 0·021 m., d. 0·013 m. Introduction scene, 1 seated and 2 standing figures. Found loose in the upper soil near Larsa graves.

U. 9509. Beads: 4 date-shaped and 4 double-axe-shaped beads of dark steatite and 1 jasper faceted date-shaped. Large and small beads strung alternately as a necklace. PG/606. (B. 7900.)

U. 9513. Cylinder seal, dark green steatite, l. 0·02 m., d. 0·011 m. PG/607. Pl. 199. (P. *CBS.* 16941.)

U. 9514. Gold ear-ring, small lunate type, d. 0·014 m. PG/607. (P. *CBS.* 16942.)

U. 9515. Beads: 5 gold double conoids, 2 carnelian date-shaped, 1 agate date-shaped, and 1 agate cylindrical; stone and gold beads strung alternately. PG/607. (P. *CBS.* 16943.)

U. 9520. Beads: gold, carnelian, lapis, steatite, and copper plated with gold leaf; re-strung in original order; probably all forming one string. PG/609.

U. 9526. Cylinder seal, white steatite, l. 0·024 m., d. 0·017 m. Found loose in the soil at depth of *c.* 1·40 m. Pl. 209. (B. 14586.)

U. 9527. Cylinder seal, dark steatite, l. 0·02 m., d. 0·009 m.; poor scratchy style. Found loose in the soil close to a Larsa wall at depth of 1·70 m. Pl. 216. (B. 11098.)

U. 9529. Cylinder seal, lapis-lazuli, l. 0·02 m., d. 0·009 m. Inscription much defaced. Found loose in the soil at depth of *c.* 2·00 m. Pl. 216. (B. 14540.)

U. 9530. Copper fish-hook with barb and flattened tang. Found loose in the soil at depth of 2·30 m., but near PG/625, to which grave it might belong. (P.)

U. 9531. Gold ear-ring, a spiral of $1\frac{1}{2}$ hoops with ribbed lunate ends. PG/622. (P. *CBS.* 16912.)

U. 9533. Silver ear-ring, two separate spiral rings with heavy lunate ends interlaced; total width 0·023 m. PG/622. Cf. Pl. 219. (P. *CBS.* 16914.)

U. 9537. Beads: 3 strings: (A) 1 long and 3 small carnelian cylinders separated by silver balls; (B) lapis-lazuli diamonds alternating with flat disks of silver; (C) small fluted gold balls, small balls of lapis, carnelian, agate, and paste. Mostly re-strung in original order, but the silver beads decayed. PG/622. (P. *CBS.* 16918.)

U. 9538. Haematite weights, 3, lentoid. Weight of (A), 120 grs., approx. 1 shekel (130 grs.); (B), 93 grs., approx. $\frac{3}{4}$ shekel (95 grs.); (C), 16 grs., approx. $\frac{1}{8}$ shekel ($16\frac{1}{4}$ grs.). PG/623. (P. *CBS.* 16911.)

U. 9539. Stone vase, oolite, ht. 0·10 m., rim d. 0·135 m., base 0·115 m. Probably cut down in antiquity from a tall 'spill' vase. The surface badly chipped and pitted. PG/636. (P. *CBS.* 17147.)

U. 9545. Beads: necklace of 40 silver balls, 1 gold double conoid, 1 banded sard, 2 lapis-lazuli balls, and 1 lapis double conoid. PG/632. (P.)

U. 9548. Copper rod, encased in rings alternately of frit and of glass paste of a reddish colour. PG/618. (L. *BM.* 121982.)

U. 9551. Cylinder seal, shell, l. 0·034 m., d. 0·022 m., with copper caps. Traces of inscription. PG/635. Pl. 209. (B. 8052.)

U. 9552. Cylinder seal, lapis-lazuli, l. 0·028 m., d. 0·014 m. PG/635. Pl. 216. (B. 8053.)

U. 9554. Gold frontlet, an oval of thin sheet metal, l. 0·145 m., width 0·03 m. PG/635. (B. 8055.)

U. 9556. Ear-ring composed of 1 gold and 1 silver spiral with lunate ends, the two interlaced; total d. 0·02 m. PG/635. Cf. Pl. 219. (B. 8057.)

U. 9558. Beads: 1 gold-capped lapis date-shaped, small silver, lapis, and carnelian. Re-strung in original order. PG/635. (B. 8059.)

U. 9561. Beads: 2 strings: (A) silver flattened double conoids and in centre of necklace a double conoid of crystal, 2 banded sard date-shaped and 1 jasper date-shaped alternating with copper ball beads; (B) lapis-lazuli balls and double-axe beads. PG/646. (B. 7836.)

U. 9567. Cylinder seal, shell, l. 0·043 m., d. 0·029 m. Two columns of inscription of Gimil-ilišu priest of Gišrinnum. *v.* p. 314. PG/643. Pls. 191, 213. (B. 14576.)

U. 9568. Cylinder seal, shell, l. 0·03 m., d. 0·015 m. In very poor condition, the subject of 2 men fighting an animal scarcely distinguishable. PG/643. (B. 14546.)

U. 9574. Copper hasps (?) found in the matting over the body and possibly used to fasten the ends of the mats together. PG/643. Pl. 226.

U. 9578. Cylinder seal, haematite, l. 0·025 m., d. 0·017 m. PG/647. Pl. 214. (L. *BM.* 121560.)

U. 9581. Beads: necklace of 24 very small lapis-lazuli balls. PG/647.

U. 9583. Cylinder seal, black steatite, l. 0·019 m., d. 0·01 m. PG/650. Pl. 216. (B. 14545.)

U. 9586. Cylinder seal, haematite, l. 0·027 m., d. 0·016 m. PG/652. Pl. 214. (P. *CBS.* 16947.)

U. 9587. Cylinder seal, green steatite, l. 0·017 m., d. 0·009 m. PG/652. Pl. 212. (P. *CBS.* 16948.)

U. 9589. Bone pin, fragments of, with round shaft on which incised criss-cross decoration; d. of head, 0·004 m. PG/652.

U. 9590. Beads: 3, a carnelian date-shaped and 1 silver and 1 copper double conoid. PG/656. (P. *CBS.* 17584.)

U. 9591. Wood mosaic; the wooden ground has entirely perished and all that remains is a patch of encrustation formed of minute squares (*c.* 0·004 m. sq.) of reddish wood set in bitumen. PG/645. (L. *BM.* 121571.)

U. 9592. Cylinder, of copper, perhaps a seal but too corroded for any design to be distinguished; l. 0·032 m., d. 0·01 m. PG/658. (B. 8060.)

U. 9596. Beads: small lapis-lazuli balls and carnelian rings strung alternately with a carnelian double conoid in the centre. PG/662. (P. *CBS.* 16951.)

U. 9601. Gold ear-rings, a pair, the lunate ends hollow and pendent like bags. PG/666. Cf. Pl. 219, Type 1. (L. *BM.* 121568.)

U. 9602. Gold ear-rings, a pair, with thickened lunate ends. PG/666.

U. 9603. Gold finger-ring, made of a strip of gold the edges of which have been brought up and rolled over so as to produce high rims with a sunken centre; d. 0·018 m., width 0·002 m. PG/666. (L. *BM.* 123661.)

U. 9607. Beads: about 150, gold, diamond, and ball beads, carnelian balls, rings, double conoids and double-axe shapes, a few lapis-lazuli and 1 banded sard date-shaped. PG/666. (P. *CBS.* 17626.)

U. 9610. Gold phallus, made of very thin metal, and hollow, having round the edge minute copper brads for fixing it to something; it might have belonged to a small 'chryselephantine' statuette of a man rather than have been an independent amulet; l. 0·014 m., width at top 0·014 m. PG/672. Pl. 219. (B. 8241.)

U. 9611. Gold and silver ear-rings, a pair. Each consists of two complete ear-rings with lunate ends, interlaced, one of each metal. PG/672. (B. 7834.)

U. 9612. Beads: a necklace of carnelian cylinders (one with gold caps), double conoids, and rings, 4 lapis-lazuli double conoids and 1 cylinder, and a few copper balls and 2 gold double conoids, minute. Re-strung in the original order. PG/672. (B. 7835.)

U. 9614. Cylinder seal, dark grey steatite, l. 0·024 m., d. 0·013 m. Found loose in the soil, high up. Pl. 209. (B. 14587.)

U. 9616. Stone bowl, blue-green steatite, Type 14, ht. 0·045 m., rim d. 0·10 m., base 0·095 m. PG/690. (B. 8464.)

U. 9618. Cylinder seal, haematite, l. 0·02 m., d. 0·011 m. PG/688. Pl. 199. (B. 11092.)

U. 9620. Cylinder seal, shell, with copper caps, l. 0·024 m., d. 0·016 m. Poor condition. PG/688. Pl. 210. (B. 7985.)

U. 9622. Ear-rings, a pair, each formed of 1 silver and 1 copper ear-ring with overlapping lunate ends interlaced. PG/686. Cf. Pl. 219. (B. 7987.)

U. 9623. Beads: 3 strings. Double conoids and balls of copper plated with gold foil, silver flattened double conoids, lapis-lazuli double conoids, lozenges and balls, carnelian double conoids and minute rings, 1 agate date-shaped, 1 jasper date-shaped, and 1 shell cylindrical bead. Re-strung mostly in the original order. PG/686.

U. 9624. Cylinder seal, green steatite, l. 0·026 m., d. 0·013 m. Found loose in the upper soil. Pl. 210. (L. *BM.* 121550.)

U. 9625. Gold fillet: two lengths of gold ribbon which were twisted round locks of hair brought horizontally across the forehead; l. as twisted 0·17 m., width 0·005 m. PG/673. (P. *CBS.* 16926.)

U. 9626. Gold ear-rings, a pair, very large coils with hollow lunate ends, d. 0·025 m. PG/673. (P. *CBS.* 16927.)

U. 9627. Beads: small gold diamonds alternating with lapis-lazuli and carnelian diamonds and rings. PG/673. (P. *CBS.* 16928.)

U. 9628. Beads: silver, lapis-lazuli, carnelian, and agate; re-strung in the original order. PG/673. (P. *CBS.* 16929.)

U. 9629. Beads: silver, lapis-lazuli, carnelian, copper, and paste; a separate necklace re-strung mostly in the original order. PG/673. (P. *CBS.* 16930.)

U. 9634. Cylinder seal, dark steatite, l. 0·025 m., d. 0·016 m. PG/673. Pl. 213. (P. *CBS.* 16935.)

U. 9636. Gold fillet, a narrow ribbon originally twisted round the lock brought across the forehead, l. 0·17 m., width 0·01 m. PG/671.

U. 9637. Gold ear-rings, a pair, large coils of hollow metal with lunate ends, but a third lobe is added so that at one end of the coil there are two crescents; max. measurements 0·022m.×0·017m. PG/671. Pl. 146. (B. 8041.)

U. 9638. Gold finger-ring, made of strip metal with edges bent over and inwards so as to give the effect of two solid hoops, d. 0·02 m. PG/671. (B. 8040.)

U. 9639. Beads: gold, silver, lapis-lazuli, carnelian, and agate balls, date-shaped and cylindrical. Re-strung in original order. PG/671. (B. 8042.)

U. 9642. Cylinder seal, green stone, l. 0·029 m., d. 0·015 m. PG/671. Pl. 213. (B. 8067.)

U. 9645. Cylinder seal, baked clay, l. 0·028 m., d. 0·016 m. Roughly incised. Found loose in the soil. Pl. 82. (L. *BM.* 121551.)

U. 9647. Stone vase, white calcite, Type 86, ht. 0·12 m., rim d. 0·077 m. PG/655. (P. *CBS.* 17180.)

U. 9650. Beads: small double conoids and date-shaped beads of lapis-lazuli. PG/655. (P. *CBS.* 17665.)

U. 9652. Cylinder seal, dark steatite, l. 0·025 m., d. 0·014 m. PG/667. Pl. 213. (P. *CBS.* 16857.)

U. 9656. Beads: a mixed collection found in the shaft and on the floor of PG/580; they belong with U. 9351. The gold beads include large and small double conoids, flattened ditto, double conoids made of thin gold wire spirally coiled and soldered together, barrels, cylinders, plain and fluted balls, 2 very long double conoids, 3 leaf pendants, disk pendants of spirally coiled wire, ring pendants, bar spacers square in section pierced for 20 parallel strings. Carnelian beads include double conoids, barrels, balls, cylinders, rings, and a gold-mounted pendant, flat discoid, and a barrel of carnelian with bleached pattern. Lapis-lazuli beads include fluted balls, large and small double conoids, and a double conoid pendant mounted in gold. Pl. 134. (B. 7803, 8018–19.) (L. *BM.* 121424–6.) (P. *CBS.* 17597.)

U. 9657. Gold bead, a composite bead made up of 4 large double conoids soldered together, all covered with fine appliqué filigree work in geometric patterns, l. 0·04 m. PG/580. Pl. 146. (B. 8251.)

U. 9658. Gold hair-ring, 2½ hoops of thick gold wire spirally coiled, d. 0·04 m. PG/580. (L. *BM.* 121373.)

U. 9661. Cylinder seal, mottled marble, l. 0·033 m., d. 0·02 m.; slightly carinated. Half the circumference is in two registers having above an inscription: cook of Lugal-Giš. PG/692. Pls. 191, 205. *v.* p. 315. (P. *CBS.* 16874.)

U. 9663. Stone bowl, white limestone, Type 28, ht. 0·05 m., rim d. 0·15 m., base 0·125 m. PG/692. (L. *BM.* 121707.)

U. 9664. Stone bowl, white limestone, Type 19, rim d. 0·145 m.×0·10 m. PG/692. (P. *CBS.* 17182.)

U. 9665. Ear-rings, a pair, of copper plated with gold foil; lunate type. PG/696.

U. 9666. Beads: 30, copper balls plated with gold foil. PG/696.

U. 9667. Gold frontlets, 2 fragmentary. Ovals of very thin gold foil. PG/696.

U. 9674. Cylinder seal, shell, l. 0·033 m., d. 0·024 m. Much decayed; 2 hunters with a lion and a bull, and an effaced inscription. PG/677. (B. 13207.)

U. 9675. Cylinder seal, shell, l. 0·033 m., d. 0·019 m. Much worn; introduction scene with 1 seated and 3 standing figures. PG/677.

U. 9677. Stone vase, white calcite, Type 92, ht. 0·22 m., rim d. 0·075 m. PG/679. (P. *CBS.* 17113.)

U. 9678. Stone vase, white calcite, Type 7, ht. 0·11 m., rim d. 0·115 m. PG/679. (P. *CBS.* 17125.)

U. 9679. Cylinder seal, rock crystal, with gold caps; l. 0·036 m., d. 0·025 m. The central hole is filled with red and white paste in horizontal bands which show through the translucent stone. An inscription deliberately effaced. PG/689. Pl. 205. (B. 14305.)

U. 9680. Copper battle-axe, having on one side of its ring socket a single long spike, on the other three short spikes, l. 0·21 m., ht. 0·077 m. No other example of the type was found. PG/689. Pl. 224. (B. 8126.)

U. 9681. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·01 m. Inscription of Nin-nin, administrator of Utu-sib. *v.* p. 314. PG/689. Pls. 191, 206. (B. 14310.)

U. 9683. Beads: small lapis diamonds and silver disk beads. Found against the copper pin U. 9682, and perhaps used to fasten to it the cylinder seal U. 9681, which lay beside them. PG/689. (B. 8068.)

U. 9685. Copper object, of unknown use; it would seem to have been fastened to a pole, ht. 0·14 m., d. 0·08 m. PG/689. Pl. 226. (B. 8062.)

U. 9687. Copper axe of unusual type, l. 0·12 m., ht. 0·10 m. PG/691. Pl. 224. (L. *BM.* 121578.)

U. 9688. Cylinder seal, green stone, l. 0·034 m., d. 0·022 m. Poor condition, apparently an introduction scene. PG/691. (P. *CBS.* 16884.)

U. 9689 A. Stone vase, white calcite, Type 2, ht. 0·065 m., rim d. 0·065 m. PG/693. (L. *BM.* 121735.)

U. 9689 B. Copper chisel, Type 2, l. 0·14 m., width of cutting edge 0·027 m. Near the top end of the shaft there are marks of the hafting showing that it was set in a wooden handle (part of which was found) slantwise as a cutting adze. PG/693.

U. 9693. Cylinder seal, lapis-lazuli with gold caps, l. 0·02 m., d. 0·011 m. PG/695. Pl. 212.

U. 9694. Cylinder seal, green stone, with copper caps, l. 0·021 m., d. 0·012 m. PG/695. Pl. 214.

U. 9696. Beads: 1 gold and 3 carnelian; apparently used to fasten together the 2 cylinder seals, U. 9693 and 9694, with which they were found. PG/695.

U. 9699. Gold finger-ring, a hoop of plain wire with the ends soldered together. PG/580.

U. 9700. Ear-ring, formed of 3 ear-rings of normal type with lunate ends, interlaced in a chain with a silver ring at each end and a gold ring in the middle. PG/580. (B. 7779.)

U. 9704. Beads: 2 necklaces: (A) silver balls, lapis-lazuli long double conoid beads, 1 carnelian and 1 chrysoprase ditto and 4 agate cylinders. Re-strung in the original order; (B) 12 gold cylinders, 8 gold diamonds, 7 carnelian diamonds and 4 cylinders, 9 lapis-lazuli cylinders and 1 of crystal, with silver diamonds and double conoids completely decayed. Re-strung mostly in the original order. PG/704. (B. 7923.)

U. 9705. Gold frontlet, an oval of thin gold leaf perforated at each end for attachment, l. 0·095 m., width 0·027 m. PG/704. (B. 7743.)

U. 9706. Gold fillet, a plain ribbon twisted round a lock of hair brought across the forehead; width 0·006 m. PG/704.

U. 9707. Gold ear-rings, 2 pairs, normal small type with lunate ends; in one the ends are hollow and bag-shaped, in the other they are solid. One of each kind was worn in each ear. PG/704.

U. 9709. Gold finger-ring, apparently made from a gold tube sharply indented down the centre so as to give the effect of 2 plain hoops soldered together; or the edges of a flat strip may have been curled over to meet along the middle. PG/704.

U. 9710. Cylinder seal, lapis-lazuli, l. 0·023 m., d. 0·012 m. PG/704. Pl. 214. (B. 14474.)

U. 9714. Gold ear-rings, a pair, 1 fragmentary. Normal small type with hollow bag-shaped lunate ends. PG/698. (L. *BM.* 122000.)

U. 9717. Cylinder seal, shell, l. 0·03 m., d. 0·017 m. Part of 1 copper cap remains; the seal worn and much obliterated. PG/700. Pl. 212.

U. 9719. Beads: 15 gold double conoids, 25 lapis-lazuli double conoids, and 25 carnelian barrels, all minute. PG/681. (P. *CBS.* 17021.)

U. 9721. Cylinder seal, haematite, l. 0·03 m., d. 0·018 m. With copper caps. PG/681. Pl. 206. (P. *CBS.* 17024.)

U. 9724. Stone bowl, translucent white calcite, Type 16, ht. 0·065 m., rim d. 0·105 m., base 0·07 m. PG/681. (P. *CBS.* 17136.)

U. 9729. Two copper loops with thin stems, l. of loop 0·012 m., width 0·006 m., l. of stem 0·025 m. Found by the feet; possibly fasteners for the laces of sandals. PG/694. Pl. 226. (P. *CBS.* 17603.)

U. 9733. Cylinder seal, grey limestone, l. 0·015 m., d. 0·006 m. PG/708. Pl. 204. (L. *BM.* 121553.)

U. 9735. Beads: 3 strings, of lapis-lazuli diamonds, silver balls, and glazed frit double conoids respectively. PG/724.

U. 9740. Cylinder seal, haematite, l. 0·027 m., d. 0·017 m. PG/724. Pl. 205. (B. 14588.)

U. 9743. Stone bowl, white calcite, Type 16, ht. 0·075 m., rim d. 0·12 m., base 0·08 m. In bad condition. PG/724. (B. 8422.)

U. 9749. Cylinder seal, mottled marble, l. 0·04 m., d. 0·026 m.; slightly carinated. PG/720. Pl. 214. (B. 14316.)

U. 9750. Cylinder seal, dark green stone, l. 0·036 m., d. 0·024 m., with copper caps. PG/699. Pl. 215. (B. 14577.)

U. 9751. Cylinder seal, lapis-lazuli, l. 0·043 m., d. 0·02 m. PG/699. Pl. 212. (B. 14317.)

U. 9752. Beads: copper balls plated with gold leaf, rock-crystal rings, 1 carnelian date-shaped, 1 lapis-lazuli date-shaped bead with gold caps and a spiral groove round it for its whole length originally filled in with gold wire; cf. Pl. 220. PG/699. (B. 8066.)

U. 9753. Beads: small lapis-lazuli and gold; re-strung in the original order. PG/699. (B. 8071.)

U. 9754. Beads: a necklace of small silver and lapis-lazuli double conoids, most of the former decayed. PG/699. (B. 8070.)

U. 9755. Ear-rings, a pair, each formed of a very small ear-ring of normal lunate type in gold suspended from a similar silver ring; the silver parts broken and decayed. PG/699. (B. 8072.)

U. 9758. Copper box, circular, with a close-fitting lid surmounted by a knob handle, ht. 0·042 m., d. 0·06 m. PG/699. Type 110. Pl. 240. (B. 8526.)

U. 9763. Gold frontlet, an oval of thin sheet gold with holes for attachment, l. 0·26 m., width 0·035 m. PG/697. (B. 7749.)

U. 9764. Cylinder seal, lapis-lazuli with gold caps, l. 0·026 m., d. 0·013 m. Inscription of En-ki-en-du the scribe. *v.* p. 316. PG/697. Pls. 191, 205. (B. 8049.)

U. 9765. Cylinder seal, shell, l. 0·028 m. Much decayed. Inscription of En-ki-en-du the scribe. *v.* p. 316. PG/697. Pls. 191, 205. (B. 7747.)

U. 9766. Ear-ring, formed of one gold and one silver ear-ring of normal lunate type interlaced. PG/697. (B. 7755.)

U. 9767. Beads: gold balls, silver balls, and agate date-shaped beads; re-strung mostly in the original order. PG/697. (B. 7758.)

U. 9769. Copper reticule of the normal type but with a band of gold round the top of the case, l. 0·09 m. PG/697. (B. 8527.)

U. 9775. Beads: numerous small rings of blue-glazed frit. PG/697.

U. 9776. Shell plaques, perhaps from a gaming-board, ht. 0·02 m. Twelve are engraved with animal designs; 5 more were found with the surface decayed and the designs obliterated. Two squares have engraved rosettes, 9 oblong pieces have the 'eye' pattern (most of these in poor condition); 7 shell squares are inlaid with 5 blue dots each, 3 black shale squares with 5 white dots; with them, bits of narrow edging in mother-of-pearl, red limestone, and lapis-lazuli. All found scattered in the filling of the tomb-shaft, PG/580. Pl. 99. (P. *CBS.* 16742.)

U. 9777. Spindles, a pair, very slender silver spindles with lapis-lazuli whorls, l. 0·23 m., d. of whorls 0·03 m. Found low down in the filling of the shaft, PG/580. (B. 7922.) (P. *CBS.* 17550.)

U. 9778. Gold finger-ring of cloisonné work set with lapis-lazuli, bent, and some cloisons empty, width 0·011 m. Found low down in the filling of the shaft, PG/580. Pl. 138. (B. 8268.)

U. 9779. Gold bead, a long double conoid decorated with appliqué filigree work and circular cloisons once filled with lapis-lazuli (now all missing; a tiny splinter of lapis remained in one cloison when it was found), l. 0·033 m., d. 0·014 m. PG/580. Pl. 138.

U. 9780. Gold chain, of the type usually employed for *brîms*, l. 0·112 m. Found high up in the filling of the shaft, PG. 580.

U. 9781. Gold frontlet, an oval of sheet metal 0·115 m.×0·065 m. with a star impressed in its centre. At the end are wires made by cutting out at the end of the oval (from the same sheet) a long narrow strip which was then twisted tightly into a wire 0·275 m. long. Both wires broken and the attachment of one missing. PG/777. Pl. 219. (P. *CBS.* 16706.)

U. 9782. Beads: 1 gold date-shaped, l. 0·042 m., 2 lapis-lazuli date-shaped and 1 cylindrical, all 0·033 m. long. PG/777. (L. *BM.* 121497, 121516.)

U. 9783. Beads: wreath of 14 gold ring pendants strung on a double row of lapis-lazuli date-shaped beads and carnelian rings. PG/777. (P. *CBS.* 17677.)

U. 9784. Beads: 1 small gold, 6 lapis-lazuli, and many carnelian rings. PG/777. (P. *CBS.* 17668.)

U. 9785. Silver head-ornament, a pin with triangular top from which rise 7 petal-like points ending in balls of lapis-lazuli, ht. 0·31 m., width 0·10 m. Broken and imperfect. PG/777. (P. *CBS.* 17005.)

U. 9786. Palmette pendants of silver wire, 7, resembling the gold wire palmettes on Queen Shub-ad's second diadem (U. 10948) and certainly belonging, together with U. 9787, to such a diadem. PG/777. Pl. 220. (P. *CBS.* 17000.)

U. 9787. Gilt ornaments from a diadem resembling that of Queen Shub-ad (*v.* U. 9786). A number of short copper stems, 0·06 m. long, originally plated with gold leaf; they are pierced with minute holes, 0·005 m. apart, by which they could be sewn on to a background or connected by closely set strings of very small beads (but none such were found). Attached to one end of some of the stems are small gold leaves, in pairs, or gold flower rosettes; there were also found loose with them fragments of hollow gold balls which seem to have been fixed on to gold rims found on some of the stems and would so have resembled pomegranates; there were silver rosettes also. PG/777. Fig. 7, p. 57. (P. *CBS.* 17588.)

U. 9790. Stone vase, white calcite, Type 64, ht. 0·095 m., d. 0·11 m. PG/777. (L. *BM.* 121734.)

U. 9793. Stone bowl, white limestone, Type 19, ht. 0·12 m., d. 0·24 m. PG/777. (L. *BM.* 121705.)

U. 9794. Stone bowl, white limestone, broken, ht. 0·08 m., d. 0·25 m. PG/777. (P. *CBS.* 17141.)

U. 9797. Silver bowl, Type 89, ht. 0·035 m., l. 0·13 m., d. 0·08 m. It has an engraved line round the rim and 3 ribs in slight relief. PG/777. Pl. 172*b*.

U. 9798. Silver chain, fragments of, of the same type as the gold chains usual in *brîms*. PG/777.

U. 9800. Beads: 2 strings worn as necklaces: (A) silver diamonds and small lapis-lazuli double conoids strung in alternate pairs; (B) alternately two carnelian double conoids and 1 date-shaped bead of glazed frit. PG/718. (P. *CBS.* 17627.)

U. 9802. Stone bowl, white limestone, Type 24, ht. 0·065 m., rim d. 0·175 m., base 0·13 m. PG/718. (L. *BM.* 121708.)

U. 9805. Beads: 1 double conoid and 1 ring of gold, 5 carnelian double conoids, 9 lapis-lazuli cylinders, and double conoids, 1 agate date-shaped. PG/726. (L. *BM.* 121996.)

U. 9808. Cylinder seal, shell, l. 0·026 m., d. 0·014 m. PG/726. Pl. 205. (L. *BM.* 121996.)

U. 9809. Cylinder seal, lapis-lazuli, l. 0·023 m., d. 0·011 m. Found loose in the soil at depth of 4·00 m. Pl. 208. (B. 14589.)

U. 9810. Gold frontlet, an oval of thin gold leaf 0·116 m.×0·04 m. PG/703. (L. *BM.* 121566.)

U. 9811. Gold fillets. Six pieces of ribbon 0·006 m. wide and varying in length from 0·20 m. to 0·13 m.; all are perforated at each end for attachment. All are in spiral coils, having been twisted round locks of hair. As found, 5 were against the frontlet U. 9810 and at right angles to it, i.e. running from the front of the head to the back (the longest ribbons were in the middle), and the sixth was beneath the frontlet and parallel to it, i.e. if the present position is not accidental, it ran horizontally across the forehead, as is normal with these twisted fillets (in that case the frontlet should have been lower down on the forehead, and must be supposed to have slipped up over the ribbon). The horizontal ribbon shows on its under side, where the coils came in contact with the head, the marks of a very fine open-woven muslin-like fabric or net; a similar impression has been noted on some of the gold frontlets, and implies that a veil was worn and was, probably, kept in place by the frontlet; the lock of hair twined with gold ribbon must also have passed over the top of the veil. PG/703. Pl. 218. (L. *BM.* 121566.)

U. 9812. Beads: 2 strings: (A) small gold, carnelian, and a few lapis-lazuli, re-strung in the original order; (B) larger beads, jasper, banded sard, mottled steatite, and agate. PG/703. (L. *BM.* 121492, 121566.)

U. 9813. Cylinder seal, lapis-lazuli, l. 0·035 m., d. 0·02 m. PG/703. Pl. 212. (L. *BM.* 121566.)

U. 9814. Gold ear-rings, a pair, normal small type with hollow lunate ends. PG/703. (L. *BM.* 121371.)

U. 9815. Gold ear-rings, a pair, normal small type

but unusually solid and heavy. PG/703. (L. *BM.* 121370.)

U. 9819. Gold finger-rings, 4 (cf. U. 9709), made of strip metal, the edges rolled over and inwards to give the effect of a double wire ring; d. 0·02 m., width 0·003 m. PG/703. (L. *BM.* 121566.)

U. 9824. Gold frontlet, oval, 0·185 m.×0·04 m. PG/717. (B. 7742.)

U. 9825. Beads: a necklace of 3 strings: gold balls, cylinders, and diamonds, lapis-lazuli balls and cylinders, carnelian diamonds, crystal rings and diamonds, 1 agate flattened double conoid with gold caps. Re-strung in the original order. PG/717.

U. 9826. Beads: rings of glazed frit, many hundreds, all found round the head (not round the neck), so that they seem to have formed a bead cap; cf. the Standard-bearer in PG/1236. PG/717.

U. 9827. Gold ear-rings, a pair, normal small type with flattened lunate ends. PG/717. (B. 7814.)

U. 9828. Copper pin, Type 1, with lapis-lazuli ball head capped with gold. At 0·03 m. from the head the shaft is pierced and a copper ring passes through the hole. PG/717. Cf. Pl. 231. (B. 7815.)

U. 9829. Cylinder seal, grey marble, l. 0·031 m., d. 0·02 m. PG/717. Pl. 206. (B. 7816.)

U. 9834. Bead, lapis-lazuli cylinder, decorated in 2 registers with a series of V-shaped incisions; l. 0·038 m. PG/717. (B. 7817.)

U. 9835. Stone bowl, white limestone, Type 37, ht. 0·125 m., rim d. 0·165 m., base 0·10 m. PG/717. (B. 8412.)

U. 9838. Beads: a bracelet of 19 lapis-lazuli double conoids. PG/717.

U. 9839. Bead: a carnelian double conoid, worn singly on a string round the neck. PG/719.

U. 9844. Cylinder seal, green marble, l. 0·031 m., d. 0·021 m. Inscription of Ur-SI, porter and servant of Enmenanna. *v.* p. 314. PG/719. Pls. 191, 206.

U. 9846–7. Copper staples (?), 8; 4 found on the shoulder and 4 at the waist of the body; possibly fasteners from a belt or baldric; l. 0·035 m. PG/719. Pl. 226. Cf. U. 9859.

U. 9849. Copper dagger, Type 7, l. 0·225 m., width 0·035 m. On the blade lay 6 leaf-shaped pieces of wood. Probably these are the petals of a rosette of wood inlaid in the (softer) wood of the sheath. The pommel of the dagger probably ended with a cap of copper and bone found separately (U. 9848). PG/709.

U. 9851. Cylinder seal, mottled marble, l. 0·031 m., d. 0·021 m. PG/709. Pl. 210. (B. 14318.)

U. 9855. Beads: 3 carnelian barrels, 1 banded sard barrel, and a number of wooden double conoids, mostly decayed. PG/709. (B. 7898.)

U. 9858. Cylinder seal, grey limestone, l. 0·023 m., d. 0·016 m. Found loose in the soil at depth of *c.* 3·00 m. Pl. 210. (B. 14306.)

U. 9859. Copper staples (?), perhaps for fastening a belt; found together on the waist of the body (cf. U. 9846–7); l. 0·04 m., d. of rings 0·01 m. PG/719.

U. 9863. Gold and silver chains, and 3 large faceted date-shaped beads, 1 gold, 2 lapis; the normal *brîm* except that whereas the chain on one side was of gold (l. 0·185 m.), corresponding to it we have a length of gold chain (0·07 m.) and one of silver (0·115 m.), which together equal it in length and must have been joined together to match it. PG/734. (P. *CBS.* 16907.)

U. 9874. Gold chain, the square-section chain usual in a *brîm*, l. 0·095 m. Found loose in the soil at depth of 4·50 m.

U. 9878. Cylinder seal, blue and white marble, l. 0·023 m., d. 0·012 m. PG/736. Pl. 196.

U. 9879. Gold ear-ring, normal small type with lunate ends. PG/758. (B. 8065.)

U. 9888. Stone bowl, translucent white calcite, Type 16, ht. 0·15 m., rim d. 0·175 m., base 0·05 m. PG/756. (B. 8463.)

U. 9889. Beads: 1 lapis-lazuli date-shaped, 2 carnelian rings. PG/758.

U. 9893. Cylinder seal, black steatite, l. 0·024 m., d. 0·014 m. PG/751. Pl. 206. (L. *BM.* 121557.)

U. 9894. Beads: 2 gold balls and 3 carnelian cylinders strung alternately. PG/788. (L. *BM.* 121495.)

U. 9895. Gold frontlets, 2, of thin sheet metal with holes at either end, l. 0·10 m., width 0·03 m. PG/788. (L. *BM.* 121564, 123658.)

U. 9896. Gold ear-rings, a pair, with hollow bag-like lunate ends. PG/788. (L. *BM.* 123659.)

U. 9900. Ear-rings, a pair, each formed of 1 gold and 1 copper ear-ring interlaced, of the normal small type with hollow bag-like lunate ends. PG/794. (B. 8249.)

U. 9904. Two copper nails or studs, one with square shaft. Maximum l. 0·09 m. PG/580. Pl. 226.

U. 9905. Shell inlay: a figure cut in silhouette, broken and the head missing. Male figure wearing *kaunakes* of the early type with 3 rows of fringe advancing left; in the left hand a short staff. Good early work. Ht. 0·03 m. Found well below the level of the gold dagger in or under the shaft of PG/580. Pl. 99. (B. 8227.)

U. 9906. Shell inlay: a figure cut in silhouette, the head missing. A servant (?) wearing a fringed skirt advances left holding with both hands 2 piles of pots, each pile containing 4 tumblers. Ht. 0·034 m. Found close to U. 9905. PG/580. Pl. 99. (B. 8228.)

U. 9907. Engraved shell: 3 pieces clearly belonging together; they are curved in section and if put together with a fourth piece (not found) would form a cylinder l. 0·038 m., d. 0·023 m. The subjects are (A) a man with his hair in short curls, wearing a skirt with narrow fringe overlapping in front, faces rt. and fights a rampant bull; bushes in background; (B) a man exactly like the last seizes a rampant bull from behind; (C) a bull rampant left, against a background of bushes. There is a narrow border, plain, above and below the scenes. The figures are sharply outlined and the ground round them was cut away and filled in with black pigment leaving the figures in silhouette; the engraved lines of internal detail were also filled in with black. Found together

loose in the soil at a depth of 4·40 m. not connected with any grave; *v.* p. 282. Pl. 99. (B. 8232.)

U. 9908. Cylinder seal, steatite, l. 0·015 m., d. 0·009 m. Much worn. Found loose in the soil. Pl. 209. (B. 8179.)

U. 9909. Shell plaque, engraved with an animal scene; in poor condition and the engraving indistinct; 0·027 m. sq. Found below the level of the gold dagger in or under the shaft of PG/580. Pl. 98. (B. 8216.)

U. 9913. Copper object, in fragments. A long slender rod, l. 0·44 m., one end flattened to a chisel shape, probably for hafting, the other slender and elaborately curled; all over the curled end there are marks of its having been bound with fine string or, more probably, sinew. Attached to it by corrosion is part of a second similar rod. These would seem to have been the ends of a bow let into the wood of it and the curved part of the metal taking the bowstring. Found low down in the filling of the shaft of PG/580. Pl. 226. (L. *BM.* 121604.)

U. 9914. Offering-table, white limestone, stem only, ht. 0·37 m., ornamented with incised leaf pattern, PG/689. Pl. 221.

U. 9920. Beads: lapis-lazuli double conoids and a few silver balls; a bracelet. PG/723. (P. *CBS.* 17585.)

U. 9921. Beads: lapis-lazuli double conoids and a few silver balls; a necklace. PG/723.

U. 9923. Cylinder seal, black steatite, l. 0·035 m., d. 0·024 m. PG/735. Pl. 206. (L. *BM.* 121559.)

U. 9924. Stone vase, white calcite, Type 5, ht. 0·11 m., rim d. 0·09 m. PG/735. (P. *CBS.* 17127.)

U. 9930. Beads: very small rings of lapis-lazuli, white paste, and silver. PG/735. (P. *CBS.* 17589.)

U. 9931. Gold ear-ring, of wire with slightly thickened ends, d. 0·014 m. PG/737. (P. *CBS.* 17676.)

U. 9932. Beads: 2 carnelian and 2 lapis-lazuli cylinders. PG/737. (P. *CBS.* 17583.)

U. 9935. Beads: 1 gold date-shaped, 1 lapis-lazuli date-shaped, 1 carnelian ring, and a silver pendant, broken. PG/741. (B. 7859–60.)

U. 9936. Beads, from a *brîm*; 1 gold and 4 lapis-lazuli large date-shaped; with them fragments of silver chain. PG/739. (P. *CBS.* 16734.)

U. 9938. Copper dagger, Type 7, l. 0·22 m. The handle had been studded with silver nails. PG/739. (P.)

U. 9942. Gold ear-ring, normal small type with lunate ends, heavy, d. 0·016 m. PG/739. (P. *CBS.* 17001.)

U. 9943. Cylinder seal, shell, l. 0·051 m., d. 0·038 m. Into the central hole is fitted a tube of black shale (?). Inscription of Šara . . ., scribe of the Lady. *v.* p. 316. PG/743. Pls. 191, 197. (B. 14315.)

U. 9949. Gold finger-ring; a hoop of flat strip metal, thin, on to which are soldered 2 strands of twisted wire appliqué, d. 0·016 m., width 0·0045 m. PG/745. (B. 8359.)

U. 9954. Beads: small lapis-lazuli, carnelian, and paste rings, strung in sets of 3 of a kind. PG/747.

U. 9956. Copper punt-poles, l. 0·50 m. Two slender rods round in section and rounded off at the top, and for the lowest 10 centimetres flattened to a rectangular section 0·008 m. across. Found by the side of the bitumen boat belonging to PG/721.

U. 9959. Beads: wooden balls (? ebony). PG/777, NE. chamber.

U. 9960. Beads: lapis-lazuli double conoids. PG/777, NE. chamber.

U. 9962. Silver pin, Type 7, with lapis-lazuli ball head, l. 0·22 m. PG/777, NE. chamber. (P. *CBS.* 17075.)

U. 9963. Copper spear-butts (?), 4. The point is solid, apparently cast, the upper part hollow and open down one side; the wooden shaft was inserted and then the open sides brought together over it so as to overlap and secured by copper nails driven through them into the wood. L. 0·14 m. to 0·19 m. PG/777, NE. chamber. Pl. 224. (L. *BM.* 121602.). (P.)

U. 9965. Beads: lapis-lazuli conoids. PG/777, NE. chamber.

U. 9970. Cylinder seal, shell, l. 0·04 m., d. 0·023 m. Introduction scene with 1 seated and 3 standing figures. Poor condition. PG/753. (B. 8178.)

U. 9971. Gold ear-ring in the form of a curled leaf; l. of leaf 0·055 m. Unique example. PG/783. Pl. 138. (L. *BM.* 121357.)

U. 9975. Clay model boat, l. 0·115 m., width 0·06 m. The type is common enough in later periods, e.g. in the IIIrd Dynasty, and the bitumen boats of the cemetery are also common; but clay examples are rare. PG/785.

U. 9977. Gold ear-rings, a pair, very large lunate type, d. *c.* 0·06 m. PG/800, body 1. (P. *CBS.* 16777.)

U. 9978. Gold hair-ribbon, width 0·008 m., of the normal early type from a head-dress. PG/800, body 1. (P.)

U. 9979. Wreath of 14 gold beech-leaf pendants strung on a double row of small lapis-lazuli cylinders and carnelian ring beads; l. 0·39 m. PG/800, body 1. (P. *CBS.* 16705.)

U. 9981. Beads: small silver and lapis-lazuli double conoids, a necklace. PG/800, body 1. (P.)

U. 9982. Silver pin, Type 1, with fluted lapis-lazuli ball head; l. 0·17 m. PG/800, body 1. (P. *CBS.* 16785.)

U. 9983. Gold ear-rings, large hollow lunate type, d. 0·07 m. PG/800, body 7. (L. *BM.* 121569, 123663.)

U. 9985. Beads: small double conoids of gold and lapis-lazuli strung in groups of 4 and 8 in alternate colours. PG/800, body 7. (P. *CBS.* 17642.)

U. 9986. Silver finger-ring: a hoop of flat metal with a minute band of cable ornament; edges plain; broken. PG/800, body 7.

U. 9987. Wreath of gold leaf pendants strung on a double row of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 7.

U. 9988. Gold ribbon from head-dress. PG/800, body 7. (L. *BM.* 123664.)

U. 9991. Gold ear-rings, very large lunate type; much crushed; d. 0·07 m. PG/800, body 8. (L. *BM.* 123653.)

U. 9992. Gold ear-ring, very large lunate type; broken. PG/800, body 8.

U. 9994. Gold hair-ribbon from head-dress. PG/800, body 8. (L. *BM.* 121409.)

U. 9995. Wreath of gold leaf pendants strung on a double row of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 8. (L. *BM.* 121482.)

U. 9997. Beads: necklace of small double conoids of silver and lapis-lazuli. PG/800, body 8.

U. 9999. Beads: necklace of small double conoids of silver and lapis-lazuli. PG/800, body 11. (B. 7980, 7982–3.)

U. 10000. Gold helmet of Mes-kalam-dug. Hammered up from a single sheet of metal, with features in relief and details engraved. Into the interior was fitted a quilted cap, fragments of whose cloth and wool stuffing were found; the discoloration of the metal showed that the cloth was brought up on to the outside of the helmet, so as to protect the wearer's skin from the sharp edges of the metal, and secured by laces passed through the small holes round the rim. The ears are pierced to allow of hearing. When found the helmet was intact except that the right cheek-piece had been crushed in and the right side of the band above the forehead was bent inwards; this minor damage has been made good. Ht. 0·23 m., l. from front to back 0·26 m. The metal is 15-carat gold. *v.* pp. 292, 296. PG/755. Frontispiece, Pl. 150. (B. 8269.)

U. 10001. Gold bowl, Type 7, with rib in relief at each end, ht. 0·07 m., l. 0·22 m., width 0·12 m. Inscribed on one side *mes-kalam-dug*. PG/755, inside the coffin. Pls. 163, 191. (B. 8270.)

U. 10002. Gold bowl, Type 9, ht. 0·07 m., d. 0·135 m. Inscribed on one side *mes-kalam-dug*. PG/755, inside the coffin. Pls. 163, 191. (B. 8271.)

U. 10003. Gold bowl, Type 7, ht. 0·06 m., l. 0·148 m., width 0·09 m. The sides are fluted, below the rim is an engraved chevron pattern, on the base an engraved rosette design; the lug handles are of lapis-lazuli, vertically pierced, between projecting plates of gold, secured by rivets; they were for a loop handle of which no trace was found, so that it probably was of silver wire. The fluting of the sides of the bowl has a bold and rather unfinished appearance in strong contrast to that found in Queen Shub-ad's tomb; *v.* Pl. 162. Found in the pit of PG/755, at the head of the coffin, not in it. *v.* p. 297. Pl. 160. (B. 8272.)

U. 10004. Gold lamp, of the normal 'shell' Type 115, max. l. 0·168 m., max. width 0·085 m., l. of body 0·145 m. On the base inscribed *mes-kalam-dug*. PG/755, inside the coffin. Pls. 163, 191. (B. 8273.)

U. 10005. Gold pin, Type 1, l. 0·215 m., with lapis-lazuli ball head capped with gold. PG/755, inside the coffin. Pl. 154. (B. 8274.)

U. 10006. Beads: double conoids of gold and lapis-lazuli, graded in size and some unusually large. The larger gold beads are of thin metal over a bitumen core, the smaller are more solid. PG/755, inside the coffin at the back of the body. (B. 8275.)

U. 10007. Beads: a 'dog-collar' of 11 gold and 11 lapis-lazuli triangles; cf. Pls. 144–5. PG/755, inside the coffin at the back of the body. (B. 8276.)

U. 10008. Amulet, lapis-lazuli, in the form of a frog, l. 0·024 m. PG/755, inside the coffin, with the beads at the back of the body. Pl. 142. (B. 8277.)

U. 10009. Amulet, lapis-lazuli, in the form of a seated ram, l. 0·029 m., ht. 0·022 m. PG/755, inside the coffin, with U. 10006. Pl. 142. (B. 8278.)

U. 10010. Gold monkey, solid cast, ht. 0·016 m., seated on a slender copper rod which is probably the shaft of a pin (broken). Very fine miniature work. PG/755, inside the coffin, with U. 10006. Pl. 165. (B. 8279.)

U. 10011. Cylinder seal, shell, completely decayed; it hung on the silver belt which was round the body. PG/755. (B. 8280.)

U. 10013. Gold cup, Type 4, ht. 0·055 m., d. 0·075 m. Of base metal, apparently lathe-spun, with a base made by soldering on a small circular plate. PG/755, outside the coffin, at the head of it. Pl. 159. (B. 8281.)

U. 10014. Gold dagger, Type 3, l. of blade 0·222 m., l. over-all, 0·33 m. The blade is of gold with central rib; the hilt has a gold guard studded with gold nails; it was of wood plated with silver and the pommel studded with gold. The sheath was of silver. The silver of the hilt has perished altogether, that of the sheath was partly preserved, but in very poor condition. The dagger hung from the silver belt. *v.* p. 308. PG/755, inside the coffin. Pls. 152, 155. (B. 8282.)

U. 10015. Whetstone, l. 0·093 m., of lapis-lazuli hung on a thin gold ring which was attached to the silver belt. PG/755, inside the coffin. Pl. 155. (B. 8283.)

U. 10018. Electrum double axe, lunate type, ht. 0·085 m., width 0·12 m. PG/755, inside the coffin. Pls. 155–6, 224. (B. 8284.)

U. 10019. Hair-rings, gold (4) and silver (12); spiral coils of plain wire; d. 0·035 m.–0·06 m. Two of the gold examples were inside silver rings. All the silver badly corroded, and there were others too decayed to keep. PG/755, inside the coffin at the back of the body. Pl. 154. (B. 7823.)

U. 10020. Dagger, with copper blade, Type 3, l. 0·24 m.; in bad condition, with a horned guard of gold over wood (the metal thin and much distorted) and grip of wood plated with silver secured by gold studs; the silver much decayed; l. over all, 0·33 m., width across guard 0·13 m. PG/755, outside the coffin, at the head end. Pls. 152, 154. (B. 8285.)

U. 10021. Dagger, with copper blade, Type 7, l. 0·28 m., and handle of silver (?) now completely perished; the guard gold studded with gold

nails and the pommel also gold studded; l. over all 0·395 m. PG/755, outside the coffin. Pl. 155. (B. 8286.)

U. 10023. Spear, copper head, Type 5, l. 0·14 m. The shaft was of wood, the upper part of it for a length of 0·28 m. sheathed with gold plate imitating jointed bamboo. PG/755; fixed upright, point upwards, in the corner of the grave shaft. *v.* p. 304. Pl. 155. (B. 8287.)

U. 10024. Silver lamp, normal flat 'shell' Type 115, l. 0·205 m., width 0·115 m. It lay inside a second example which was completely decayed. PG/755, inside the coffin by the feet. (B. 8288.)

U. 10025. Electrum axe, Type A 3, l. 0·16 m., ht. 0·083 m. PG/755, inside the coffin by the shoulder. Pl. 155. (B. 8289.)

U. 10026. Wreath of silver ring pendants, much decayed, strung on two rows of small lapis-lazuli cylinders and carnelian ring beads (found in confusion). PG/755, inside the coffin behind the body. (B. 7757, 8350.)

U. 10027. Wreath of gold leaf pendants (14) strung on 2 rows of small lapis-lazuli cylinders and carnelian ring beads. PG/755, inside the coffin behind the body. (B. 8290.)

U. 10028. Beads: 6 gold beads made of 3 double conoids soldered together side by side; they were probably strung as spacers with small gold and lapis-lazuli double conoids, of which quantities were found. PG/755, inside the coffin behind the body. (B. 8291.)

U. 10029. Gold finger-ring, made of 3 hoops of spirally coiled gold wire. PG/755, inside the coffin behind the body. (B. 8292.)

U. 10030. Silver finger-rings and a twisted coil of narrow silver ribbon (? a hair-ribbon) all corroded together. PG/755, inside the coffin behind the body.

U. 10034. Electrum bowl, Type 9, ht. 0·071 m., d. 0·132 m. Broken nearly in half. PG/755, outside the coffin and at its head. It was stuck by oxidization to the copper tray U. 10036 and silver jug 10035; the gold bowls U. 10003 and U. 10013 were inside it. Pl. 159. (B. 8293.)

U. 10035. Silver libation-jug, Type 84, ht. 0·26 m. In good condition. For the use of this type of vessel see U. 7900, Pl. 102. PG/755, outside the coffin, at its head. Pl. 172. (B. 8294.)

U. 10051. Flint arrow-heads, chisel edged, l. 0·022 m., width 0·015 m. The type is known in Egypt. They were found in a cluster against the foot end of the grave-shaft (outside the coffin) 0·30 m. above the floor; the shafts must therefore have been 0·30 m. long and have been in a quiver which was leaned up against the wall of the pit. They would be hunting arrows, probably used for small birds, the chisel edge intended to cut sinews. PG/755. (B. 8300.) (L.) (P.)

U. 10052. Silver bowls, Types 4, 7, one inside the other; 3 have handle-rings of lapis-lazuli; the outer bowl much decayed. Lengths range from 0·185 m. to 0·25 m., hts. from 0·085 m. to 0·105 m. PG/755, outside the coffin. (B. 8301, 8907, 8911, 8918–20.)

U. 10060. Stone bowl, dark greenish-grey steatite, Type 50, ht. 0·14 m., rim d. 0·28 m., base 0·09 m. Broken. PG/755, outside the coffin. (B. 8460.)

U. 10061. Stone bowl, dark greenish-grey steatite, Type 50, ht. 0·195 m., rim d. 0·36 m., base 0·12 m. PG/755, outside the coffin. (B. 8461.)

U. 10062. Stone bowl, dark greenish-grey steatite, Type 49. Broken. PG/755, outside the coffin. (B. 8459.)

U. 10063. Stone bowl, dark greenish-grey steatite, Type 50. Broken. PG/755, outside the coffin.

U. 10064. Stone vase, white calcite, Type 91, ht. 0·19 m., rim d. 0·125 m., base 0·07 m. One side decayed. PG/755, outside the coffin. (L. *BM.* 121738.)

U. 10065. Stone vase, white calcite, Type 92, ht. 0·195 m., rim d. 0·075 m., base 0·04 m. PG/755, outside the coffin. (B. 8458.)

U. 10066. Stone vase, white calcite, Type 60, ht. 0·155 m., rim d. 0·09 m., base 0·035 m. PG/755, outside the coffin. (B. 8457.)

U. 10067. Stone vase, white calcite, Type 61, ht. 0·155 m., rim d. 0·09 m., base 0·035 m. PG/755, outside the coffin. (B. 8456.)

U. 10068. Stone vase, white calcite, Type 85, ht. 0·255 m., rim d. 0·09 m., base 0·025 m. PG/755, outside the coffin. (B. 8455.)

U. 10069. Stone vase, white calcite, Type 85, ht. 0·15 m., rim d. 0·075 m. PG/755, outside the coffin. (B. 8407.)

U. 10070. Stone vase, white calcite, Type 87, ht. 0·24 m., rim d. 0·11 m., base 0·055 m. PG/755, outside the coffin. (B. 8408.)

U. 10071. Stone vase, white calcite, Type 85, ht. 0·19 m., rim d. 0·09 m., base 0·025 m. Bad condition. PG/755, outside the coffin. (B. 8409.)

U. 10072. Stone vase, white calcite, Type 85, ht. 0·185. In very bad condition. PG/755, outside the coffin. (B. 8410.)

U. 10073. Stone vase, white calcite, Type 79, ht. 0·028 m., rim d. 0·125 m. Surface much decayed. PG/755, outside the coffin. (B. 8490.)

U. 10074. Stone vase, white calcite, Type 85, ht. 0·28 m., rim d. 0·125 m. Broken and imperfect. PG/755, outside the coffin. (B. 8454.)

U. 10075. Stone vase, white calcite, Type 91, ht. 0·18 m., rim d. 0·135 m., base 0·075 m. PG/755, outside the coffin. (B. 8411.)

U. 10076. Stone vase, white calcite, Type 4, ht. 0·24 m., rim d. 0·115 m., base 0·11 m. Surface poor. PG/755, outside the coffin. (L. *BM.* 121745.)

U. 10077. Stone vase, white calcite, Type 4, ht. *c.* 0·25 m. Upper part much decayed. PG/755, outside the coffin. (B. 8453.)

U. 10078. Whetstone, oval, made of coralline limestone, dark bluish grey; l. 0·16 m., thickness 0·045 m. PG/755, outside the coffin. (B. 8298.)

U. 10081. A set of four copper bowls, all broken, Types 3, 4, ht. 0·08 m., 0·10 m., d. 0·05 m., 0·07 m.; one inscribed *mes-kalam-dug*, one *nin-TUR nin*; on the former is also engraved a bull's leg. Part of the great mass of copper vessels

found corroded together in the grave of Meskalam-dug, PG/755, the remainder being in Baghdad. Pl. 190. (B.) (L. *BM.* 121663.)

U. 10083. Copper cauldron, Type 24, ht. *c.* 0·17 m., rim d. *c.* 0·40 m., base 0·30 m., supported on 4 small copper feet in the form of bull's legs. In bad condition. PG/755, outside the coffin.

U. 10089. Beads: gold and lapis-lazuli double date-shaped. PG/800, body 11. (B. 7976.)

U. 10090. Beads: large date-shaped, 2 lapis-lazuli, 2 bitumen, and 1 silver, with carnelian rings. PG/800, body 11. (B. 7977.)

U. 10094. Gold ear-rings, very large lunate type; of thin metal much crushed and broken. PG/800, body 6.

U. 10095. Gold hair-ribbon from a head-dress. PG/800, body 6.

U. 10096. Wreath of gold leaf pendants strung on two rows of small lapis-lazuli cylinders and carnelian rings. PG/800, body 6.

U. 10098. Clay pot, small, of black ware lightly burnished; too broken to type. PG/800, body 6.

U. 10150. Beads: necklace of carnelian and lapis-lazuli double conoids, barrels, and cylinders, and one steatite. Re-strung in original order. PG/792. (B. 7871, 8905.)

U. 10151. Copper pin, Type 1, l. 0·225 m. Ball head of glazed frit with copper caps; it is held in position by a thin copper wire which curls up over the head from the stem. PG/792. (B. 7870.)

U. 10153. Cylinder seal, lapis-lazuli, date-shaped form, l. 0·038 m., d. at ends 0·005 m. PG/792. Pl. 204.

U. 10161. Beads: 2, fluted gold ball on copper core and carnelian double conoid. Found at the neck. PG/794. (B. 7873.)

U. 10162. Stone vase, white calcite, Type 92, ht. 0·245 m., rim d. 0·09 m., base 0·025 m. PG/780. (L. *BM.* 121741.)

U. 10168. Cylinder seal, lapis-lazuli, l. 0·018 m., d. 0·008 m. PG/780. Pl. 204. (L. *BM.* 121561.)

U. 10171. Beads: glazed frit double conoids, mostly perished. Worn at the neck. PG/780.

U. 10172. Beads: a bracelet; 5 lapis lazuli and 1 carnelian double conoids, 4 carnelian cylinders; the sorts of stone strung alternately. PG/780.

U. 10183. Clay vase, Type 210, ht. *c.* 0·36 m. (rim missing). Incised criss-cross decoration on spout and combed decoration round shoulder. PG/778. Pl. 187. (P. *CBS.* 17249.)

U. 10188. Cylinder seal, grey steatite, l. 0·02 m., d. 0·015 m. PG/782. Pl. 214. (B. 11094.)

U. 10189. Beads: 1 steatite date-shaped, 2 carnelian barrels. PG/790. (L. *BM.* 121984.)

U. 10190. Gold ear-rings, a pair, normal small type with hollow bag-like lunate ends. PG/790. (L. *BM.* 121984.)

U. 10192. Cylinder seal, baked clay, l. 0·021 m., d. 0·013 m. Very roughly incised. PG/766. Pl. 211. (P. *CBS.* 17594.)

U. 10302. Cylinder seal, black steatite, l. 0·025 m., d. 0·017 m. PG/796. Pl. 209. (B. 14590.)

U. 10303. Cylinder seal, lapis-lazuli, l. 0·015 m., d. 0·007 m. PG/796. Pl. 204. (B. 11100.)

U. 10304. Beads: 2 carnelian cylinders and 4 crystal rings, strung alternately. PG/796. (B. 7785.)

U. 10307. Miniature copper adze, l. of blade 0·075 m., of socket 0·045 m. PG/796. Pl. 224.

U. 10308. Shell inlay, probably decoration of the haft of a miniature bronze axe, U. 10307. It consists of 1 hemispherical cap perforated through the centre, 2 rounded nail-heads, and leaf-shaped pieces. D. of cap, 0·012 m.; d. of nail-heads 0·013 m.; l. of leaves 0·02 m. PG/796. (B. 7786.)

U. 10313. Beads, a bracelet of double conoids of lapis-lazuli and of silver on wooden cores, minute balls of gold, lapis, and silver. Re-strung in the original order. PG/822. (B. 7787.)

U. 10315. Beads: 2 lapis-lazuli and 2 carnelian cylinders, 1 carnelian diamond, originally strung with wooden double conoids, all of which have decayed. PG/822. (B. 7909.)

U. 10316. Ear-ring, of gold and lapis-lazuli. A gold hoop with a lapis pendant shaped like a saddle; on one side it is plain, on the other is engraved with oblique lines and has a raised ridge perforated with 3 holes in 2 of which remain gold links; below it has 4 perforations, probably for gold suspenders. PG/822. Pl. 138. (B. 7810.)

U. 10319. Stone bowl, grey steatite, Type 16, ht. 0·14 m., rim d. 0·20 m., base 0·09 m. PG/822. (L. *BM.* 121694.)

U. 10320. Stone vase, white calcite, Type 91, ht. 0·19 m., rim d. 0·045 m. PG/822. (B. 8493.)

U. 10323. Cylinder seal, white calcite, l. 0·039 m. Two lapis-lazuli cones inserted in the ends of the central hole with their bases flush with the end of the cylinder give it the appearance of having a solid lapis core. PG/822. Pl. 192.

U. 10328. Gold ribbon, width 0·006 m., from a head-dress. Six pieces, each rather more than a metre long, crossed each other on the centre of the crown of the head and were then wound round the head; together they gave the effect of a circle with 12 radii. On the under side of one piece was the imprint of a finely woven veil. PG/800, body 12.

U. 10329. Wreath of 13 gold leaf pendants strung on two rows of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 12.

U. 10330. Beads: double conoids of gold on a bitumen core and of lapis-lazuli strung in sets of 6 lapis and 3 gold beads; the necklace was in 3 tiers. PG/800, body 12. (B. 7764, 7953.)

U. 10331. Gold ear-rings, a pair; very large lunate type, the lobes filled with bitumen. PG/800, body 12.

U. 10337. Gold ribbon, from a head-dress; much broken. PG/800, body 3. (B. 8039.)

U. 10338. Wreath of 13 gold leaf pendants strung on two rows of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 3. (B. 8075.)

U. 10339. Beads: silver and lapis-lazuli double conoids; mixed beads in the middle of the necklace, lapis only at the ends. PG/800, body 3. (B. 8076.)

U. 10340. Gold ear-rings, a pair; very large lunate type, the lobes filled with bitumen. Badly bent and broken. PG/800, body 3. (B. 8074.)

U. 10343. Gold ribbon, from a head-dress, width 0·007 m. PG/800, body 4.

U. 10344. Gold ear-rings, very large lunate type; badly broken. PG/800, body 4.

U. 10346. Wreath, 13 gold leaf pendants strung on 2 rows of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 4. (L. *BM.* 121481.)

U. 10347. Beads: lapis and gold double conoids. PG/800, body 4. (L. *BM.* 121491.)

U. 10348. Gold ribbon, 6 pieces, from a head-dress. PG/800, body 5.

U. 10349. Gold ear-rings, a pair, very large lunate type. PG/800, body 5. (B. 8302.)

U. 10350. Wreath, 13 gold leaf pendants strung on 2 rows of small lapis-lazuli cylinders and carnelian ring beads. PG/800, body 5.

U. 10351. Beads: necklace of 3 tiers of silver and lapis-lazuli double conoids. PG/800, body 5.

U. 10352. Silver pin, Type 1, l. 0·13 m., with lapis-lazuli ball head with silver caps. PG/800, body 5. (B. 9712.)

U. 10355. Cylinder seal, mottled marble, l. 0·03 m., d. 0·02 m. PG/830. Pl. 213. (B. 14578.)

U. 10356. Beads: 2 strings of small carnelian barrels. PG/832. (P. *CBS.* 17666.)

U. 10359. Cylinder seal, shell, l. 0·034 m., d. 0·018 m. Introduction scene with 1 seated and 3 standing figures. Poor condition. PG/832. (L. *BM.* 121549.)

U. 10362. Copper object, perhaps part of harness (?), l. 0·06 m., d. 0·035 m. PG/765. (L. *BM.* 121625.)

U. 10364. Cylinder seal, greenish grey marble, l. 0·03 m., d. 0·018 m. Found loose in the soil at depth of 3·00 m. Pl. 209. (P. *CBS.* 16872.)

U. 10365. Beads: necklace of agate, jasper, shell, and carnelian date-shaped and copper balls. Re-strung in the original order. PG/903. (B. 7951.)

U. 10367. Cylinder seal, shell, l. 0·025 m., d. 0·016 m., with copper caps. Inscription of A-zuen-gim, libationer. *v.* p. 314. PG/903. Pls. 191, 208. (B. 7913.)

U. 10370. Beads: gold balls, lapis-lazuli double conoids, and 1 agate double conoid. Re-strung in the original order. PG/884. (L. *BM.* 121986.)

U. 10371. Gold ear-rings, a pair, small lunate type with hollow lobes. PG/884. (L. *BM.* 121986.)

U. 10375. Gold ear-rings, a pair, small flat lunate type, d. 0·012 m. PG/848. (B. 7945.)

U. 10376. Beads: minute balls of gold and lapis-lazuli and carnelian barrels. Re-strung in the original order. PG/848. (B. 7946.)

U. 10377. Beads: gold, lapis-lazuli, carnelian, and agate. Re-strung in the original order. PG/908.

U. 10378. Amulet, heart-shaped, agate; pierced vertically for suspension with a cylindrical core of reddish paste running through the hole; ht. 0·027 m., width 0·018 m. PG/908.

U. 10379. Clay vase, Type 44, of light drab clay; a string wound 3 times round the neck fastened on a leather cover of which a small portion was preserved; ht. 0·13 m. PG/908. (B. 8770.)

U. 10388. Stone bowl, dark steatite, Type 51, ht. 0·105 m., rim d. 0·19 m., base 0·065 m. One side has been cut down in antiquity. PG/893. (B. 8421.)

U. 10389. Beads: 1 barrel and 1 flattened conoid of jasper, 2 copper balls. PG/893.

U. 10390. Copper pin, Type 1, l. 0·21 m., with the stem pierced and a ring passing through the hole; fixed to the stem by corrosion, a cylinder seal, shell, l. 0·032 m., d. 0·018 m., with copper caps, which must have been attached to the ring by a string. Design on cylinder obliterated, apparently hunters and beasts. PG/893. Pl. 231. (B. 8378.)

U. 10397. Cylinder seal, mottled marble; l. 0·044 m., d. 0·038 m. Slightly carinated. PG/901. Pl. 214.

U. 10399. Stone bowl, dark steatite, Type 16, ht. 0·09 m., rim d. 0·10 m., base 0·08 m. PG/894. (P. *CBS.* 17183.)

U. 10401. Beads: gold and lapis-lazuli double conoids. Re-strung in the original order. PG/800, body 10. (L. *BM.* 121490.)

U. 10403. Beads: silver and lapis-lazuli double conoids. PG/800, body 2.

U. 10411. Gold spears, 4. The heads, Type 2 a, are of gold, 0·145 m. long; the shafts were of wood decorated with bands of gold and silver plate 0·03 m. wide and set 0·03 m. apart with the wood showing between them; 2 shafts had butts of gold with copper forks for the throwing-string. The shafts had been broken across and doubled together, but the metal bindings kept their position and showed that the original length of the spears was 0·92 m.; a copper stud with silver-plated head d. 0·045 m. lay by the butt-ends and seems to have been the base of a quiver in which the weapons were placed. The length of the weapons is too great for arrows; their lightness, and the fact that two of them have forked butts which would serve for throwing-cords as well as for bow-strings, would make them throwing-spears or javelins such as are used by the warriors in the chariots on the mosaic 'Standard'. PG/789. Pls. 149, 153; fig. 9, p. 68. (B. 8247–8.) (L. *BM.* 121410.)

U. 10412. Queen Shub-ad's harp. See p. 249. PG/800. Pls. 100, 104, 108–10. (L. *BM.* 121198.)

U. 10423. Gold toilet-set, tweezers and stiletto, fastened together by their rings, l. 0·06 and 0·08 m. Found in the filling of the shaft, *c.* 0·30 m. above the 'wardrobe' box. PG/800. Cf. U. 8510, Pl. 218. (P. *CBS.* 16714.)

U. 10424. Beads: 3 gold and 3 lapis-lazuli faceted date-shaped, very large, l. 0·07 m.–0·095 m. Found in the filling of the shaft just above the 'wardrobe' box. PG/800. (P. *CBS.* 16733.)

U. 10425. Beads: gold date-shaped, &c. Found in the filling of the shaft above the 'wardrobe' box. PG/800. (P. *CBS.* 17630.)

U. 10426. Beads: disks of lapis-lazuli set in gold rings, d. 0·025 m. Cf. Pl. 135. With them were great numbers of minute lapis-lazuli balls. Found by the side of the 'wardrobe' box. PG/800. (L. *BM.* 123657.) (P. *CBS.* 17629.)

U. 10427. Gold dagger-pommel, set with small studs of gold and of lapis-lazuli. Found in the filling of the shaft just above the 'wardrobe' box; the dagger-blade had perished. PG/800. (L. *BM.* 121356.)

U. 10428. Gold saw (of base metal), l. 0·35 m., width 0·065 m.; with it, by the tang, a ring of gold binding from the handle. Found between the box and the chariot. PG/800. Pl. 158. (P. *CBS.* 16723.)

U. 10429. Gold chisel, Type 2, l. 0·23 m. Found with U. 10428. PG/800. Pl. 158. (L. *BM.* 121349.)

U. 10430. Gold chisel, Type 2, l. 0·105 m. Found with U. 10428. PG/800. Pl. 158. (P. *CBS.* 16724.)

U. 10431. Gold chisel, Type 4, l. 0·092 m. Found with U. 10428. PG/800. Pl. 158. (L. *BM.* 121350.)

U. 10432. Gold chisel, Type 4, l. 0·09 m. Found with U. 10428. PG/800. Pl. 158. (L. *BM.* 121351.)

U. 10433. Gold chisel, Type 4, l. 0·061 m. Found with U. 10428. PG/800. Pl. 158. (P. 16725.)

U. 10434. Beads: 19 wood balls. Found with U. 10428–33. PG/800.

U. 10435. Copper axes, 2, Type A 12, l. 0·30 m. The blade is a flattened crescent; the ends were inserted in a wooden handle and secured by rivets, in the centre a third rivet secures a loop of plate gold which went round the handle; the impression on the copper shows that the wooden handle covered all the back part of the blade as far as the line of the gold binding. A few centimetres from the tip of one blade was found a cap of very thin silver (completely decayed), which presumably decorated the top of the handle. The type of weapon is best illustrated by a shell inlay from Kish (Mackay, *Kish*, vol. i, Pl. III); *v.* p. 306. Found between the 'wardrobe' box and the chariot. PG/800. Pl. 224. (L. *BM.* 121474.) (P. *CBS.* 17002.)

U. 10436. Toilet-box, semicircular, of silver, with shell lid, ht. 0·035 m., d. of lid 0·07 m. The lid is cut from a single piece of shell with encrusted diamond decoration of lapis-lazuli round the edge and engraved concentric lines round the top; in the central field a figure of a lion tearing a goat; lapis-lazuli background, black and red filling of engraved lines. See p. 279. Found against the SW. side of the 'wardrobe' box. PG/800. Pl. 103. (P. *CBS.* 16744.)

U. 10437. Shell handle, for some instrument, of floral design with a very small figure of a lion carved in the round on its edge. L. 0·092 m. Found against the side of the 'wardrobe' box. PG/800. Pl. 101. (P. *CBS.* 16753.)

U. 10438. Sledge-chariot of Queen Shub-ad; restored. Total ht. 1·15 m., width across front 0·85 m., depth of sides 0·52 m. See p. 78. PG/800. Pls. 122–6. (L. *BM.* 121200.)

U. 10439. Rein-ring, of silver, mounted on which an electrum mascot in the form of a donkey. See pp. 292, 293. From the pole of the sledge chariot of Queen Shub-ad. Ht. 0·135 m., width 0·10 m. PG/800. Pl. 166. (L. *BM.* 121438.)

U. 10440. Cones made of thin leaf gold, d. 0·02 m., ht. 0·025–0·030 m. Found lying in a row of about 1 metre's length against the SW. side of the 'wardrobe' box, about its middle. They are probably the gilding of knobs in relief which decorated the box. PG/800. (L. *BM.* 121393.)

U. 10441–2. Decoration of the 'wardrobe' box. A narrow edging of thin gold, the sides of the strip bent inwards as was the case with the gold edging of the harp, U. 10412; width 0·003 m., total l. 0·58 m. With this narrow strips of lapis-lazuli. These formed the frame of a mosaic panel set in the side of the box. The panel itself consisted of a mosaic background of lapis-lazuli against which were set figures silhouetted in shell, in the technique of the 'Standard'. All had fallen from their setting and lay in a row along the ruins of the box, and in all the surface of the shell was so decayed that little or nothing of the interior engraved detail remains and many pieces are difficult to identify. Much of the original order was manifest, and the panel can be approximately restored; most of the design consists in human figures, but there are also purely decorative elements. The height of the panel was 0·04 m.; the length can only be guessed. PG/800. Pl. 94. (L. *BM.* 121394.)

U. 10444. Gold impressions from cylinder seals, 3 fragments of very thin gold foil which has been pressed into seals so as to take the engraving. These probably formed the decoration of a sceptre or fan-handle (cf. U. 11824). Found near the 'wardrobe' box. PG/800. Pl. 192. (L. *BM.* 121570, 123335–6.)

U 10445. Four slender rods of copper, 2 gold-plated and 2 silver-plated; in bad condition; l. 0·037 m. PG/800. (L. *BM.* 121476.)

U. 10447. Shell plaque, 0·037×0·033 m., engraved with a scene of 3 figures, 2 men and a boy; in bad condition; the background has been filled in with black to make the subject visible. Found in the filling of the shaft, about 1·00 m. above the other offerings, and its connexion with the tomb is uncertain. PG/800. Pl. 100. (B. 8218.)

U. 10448 A. Cylinder seal, lapis-lazuli, l. 0·04 m., d. 0·025 m. Inscription of *A-BAR-GI*. Found with beads and other small objects against the end of the 'wardrobe' box. PG/800. Pls. 191, 193. *v.* p. 316. (P. *CBS.* 16727.)

U. 10448 B. Gold ear-ring, one only, of normal small type with lunate ends. Found on the body crouched against the end of the 'wardrobe' box. PG/800, body 19. (P. *CBS.* 16699.)

U. 10449. *Brîm*, composed of 2 lengths of gold chain 0·135 m. long, 1 gold and 2 carnelian large date-shaped beads and lapis balls between them. Found on the body crouched up against the end

of the 'wardrobe' box. PG/800, body 19. (P. *CBS.* 17568.)

U. 10450. Drinking-tube; a very slender silver tube covered with short sections, cylindrical, of gold and lapis-lazuli; l. 0·93 m., d. 0·01 m. At the end of it was an L-shaped silver tube which prolonged the main tube by 0·19 m. and had beyond the bend a length of 0·14 m. The tube lay along the end of the 'wardrobe' box, by the body crouched there, and the silver end of it was inside a large silver pot standing at the corner of the box. PG/800. (L.)

U. 10451. Gold spouted bowl, Type 88, ht. 0·06 m., rim d. 0·12 m., base 0·045 m., l. of spout 0·065 m. The carination of the rim is an example of admirable technique. Found at the SE. end of the 'wardrobe' box. PG/800. Pl. 164. (P. *CBS.* 17692.)

U. 10452. Gold goblet, Type 99, ht. 0·088 m., rim d. 0·105 m., foot d. 0·052 m. Found against the SE. end of the 'wardrobe' box, PG/800. Pl. 160. (L. *BM.* 121345.)

U. 10453. Gold tumbler, Type 43, ht. 0·15 m., rim d. 0·095 m., base 0·042 m. The sides are fluted; round the top and bottom, a herring-bone pattern and a double zigzag; on the base a chased design of an 8-petalled rosette imposed on concentric circles. On the rim a minute ring for suspension. Found against the SE. end of the 'wardrobe' box. PG/800. Pl. 162. (P. *CBS.* 17691.)

U. 10454. Gold feeding-bowl, spouted, Type 91, ht. 0·123 m., rim 0·12 m. × 0·05 m., base 0·041 m. × 0·024 m. The sides fluted, with herring-bone and double zigzag patterns round rim and above base; the tubular 'spout' rises too high to be available for pouring out the contents of the bowl and must have been used for sucking them up. Found against the SE. end of the 'wardrobe' box. PG/800. Pl. 161. (L. *BM.* 121346.)

U. 10456. Silver jug, Type 83, in good condition, ht. 0·20 m. PG/800, found behind the 'wardrobe' box, 51 on Plan. Pl. 173.

U. 10460. Silver 'askos', Type 114 variant, type derived from a goatskin; with 2 long lugs, both pierced. Through the lugs passes a twisted silver wire the other end of which is inside the pot; to it is attached a spindle-whorl-shaped object, perhaps the stopper. Found near the SE. end of the 'wardrobe' box. PG/800.

U. 10465. Two silver lionesses' heads, ht. 0·115 m., width 0·12 m., with inlaid eyes of lapis-lazuli and shell. Particularly fine work; *v.* p. 301. They lay close together and formed the terminals of stout wooden bars, square in section, apparently joined by a cross-bar and attached to vertical bars or legs. It was impossible to trace out in the soil the shape of the piece of furniture, which had been tilted against the NE. side of the 'wardrobe' box, near the E. corner, and had collapsed hopelessly; but it may well have been a chair of which either the arm-rests or the front corners of the seat were decorated with the heads. PG/800. Pl. 127. (B. 8244.) (P. *CBS.* 17064.)

U. 10468. Copper collar, part of, of one of Queen Shub-ad's asses. A sheet of copper, 0·075 m. broad, curved, decorated with a repoussé pattern of eyes in rectangular frames. At each end of it is fixed a copper fastener to which the traces would be tied. PG/800. Pl. 39*a*; Fig. 11, p. 78.

U. 10472. Four silver spear-heads, Type 2, l. 0·345 m. The wooden shafts were decorated with bands of silver at intervals (completely decayed) and 2 of them had plain ends and 2 silver butts with copper forks for the throwing-cord; cf. U. 10411. PG/789. Pl. 153. (B. 8149.) (P).

U. 10475. Copper decoration from a shield (?). A rectangle of sheet copper 0·43 m. × 0·18 m., with in the centre a disk d. 0·18 m. which projects below the base-line of the main part. Repoussé design: on the disk, an 8-petalled rosette; on the rectangle, 2 lions trampling down 2 naked men. *v.* p. 69. The copper had been nailed on to a wooden background. Found with the spears U. 10411. PG/789. Pl. 169. (P. *CBS.* 17066.)

U. 10478. Gaming-board. Board, originally wood, of normal shape, l. 0·27 m., width 0·12 m. Vertical borders of strips of shell and red limestone. Round the edge a mosaic in minute tesserae of red, white, and blue (lapis-lazuli). The squares were divided by narrow strips of bone inlaid with red and blue dots; 3 squares are shell plaques inlaid with flower rosettes of red and blue petals, the rest were of the wood which formed the body of the board and were inlaid each with 5 'eyes' of shell having red centres and blue centres in alternate squares. The wood having completely decayed and the inlay being loose in the soil, but in position, a mixture of bitumen and wax was poured in to replace the wood and the board was lifted without disturbing the inlay, except that many of the coloured centres of the 'eyes' fell out and had to be replaced. The original board was hollow and served as a box in which the gaming-pieces were kept; under it, at one end, were found the 'men', arranged in 2 piles; one pile contained 7 black shale plaques inlaid each with 5 dots of white shell, the other 7 shell plaques engraved with animal scenes, the details and background of the engraving filled in with black. Under the other end of the board were found 'dice', solid triangles of white shell having lapis-lazuli dots inlaid in two of the four corners of each, and scattered close by were found four similar 'dice' of lapis-lazuli with gold dots (two apparently missing). *v.* p. 275. PG/800. Pls. 95, 98. (B. 8202.)

U. 10480. Stone bowl, of translucent light green calcite, ht. 0·087 m., l. 0·22 m., width 0·13 m. Shape copied from metal (cf. Type 7), with ribs at the ends and double lugs for suspension-handle. PG/800. Pl. 174. (P. *CBS.* 17166.)

U. 10481. Stone bowl, steatite, Type 50, ht. 0·15 m., rim d. 0·305 m., base 0·085 m. PG/800. (P. *CBS.* 17152.)

U. 10482. Stone bowl, steatite, Type 51, ht. 0·18 m., rim d. 0·305 m., base 0·105 m. PG/800. (L. *BM.* 121692.)

U. 10483. Stone bowl, grey steatite, Type 51, ht. 0·20 m., rim d. 0·31 m., base 0·125 m. PG/800. (L. *BM.* 121693.)

U. 10484. Stone bowl, white calcite, Type 16, ht. 0·075 m., rim d. 0·15 m., base 0·10 m. PG/800. (P. *CBS.* 17133.)

U. 10485. Stone vase, white calcite, Type 1, ht. 0·13 m., rim d. 0·12 m., base 0·12 m. PG/800. (L. *BM.* 121743.)

U. 10486. Stone vase, white calcite, Type 1, ht. 0·135 m., rim d. 0·125 m., base 0·12 m. PG/800. (L. *BM.* 121742.)

U. 10487. Stone vase, greenish calcite, Type 16, ht. 0·075 m., rim d. 0·145 m., base 0·04 m. PG/800. (L. *BM.* 121721.)

U. 10488. Stone bowl, obsidian, dark grey, ht. 0·06 m., l. 0·165 m., width 0·085 m. Cf. metal Type 7. PG/800. Pl. 165. (L. *BM.* 121690.)

U. 10489. Stone bowl, translucent light greenish calcite, Type 45, ht. 0·04 m., rim d. 0·115 m., base 0·04 m. PG/800. (L. *BM.* 121723.)

U. 10490. Stone vase, yellowish calcite, translucent; Type 86, ht. 0·245 m., rim d. 0·125 m., base 0·065 m. PG/800. (P. *CBS.* 17105.)

U. 10491. Stone vase, white calcite, Type 86, ht. 0·24 m., rim d. 0·13 m., base 0·065 m. PG/800. (L. *BM.* 121739.)

U. 10492. Stone vase, translucent yellow and white calcite, Type 85, ht. 0·24 m., rim d. 0·105 m., base 0·045 m. PG/800. (P. *CBS.* 17108.)

U. 10493. Stone vase, veined white calcite, Type 89, ht. 0·205 m., rim d. 0·135 m., base 0·07 m. PG/800. (L. *BM.* 121727.)

U. 10494. Stone vase, veined white calcite, Type 61, ht. 0·15 m., rim d. 0·095 m., base 0·075 m. PG/800. (L. *BM.* 121728.)

U. 10495. Stone bowl, translucent white calcite, Type 16, ht. 0·065 m., rim d. 0·14 m., base 0·11 m. PG/800. (L. *BM.* 121722.)

U. 10496. Stone vase, grey and white marble, Type 79, ht. 0·15 m., rim d. 0·08 m., base 0·025 m. PG/800. Pl. 178. (L. *BM.* 121702.)

U. 10497. Stone bowl, translucent white calcite, Type 41, ht. 0·155 m., rim d. 0·28 m., base 0·10 m. PG/800. (P. *CBS.* 17142.)

U. 10498. Stone vase, translucent white calcite, Type 89, ht. 0·17 m., rim d. 0·095 m., base 0·035 m. PG/789. (P. *CBS.* 17112.)

U. 10499. Stone bowl, translucent white calcite, Type 41, ht. 0·17 m., rim d. 0·28 m., base 0·10 m. PG/800. (P. *CBS.* 17129.)

U. 10500. Stone vase, basic diorite, Type 35, ht. 0·155 m., rim d. 0·19 m., base 0·055 m. PG/800. (L. *BM.* 121701.)

U. 10501. Stone bowl, translucent white calcite, Type 13, ht. 0·105 m., rim d. 0·165 m., base 0·055 m. PG/800. (P. *CBS.* 17131.)

U. 10502. Stone vase, translucent white calcite, Type 94, ht. 0·15 m., rim d. 0·105 m., base 0·075 m. PG/800. Pl. 178. (P. *CBS.* 17103.)

U. 10503. Stone vase, greenish grey steatite, Type 32, ht. 0·14 m., rim d. 0·12 m., base 0·10 m. PG/800. (L. *BM.* 121700.)

U. 10506. Stone bowl, grey steatite, Type 51, ht. 0·37 m., rim d. 0·45 m., base 0·15 m. PG/800. (L.)

U. 10507. Stone bowl, white calcite, Type 50, ht. 0·08 m., rim d. 0·19 m., base 0·065 m. PG/800. (L. *BM.* 121720.)

U. 10508. Stone bowl, grey steatite, Type 14, ht. 0·125 m., rim d. 0·19 m., base 0·16 m. PG/800. (P. *CBS.* 17307.)

U. 10509. Stone vase, grey steatite, Type 34, ht. 0·105 m., rim d. 0·135 m., base 0·035 m. PG/800. Pl. 178.

U. 10510. Stone bowl, white calcite, Type 41, fragmentary; ht. 0·17 m., d. 0·29 m. PG/800. (L. *BM.* 121714.)

U. 10511. Stone bowl, white calcite, Type 41, ht. 0·125 m., rim d. 0·23 m., base 0·09 m. PG/800. (L. *BM.* 121717.)

U. 10512. Stone bowl, translucent white calcite, broken, ht. 0·07 m. PG/800. (P. *CBS.* 17134.)

U. 10513. Stone bowl, translucent white calcite, broken, ht. 0·07 m., base 0·075 m. PG/800. (P. *CBS.* 17135.)

U. 10514. Stone bowl, translucent white calcite, broken, ht. 0·075 m. PG/800. (P. *CBS.* 17138.)

U. 10515. Stone vase, white calcite, Type 16, ht. 0·10 m., rim d. 0·165 m., base 0·065 m. PG/800. (L. *BM.* 121719.)

U. 10516. Stone bowl, white calcite. Fragmentary. PG/800. (P. *CBS.* 17143.)

U. 10517. Stone cup, lapis-lazuli, spouted, Type 44, ht. 0·07 m., rim d. 0·088 m., base 0·045 m. PG/800. Pls. 174, 178. (P. *CBS.* 17167.)

U. 10518. Stone vase, translucent white calcite, broken, ht. 0·30 m., rim d. 0·32 m. PG/800. (P. *CBS.* 17302.)

U. 10519. Stone bowl, grey steatite, Type 51. Fragmentary; very large. PG/800.

U. 10520. Stone vase, greenish grey steatite, Type 51. Fragmentary. PG/800. (L. *BM.* 121695.)

U. 10521. Stone jar, with lid, grey steatite, Type 100, ht. 0·105 m., rim d. 0·11 m., base 0·125 m. There are 4 holes through the sides of the jar below the rim, roughly equidistant, and 1 through the middle of the lid, probably for securing the latter with strings. PG/800. (L. *BM.* 121696.)

U. 10522. Stone pot, grey steatite, Type 10, ht. 0·055 m., rim d. 0·095 m., base 0·09 m. The outside is decorated with 8 rows of triangles in relief, each triangle having oblique incisions parallel with its two sides; a plain band round the middle divides the 4 upper from the 4 lower rows. PG/800. Pl. 178. (L. *BM.* 121698.)

U. 10523. Stone pot, dark grey steatite, Type 10, ht. 0·10 m., rim d. 0·18 m., base 0·17 m. The outside decorated with minute lozenges in relief set in 11 diamond-shaped reserves which run round the entire circumference; a single line of zigzags below the rim and just above the base. The pot stood on a base-ring of baked clay. PG/800. Pl. 178. (P. *CBS.* 17168.)

U. 10525. Tray of offering-table, white calcite; Type 105; a shallow circular tray, d. 0·26 m., ht. 0·07 m., with 3 short cylindrical feet pierced both

horizontally and vertically, perhaps for attachment to a wooden stand. Broken and imperfect. PG/800. Pl. 250. (L. *BM.* 121747.)

U. 10526. Stone vase, grey steatite, Type 75, ht. 0·27 m., rim d. 0·155 m., base 0·10 m. PG/800. (P. *CBS.* 17154.)

U. 10527. Stone bowl, white calcite, Type 19, ht. 0·09 m., rim d. 0·145 m., base 0·065 m. PG/800. (P. *CBS.* 17132.)

U. 10528. Stone bowl, grey steatite, Type 51, ht. 0·40 m., rim d. 0·53 m., base 0·24 m. PG/800.

U. 10529. Stone vase, white calcite, Type 65, ht. 0·145 m., rim d. 0·105 m., base 0·045 m. PG/800. (L. *BM.* 121733.)

U. 10530. Cylinder seal, shell, l. 0·03 m., d. 0·015 m. Inscription of *lugal-ša-pad-da*. PG/800, body 18. Worn by one of the grooms tending the asses of the sledge-chariot. *v.* p. 316. Pls. 191, 197. (P. *CBS.* 16747.)

U. 10532. Beads: 2 lapis-lazuli double conoids and 1 carnelian date-shaped; found on the neck of one of the Queen's grooms. PG/800. (P. *CBS.* 16784.)

U. 10537. Beads: 1 silver and 3 lapis-lazuli faceted conoids. Found on the neck of one of the Queen's grooms. PG/800. (L. *BM.* 121515.)

U. 10538. Gold ear-ring, 1 only, normal small type with lunate ends. Found on the second of the Queen's grooms. PG/800, body 17.

U. 10544. Beads: 2 small gold date-shaped and some lapis-lazuli double conoids. Found round the neck of one of the Queen's grooms. PG/800, body 18. (P. *CBS.* 16754.)

U. 10547. Stone bowl, grey steatite, Type 52, ht. 0·06 m., rim d. 0·09 m. Decorated round the rim with a row of incised circles. PG/899. (B. 8465.)

U. 10549. Cylinder seal, black steatite, l. 0·014 m., d. 0·009 m. Introduction scene; much defaced. Found loose in the soil. (B. 14564.)

U. 10550. Reins from the first of the wagons, faceted beads 0·10 m. long of lapis-lazuli and of silver over bitumen date-shaped cores. *v.* p. 64. PG/789. Pl. 34*b*; Fig. 8, p. 65. (L. *BM.* 121413.)

U. 10551. Silver rein-ring, surmounted by a silver mascot in the form of a bull cast in the round, *v.* p. 301; ht. 0·17 m., width 0·11 m. PG/789. Pl. 167. (B. 8296.)

U. 10552. Whetstone, of lapis-lazuli on a gold ring, l. 0·11 m., width 0·012 m. Worn by the driver of the first wagon. PG/789. Pl. 174. (P. *CBS.* 16695.)

U. 10553. Dagger, with copper blade, Type 3, broken, and silver hilt, decayed, the guard of gold with lapis-lazuli studs and the pommel decorated with gold studs. Worn by the driver of the first wagon. PG/789. Pl. 157.

U. 10554. Silver bowl, Type 7, ht. 0·09 m., l. 0·215 m., width 0·125 m. Very well preserved. Found by the axle of the second wagon, PG/789. Pl. 171. (P.)

U. 10556. Gold bull's head and shell inlay, from a lyre, *v.* pp. 70, 257, 280; width across horns 0·25 m. PG/789. Pls. 105–7. (P.)

U. 10557. Gaming-board, of silver, the top composed of shell plaques engraved with animal and mythological scenes and set in lapis-lazuli; l. 0·27 m., width 0·135 m. *v.* p. 276. It was hollow and in it was a complete set of shell and shale gaming-pieces, *v.* p. 278. Found inside the vaulted tomb, PG/789. Pls. 96, 221. (B. 8221.)

U. 10558. Gold frontlet, oval, with holes for attachment. Decorated with impressed lines parallel to edges. Found inside the vaulted tomb, PG/789. Pl. 219. (L. *BM.* 121403.)

U. 10559. Gold hair-rings, a pair, plain wire spirally coiled, d. 0·025 m. Found inside the vaulted tomb, PG/789.

U. 10560. Gold hair-rings, a pair, plain wire spirally coiled, d. 0·031 m. Found inside the vaulted tomb, PG/789. (P. *CBS.* 16698.)

U. 10561. *Brîm*, composed of 2 lengths of gold chain, 3 large faceted date-shaped beads, 2 of lapis-lazuli and 1 of gold, and 2 carnelian rings. Found inside the vaulted tomb, PG/789.

U. 10562. Gold ear-ring, normal small type with lunate ends, d. 0·033. Found inside the vaulted tomb, PG/789. (P. *CBS.* 16994.)

U. 10563. Beads: lapis-lazuli, 2 large faceted date-shaped and many small double conoids and ribbed balls. Found inside the vaulted tomb, PG/789.

U. 10564. Beads: lapis-lazuli double conoids, found with U. 10560. PG/789. (P. *CBS.* 16760.)

U. 10566. Silver model boat, with seats, curved support for awning, and oars (some of the latter broken), l. 0·64 m., ht. 0·20 m., width 0·08 m. *v.* p. 71. Found inside the vaulted tomb, PG/789. Pl. 169. (B. 8259.)

U. 10571. Finger-ring, gold, made of gold wire twisted for the central coils and left plain for the rims, so as to present a cable pattern with plain borders. Found inside the vaulted tomb, PG/789. Cf. Pl. 138. (P. *CBS.* 16696.)

U. 10574. Staff-head (?) of white shell; a plain almost flat disk below which were strung on the staff 4 rings of black shale and shell alternately; below these were 3 shell disks convex above like spindle-whorls, each with a black disk above it; d. of head 0·07 m., d. of upper disks 0·034 m., of lower disks 0·022 m. Cf. U. 8914. Found inside the vaulted tomb, PG/789. (L. *BM.* 121536.)

U. 10576. Shell roundels with inlaid rosette patterns having alternate red and blue petals (1 in outline only), d. 0·04 m., 0·037 m., 0·03 m., 0·028 m. One has rings of shell and black shale attached to it. Found unconnected in the lower filling, PG/789. (L. *BM.* 121532.) (P. *CBS.* 16701–2.)

U. 10577. Copper bull's head, with below it a band of 3 engraved shell plaques, from a lyre; greatest width 0·13 m. The bull's eyes are inlaid with shell and lapis-lazuli. The body of the lyre was of plain wood. *v.* pp. 69, 281. Found in the death-pit against the end wall of the chamber, on the top of the women's bodies. PG/789. Pls. 104, 120. (L. *BM.* 121533.)

U. 10579. Head-dress: silver pin with lapis-lazuli head, Type 1; lapis-lazuli double conoid beads. PG/789, body No. 55. (B. 8073, 8096.)

U. 10580. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large

lunate gold ear-rings, pair of silver hair-rings, silver pin with lapis ball head, Type 1, l. 0·145 m., silver 'comb' ornament with 3 inlaid rosette finials, pair of silver hair-rings, beads, gold, lapis-lazuli, and carnelian, mostly double conoids. PG/789, body No. 53. (B. 7750–4, 7763, 8095.) (P.)

U. 10581. Stone vase, white calcite, decayed. PG/789, body No. 53. (B. 8466.)

U. 10582. Head-dress: pair of large gold lunate ear-rings, pair of silver hair-rings, silver pin with lapis-lazuli ball head, Type 1, l. 0·15 m., beads: gold and lapis-lazuli double conoids, carnelian rings, remains of a mosaic of lapis-lazuli and gold (the latter very thin foil) and 2 small bull's legs in ivory. PG/789, body No. 54. (L. *BM.* 121471, 121509, 121513, 121983.) (P. *CBS.* 16731, 16759.)

U. 10584. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large lunate gold ear-rings, pair of silver hair-rings, silver pin, Type 1, l. 0·15 m., silver 'comb' ornament with 3 inlaid rosette finials, gold and lapis-lazuli double conoid beads, silver and lapis-lazuli double conoid beads, cockle-shells containing paint. PG/789, body No. 52. (P. *CBS.* 16982–7, 16989–90, 16999.)

U. 10585. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large lunate gold ear-rings, 3 silver hair-rings, silver pin with lapis-lazuli ball head. PG/789, body No. 56. (B. 7776–8.) (P. *CBS.* 17653.)

U. 10586. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large gold lunate ear-rings, silver hair-ring, silver pins (2) with lapis-lazuli ball heads, Type 1, l. 0·155 m., 0·135 m., silver 'comb' ornament with 3 inlaid rosette finials, gold and lapis double conoid beads. PG/789, body No. 59. (L. *BM.* 121478.) (P. *CBS.* 16700.)

U. 10587. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large gold lunate ear-rings, pair of silver hair-rings, silver 'comb' ornament with 3 inlaid rosette finials, silver pin, Type 1, with lapis-lazuli ball head, l. 0·165 m., necklace of gold and silver and lapis double conoid beads. PG/789, body No. 62. (B. 7889–96.)

U. 10588. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large gold lunate ear-rings, silver hair-rings (2), silver 'comb' ornament with inlaid rosette finials, silver pin, Type 1, with lapis-lazuli ball head, l. 0·16 m., gold and silver double conoid beads. PG/789, body No. 57. (P. *CBS.* 16736–41.)

U. 10589. Beads: gold, silver, and lapis-lazuli double conoids, and a white limestone bowl, Type 47, ht. 0·07 m., d. 0·04 m. PG/789, body No. 61. (L. *BM.* 121711.) (P. *CBS.* 16780.)

U. 10590. Reins, of the second bullock: very large silver date-shaped beads and some faceted date-shaped beads of lapis-lazuli. PG/789. Cf. U. 10550.

U. 10591. Beads: mixed gold, silver, carnelian, and lapis-lazuli. PG/789, body No. 60. (P. *CBS.* 16778.)

U. 10592. Beads: lapis-lazuli double conoids, lapis, and silver date-shaped, carnelian rings. PG/789, body No. 1.

U. 10593. Group: beads: silver, lapis-lazuli, and carnelian, with 1 pendant of greenish-white stone; copper pin with lapis ball head, Type 1; silver hair-ring; cockle-shell containing paint. PG/789, body No. 2.

U. 10594. Beads: small lapis-lazuli and some silver double conoids; pair of silver hair-rings. PG/789, body No 3. (P. *CBS.* 17679–80.)

U. 10595. Pair of gold hair-rings, d. 0·029 m. PG/789, body No. 4. (B. 7811.)

U. 10596. Beads: one large and some small beads of lapis-lazuli, silver, and carnelian. PG/789, body No. 4. (B. 7813.)

U. 10597. Group: pair of silver ear-rings; copper pin, Type 1, with lapis-lazuli ball head; lapis-lazuli double conoids and 1 gold date-shaped bead; cockle-shells containing paint. PG/789, body No. 5. (P. *CBS.* 16755, 17577–8, 17592.)

U. 10598. Group: silver hair-ring; silver pin, Type 1, with ribbed ball head of lapis-lazuli; copper pin, similar; lapis-lazuli and some silver beads; cockle-shells containing paint. PG/789, body No. 7. (B. 7839–42, 7902–4.)

U. 10599. Gold finger-ring of soldered wire with cable-pattern, cf. Pl. 138, and beads of gold, lapis-lazuli, and carnelian. PG/789, body No. 8.

U. 10701. Beads: 3 small steatite date-shaped, 1 glazed ball, 1 oval pendant. PG/868.

U. 10705. Beads: 2 strings: (*a*) steatite diamonds, carnelian double conoids, and barrels; (*b*) minute silver, lapis-lazuli, and carnelian beads. PG/895. (L. *BM.* 121567, 123660.)

U. 10708. Cylinder seal, shell, l. 0·025 m., d. 0·015 m. PG/895. Pl. 198. (P. *CBS.* 17029.)

U. 10711. Stone vase, white calcite, Type 78, ht. 0·115 m., rim d. 0·09 m., base 0·045 m. PG/895. (L. *BM.* 121729.)

U. 10712. Beads (or buttons): 15, disks of glazed frit and black steatite; they were in a row down the chest of the body and seem to have fastened the opening of a tunic. *v.* pp. 161, 240. PG/895.

U. 10718. Cylinder seal, copper. Subject apparently an introduction scene, but in bad condition. PG/842.

U. 10721. Beads: silver and lapis-lazuli double conoids. Re-strung in original order. PG/840. (B. 7887.)

U. 10722. Bead: date-shaped pendant of agate, worn by itself on the breast. PG/840. (B. 7888.)

U. 10723. Gold ear-rings, normal small type with lunate ends. PG/840. (B. 7883.)

U. 10727. Cylinder seal, black steatite, l. 0·024 m., d. 0·01 m. Hunters and rampant animals, much obliterated. PG/840. (B. 14565.)

U. 10729. Beads: minute balls of gold and lapis-lazuli, lapis diamonds, and carnelian barrels; 2 necklaces. PG/852. (B. 7838.)

U. 10732. Stone bowl, white calcite, Type 56, ht. 0·015 m., d. 0·10 m. PG/852. (B. 8403.)

U. 10737. Beads: rings of glazed frit and a few lapis-lazuli. PG/860.

U. 10742. Beads: silver, jasper, carnelian, and 1 oolite; pendant of silver in the form of a dog wearing a kind of harness, a collar of copper, with a strap along the back and round the rump, pierced longitudinally, ht. 0·013 m., l. 0·018 m. PG/906. (P. *CBS.* 16938.)

U. 10745. Gold ear-ring, normal small type with lunate ends. PG/906. (P. *CBS.* 16940.)

U. 10746. Lamp, translucent white calcite, l. 0·15 m., width 0·074 m., ht. 0·035 m. It is of the normal 'shell' form decorated on the side with the figure of a couchant man-headed bull carved in high relief. The mane, beard, and hair were painted black, much of the colour being preserved. Found low in the filling of PG/871, and apparently belonging to the grave, though it lay higher than the other furniture. Pl. 182. (P. *CBS.* 16919.)

U. 10747. Terra-cotta figurine, female, ht. 0·07 m. Grotesque figure, hand modelled, with applied pellets for eyes, pierced ears, bird-like nose, and pronounced female organs. The head broken off and mended in antiquity with bitumen. The figure was the handle of a vase of the type found at Kish (Mackay, *Cemetery A at Kish*, Pls. IX, X). Nothing resembling this has been found at Ur, and the fact that it was mended may imply the rarity of an import. PG/895. Pl. 187. (L. *BM.* 121677.)

U. 10749. Beads: 10 shell rings, d. 0·017 m. PG/895.

U. 10751. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, one very large gold lunate pendant, silver 'comb' ornament with 3 inlaid rosette finials, 2 silver pins with lapis-lazuli ball heads, Type 1, l. 0·11 m., necklace of lapis-lazuli double conoids and carnelian rings, and 1 lapis date-shaped, cockle-shell containing black paint. PG/789, body No. 51. (B. 8087–94.)

U. 10752. Head-dress: gold hair-ribbon, wreath of gold 'beech-leaf' pendants, pair of very large gold lunate ear-rings, pair of silver hair-rings, silver 'comb' ornament with inlaid rosette finials, 2 silver pins with lapis-lazuli ball heads, Type 1, l. 0·155 m., 0·135 m., 4 strings of gold, silver, and lapis double conoid beads and 3 strings of gold and lapis double conoids, cockle-shells containing green, blue, and black paint, a miniature clay pot. PG/789, body No. 58. (B. 7969, 7975, 8925, 8931–4.)

U. 10753. Beads: a necklace, 3 tiers, of minute gold and lapis-lazuli barrels, gold, lapis, and carnelian double conoids. PG/871. (P. *CBS.* 16920.)

U. 10754. Gold frontlet, oval, with stamped dot border and holes at ends for attachment, l. 0·16 m., width 0·03 m. PG/871. (P. *CBS.* 16921.)

U. 10755. Gold fillet, only 0·006 m. wide, with hole at each end. It was found across the forehead. PG/871. (P. *CBS.* 16922.)

U. 10756. Gold bracelets, a pair, plain hoops, d. 0·06 m. PG/871. (P. *CBS.* 16923.)

U. 10757. Cylinder seal, carnelian, with gold caps, l. 0·019 m. PG/871. Pl. 211. (P. *CBS.* 16924.)

U. 10758. Gold ear-rings, a pair, each consisting of 2 coiled lunate-ended rings, 1 large and 1 small, linked together. PG/871. Pl. 219. (P. *CBS.* 16925.)

U. 10762. Beads: 2 strings, gold, lapis-lazuli, and carnelian. Re-strung in the original order. PG/867.

U. 10764. Cylinder seal, black steatite, l. 0·028 m. PG/867. Pl. 203. (B. 8083.)

U. 10765. Cylinder seal, lapis-lazuli, l. 0·022 m., d. 0·013 m. PG/867. Pl. 205. (B. 8084.)

U. 10766. Two silver bracelets (broken) and 2 cylinder seals of lapis-lazuli. The larger seal was threaded on the wire of one bracelet; the second seal lay loose in a copper bowl on which the broken bracelets rested and could well have fallen from one of them. Cylinder seal (A), l. 0·017 m., d. 0·01 m. Pl. 204. Seal (B), l. 0·017 m., d. 0·006 m. Pl. 206. PG/867. (B. 7970.)

U. 10767. Ear-rings, a pair; each consists of 1 gold and 1 copper coiled ring with lunate ends linked together. PG/867. (B. 7974.)

U. 10768. Stone vase, white calcite, Type 3, ht. 0·20 m., d. 0·10 m. PG/867. (B. 8492.)

U. 10778. Gold ear-ring, normal small type with lunate ends, with oblique incised lines on one side. PG/823. (B. 8252.)

U. 10779. Beads: gold and lapis-lazuli ovoids, gold and lapis faceted double conoids, 2 banded sard cylinders. PG/823. (B. 7543, 7791.)

U. 10782. Gold tweezers and kohl-stick (?) suspended on a gold ring; l. of tweezers, 0·035 m., of stick, 0·05 m. PG/823. (B. 9526.)

U. 10783. Stone vase, white calcite, Type 61, ht. 0·19 m., rim d. 0·115 m., base 0·075 m. PG/823. (B. 8450.)

U. 10784. Stone vase, white calcite, Type 92, ht. 0·15 m., rim d. 0·07 m., base 0·03 m. PG/823. (B. 8406.)

U. 10788. Gold head-dress, consisting of a broad gold fillet, rectangular, 0·30×0·027 m., worn round the head over a frontlet of thin gold, oval with elongated ends, l. 0·015 m.; a piece of thin gold ribbon may have secured the latter, but was not in place. *v.* p. 246. PG/825. (P. *CBS.* 17566.)

U. 10789. Bracelet of beads, gold balls, carnelian rings and barrels, and lapis-lazuli barrels. PG/825. (P. *CBS.* 17567.)

U. 10790. Gold finger-ring, plain hoop with the edges curled over inwards and hammered down to give the appearance of a double ring. PG/825. (P. *CBS.* 17571.)

U. 10793. Beads: necklace of gold balls, carnelian cylinders, banded sard cylinder, sardonyx date-shaped, crystal double conoid, large agate flattened double conoid. Re-strung in the original order. PG/825.

U. 10795. Head ornament: a disk of gold foil, d. 0·03 m., with crescent below and the interior of the circle cut as a star or rosette with inlaid petals of lapis-lazuli and carnelian; it was mounted on a substance, probably silver, which has perished. There were with it fragmentary

remains of a second similar. Found on the top of the head. PG/825. (P.)

U. 10796. Cylinder seal, lapis-lazuli, l. 0·018 m., d. 0·011 m. PG/825. Pl. 214. (P. *CBS.* 17569.)

U. 10800. Group: beads, small, of lapis-lazuli and silver; 3 silver hair-rings; silver pin with lapis head, Type 1, l. 0·16 m. PG/789, body No. 9. (B. 7744.)

U. 10801. Group: small carnelian and lapis-lazuli beads with gold fly pendant, lapis and some silver double conoid beads; silver hair-ring; plain silver wire bracelet; some short lengths of gold hair-ribbon, 11 pieces, tightly folded up into little wads, weight in grammes 7, 10, 10, 11⅛, 12, 12¾, 16, 16, 16, 16, 21; together the wads weigh just one shekel. PG/789, body No. 10. (L. *BM.* 121512, 123662.) (P. *CBS.* 16910, 17074.)

U. 10802. Group: beads, 2 strings, of small lapis-lazuli double conoids and of slender date-shaped of gold and lapis; copper pin with lapis ball head, Type 1, l. 0·195 m.; cockle-shells containing paint. PG/789, body No. 11. (B. 7954–5.)

U. 10803. Group: beads, 2 strings; silver and lapis-lazuli double conoids, and small lapis and gold balls with carnelian rings; pair of silver hair-rings; copper pin, Type 1, l. 0·16 m.; cockle-shells containing paint. PG/789, body No. 12. (B. 8375–6, 8387–8.)

U. 10804. Group: a few lapis-lazuli and carnelian beads; silver hair-rings (2); copper pin, Type 1, l. 0·14 m., with plain ball head; cylinder seal shell, much decayed, with hunter and animals. PG/789, body No. 13. (L. *BM.* 121981.)

U. 10805. Group: beads, 2 strings, lapis-lazuli and gold double conoids, lapis double conoids; pair of silver hair-rings. PG/789, body No. 14.

U. 10806. Silver and lapis-lazuli date-shaped beads, small, and silver pin with lapis ball head, Type 1, l. 0·20 m. PG/789, body No. 15. (L. *BM.* 121444.)

U. 10807. Group: 'dog-collar' of gold and lapis triangles; 3 silver hair-rings; silver pin with ribbed ball lapis head, Type 1. PG/789, body No. 16. (B. 7843, 7849.)

U. 10808. Beads: small lapis-lazuli double conoids; small shell rings; copper pin with lapis ball head, Type 1. PG/789, body No. 17. (B. 7837.) (P. *CBS.* 16757.)

U. 10815. Group: large beads, date-shaped, from a *brîm*, 2 lapis-lazuli and 1 silver, with carnelian rings; string of lapis double conoids; pair of silver hair-rings; silver pin with lapis ball head, Type 1, l. 0·14 m. PG/789, body No. 23. (B. 7866–9).

U. 10816. Group: beads, 3 necklaces: (*a*) gold and lapis-lazuli double conoids with carnelian rings, (*b*) lapis double conoids, (*c*) silver double conoids; pair of silver hair-rings; silver pin with lapis ball head, Type 1, l. 0·115 m.; shell rings; cockle-shells containing green and blue paint; miniature clay vase. PG/789, body No. 24. (L. *BM.* 121893.) (P. *CBS.* 16782.)

U. 10818. Group: beads, gold and silver double conoids with some carnelian rings; copper pin, Type 2; shell rings; silver hair-rings; cockle-shells containing paint. PG/789, body No. 26. (P. *CBS.* 17590.)

U. 10819. Group: necklace of silver and lapis-lazuli double conoids and carnelian rings; silver hair-rings, a pair; 2 copper pins, 1 with lapis ball head; cockle-shells containing green and black paint; a limestone bowl, ht. 0·03 m., d. 0·08 m. PG/789, body No. 27. (B. 7845–8.)

U. 10820. Group: silver and lapis-lazuli double conoids and some ring-beads of glazed frit; pair of silver hair-rings; copper pin with ball head, Type 1; silver finger-ring; cockle-shells containing green paint; a conch-shell cut as a lamp. PG/789, body No. 28. (L. *BM.* 123666.) (P. *CBS.* 17576.)

U. 10822. Group: cylinder seal, lapis-lazuli, l. 0·034 m., d. 0·018 m. Pl. 195. Necklace of silver and lapis double conoids and 3 large faceted date-shaped, 2 carnelian and 1 gold; silver pin with ribbed ball head of lapis capped with gold, Type 1, l. 0·125 m.; a limestone bowl, ht. 0·04 m., rim d. 0·12 m. PG/789, body No. 30. (L. *BM.* 121546, 121988.)

U. 10823. Group: cylinder seal, lapis-lazuli, l. 0·038 m. Pl. 194. Necklace of gold and lapis-lazuli double conoids and long faceted date-shaped of carnelian; pair of silver hair-rings; remains of silver hair-ribbon; silver pin with lapis ball head capped with gold, Type 1, l. 0·14 m.; silver rings from a belt; cockle-shells containing paint; fluted silver tumbler, Type 43, ht. 0·17 m. PG/789, body No. 31. (B. 7773, 7780–4, 8023, 9711.)

U. 10824. Group: gold and lapis-lazuli double conoid beads; gold finger-ring with 7 lines of cable ornament between plain borders (made of twisted wire); pair of silver hair-rings; silver pin with lapis ball head, Type 1, l. 0·15 m.; 2 copper pins with lapis ball heads, Type 1; cockle-shells containing green, blue, and brown paint. PG/789, body No. 32. (L. *BM.* 121479, 121730, 121732.) (P. *CBS.* 16732, 16758, 16779.)

U. 10825. Group: copper helmet, *v.* p. 63. Pl. 148; copper spear-head, Type 3, l. 0·237 m.; copper spear-head, Type 1, l. 0·215 m. PG/789, body No. 46. Pl. 189. (L. *BM.* 121414, 121591.) (P. *CBS.* 17312.)

U. 10826. Group: copper helmet, *v.* p. 63, Pl. 148; copper spear-head, Type 1, l. 0·225 m.; copper spear-head, Type 6, l. 0·175 m. PG/789, body No. 50. (L. *BM.* 121592, 121608.)

U. 10827. Group: copper helmet, *v.* p. 63, Pl. 148; copper spear-head, Type 1, l. 0·165 m.; copper spear-head, Type 6, l. 0·215 m. PG/789, body No. 48. (L. *BM.* 121609.) (P. *CBS.* 17349.)

U. 10829. Group: beads, lapis-lazuli and silver double conoids; copper pin with lapis ball head, Type 1; silver hair-ring. PG/789, body No. 37. (B. 7901, 7916–17.)

U. 10830. Group: silver and lapis-lazuli date-shaped beads; silver hair-rings, a pair; shell rings silver razor; copper razor, and a second, de-

cayed; cockle-shells containing paint. PG/789, body No. 38. (B. 7662–4, 8161.) (L. *BM.* 121507.)

U. 10831. Group: lapis-lazuli and some silver double conoid beads; pair of silver hair-rings; finger-ring of very thin gold wire; silver pin with lapis ball head, Type 1, l. 0·19 m. PG/789, body No. 39. (B. 7828, 7956–8.)

U. 10832. Beads: lapis-lazuli and silver and 1 carnelian; pair of silver hair-rings. PG/789, body No. 40. (B. 7914–15.)

U. 10833. Group: lapis-lazuli double conoid beads; pair of silver hair-rings; copper pin with lapis ball head, Type 7, l. 0·145 m. PG/789, body No. 41. (L. *BM.* 121510.) (P. *CBS.* 16997.)

U. 10834. Group: beads, lapis-lazuli date-shaped and carnelian rings; pair of silver hair-rings; cockle-shell containing paint. PG/789, body No. 42. (B. 8363–5.)

U. 10835. Harness: fragments of the silver collars of the oxen; of thin metal (once fixed to wood) embossed with a pattern of squares containing eyes; with them large silver rings found in the nostrils of the oxen. PG/789. (B. 8098.)

U. 10837. Celt, of polished dark green stone, l. 0·026 m. PG/787.

U. 10838. Gold ear-rings, a pair, normal small type with lunate ends. PG/787. (B. 7812.)

U. 10840. Beads: gold balls, carnelian rings, and 1 large date-shaped, a few dark steatite date-shaped. PG/787. (B. 8000.)

U. 10844. Stone vase, white calcite, Type 66, ht. 0·065 m., rim d. 0·12 m. PG/789.

U. 10846. Gold ear-rings, a pair, normal small type with hollow lunate ends. PG/863.

U. 10847. Gold fillet, narrow ribbon with holes at the rounded ends. PG/863.

U. 10848. Beads: 5 large carnelian date-shaped and 1 gold ball; found on the neck. PG/863.

U. 10850. Gold bowl, Type 8, l. 0·13 m., width 0·083 m., ht. 0·04 m. The sides are fluted; a line of herring-bone pattern chased round the rim and above the base; on the base a 12-petalled rosette on a background of concentric circles. The 2 tubular handles were for a wire handle, presumably of silver as no traces of it were found. It was slightly flattened and has been bent out again. PG/800, inside the tomb-chamber. Pl. 162. (P. *CBS.* 17693.)

U. 10851. Gold bowl, Type 7, ht. 0·07 m., l. 0·197 m., width 0·11 m. Plain, except for the strongly marked rib at either end. Through the short vertical tubular lugs passes the handle, 2 strands of gold wire twisted to give a cable effect. PG/800, inside the chamber. Pl. 161. (L. *BM.* 121344.)

U. 10852. Stone vase, greenish grey steatite, Type 74, ht. 0·40 m., rim d. 0·17 m., base 0·12 m. On the flat rim is incised a bull's leg. PG/800, inside the chamber. (L. *BM.* 121691.)

U. 10853. Stone vase, white calcite, Type 89, ht. 0·17 m., rim d. 0·086 m., base 0·035 m. PG/800, inside the chamber. (B. 8416.)

U. 10854. Stone vase, white calcite, Type 87, ht. 0·26 m., rim d. 0·15 m., base 0·07 m. PG/800, inside the chamber. (P. *CBS.* 17104.)

U. 10855. Silver pot, Type 52, ht. 0·24 m., rim d. 0·14 m. Distorted but complete. In it and projecting above its rim a drinking-tube of very thin gold leaf originally covering a reed, bent at right angles near one end, l. 1·36 m., d. 0·013 m.; this has been remounted on a glass tube. (P. *CBS.* 16688.)

U. 10856. Copper tray, Type 104, 0·66 m.× 0·54 m., depth 0·04 m. Supported on 5 feet in the form of bulls' legs; ht. of feet 0·12 m. PG/800, inside the chamber. (L. *BM.* 121670.)

U. 10857. Silver tumbler, Type 43, ht. 0·17 m., rim d. 0·10 m., base 0·042 m. The straight sides are fluted; round the rim and just above the base is a border of herring-bone pattern, chased, and below on the base a rosette against a background of concentric circles; the tumbler is a reproduction in silver of the gold tumbler U. 10453, and is one of a very large number found in the tomb. PG/800, inside the chamber. Cf. Pl. 162.

U. 10858. Silver tumblers, 2; cf. U. 10857. Corroded on to them a silver ladle, Type 96. PG/800. (L. *BM.* 121456.)

U. 10859. Silver saucer, Type 28, d. 0·16 m., depth 0·04 m. PG/800.

U. 10860. Silver libation-jug, Type 84, ht. 0·235 m., rim d. 0·055 m. PG/800. (P. *CBS.* 17082.)

U. 10861. Silver tumbler; cf. U. 10857. PG/800.

U. 10862. Silver paten, umbilical, with raised rim, Type 32, d. 0·22 m., depth 0·02 m. PG/800.

U. 10863. Silver cup, Type 42, ht. 0·095 m., d. 0·06 m. PG/800.

U. 10864. Silver bowl, Type 7, ht. 0·08 m., rim d. 0·20 m.×0·13 m. PG/800. (L. *BM.* 121454.)

U. 10865. Silver bowl, Type 4, ht. 0·07 m., d. 0·14 m. PG/800.

U. 10866. Beads: 68 gold and 250 lapis-lazuli double conoids. PG/800. (L. *BM.* 121508.) (P. *CBS.* 16756, 16781.)

U. 10866 A. Gold ear-rings, a pair, very large type with lunate ends. PG/800. (P. *CBS.* 16988.)

U. 10867. Gold ring pendants, from the Queen's belt, 29 in all; d. 0·04 m. PG/800. Fig. 12, p. 87. (P. *CBS.* 17063.)

U. 10868. Gold hair-ring, d. 0·027 m. PG/800. (P. *CBS.* 16991.)

U. 10869. Gold ear-ring, normal small solid type with lunate ends. PG/800.

U. 10870. Gold pin, Type 1, l. 0·18 m., with lapis-lazuli ball head capped with gold. PG/800. (L. *BM.* 121352.)

U. 10871. Cylinder seal, lapis-lazuli, l. 0·043 m., d. 0·022 m. PG/800. Pl. 193.

U. 10872. Cylinder seal, lapis-lazuli, l. 0·039 m., d. 0·019 m. PG/800. Pl. 193. (P. *CBS.* 16728.)

U. 10873, 4, 5, 6. Four *brîms* consisting each of 2 lengths of gold chain, 3 large date-shaped beads and carnelian rings. PG/800. (L. *BM.* 121399, 121487–8.) (P. *CBS.* 16761.)

U. 10877. Gold finger-rings, 5 all alike; flat hoop with plain edges and centre of cable pattern, made of wire coiled. PG/800. (P. *CBS.* 16717–20.)

U. 10878. Gold finger-ring; in the middle, 3 rows of cable pattern, round each edge a band of lapis-lazuli inlay (some of the stone missing). PG/800. Pl. 138. (P. *CBS.* 16721.)

U. 10879. Beads: from the Queen's belt; plain short cylinders of lapis-lazuli, gold, and carnelian, and minute balls of the same materials. PG/800. Pl. 131. (P. *CBS.* 17063.)

U. 10880. Beads: 4 lapis-lazuli date-shaped, 4 gold, and 2 faceted date-shaped of carnelian, l. *c.* 0·04 m. Found on the Queen's thigh-bone and perhaps connected with the belt, but not of the same character. PG/800.

U. 10881. Shell staff-head: a plain almost flat roundel attached to which 3 rings, 2 of shell, 1 of black shale, threaded on the staff; with this but scattered and in no discernible order were 13 shell convex disks like spindle-whorls (which perhaps they were) marked with concentric circles, d. 0·025 m. Cf. U. 8914. PG/800. (L. *BM.* 121537–8.)

U. 10882. Stone vase, veined calcite, Type 76 (variant), ht. 0·23 m., rim d. 0·115 m., base 0·08 m. PG/800. (P. *CBS.* 17111.)

U. 10883. Stone vase, white calcite, Type 88, ht. 0·18 m., rim d. 0·12 m., base 0·07 m. PG/800. (B. 8414.)

U. 10884. Stone vase, white calcite, Type 87, ht. 0·27 m., rim d. 0·175 m., base 0·08 m. PG/800. (B. 8494.)

U. 10885. Stone vase, white calcite, Type 87, ht. 0·31 m., rim d. 0·16 m., base 0·08 m. PG/800. (P. *CBS.* 17106.)

U. 10886. Silver lamp, Type 115, l. 0·285 m., width 0·135 m. PG/800. Pl. 173. (P. *CBS.* 17081.)

U. 10887. Silver pin, Type 1, l. 0·175 m., with lapis-lazuli ball head capped with gold. PG/800. Body of attendant by bier. (P.)

U. 10889. Beads: large double conoids of gold over bitumen cores, lapis-lazuli, and carnelian. PG/800. Body of attendant by bier. (P. *CBS.* 16735.)

U. 10890. Gold hair-rings, a pair, of spirally coiled wire. PG/800. Body of attendant by bier. (P. *CBS.* 16992.)

U. 10891. Silver bowl, Type 7, oval, with applied bands of electrum, ht. 0·09 m., d. 0·22 m.×0·13 m. A handle of 2 twisted strands of silver wire is attached by the small vertically pierced lugs on sides. PG/800. Pl. 173. (P. *CBS.* 17077.)

U. 10892. Silver tumbler; cf. U. 10857. PG/800.

U. 10893, 4, 5, 6, 7, 8, 9, 900. Silver tumblers; cf. U. 10857. In most cases these are in pairs, one inside the other. PG/800. (B. 8899, 8900.) (P. *CBS.* 17072.)

U. 10901. Silver cockle-shells, a pair; metal imitations of real shells, forming box and lid, and containing paint; l. 0·085 m. PG/800. Pl. 137. (P. *CBS.* 16711.)

U. 10902, 3, 4, 5, 6, 7, 8, 9. Silver bowls, Type 4, mostly distorted and broken; average ht. 0·07 m., d. 0·14 m. PG/800. (P. *CBS.* 17069–71.)

U. 10910. Silver pot, Type 52, much crushed, ht. *c.* 0·26 m., rim d. 0·14 m. In it was the tube U. 10911. PG/800. (P. *CBS.* 17548.)

U. 10911. Drinking-tube, a very slender copper pipe encased in short lengths of lapis-lazuli tube, l. as preserved, 0·45 m., d. 0·009 m. PG/800. (P.)

U. 10912. Silver saucer, Type 28, ht. 0·045 m., rim d. 0·12 m., base 0·032 m. Fixed by corrosion to 2 copper bowls, Type 4, ht. 0·065 m., rim d. 0·12 m., base 0·04 m. PG/800.

U. 10913. Silver tumbler; cf. U. 10857. PG/800. (P.)

U. 10914. Silver offering-table, Type 101. The foot is funnel-shaped made solid by a filling of bitumen, the top covered with a silver cap; the tray is made separately, but must have been soldered on to the foot though when found it was partly displaced; ht. of foot, 0·26 m., d. at base 0·22 m., d. of tray 0·31m. PG/800.

U. 10915. Silver vase, Type 113, much crushed, ht. *c.* 0·28 m. Attached to it were the remains of 3 silver drinking-tubes, in very bad condition. PG/800.

U. 10916. Silver bull's head, cast in the round, with inlaid eyes of shell and lapis-lazuli; width across horns 0·155 m. The muzzle has been damaged and 1 horn was broken off and has been replaced. The shell plaques U. 10917 were attached to it, and it must therefore have been the decoration of a wooden harp of which the body has perished. PG/800. Pl. 120. (P. *CBS.* 17065.)

U. 10917. Shell plaques, 2, belonging to U. 10916. Animal scenes silhouetted on the shell, the background and details of engraving filled in with bitumen: A, 0·044 m. sq.; B (broken), 0·037 m.×0·03 m. PG/800. Pl. 100. (L. *BM.* 121529.) (P. *CBS.* 16746.)

U. 10919. Stone vase, translucent white calcite, Type 61, ht. 0·17 m., d. 0·10 m. PG/800. (L. *BM.* 121726.)

U. 10920. Stone vase, white calcite, Type 89, ht. 0·165 m., d. 0·095 m. PG/800. (B. 8417.)

U. 10921. Stone vase, veined white calcite, Type 3, ht. 0·25 m., d. 0·12 m. PG/800. (P. *CBS.* 17128.)

U. 10922. Stone vase, white calcite, Type 2, ht. 0·17 m., rim d. 0·11 m., base 0·11 m. PG/800. (B. 8418.)

U. 10923. Stone vase, white calcite, Type 89, ht. 0·17 m., d. 0·105 m. PG/800. (B. 8415.)

U. 10924. Stone vase, white calcite, Type 89, ht. 0·19 m., d. 0·105 m. PG/800. (B. 8449.)

U. 10925. Stone vase, white calcite, Type 76, ht. 0·19 m., d. 0·10 m. PG/800. (B. 8451.)

U. 10926. Stone vase, white calcite, Type 72, ht. 0·105 m., d. 0·075 m. PG/800. (B. 8462.)

U. 10927. Stone vase, veined white calcite, Type 87, ht. 0·235 m., rim d. 0·14 m., base 0·065 m. PG/800. (B. 8491.)

U. 10929. Beads: lapis-lazuli and silver date-shaped, found isolated. PG/800. (L. *BM.* 121500.)

U. 10930. Gold bowl, Type 7, ht. 0·05 m., l. 0·145 m., width 0·10 m. Pronounced ribs at

either end, small vertically pierced lugs for a loop handle, probably of silver wire, which has disappeared. When found it was slightly crushed and has been straightened out. PG/800, inside the chamber. Pl. 164. (P. *CBS.* 16707.)

U. 10931. Gold strainer, roughly made from thin gold sheet, d. 0·12 m., depth 0·045 m., l. with handle 0·18 m. Type 97. PG/800, inside the chamber. (L. *BM.* 121347.)

U. 10932. Gold cockle-shells, a pair; metal imitations of real shells, the markings engraved; the two form a box and lid containing green paint, 0·08 m.×0·06 m., thickness 0·045 m. PG/800, inside the chamber. Pl. 165. (L. *BM.* 121354.) (P. *CBS.* 16710.)

U. 10933. Gold ear-rings, very large lunate type, found on the Queen's head. PG/800. Pls. 127–9. (P. *CBS.* 17712.)

U. 10934. Gold ribbon, from the Queen's head-dress; unusually heavy metal and unusually wide, width 0·02 m., with total length of 12·00 m. Found in position on the head in its original coils. PG/800. Pls. 127–9. (P.)

U. 10935. Wreath, of gold ring pendants (19) strung on 2 rows of lapis-lazuli cylinders and carnelian rings, worn on the head of the Queen below the leaf wreaths U. 10936 and 10937. PG/800. Pls. 127–9. (P. *CBS.* 17708.)

U. 10935 A. Wreath, of gold 'beech-leaves' each having on the elongated tip a carnelian ring, strung on 2 rows of lapis-lazuli cylinders and carnelian rings; the middle wreath of the three worn together. PG/800. Pls. 127–9. (P. *CBS.* 17709–10.)

U. 10936. Wreath: strung on 2 rows of lapis-lazuli cylinders and carnelian rings are pendants each formed of 3 long narrow leaves like willow leaves tipped with small carnelian balls; interspersed with them are gold rosettes or flowers having petals inlaid with shell and lapis-lazuli; from the lower bead string hang between the flowers and leaves small gold pear-shaped pendants, and on the same string are small gold beads. It is the uppermost of the three wreaths worn together. PG/800. Pls. 127–9. (P. *CBS.* 17711.)

U. 10937. Gold 'comb' ornament, worn at the back of the head by the Queen. A pin with head broadened to a large flat triangle from which rise 7 branches thinning down to wires having at the end of each a gold flower with lapis centre; the branches are connected together by a twisted gold wire. The petals of the flowers are concave, but no inlay was found and probably there never was such. Total ht. 0·36 m., width 0·12 m. PG/800. Pls. 127–8, 130. (P. *CBS.* 16693.)

U. 10938. Gold pin, Type 5, with flat triangular head of which the top is rolled over to form a tube; it might be a feather-holder. Similar pins in silver have been found. PG/800. Pl. 165. (P. *CBS.* 16908.)

U. 10939. Cylinder seal, lapis-lazuli, l. 0·048 m., d. 0·025 m. Inscription *SUB-ad nin.* PG/800. Worn on the right arm. Pls. 191, 193. *v.* p. 316. (P.)

U. 10940. Gold pin, Type 1, l. 0·212 m., with lapis ball head. PG/800, on the Queen's right arm. (P. *CBS.* 16729.)

U. 10941. Gold pin, Type 1, l. 0·17 m., with lapis-lazuli ball head. PG/800, on the Queen's right arm, with the cylinder seal U. 10939. (L. *BM.* 121353.)

U. 10942. Gold hair-rings, 3 spiral coils of unusually heavy gold wire, d. 0·033 m. PG/800. (L. *BM.* 121361.)

U. 10943. Gold amulet, in the form of 2 antelopes seated back to back. The treatment of the bodies is summary, but the heads are very finely rendered in detail; gold plate worked over a core. Found on the Queen's right arm near the elbow. L. 0·03 m., ht. 0·029 m. PG/800. Pl. 142. (L. *BM.* 121404.)

U. 10944. Gold amulets, 2, in the form of fish, l. 0·031 m. The gold is thin metal over a bitumen core. The hole for suspension is through the mouth and one gill. Found with U. 10943. PG/800. Pl. 142. (L. *BM.* 121405.)

U. 10945. Amulet of lapis-lazuli in the form of a fish, l. 0·03 m. Found with U. 10943–4. Pl. 142. (L. *BM.* 121406.)

U. 10946. Amulet of lapis-lazuli in the form of a reclining calf, in profile, the head turned to the front over the right shoulder, l. 0·034 m. Found by the Queen's right shoulder with U. 10947. PG/800. Pl. 143. (L. *BM.* 121419.)

U. 10947. Beads: large, 1 lapis-lazuli diamond, 1 oblong agate, 1 lapis flattened date-shaped. They seem to have formed a short string from the end of which hung the amulet U. 10946. PG/800. Pl. 143. (L. *BM.* 121419.)

U. 10948. Diadem of Queen Shub-ad. A vast number of minute lapis-lazuli beads which were found against a background of fibrous white material, apparently leather; against them stood out small figures in gold, thin metal over a bitumen core: these are, two-antlered stags, ht. 0·035 m., two bearded bulls, ht. 0·03 m., two gazelles, ht. 0·035 m., two rams, ht. 0·025 m.; all the animals represented as lying down; also, ears of corn, l. 0·035 m., pomegranates, a stem with 3 leaves and 3 clustered fruit (gold, with permanent calyx of carnelian), plants with rough stems of gold foil over silver, gold leaves and fruit or pods of gold, lapis-lazuli, or carnelian, small gold 8-petalled flowers, and palmettes of twisted gold wire. All were loose in the soil, and the diadem lay not straight out at length but coiled in a circle and collapsed on itself, probably due to the decay of a wig on which it had been bound; most of the objects, however, were in order, so that their original arrangement could be recovered, and the diadem has accordingly been restored on a basis of white leather. PG/800. Pls. 140–1. (P. *CBS.* 16684.)

U. 10949. Gold finger-rings, a pair, with plain edges and 4 interior bands of cable pattern; made out of wire. PG/800. Pl. 138.

U. 10950. Gold finger-rings, a pair, of cloisonné work with lapis-lazuli inlay. PG/800. Cf. U. 9778.

U. 10951. Beads: large lapis-lazuli date-shaped. The string was found on the top of the Queen's head at the base of the gold 'comb', which it may have served to keep in place. PG/800.

U. 10952. Lapis-lazuli handle; a block 0·105 m. long, octagonal in section and tapering slightly from 0·05 m. to 0·04 m., with a hole pierced through it longitudinally and increasing in size to an oval 0·02 m. long. PG/800. (P. *CBS.* 16713.)

U. 10953. Silver bowl, Type 4, ht. 0·07 m., d. 0·14 m. PG/800.

U. 10958. Stone bowl, white calcite, Type 16, ht. 0·135 m., rim d. 0·24 m., base 0·085 m. PG/800. (B. 8467.)

U. 10959. Stone bowl, veined white calcite, Type 15, ht. 0·12 m., rim d. 0·264 m., base 0·14 m. PG/800. (L. *BM.* 121716.)

U. 10960. Stone vase, white calcite, Type 66, ht. 0·12 m., rim d. 0·21 m., base 0·07 m. PG/800. (P. *CBS.* 17144.)

U. 10961. Stone vase, white calcite, Type 3, ht. 0·255 m., d. 0·12 m. PG/800. (B. 8399.)

U. 10962. Stone bowl, white calcite, Type 16, ht. 0·14 m., rim d. 0·25 m., base 0·075 m. PG/800. (B. 8419.)

U. 10963. Stone bowl, translucent white calcite, Type 22, ht. 0·10 m., rim d. 0·26 m., base 0·115 m. PG/800 (P. *CBS.* 17139.)

U. 10964. Stone bowl, white calcite, Type 19, ht. 0·11 m., rim d. 0·23 m., base 0·07 m. PG/800.

U. 10965. Stone bowl, white calcite, Type 103, ht. 0·105 m., l. 0·41 m., width 0·18 m. PG/800. (L. *BM.* 121724.)

U. 10966. Cockle-shells containing green and white paint; real shells of unusual size, up to 0·145 m. across. PG/800. (L. *BM.* 121539–40.) (P. *CBS.* 17185–6.)

U. 10967. Stone cup, white calcite, Type 19, ht. 0·115 m. PG/800. (L. *BM.* 121718.)

U. 10968. Stone bowl, dark steatite, fragmentary. PG/800. (P.)

U. 10969. Stone bowl, dark steatite, fragmentary. PG/800.

U. 10970. Stone bowl, veined calcite, broken, ht. 0·13 m., d. 0·24 m. PG/800.

U. 10971. Stone vase, white calcite, fragmentary, Type 68. PG/800.

U. 10972. Stone bowl, veined white calcite, Type 19, ht. 0·7 m., rim d. 0·16 m., base 0·08 m. PG/800. (B. 8420.)

U. 10973. Stone bowl, white limestone, broken, ht. 0·13 m., rim d. 0·19 m. PG/800.

U. 10975. Beads: tubular gold beads, l. 0·022 m., with appliqué wire decoration and small plain gold beads. From the Queen's cloak. PG/800. Pl. 130. (P. *CBS.* 17046–63, 17287–95 cover U. 10975–8, U. 10980–1.)

U. 10976. Beads: large double conoids, gold and lapis-lazuli alternately. From the Queen's cloak. PG/800. Pl. 130. (*v.* U. 10975.)

U. 10977. Beads: large agate cylinders with lapis-lazuli balls alternately. From the Queen's cloak. PG/800. Pl. 130. (*v.* U. 10975.)

U. 10978. Beads: gold and lapis-lazuli balls alternating. From the Queen's cloak. PG/800. Pl. 130. (*v.* U. 10975.)

U. 10979. Beads: a garter (found in position on the leg) of flat cylinders of gold and lapis and one carnelian ball (the last may have acted as a suspender-button ?). PG/800. (P.)

U. 10980. Beads: gold and silver double conoids. From the Queen's cloak. PG/800. Pl. 130. (*v.* U. 10975.)

U. 10981. Beads: large carnelian cylinders and date-shaped beads. From the Queen's cloak. PG/800. Pl. 130. (*v.* U. 10975.)

U. 10982. Beads: necklace of very small gold and lapis-lazuli balls, to which was attached a pendant, a gold ring in which a flower-rosette of open work with the petals alternately left clear and filled with lapis inlay. From the Queen's neck. PG/800. Pls. 127–8.

U. 10983. Beads: a 'dog-collar' of gold and lapis-lazuli triangular beads. From the Queen's neck. PG/800. Cf. Pl. 144. (P. *CBS.* 17056.)

U. 10984. Gold pin with flat top engraved with four guilloche coils and straight stem brought to a sharp point in the centre. D. of head 0·012 m., l. of stem 0·02 m. Found, with beads, close to the animal diadem U. 10948 in the tomb-chamber of PG/800. Pl. 138. (L. *BM.* 121372.)

U. 10985. Amulet, lapis-lazuli, l. 0·039 m.; in the form of a bearded bull reclining with head turned to the front in the conventional attitude. It was found by the left shoulder of the Queen and seems to have been suspended on a string on which were 2 large beads, an oblong carnelian and a lapis-lazuli diamond. PG/800. Pl. 143. (P. *CBS.* 16726.)

U. 10987. Cylinder seal, shell, l. 0·024 m., d. 0·016 m. PG/865. Pl. 199. (P. *CBS.* 16895.)

U. 10988. Shell staff-head, mushroom-shaped, the top (d. 0·055 m.) inlaid with an 8-petalled rosette having alternate petals of lapis-lazuli and red limestone, PG/779. Pl. 103. (B. 8234.)

U. 10989. Shell staff-head, mushroom-shaped, d. 0·07 m., inlaid like U. 10988, but broken and imperfect. PG/779. (B. 8235.)

U. 10992. Silver razors, a pair, l. 0·08 m. PG/779.

U. 10995. Stone vase, white calcite, Type 87, ht. 0·195 m., d. 0·13 m. PG/779. (B. 8452.)

U. 10996. Stone vase, white calcite, Type 87, ht. 0·19 m., d. 0·13 m. PG/779. (B. 8413.)

U. 10998. Silver tumbler, Type 43, ht. 0·125 m. C. U. 10857. PG/779. (B. 7924.)

U. 10999. Silver pin, Type 1, l. 0·15 m., with lapis-lazuli ball head capped with gold. PG/779.

U. 11000. Copper pin, Type 7, with lapis-lazuli ball head capped with gold. PG/779. (B. 7825.)

U. 11101. Beads: necklace of gold rings, carnelian double conoids, agate barrels and large flattened double conoid, jasper double conoid and white steatite date-shaped. PG/829. (B. 7794.)

U. 11102. Gold fillets, a pair, worn twined round the locks over the forehead, l. 0·105 m. and

0·095 m., width 0·042 m. and 0·034 m. Also a short length of gold ribbon. PG/829. (B. 7775.)

U. 11104. Cylinder seal, lapis paste, l. 0·021 m., d. 0·01 m. Introduction scene with 1 seated and 2 standing figures. PG/829.

U. 11107. Cylinder seal, mottled grey marble, l. 0·037 m., d. 0·023 m. Inscription of Ezi the scribe. *v.* p. 314. PG/861. Pls. 191, 198. (L. *BM.* 121548.)

U. 11110. Cylinder seal, lapis-lazuli, l. 0·023 m., d. 0·006 m. PG/861. Pl. 192. (P. *CBS.* 16897.)

U. 11112. Cylinder seal, lapis-lazuli, l. 0·021 m., d. 0·015 m. PG/861. Pl. 198. (P. *CBS.* 16880.)

U. 11114. Stone bowl, white calcite, Type 55, ht. 0·05 m., rim d. 0·135 m., base 0·03 m. PG/861. (P. *CBS.* 17157.)

U. 11115. Beads: a necklace of lapis-lazuli cylinders and rings, crystal rings and gold balls. PG/861.

U. 11118. Bone pin, the stem decorated with oblique incisions filled in with black paint, l. 0·11 m. PG/861.

U. 11123. Cylinder seal, lapis-lazuli, l. 0·023 m., d. 0·012 m. PG/859. Pl. 207. (B. 7960.)

U. 11124. Beads: a ribbed carnelian cylinder, very long plain carnelian cylinder, and 2 lapis-lazuli double conoids. PG/859.

U. 11125. Copper pin, Type 1, l. 0·16 m., with carnelian ball head capped with gold. PG/859.

U. 11127. Beads: a triangular gold spacer pierced for 12 strings, and thousands of minute lapis-lazuli balls and barrels forming those strings. PG/851.

U. 11128. Gold bangle, penannular, the ends rolled outwards, hammered to show 3 ribs separated by 2 shallow grooves, d. 0·05 m. PG/851.

U. 11129. Gold ear-ring, solid, with flattened lunate ends, d. 0·021 m. PG/851. (B. 8477.)

U. 11130. Two bands of gold foil for binding on a wooden staff or spear-shaft, width 0·05 m., d. of shaft 0·03 m. PG/851.

U. 11132. Stone bowl, white calcite, in fragments. PG/851.

U. 11136. Cylinder seal, shell, l. 0·038 m., d. 0·021 m. Design much obliterated. Inscribed *a-ni-ta*(?). *v.* p. 314. PG/827. Pls. 191, 208. (B. 13205.)

U. 11139. Copper chisel, Type 2, l. 0·18 m., width of cutting-edge 0·04 m. The shaft inscribed with a single cuneiform sign. PG/839. *v.* p. 309.

U. 11140. Stone vase, white calcite, Type 92, ht. 0·20 m., rim d. 0·08 m., base 0·03 m. Broken and mended in antiquity with bitumen. PG/839. (L. *BM.* 121740.)

U. 11141. Stone vase, white calcite, Type 60, ht. 0·17 m., rim d. 0·075 m., base 0·03 m. PG/839. (P. *CBS.* 17116.)

U. 11143. Cylinder seal, black steatite, l. 0·019 m., d. 0·011 m. roughly engraved. PG/857. Pl. 213. (B. 7858.)

U. 11147. Beads: lapis-lazuli cylinders and carnelian rings, from a head-dress. In the annexe of PG/851. (P. *CBS.* 17632.)

U. 11148. Cylinder seal, shell, l. 0·026 m., d. 0·011 m. PG/834. Pl. 213. (P. *CBS.* 17598.)

U. 11150. Cylinder seal, mottled brown marble, l. 0·033 m., d. 0·022 m. Found loose in the soil. Pl. 209. (B. 14579.)

U. 11153. Beads: necklace of lapis-lazuli and gold date-shaped alternating with sets of 3 small lapis double conoids. PG/779, chamber C. (B. 7795.)

U. 11154. Gold model of ostrich-shell, ht. 0·13 m., d. 0·12 m. Open at the top to make a vase; the rim and base were decorated with encrustation in shell, lapis-lazuli, and red limestone. All the mosaic had fallen off and has been restored, the pattern derived from the better-preserved examples on silver and real shell found in the same grave. PG/779, chamber C. Pl. 170. (P. *CBS.* 16692.)

U. 11155. Silver model of ostrich-shell, natural size, much broken and distorted; the rim and base originally decorated with encrustation in shell, lapis-lazuli, and red limestone. PG/779, chamber C.

U. 11156. Ring of gold, perhaps from a belt, d. 0·039 m. PG/779, chamber C. (B. 8020.)

U. 11157. Beads, 7 large gold double conoids and many of lapis-lazuli, found scattered on the floor. PG/779, chamber C. (B. 7792.)

U. 11158. Gold ear-ring, of normal small lunate type, d. 0·017 m. PG/779, chamber C. (B. 8022.)

U. 11159. Cylinder seal, shell, much decayed, with traces of scene of fighting animals rampant. PG/779, chamber C. (B. 14548.)

U. 11161. Gold cup, of very thin soft gold, Type 117, ht. 0·055 m., d. 0·10 m., base 0·03 m. PG/779, chamber D. Pl. 240. (B. 8246.)

U. 11162. (A) Gaming-board, originally of wood, encased in silver and decorated with engraved shell plaques set between borders of strip lapis-lazuli; broken and imperfect; original width *c.* 0·12 m. Six plaques were found in their setting and 7 loose, of these 11 have animal scenes and 2 rosettes; in the reconstruction the 2 top rows are in the original order, the others uncertain; plaques 0·035 m.×0·032 m. With it were found (B) 9 complete and 1 broken shell plaques engraved with animal scenes; (C) 3 gaming-pieces, disks of black shale set with 5 white dots, d. 0·025 m.; some of the gaming-pieces (B) and (C) were found in chamber B. Also (D), a shell disk (gaming-piece) with blue dots; (E) 8 small lapis-lazuli balls and (F) 23 small shell balls, perhaps counters; (G) 3 lapis dice, solid triangles with inlay dots at two of their corners; (H) 6 square gaming-pieces of black shale set with 5 white spots; (J) 3 slender bone rods, l. 0·065 m., d. 0·004 m., square in section with engraved pattern on one side and concentric circles on the other. All, except some of (B) and (C), found in PG/779, chamber D. *v.* p. 277. Pl. 97. (B. 8204–12.)

U. 11164. The 'Standard of Ur'; mosaic in shell, lapis-lazuli, and red limestone; l. 0·47 m., ht. 0·20 m. PG/779, chamber D. Found by the right shoulder of a man lying in the corner of the chamber. *v.* p. 266. Pls. 90–3. (L. *BM.* 121201.)

U. 11165. Beads: thousands of very small lapis-

lazuli balls found on and under the skull of the man bearing the 'Standard of Ur'. *v.* p. 60. PG/779, chamber D.

U. 11167. Five shell roundels engraved with concentric circles and pierced through the centre. PG/779, chamber A.

U. 11170. Gold binding, 5 pieces, from staves or dagger-handles. PG/779, chamber C. (B. 7793.)

U. 11172. Gold ear-ring, normal small type with slightly lunate ends, d. 0·033 m. PG/779, chamber D. (B. 8021.)

U. 11174. Cylinder seal, shell, l. 0·037 m., d. 0·02 m. Inscription: *e-zi*. *v.* p. 316. PG/779, chamber D. Pls. 191, 198. (B. 14580.)

U. 11175. Cylinder seals: (A) shell, much decayed, with design of fighting animals. The hole through the cylinder is of normal size at one end, but at the other is enlarged and into it is fitted a second cylinder seal (B) of lapis-lazuli, l. 0·017 m., d. 0·01 m. Found in the fallen stone-work of the vault of PG/779, chamber A, and therefore from above the chamber. Pl. 197. (B. 13221–2.)

U. 11176. Cylinder seal, shell, very badly decayed. PG/779, chamber C.

U. 11177. Gold beech-leaf, from a wreath. PG/779, chamber A.

U. 11178. Cylinder seal, shell, l. 0·014 m., completely decayed, but showing traces of a design with an inscription of which only one sign remains 𒀀. PG/779, chamber D. Pl. 197.

U. 11181. Stamp seal, dark steatite, rectangular, 0·14 m.×0·011 m., with handle above. PG/791. Pl. 192. (B. 7854.)

U. 11182. Cylinder seal, black steatite, l. 0·015 m., d. 0·006 m. Roughly engraved. PG/791. Pl. 192. (B. 7855.)

U. 11183. Beads: 1 gold, 1 carnelian, 1 agate, and 1 steatite date-shaped with incised linear design. PG/791. (B. 7856.)

U. 11201. Gold drinking-tube, l. *c.* 0·655 m., d. 0·005 m. Much bent and battered; found in a (decayed) silver bowl. PG/758. (B. 8024.)

U. 11202. Block of white calcite shaped as a brick, 0·29 m.×0·215 m.×0·065 m. PG/758.

U. 11204. Beads: large lapis-lazuli double conoids, 1 crystal ditto, 2 gold rings, 2 carnelian balls, and 1 oolite barrel. PG/826. (B. 7857.)

U. 11205. Beads: necklace of large carnelian cylinders, carnelian and gold rings, and lapis-lazuli diamonds; original order preserved. PG/902.

U. 11206. Gold frontlet, elliptical, 0·095 m.×0·03 m., with holes at the ends for attachment. PG/902. (L. *BM.* 121355.)

U. 11207. Gold ear-ring, 1 only, normal small type with hollow lunate ends. PG/902.

U. 11211. Beads: 1 steatite flattened double conoid, 1 carnelian double conoid black steatite truncated cone with incised markings, 2 carnelian rings, 1 gold ring, 1 grey steatite square tube. PG/904. (P. *CBS.* 17599.)

U. 11214. Silver paint-box, oval, with 2 nearly semicircular compartments separated by a straight partition, Type 109; remains of black paint in one compartment; on either side are minute perforated lugs for suspension. 0·035 m.×0·025 m. PG/845. (P. *CBS.* 16969.)

U. 11215. Beads: necklace of 2 strings consisting of 110 carnelian double conoids, 50 carnelian ring and discoid beads, 47 tubular gold beads, 68 lapis-lazuli, 1 rectangular agate with convex faces. PG/911. (B. 7756.)

U. 11219. Gold ring, consisting of 6 coils of wire, d. 0·015 m. PG/866. (L. *BM.* 121369.)

U. 11222. Shell plaque, half of, in silhouette, a half-human monster fighting a bull. Apparently belonging to PG/800. Pl. 100. (P. *CBS.* 16745.)

U. 11228. Stone bowl miniature, Type 19, ht. 0·025 m., d. 0·06 m. Found loose in the soil. (P.)

U. 11229. Stone bowl, grey steatite, Type 55, ht. 0·06 m., rim d. 0·162 m., base 0·044 m. Carinated rim below which 4 bands of incised triangles and one of incised diamonds. Found loose in the upper soil.

U. 11230. Head-dress, consisting of (A) gold hair-ribbon, (B) wreath of gold beech-leaf pendants on double string of lapis-lazuli cylinders and carnelian rings, (C) large lunate gold ear-rings, (D) silver 'comb' ornament with flower finials, the petals inlaid with gold, shell, and lapis-lazuli, (E) 2 silver pins, Type 7, with lapis ball heads, (F) necklace of fluted lapis ball beads, (G) necklace of gold and lapis triangles, (H) necklace of alternate lapis and silver double conoids, (I) frontlet of 7 rows of beads, gold and lapis cylinders and carnelian rings, (J) miniature vase of light drab clay. PG/760. (B. 7827, 7936–44, 7968.)

U. 11401. Cylinder seal, pinkish grey steatite, l. 0·034 m., d. 0·018 m. Found loose in the surface soil. Pl. 200. (P. 30. 12. 23.)

U. 11402. Cylinder seal, lapis-lazuli, l. 0·027 m., d. 0·009 m. Found loose in the upper soil. Pl. 210. (B. 14308.)

U. 11403. Cylinder seal, black steatite, l. 0·027 m., d. 0·014 m. Found loose in the surface soil. Pl. 216.

U. 11404. Cylinder seal, shell, l. 0·028 m., d. 0·017 m. Carinated; much decayed. Found loose in the surface soil. Pl. 216. (B. 14547.)

U. 11405. Cylinder seal, shell, 0·021 m., d. 0·012 m. Found loose in the surface soil. Pl. 210. (P. 30. 12. 39.)

U. 11406. Gold ear-ring, normal small type with lunate ends. Found loose in the upper soil. (B. 7342.)

U. 11410. Cylinder seal, black steatite, l. 0·027 m., d. 0·014 m. PG/963. Pl. 213.

U. 11411. Beads: gold, carnelian, lapis-lazuli, agate, and paste, a necklace re-strung in the original order. PG/963. (B. 14591.) (P. 30. 12. 580.)

U. 11412. Beads: 1 carnelian cylinder, 1 long limestone date-shaped, 1 red-and-white breccia; found tied round the left upper arm. PG/963.

U. 11414. A collection of stones, carnelian, lapis-lazuli, &c., unworked, with one unfinished lapis bead, stone implements, and remains of copper. Clearly the outfit of a local bead-maker. *v.* pp. 206–7, Fig. 67. PG/958.

U. 11415. Cylinder seal, grey steatite, broken and defaced. PG/960. (P. 3. 12. 48.)

U. 11417. Beads: lapis-lazuli, carnelian, and jasper. Re-strung in the original order. PG/968. (B. 7445.)

U. 11418. Cylinder seal, green jasper, l. 0·03 m., d. 0·02 m. Inscription of Ur-Gilgames the scribe, son of Ur-KA-DI. *v.* p. 316. PG/968. Pls. 191, 212. (P. 30. 12. 29.)

U. 11420. Cylinder seal, mottled steatite, l. 0·035 m., d. 0·022 m. PG/974. Pl. 214. (B. 13204.)

U. 11422. Gold frontlet, oval of thin sheet metal, 0·12 m. × 0·033 m. PG/965. (B. 7347.)

U. 11423. Gold ear-ring, 1 only, normal small type with lunate ends. PG/965. (B. 7348.)

U. 11426. Cylinder seal, black steatite, l. 0·016 m., d. 0·009 m. PG/973. Pl. 214.

U. 11427. Beads: necklace of carnelian, lapis-lazuli, silver, jasper, and glass. Re-strung mostly in original order. PG/973. (L. *BM.* 122494.)

U. 11428. Cylinder seal, shell, completely decayed. PG/964. (P. 30. 12. 51.)

U. 11438. Cylinder seal, lapis-lazuli, l. 0·016 m., d. 0·08 m. Found loose in the soil. Pl. 210.

U. 11439. Cylinder seal, of brown baked clay, l. 0·027 m., d. *c.* 0·014 m. Rough design of two hunters fighting animals. It was attached to a plain copper pin. PG/979. (B. 7511, 11107, 14566.)

U. 11440. Cylinder seal, shell, l. 0·024 m., d. 0·017 m. Scene of fighting animals, completely decayed on one side. It was attached by a string to a copper pin. PG/998. (B. 7512.)

U. 11441. Group: consisting of a length of narrow gold hair-ribbon wound spirally round a lock of hair; and 7 beads of agate, carnelian, steatite, shell, lapis-lazuli (2), and paste. PG/1002.

U. 11442. Cylinder seal, lapis-lazuli, l. 0·017 m., d. 0·008 m. Inscription of Qišum the cup-bearer (?). *v.* p. 314. PG/991. Pls. 191, 214. (L. *BM.* 122575.)

U. 11443. Cylinder seal, shell, much decayed, with inscription *sag-^{d}utu*, *v.* p. 315. PG/991. Pl. 191. (P. 30. 12. 49.)

U. 11444. Beads: a few small beads of lapis-lazuli, carnelian, and shell. PG/991. (B. 7579.)

U. 11447. Cylinder seal, grey slaty stone, l. 0·024 m., d. 0·014 m. PG/985. Pl. 214.

U. 11448. Cylinder seal, dark grey steatite, l. 0·019 m., d. 0·009 m. PG/1001. Pl. 212. (P. 30. 12. 22.)

U. 11449. Stamp seal, square with tubular handle, 0·024 m. sq. PG/985. Pl. 214. (B. 14303.)

U. 11450. Beads: small, lapis-lazuli, silver, and carnelian, and 1 of gold over bitumen. PG/985. (P. 30. 12. 496.)

U. 11451. Beads: necklace of small silver, lapis-lazuli, and carnelian. Re-strung in the original order. PG/989. (B. 7585.)

U. 11452. Cylinder seal, of red baked clay covered with white slip, in poor condition, with inscription of *en-^{d}utu*, *v.* p. 314. It was attached to a copper pin. With it were a few silver and lapis-lazuli beads of mixed types, silver hair-rings, &c. PG/986. Pls. 191, 214. (B. 7588–91.) (P. 30. 12. 367.)

U. 11456. Cylinder seal, black-and-white breccia, l. 0·036 m., d. 0·023 m. Inscription (?). *v.* p. 315. PG/1002. Pls. 191, 208. (B. 14581.)

U. 11457. Cylinder seal, green stone, l. 0·028 m., d. 0·02 m. Inscription of Adda, a door-keeper. *v.* p. 315. PG/1003. Pls. 191, 213. (L. *BM.* 122545.)

U. 11458. Cylinder seal, lapis-lazuli with gold caps, l. 0·023 m., d. 0·01 m. PG/1003. Pl. 214. (B. 11090.)

U. 11462. Cylinder seal, dark steatite, l. 0·02 m., d. 0·011 m. It was apparently fastened to a copper pin. PG/1021. Pl. 210. (L. *BM.* 122569, 123688.)

U. 11464. Cylinder seal, lapis-lazuli, l. 0·013 m., d. 0·008 m. PG/1012. Pl. 214. (B. 11106.)

U. 11465. Ear-rings, a pair, spirally coiled rings of copper with lunate ends, normal type, d. 0·017 m., to each of which is attached a smaller but similar gold ring d. 0·009 m. Cf. Pl. 219. PG/1012.

U. 11466. Beads: lapis-lazuli diamonds and cylinders with cylinders of gold foil over copper, the latter all decayed. PG/1012. (P. 30. 12. 508.)

U. 11468. Beads: necklace of lapis-lazuli and carnelian cylinders and double conoids, with a few of silver (decayed) and a lapis cylinder with criss-cross incised pattern; also a string of small paste and lapis rings with a lapis frog amulet. PG/1006. (L. *BM.* 122509.) (P. 30. 12. 630.)

U. 11469. Stone vase, white limestone, Type 84, ht. 0·19 m., rim d. 0·13 m. PG/1019. (P. 30. 12. 98.)

U. 11472. Beads: small silver and glazed frit beads with 1 triangular spacer of steatite. PG/1016. (P.)

U. 11473. Cylinder seal, rock crystal, l. 0·032 m., d. 0·02 m. Unfinished; the design has been roughly ground out, but the heads have not been put in and there is no real engraving; the cylinder has been bored and in the bore-hole are worked ridges to take coloured paste. Found loose in the soil. Pl. 210.

U. 11476. Cylinder seal, dark grey steatite, l. 0·026 m., d. 0·019 m. PG/1035. Pl. 206. (L. *BM.* 122555.)

U. 11477. Beads: necklace of cylinders and date-shaped beads of lapis-lazuli and carnelian with a few balls of dark wood (ebony?), most of which were in powder. Re-strung in the original order. PG/1040. (P. 30. 12. 465.)

U. 11480. Cylinder seal, lapis-lazuli. Found inside two hair-rings of coiled silver wire. PG/1041. (B. 8176.)

U. 11483. Cylinder seal, green stone, l. 0·023 m., d. 0·014 m. PG/1028. Pl. 213. (P. 30. 12. 27.)

U. 11485. Beads: small lapis-lazuli and carnelian balls and date-shaped and 1 long shell cylinder. PG/1038. (B. 7759.)

U. 11487. Stone bowl, white calcite, Type 66, ht. 0·08 m., rim d. 0·13 m. Broken and riveted in antiquity; it had been covered with matting of which the imprint remained on the bowl. PG/1027. (P. 30. 12. 76.)

U. 11488. Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·009 m. PG/1027. Pl. 203. (B. 14312.)

U. 11489. Beads: small lapis-lazuli balls. PG/1027. (P. 30. 12. 586, 628.)

U. 11490. Cylinder seal, shell, much decayed. It was attached to a plain copper pin. PG/1015. Pl. 202. (P. 30. 12. 50.)

U. 11491. Beads: small carnelian rings and cylinders and small lapis-lazuli ball and double conoid beads. PG/1030. (P. 30. 12. 501.)

U. 11492. Cylinder seal, green stone, l. 0·042 m., d. 0·029 m. PG/1045. Pl. 213. (P. 30. 12. 25.)

U. 11493. Beads: small diamonds of silver and lapis lazuli. PG/1045. (L. *BM.* 123676.)

U. 11496. Cylinder seal, black-and-white breccia, l. 0·034 m., d. 0·02 m. PG/1046. Pl. 208.

U. 11497. Stone vase, white calcite, Type 86, ht. 0·13 m., rim d. 0·08 m. PG/1043. (B. 8447.)

U. 11498. Stone bowl, white limestone, Type 19, ht. 0·06 m., rim d. 0·18 m., base 0·09 m. PG/1043. (L. *BM.* 123712.)

U. 11499. Cylinder seal, lapis-lazuli, l. 0·017 m., d. 0·006 m. PG/1043. Pl. 204. (B. 11099.)

U. 11500. Gold ear-rings, a pair, normal small type with lunate ends. PG/1043. (B. 7728.)

U. 11501. Beads: small silver, lapis-lazuli, and carnelian. Re-strung in the original order. PG/1043. (B. 7457.)

U. 11504. Shell plaque, engraved with animal scene. Found loose in the soil. (L. *BM.* 122250.)

U. 11506. Flint arrow-head, found loose in the soil above PG/1051.

U. 11507. Cylinder seal, green marble(?), unfinished, l. 0·032 m., d. 0·018 m. Ur surface soil. Pl. 216.

U. 11509. Cylinder seal, grey steatite, l. 0·028 m., d. 0·011 m. Very crudely engraved. Found loose in the soil. Pl. 200. (L. *BM.* 122566.)

U. 11510. Stone vase, white calcite, Type 87, ht. 0·265 m., rim d. 0·135 m., base 0·06 m. PG/1054. (B. 8479.)

U. 11511. Stone vase, white calcite, Type 91, ht. 0·19 m., rim d. 0·125 m., base 0·075 m. PG/1054. (B. 8480.)

U. 11512. Gold dagger-blade, with gold hilt-guard and gold nails from the pommel: blade l. 0·235 m., Type 3; the hilt was of wood, completely perished, with the end studded with gold nails. PG/1054. *v.* p. 98. Pl. 157. (B. 8260.)

U. 11513. Gold dagger-blade, with gold hilt-guard and gold nails from the pommel; blade l. 0·205 m., Type 3; the hilt was of wood, completely perished, the end studded with minute gold nails, total l. 0·262 m. PG/1054. *v.* p. 98. Pl. 157. (P. 30. 12. 550.)

U. 11514. Beads: 2 ribbed gold balls, lapis-lazuli date-shaped and double conoids and rings and 1 cylinder of carnelian. PG/1059. (L. *BM.* 122491.)

U. 11515. Cylinder seal, dark grey steatite, l. 0·021 m., d. 0·012 m. PG/1058. Pl. 210. (L. *BM.* 122563.)

U. 11516. Cylinder seal, copper, l. 0·022 m., d. 0·011 m. Design illegible. PG/1060. (L. *BM.* 122552.)

U. 11518. Stone bowl, white limestone, Type 43, ht. 0·075 m., d. 0·10 m. PG/1060. (L. *BM.* 123704.)

U. 11519. Stone vase, white calcite, Type 2, ht. 0·155 m., d. 0·07 m. PG/1066. (B. 8481.)

U. 11520. Beads: lapis-lazuli and carnelian, mixed. PG/1066. (L. *BM.* 122496.)

U. 11521. Gold frontlet, oval, with a row of punctured dots round the edge and holes at the ends for attachment; also beads, small lapis-lazuli balls, and a string of gold and carnelian cylinders with lapis balls re-strung in the original order; also a string-sealing of bitumen with seal-impression. PG/1065. (B. 7328–30.)

U. 11522. Beads: three, long double conoids, two of lapis-lazuli and one of gold, probably from a *brim.* PG/1061. (B. 7435.)

U. 11528. Cylinder seal, shell, l. 0·035 m., d. 0·016 m. Much decayed. PG/1054. Pl. 195. (P. 30. 12. 8.)

U. 11529. Stone vase, white calcite, Type 3, ht. 0·09 m., d. 0·08 m. PG/1070. (P.)

U. 11530. Stone vase, white limestone, Type 54, ht. 0·035 m., d. 0·06 m. PG/1070. (P. 30. 12. 75.)

U. 11531. Beads: carnelian, lapis-lazuli, and chrysoprase re-strung in the original order. PG/1070. (P. 30. 12. 451.)

U. 11533. Cylinder seal, shell, l. 0·036 m., d. 0·024 m. PG/1079. Pl. 203. (P. 30. 12. 24.)

U. 11534. Gold hair-rings, a pair, normal spiral coils, d. 0·035 m. PG/1075. (B. 7287.)

U. 11535. Beads: small balls of gold, silver, lapis-lazuli, and carnelian, and 4 carnelian and 2 silver large diamonds. Re-strung in the original order. PG/1075. (B. 7416.)

U. 11536. Copper pin, Type 1, l. 0·185 m., with lapis-lazuli ball head set in gold caps. PG/1075. (B. 7413.)

U. 11537. Stone bowl, limestone, Type 41, ht. 0·06 m., d. 0·09 m., base 0·03 m. Broken and imperfect. PG/1075.

U. 11541. Stone vase, white calcite, Type 60, ht. 0·21 m., rim d. 0·10 m. PG/1069. (B. 8443.)

U. 11542. Stone bowl, dark steatite, Type 43, ht. 0·115 m., rim d. 0·26 m., base 0·09 m. Two slight ridges make elementary lugs at the sides. PG/1069.

U. 11543. Stone bowl, white calcite, Type 96, ht. 0·047 m., l. 0·125 m., width 0·07 m. In poor condition. PG/1068. (B. 8261.)

U. 11544. Stone bowl, white calcite, Type 99, ht. 0·105 m., l. 0·125 m., width 0·08 m. Much decayed. PG/1068. (B. 8262.)

U. 11545. Stone bowl, grey steatite, Type 51, ht. 0·11 m., rim d. 0·185 m., base 0·06 m. PG/1068. (B. 8485.)

U. 11546. Stone bowl, grey steatite, Type 50, ht. 0·08 m., rim d. 0·18 m., base 0·06 m. PG/1068. (B. 8433.)

U. 11547. Stone vase, white calcite, Type 60, ht. 0·21 m., rim d. 0·10 m., base 0·06 m. PG/1068. (B. 8444.)

U. 11548. Stone vase, white calcite, Type 86, ht.

0·14 m., rim d. 0·09 m., base 0·04 m. PG/1068. (B. 8423.)

U. 11549. Stone bowl, grey steatite, Type 50, ht. 0·08 m., rim d. 0·17 m., base 0·06 m. PG/1068. (P. 30. 12. 81.)

U. 11550. Group of silver vessels, fixed together by the corrosion of the metal; all are miniature examples of familiar types; three are of Type 7, oval bowls with gold tubular sockets for wire handles, sizes (A) 0·09 m.×0·06 m., ht. 0·04 m.; (B) 0·075 m.×0·04 m., ht. 0·035 m.; (C) 0·07 m.× 0·05 m., ht. 0·035 m.; and the fourth is of Type 42, a tumbler, ht. 0·09 m., rim d. 0·05 m., base 0·025 m. PG/1068. (B. 8253.)

U. 11551. Gold cup, a miniature example, ht. 0·04 m., d. 0·053 m.×0·043 m., of the large copper Type 16, with a square base developing into a circular or oval body. Slightly crushed. PG/1068. Pl. 165. (B. 8254.)

U. 11552. Gold pin, Type 1, l. 0·11 m., with lapis-lazuli ball head set in gold caps. PG/1068. (B. 8333.)

U. 11553. Gold pin, Type 1, miniature, with fluted lapis-lazuli ball head. PG/1068. (B. 8334.)

U. 11554. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·011 m. PG/1068. Pl. 198. (B. 7566.)

U. 11555. Gold hair-rings, a pair, each of 3 spiral coils of thick gold wire; d. 0·03 m. PG/1068.

U. 11556. Gold finger-ring, of 3 strands of cable pattern made out of twisted wire, d. 0·022 m. PG/1068. (B. 7532.)

U. 11557. Wreath of very small gold 'beech-leaf' pendants on strings of minute lapis-lazuli ball beads. PG/1068. (B. 7533.)

U. 11558. Wreath of very small gold ring pendants hung from 3 rows of minute lapis-lazuli and carnelian beads. PG/1068. Pl. 135. (B. 7534.)

U. 11559. Wreath of pear-shaped pendants of gold, lapis-lazuli, and carnelian strung on rows of minute lapis, carnelian, and gold ball beads kept in position by spacers. PG/1068.

U. 11560. Beads: a belt formed of gold, lapis-lazuli, carnelian, and shell cylinders. PG/1068.

U. 11561. Beads: necklace of small carnelian balls. PG/1068.

U. 11562–3. Gold, lapis-lazuli, carnelian, and agate beads, mixed. PG/1068. (B. 7535, 7634.) (L. *BM.* 122445.)

U. 11564. Three disks of green pigment, and part of a fourth, d. 0·045 m. Found in the soil by PG/1068 and probably belonging to the grave. (P. 30. 12. 539.)

U. 11565. Cylinder seal, shell, l. 0·043 m., d. 0·027 m. PG/1081. Pl. 204. (L. *BM.* 122537.)

U. 11566. Cylinder seal, black steatite, l. 0·044 m., d. 0·011 m. PG/1081. Pl. 203. (P. 30. 12. 14.)

U. 11567. Stone vase, white limestone, Type 60, ht. 0·20 m., rim d. 0·09 m. PG/1054. (B. 8445.)

U. 11568. Stone bowl, dark grey steatite, Type 50, ht. 0·16 m., rim d. 0·28 m., base 0·11 m. PG/1054. (P. 30. 12. 94.)

U. 11576. Head-dress, man's: 3 large faceted date-shaped beads, 1 silver and 2 lapis-lazuli, from a *brîm*; also a single ear-ring of gold and copper, a normal type of copper ear-ring with lunate ends, d. 0·028 m., inside which a smaller but similar gold ring d. 0·016 m. which hung down from the former. PG/1087. (L. *BM.* 122235.)

U. 11577. Gold ear-rings, a pair, normal small type with flat lunate ends, d. 0·01 m. PG/1094. (L. *BM.* 122229–30.)

U. 11579. Beads: gold and silver balls, very small; silver diamonds, agate date-shaped, 1 long carnelian cylinder, 1 large agate two-eyed pendant. PG/1094. (B. 7434.)

U. 11580. Cylinder seal, lapis-lazuli, l. 0·026 m., d. 0·008 m. PG/1094. Pl. 213. (L. *BM.* 122570.)

U. 11581. Cylinder seal, lapis-lazuli with gold caps, l. 0·015 m., d. 0·008 m. PG/1094. Pl. 212.

U. 11582. Cylinder seal, dark brown mottled steatite, l. 0·03 m., d. 0·021 m. PG/1086. Pl. 206. (B. 14313.)

U. 11584. Gold ear-ring, one only; from a spiral ring with lunate ends hangs a second ring decorated with appliqué spirals and striated lines and a pendant 'fringe' with bar-and-dot ornament. PG/1100. Pls. 138, 219. (B. 8256, 9607.)

U. 11585. Beads: ball beads and very slender tubes of gold, lapis-lazuli, and carnelian, one of the last having bleached decoration. Re-strung in the original order. PG/1100. (B. 7436.)

U. 11586. Box, or palette, of white calcite, square (0·16 m.×0·15 m.; ht. 0·09 m.), having in its upper surface 4 holes rectangular above and rounded below. PG/1100. (P. 30. 12. 697.)

U. 11587. Stone vase, white calcite, Type 90, ht. 0·12 m., rim d. 0·065 m. PG/1100. (P. 30. 12. 84.)

U. 11588. Stone vase, white calcite, Type 91, ht. 0·13 m., rim d. 0·10 m. PG/1100.

U. 11589. Stone bowl, white calcite, Type 24, ht. 0·055 m., rim d. 0·165 m., base 0·135 m. PG/1100. Pl. 176. (L. *BM.* 123706.)

U. 11590. Cylinder seal, lapis-lazuli, l. 0·018 m., d. 0·011 m. With inscription of Lugal-ša(g)-sir. *v.* p. 315. PG/1092. Pls. 191, 212. (P. 30. 12. 34.)

U. 11591. Cylinder seal, dark steatite, l. 0·025 m., d. 0·013 m. PG/1092. Pl. 213. (L. *BM.* 122562.)

U. 11592. Cylinder seal, lapis-lazuli, l. 0·013 m., d. 0·009 m. PG/1095. Pl. 214. (L. *BM.* 122574.)

U. 11593. Beads: steatite and silver diamonds. PG/1095.

U. 11594. Gold frontlet, normal oval type, 0·115 m. ×0·035 m. With it 2 copper ball beads and a long carnelian cylinder. PG/1089. (B. 7338–41.)

U. 11595. Two wooden combs; cf. Pl. 219. PG/1089. (P. 30. 12. 439.)

U. 11596. Cylinder seal, black steatite, l. 0·021 m., d. 0·014 m. Inscription: *en-an-ki-da. v.* p. 315. PG/1084. Pls. 191, 214. (L. *BM.* 122564.)

U. 11597. Conch shell cut as a lamp with the head of a bird carved above the opening, the eye inlaid with lapis-lazuli. PG/1076. Cf. Pl. 102. (B.)

U. 11598. Cylinder seal, lapis-lazuli, l. 0·017 m., d. 0·011 m. With it a few copper and lapis beads. PG/1067. Pl. 213. (P. 30. 12. 35.)

U. 11600. Cylinder seal, shell, l. 0·028 m., d. 0·007 m. Geometric pattern. PG/1083. Pl. 202.

U. 11604. Cylinder seal, steatite, l. 0·02 m., d. 0·01 m. Inscription. *v.* p. 316. Found loose in the soil. Pls. 191, 216. (B. 11103.)

U. 11631. Clay pot, ht. 0·07 m.; with incised sign. *v.* p. 317. Found at a depth of 2·20 m. close to PG/1051. Fig. 69.

U. 11632. Clay jar-sealing with seal-impression. Found loose in the soil.

U. 11670. Cylinder seal, shell, l. 0·025 m., d. 0·012 m. Inscription. Found loose in the soil at depth of 2·00 m. *v.* p. 315. Pls. 191, 216. (P.)

U. 11671. Cylinder seal, steatite, l. 0·021 m., d. 0·011 m. Inscription. Found loose in the soil at depth of *c.* 2·00 m. Pls. 191, 216. (B. 14539.)

U. 11675. Calcite bowl, fragment of, bearing part of an inscription by a king of Ur, possibly Mes-ki-ag-nun of the Ist Dynasty. *v.* p. 321. Found loose in the upper soil. *v.* p. 222, n. 1. (L. *BM.* 122255.)

U. 11678. Mace-head, gypsum, ht. 0·12 m., pear-shaped, decorated with carvings in relief; on the top, a lion devouring a bull (?), round the sides bearded bulls reclining; inscription, much defaced, with dedication to Shamash. *v.* p. 321. Found loose in the upper soil. Pl. 183. (B. 8997.)

U. 11684. Clay jar-sealing with seal-impression showing design of bulls and the name of a scribe in the service of the daughter of Sargon of Akkad. *v.* p. 311. Found loose in the upper soil. Pls. 191, 212. (L. *BM.* 123668.)

U. 11702. Beads: bracelet of lapis-lazuli and carnelian cylinders and date-shaped beads. PG/1088.

U. 11705. Stone vase, white calcite, Type 58, ht. 0·075 m., rim d. 0·10 m., base 0·02 m. Broken and distorted. PG/1082. (B. 8431.)

U. 11706. Gold finger-ring, of plain wire, d. 0·02 m. PG/1082. (B. 7454.)

U. 11709. Cylinder seal, dark steatite, l. 0·027 m., d. 0·016 m. PG/1110. Pl. 214.

U. 11710. Beads: lapis-lazuli double conoids. PG/1111. (B. 7394–6.)

U. 11711. Stone vase, white calcite, Type 61, ht. 0·085 m., rim d. 0·06 m. PG/1109. (L. *BM.* 123728.)

U. 11713. Beads: small gold and lapis-lazuli date-shaped with a gold pendant formed of 2 spiral coils of thin wire. PG/1109. (L. *BM.* 122431.)

U. 11714. Beads: small lapis-lazuli date-shaped. PG/1108. (L. *BM.* 122497.)

U. 11715. Cylinder seal, shell, l. 0·037 m., d. 0·02 m. Much decayed. PG/1105. Pl. 212. (L. *BM.* 122543.)

U. 11716. Stone bowl, white limestone, Type 48, ht. 0·04 m., d. 0·11 m.; with notched rim. PG/1104. (P. 30. 12. 91.)

U. 11717. Beads: silver, lapis-lazuli, and carnelian date-shaped, long slender gold double conoids and carnelian rings. Re-strung in the original order. PG/1104. (L. *BM.* 122434.)

U. 11718. Beads: lapis-lazuli double conoids and 2 of carnelian. PG/1103. (B. 7459.)

U. 11720. Beads: lapis-lazuli date-shaped and double conoids. PG/1097. (B. 7801.)

U. 11723. Copper reticule of unusual type, made of 4 slender copper tubes fastened together by narrow copper bands and ending in a ball-base. A pick and a slender pair of tweezers were found adhering to the outside of the case. A number of small shell balls were found by the top of the tubes. PG/1055. Pl. 226. (L. *BM.* 122601–6.)

U. 11724. Copper tools, all corroded together, cf. U. 16926, Pl. 230, and p. 310; and with them a whetstone, a flat and roughly circular pebble, drilled for suspension and inscribed ⩔. PG/1077. (B. 8134.) (L. *BM.* 123694.)

U. 11725. Cylinder seal, shell, l. 0·021 m., d. 0·013 m. Inscription. *v.* p. 315. PG/1118. Pls. 191, 206. (P. 30. 12. 40.)

U. 11726. Gold pin, Type 1, l. 0·185 m.; with plain lapis-lazuli ball head capped with gold. PG/1116. (B. 8319.)

U. 11727. Gold hair-ring, a spiral coil of gold wire, d. 0·028 m. PG/1116.

U. 11728. Beads: a necklace formed of 17 gold tubular beads with filigree decoration (cf. Pl. 132), 16 plain gold date-shaped, 34 lapis-lazuli ditto, 1 large fluted gold ball, 2 lapis ditto, and a number of very small carnelian rings. Re-strung in the original order. PG/1116. (P. 30. 12. 561.)

U. 11729. Beads: necklace of lapis-lazuli date-shaped with 1 silver, 1 copper, and 1 carnelian bead. PG/1115. (B. 7460.)

U. 11730. Stone bowl, dark steatite, Type 26, ht. 0·06 m., rim d. 0·11 m., base 0·11 m. PG/1054, C. (B. 8469.)

U. 11731. Stone vase, white calcite, Type 92, ht. 0·19 m., d. 0·06 m. PG/1054. (L. *BM.* 123724.)

U. 11732. Stone vase, white calcite, Type 60, ht. 0·165 m., rim d. 0·085 m. PG/1054, C. (B. 8446.)

U. 11733. Stone bowl, dark steatite, Type 50, ht. 0·115 m., d. 0·25 m. PG/1054, C. (L. *BM.* 123698.)

U. 11734. Cylinder seal, lapis-lazuli, l. 0·036 m., d. 0·023 m. PG/1054, C. Pl. 192. (B. 14314.)

U. 11735. Gold fillet, plain ribbon 0·365 m. long and 0·006 m. wide, with a hole at each end for fastening. PG/1054, C. (L. *BM.* 122245.)

U. 11736. Gold hair-rings, each of 2 spiral hoops, d. 0·022 m. PG/1054, C. (L. *BM.* 122219.)

U. 11742. Wreath of gold ring pendants strung on 3 rows of small beads, a carnelian cylinder and 2 lapis-lazuli balls between each pair of pendants. PG/1054, C. (L. *BM.* 122428.)

U. 11743. Beads: very long carnelian cylinders separated by gold fluted balls. PG/1054, C. (L. *BM.* 122453–62.)

U. 11744. Beads: necklace of 3 rows of minute balls, gold, lapis-lazuli, and carnelian, with gold spacers. PG/1054, C. (L. *BM.* 122448, 122463.) (P. 30. 12. 629, 640, 642.)

U. 11745. Cylinder seal, black steatite, l. 0·027 m., d. 0·017 m. Found loose in the soil at depth of *c.* 5·00 m. Pl. 209. (B. 14592.)

U. 11751. Cylinder seal, shell, l. 0·049 m., d. 0·03 m. The ends are inlaid with pierced disks of lapis-

lazuli. The shell is badly decayed, but shows an inscription of Mes-kalam-dug *lugal*. *v.* p. 316. Found in a box with the two gold daggers. *v.* p. 98. PG/1054. Pls. 191, 196. (L. *BM.* 122536.)

U. 11752. Stone vase, white calcite, Type 85, ht. 0·13 m., rim d. 0·06 m. PG/1129. (L. *BM.* 123726.)

U. 11753. Stone bowl, white calcite, Type 19, ht. 0·02 m., d. 0·042 m. PG/1129. (B. 8402.)

U. 11754. Copper scimitar, lunate, with design chisel-hammered on both sides after casting. Unusual type. *v.* p. 306. Found loose in the soil at a depth of *c.* 5·10 m. Pl. 224. (P. 30. 12. 563.)

U. 11757. Cylinder seal, lapis-lazuli, l. 0·041 m., d. 0·01 m. Slightly carinated. Found loose in the soil at a depth of *c.* 5·00 m. Pl. 199. (P. 30. 12. 13.)

U. 11758. Stone bowl, white calcite, Type 56, ht. 0·015 m., d. 0·095 m. PG/1126. (B. 8392.)

U. 11759. Stone bowl, white calcite, Type 56, d. 0·17 m.; warped and broken. PG/1121.

U. 11760. Stone vase, white calcite, Type 85, ht. 0·23 m., d. 0·10 m. PG/1050, B. (P. 30. 12. 68.)

U. 11761. Stone vase, white calcite, Type 87, ht. 0·22 m., rim d. 0·11 m. PG/1050, B. (B. 8442.)

U. 11762. Stone vase, white calcite, Type 92, ht. 0·22 m., d. 0·07 m. PG/1050, B. (B. 8441.)

U. 11765. Stone bowl, dark greenish-grey stone, Type 22, ht. 0·04 m., d. 0·12 m. Found loose in the soil.

U. 11767. Gold ear-rings, a pair; each consists of a spiral ring of thick wire, d. 0·033 m., with a similar but smaller ring, d. 0·029 m., inside it. The type is that of the hair-ring, but these were lying directly against the ears. PG/1130. (B. 7762.)

U. 11768. Gold finger-rings, 2, 1 with plain edges and bands of cable-pattern between, 1 a single hoop of twisted gold wire. PG/1130. (B. 7761.)

U. 11769. Beads: a 'dog-collar' of gold and lapis-lazuli triangular beads. PG/1131.

U. 11770. Wreath of 13 gold ring pendants strung on strings of small lapis-lazuli cylinders and carnelian rings. PG/1130.

U. 11771. Gold fillet, a ribbon plain except for a border of punctured dots, l. 0·35 m., width 0·025 m. PG/1130.

U. 11772. Gold fillet, a ribbon plain except for a border of punctured dots, l. 0·35 m., width 0·03 m. PG/1131. (B. 7760.)

U. 11773. Cylinder seal, lapis-lazuli, l. 0·038 m., d. 0·013 m. PG/1130. Pl. 195. (B. 7745.)

U. 11774. Cylinder seal, lapis-lazuli, l. 0·04 m., d. 0·013 m. PG/1130. Pl. 194. (B. 7746.)

U. 11775. Copper pin, Type 1, l. 0·205 m., with lapis-lazuli ball head fluted and capped with gold. PG/1130. (B. 7766.)

U. 11776. Gold diadem consisting of a ground of gold and silver tubular beads on which hang figures of two seated gold bulls and bunches of gold and silver, &c., leaves and fruit. *v.* p. 165. PG/1130. Pl. 142.

U. 11778. Silver rings (20) and lapis-lazuli buttons (26), d. 0·01–0·02 m., worn at the waist either on a belt or as fringe to a short jacket; the belt is the more likely. PG/1130. *v.* p. 166. (B. 7487.)

U. 11779. Beads: flat rectangular beads of gold and lapis-lazuli strung alternately; found at the waist. PG/1130.

U. 11780. Beads: mixed gold, lapis, and carnelian beads from PG/1130.

U. 11781. Harp, fragments of: inlay from the sounding-box, silver band from the foot of the upright beam, 15 copper nails which served as keys in the beam, the silver mushroom-shaped cap of the upright. All clearly belonged to a harp resembling that of Queen Shub-ad. *v.* p. 167, Fig. 43. PG/1130. (L. *BM.* 123675.)

U. 11782. Ostrich egg, cut open to form a vase and with a pottery rim and foot added to it; the flat rim, the clay neck, and foot were all decorated with encrustation in mother-of-pearl and red paste set in bitumen. Found broken and in very bad condition and not yet restored. PG/1130.

U. 11784. Stone vase, white calcite, Type 78, ht. 0·10 m., rim d. 0·065 m. PG/1130. (L. *BM.* 123727.)

U. 11785. Stone vase, white calcite, Type 3, ht. 0·20 m., rim d. 0·13 m., base 0·12 m. PG/1130. (P. 30. 12. 698.)

U. 11786. Stone vase, white calcite, Type 61, ht. 0·13 m., rim d. 0·075 m., base 0·035 m. PG/1130. Pl. 176. (L. *BM.* 123719.)

U. 11787. Stone vase, white calcite, Type 61, ht. 0·14 m., rim d. 0·085 m., base 0·04 m. PG/1130. (P. 30. 12. 71.)

U. 11789. Stone bowl, veined calcite, Type 14, ht. 0·11 m., rim d. 0·145 m., base 0·115 m. PG/1130.

U. 11790. Stone bowl, veined calcite, Type 14, d. 0·255 m. Fragmentary. PG/1130.

U. 11794. Silver bowl, fragment of, decorated with a design of repoussé work finished off by chasing; a procession of mountain goats (in high relief) advancing over hilly country (conventional mountain pattern chased). The cup stood 0·06 m. high and had a rim d. of *c.* 0·12 m.; base 0·035 m. *v.* p. 297. PG/1130. Pls. 167, 217. (B. 7995.)

U. 11795. Lamp of translucent white calcite, of the normal form derived from a cut shell, but decorated with the figure of a human-headed bull carved in relief on the side, the head forming the spout. The hair and beard of the figure were filled in with black pigment. L. 0·145 m. PG/1134. Pl. 182. (L. *BM.* 122254.)

U. 11796. Stone vase, white calcite, Type 90, ht. 0·095 m., d. 0·07 m. PG/1134. (B. 8397.)

U. 11797. Wooden comb, of the type of that on Pl. 219, l. 0·07 m. PG/1134.

U. 11798. Copper head of a god or demon, with human face and a bull's ears and horns; hollow cast by the cire-perdue process, the eyes originally inlaid with shell and lapis-lazuli but only the lapis of the left eye preserved; greatest ht. 0·12 m., width 0·11 m. It is probably the decoration of a harp or piece of furniture. Found loose in the soil, not in the immediate neighbourhood of any grave. Pl. 121. (L. *BM.* 122260.)

U. 11799. *Brîm*, consisting of 2 lengths of gold chain and 2 carnelian and 1 gold large date-shaped beads and 2 lapis-lazuli balls. PG/1136. (L. *BM.* 122236, 123674.)

U. 11800. Gold ear-ring, one only, of normal small type with lunate ends, d. 0·025 m. PG/1136. (L. *BM.* 122222.)

U. 11802. Stone vase, white calcite, Type 85, ht. 0·21 m., rim d. 0·095 m., base 0·045 m. PG/1136. (P. 30. 12. 87.)

U. 11803. Stone vase, white calcite, Type 91, ht. 0·155 m., rim d. 0·11 m., base 0·055 m. PG/1136. (P. 30. 12. 89.)

U. 11806. Three gold disk ornaments: (A) and (B) of open-work with central rosette and rayed border, d. 0·047 m. and 0·041 m.; between them (C) of cloisonné work with concentric circles inlaid with lapis-lazuli and red, d. 0·046 m.; all seem to have been attached to the bead chain U. 11807. PG/1133. Pls. 133, 138. (P.)

U. 11807. Beads: long date-shaped of gold, lapis-lazuli, and carnelian in sets of 4. PG/1133. Pl. 133.

U. 11808. Gold pendant, of thin wire. PG/1133. (P. 30. 12. 560.)

U. 11809. Four *brîms*, each composed of 2 lengths of gold chain, 2 lapis-lazuli and 1 gold large date-shaped beads, and 2 carnelian rings. PG/1133. (L. *BM.* 122210.) (P. 30. 12. 618–19, 756.)

U. 11810. Gold ear-rings, 3 normal small type with lunate ends. PG/1133. (P. 30. 12. 758.)

U. 11811. Stone vase, white calcite, Type 12, ht. 0·15 m., rim d. 0·095 m., base 0·067 m. PG/1133. (B. 8470.)

U. 11812. Stone vase, green veined calcite, Type 12, ht. 0·16 m., rim d. 0·095 m., base 0·075 m. PG/1133. (L. *BM.* 123715.)

U. 11813. Stone vase, white calcite, Type 61, ht. 0·145 m., rim d. 0·12 m., base 0·06 m. PG/1133. (B. 8482.)

U. 11814. Stone vase, white calcite, Type 60, ht. 0·17 m., rim d. 0·105 m., base 0·055 m. PG/1133. (P. 30. 12. 72.)

U. 11815. Stone bowl, veined calcite, Type 15, ht. 0·12 m., rim d. 0·135 m., base 0·06 m. PG/1133. (P. 30. 12. 77.)

U. 11816. Stone vase, white calcite, Type 61, ht. 0·18 m., rim d. 0·11 m., base 0·07 m. PG/1133. (L. *BM.* 123717.)

U. 11817. Stone bowl, veined calcite, Type 25, ht. 0·07 m., rim d. 0·23 m., base 0·165 m. PG/1133.

U. 11818. Stone bowl, white calcite, Type 16, ht. 0·105 m., rim d. 0·19 m., base 0·09 m. PG/1133. Pl. 176. (L. *BM.* 123707.)

U. 11819. Stone bowl, white limestone, Type 15, ht. 0·11 m., rim d. 0·22 m., base 0·07 m. PG/1133.

U. 11820. Stone vase, white calcite, Type 79, ht. 0·18 m., rim d. 0·11 m., base 0·05 m. PG/1133.

U. 11823. Copper models of cockle-shells, used as a box for face-paint, a pair; d. 0·07 m. PG/1133. Cf. Pl. 137.

U. 11824. Sceptre, remains of; a shell knob inlaid with gold and colour for the petals of a flower design; a wooden staff decorated with bands of very thin gold foil bearing repoussé design, and minute mosaic in lapis-lazuli and red limestone; the gold bands seem to have been impressed on a cylinder seal, but much of the design has disappeared owing to the thinness of the metal. It was in very bad condition and has been largely restored. PG/1133.

U. 11825. Cylinder seal, lapis-lazuli, l. 0·035 m., d. 0·019 m. Inscription of A(?)-kalam-dug. *v.* p. 316. PG/1050, B. Pls. 191, 198. (P. 30. 12. 1.)

U. 11827. Beads: silver and lapis-lazuli cylinders, balls, and double conoids. PG/1137.

U. 11828. Cylinder seal, lapis-lazuli, l. 0·027 m., d. 0·01 m. Found loose in the soil near PG/1136. Pl. 200. (P. 30. 12. 5.)

U. 11831. Stone bowl, or trough, Type 103, ht. *c.* 0·08 m., l. 0·215 m., width 0·17 m. Found loose in the soil at depth of *c.* 5·50 m.

U. 11832. Clay model boat, l. 0·16 m., width 0·09 m., ht. 0·075 m. From the upper levels of the filling of the shaft of PG/1050. (B. 7996.)

U. 11833. Clay model boat, like U. 11832, but rougher; l. 0·125 m., width 0·075 m., ht. 0·05 m. From the upper levels of the filling of the shaft of PG/1050. (L. *BM.* 123730.)

U. 11834. Stone vase, white calcite, Type 61, fragmentary. PG/1133.

U. 11836. Beads: mostly lapis-lazuli, with some silver and 2 carnelian; also a lapis spacer in the form of two birds (or beetles?). PG/1142. (B. 7359.)

U. 11837. Silver libation-jug, Type 84, ht. 0·22 m., broken on one side. PG/1142. Pl. 171. (P.)

U. 11838. Painted clay vase, red and brown on buff, ht. 0·145 m., rim d. 0·055 m. It was found near PG/1101 and 0·35 m. above it. *v.* p. 387. Pl. 186. (B. 8619.)

U. 11839. Beads: lapis-lazuli date-shaped and cylinders, probably from a wreath of silver 'beech' leaves. With them a large silver lunate ear-ring of the Queen Shub-ad type. PG/1150. (L. *BM.* 122498, 122500, 122503.)

U. 11840. Clay boat, cf. U. 11832; l. 0·10 m. PG/1148. (L. *BM.* 123731.)

U. 11841. Palette, of soft fossiliferous limestone, carved in the form of a shell and decorated on the outside with the 'mountain pattern' done in relief; the inside is divided into 3 compartments in which are the remains of white pigment; ht. 0·03 m., d. 0·065 m. PG/1145. Pl. 221. (P. 30. 12. 549.)

U. 11843. Cylinder seal, mottled grey steatite, l. 0·031 m., d. 0·02 m. PG/1154. Pl. 212. (B. 10747.)

U. 11844. Beads: 1 very long carnelian cylinder and a few smaller beads of carnelian, lapis-lazuli, and silver. PG/1154. (B. 7444.)

U. 11846. Cylinder seal, black steatite, l. 0·026 m., d. 0·014 m. PG/1152. Pl. 206. (B. 11091.)

U. 11849. Stone bowl, white limestone, Type 22, ht. 0·035 m., d. 0·09 m. PG/1153.

U. 11850. Stone vase, white calcite, Type 60, ht.

0·16 m., rim d. 0·075 m. PG/1155. (P. 30. 12. 69.)

U. 11851. Stone bowl, white calcite, Type 25, ht. 0·032 m., rim d. 0·125 m. Broken in antiquity and mended with lead rivets (which have now given way). PG/1155.

U. 11852. Cylinder seal, black steatite, l. 0·034 m., d. 0·025 m. Found loose in the soil at depth of *c.* 6·00 m. Pl. 201. (L. *BM.* 122542.)

U. 11853. Stone bowl, grey steatite, Type 53, ht. 0·07 m., rim d. 0·16 m. Below the rim an incised line and band of concentric circles. Broken and part missing; the pieces found lay far apart; it had been broken in antiquity and mended with copper rivets which have come apart. Found loose in the soil at depth of *c.* 5·50 m.

U. 11854. Ear-rings, a pair, each consisting of a spiral coil of thin gold wire (2 hoops) suspended from a similar but larger coil of copper wire; d. of gold ring 0·02 m., d. of copper 0·032 m. PG/1156. (B. 7289.)

U. 11855. Beads: barrels and date-shaped of gold, lapis-lazuli, and carnelian, with 1 flat carnelian pendant. Re-strung in the original order. PG/1156. (B. 7290.)

U. 11856. Beads: double conoids of gold and lapis-lazuli strung in groups of a colour. PG/1156. (B. 7633.)

U. 11857. Stone vase, grey stone, Type 71, ht. 0·21 m., rim d. 0·17 m., body d. 0·27 m. PG/1156.

U. 11858. Stone vase, grey limestone, Type 69, ht. 0·24 m., rim d. 0·18 m., body d. 0·28 m. PG/1156. (B. 8489.)

U. 11859. Stone vase, white calcite, Type 60, ht. 0·135 m., rim d. 0·08 m. PG/1156. (B. 8488.)

U. 11860. Stone vase, white calcite, Type 3, ht. 0·22 m., rim d. 0·105 m. The original rim was broken, so the upper part of the vase was trimmed down and a new rim added of copper. PG/1156. (L. *BM.* 123713.)

U. 11862. Shell plaque, engraved with figure of a cheetah (?) in hilly country. Found loose in the soil. Pl. 100. (B. 8214.)

U. 11863. Cylinder seal, white limestone, l. 0·03 m., d. 0·012 m. Not bored. Found loose in the soil at depth of *c.* 5·50 m. Pl. 207. (B. 11095.)

U. 11864. Gold ear-ring, normal small lunate type, very thin metal. Found loose in the soil at depth of *c.* 5·50 m. (L. *BM.* 122224.)

U. 11868. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·012 m. PG/1162. Pl. 203. (L. *BM.* 122560.)

U. 11870. Stone bowl, dark green steatite, Type 42, ht. 0·085 m., rim d. 0·17 m. PG/1054, C.

U. 11871. Cylinder seal, lapis-lazuli, l. 0·016 m., d. 0·009 m. PG/1163. Pl. 193. (B. 11102.)

U. 11873. Beads: 3 only, 1 very long tube of carnelian, 1 of wood, and 1 (faceted) of lapis-lazuli. PG/1163. (B. 7438.)

U. 11875. Stone bowl, white calcite, Type 16, ht. 0·12 m., rim d. 0·195 m., base 0·10 m. Broken and in bad condition. PG/1163. (P. 30. 12. 97.)

U. 11878. *Brîm* composed of 2 carnelian and 1 gold cylindrical beads and 2 small lapis balls; either there were silver chains which have disappeared or cords took the place of such. PG/1151.

U. 11881. Copper chopper from a ruined unrecorded grave *c.* 5·20 m. down. Pl. 224.

U. 11883. Three roundels, 2 of shell, 1 of black shale, d. 0·022 m., and 1 of shell with convex top inlaid with rosette with red and blue petals. Probably the 4 together formed a pin-head giving much the effect of one of lapis-lazuli between silver caps. PG/1168. (L. *BM.* 123671.)

U. 11884. Beads: wreath of silver 'beech' leaves suspended from strings of small lapis-lazuli cylinders and carnelian rings; the pendants all perished except 1. PG/1167. (L. *BM.* 122516.)

U. 11885. Cylinder seal, dark greenish-grey steatite, l. 0·042 m., d. 0·027 m. Inscribed ^{d}utu. PG/1159. Pl. 208. (B. 14582.)

U. 11889. Cylinder seal, shell, l. 0·032 m., d. 0·018 m. Found loose in the soil. Pl. 201. (P. 30. 12. 7.)

U. 11891. Two gaming-pieces, squares of green schist, 0·02 m. sq., with 5 white dots inlaid in each. Found loose in the soil. (B. 8001.)

U. 11892. Beads: very slender tubes, 3 gold, 3 lapis-lazuli, and 1 pear-shaped rock crystal pendant. PG/1169.

U. 11894. Beads: carnelian rings and date-shaped, jasper cylinders, lapis-lazuli mixed types. Re-strung in the original order. PG/1170. (P. 30. 12. 610.)

U. 11895. Cylinder seal, lapis-lazuli, l. 0·018 m., d. 0·008 m. Found loose in the soil. Pl. 207. (P. 30. 12. 15.)

U. 11896. Cylinder seal, pale green calcite, l. 0·033 m., d. 0·021 m. (one side decayed). PG/1173. Pl. 208. (P. 30. 12. 31.)

U. 11897. Cylinder seal, lapis-lazuli, l. 0·04 m., d. 0·017 m. PG/1173. Pl. 208. (B. 14583.)

U. 11898. Stone vase, white limestone, Type 78, ht. 0·215 m., rim d. 0·10 m. PG/1172. Pl. 176. (L. *BM.* 123722.)

U. 11899. Cylinder seal, lapis-lazuli, l. 0·029 m., d. 0·014 m. PG/1172. Pl. 199. (P. 30. 12. 21.)

U. 11900. Beads: small carnelian date-shaped and lapis-lazuli balls. PG/1172. (L. *BM.* 122449–50.) (P.)

U. 11901. Stone vase, white limestone, Type 60, ht. 0·12 m., rim d. 0·07 m. PG/1176. (L. *BM.* 123725.)

U. 11902. Gold tumbler, with fluted sides, chased chevron and herring-bone pattern below rim and above base, and under the base a rosette on a ground of concentric circles; identical in design with that from the tomb of Queen Shub-ad (U. 10453), ht. 0·135 m., rim d. 0·085 m., base 0·04 m. Below rim a sign Y. Found in the domed chamber, PG/1054. Pl. 157. Fig. 69; *v.* p. 317. (B. 8255.)

U. 11903. Gold pin, Type 7 b, l. 0·285 m., with carnelian ball head capped with gold. PG/1054. Cf. Pl. 231.

U. 11904. Cylinder seal, gold, l. 0·04 m., d. 0·018 m. It is of thin metal pressed over a core of some other material; at the ends were shell caps of which one is missing. PG/1054. Pls. 142, 193; Fig. 23, p. 127. (B. 14597.)

U. 11905. Gold hair-ribbon, from the head of the queen. PG/1054. (P. 30. 12. 757.)

U. 11906. Gold frontlet; an ellipse of fairly thick sheet gold, 0·11 m.×0·055 m., on which is engraved an 8-pointed star of the conventional type. At each end is a wire for attachment, one ending in a loop, the other in a wooden button; the wires are cut out of the same piece of metal as the frontlet itself. PG/1054. (L. *BM.* 122241.)

U. 11907. Wreath, of gold 'beech-leaves' suspended from strings of carnelian ring beads. PG/1054 (from the queen's head). (P. 30. 12. 755.)

U. 11908. Wreath, of gold ring pendants suspended from strings of carnelian ring beads. PG/1054 (from the queen's head). (P. 30. 12. 759.)

U. 11909. Gold hair-rings; spiral coils of heavy gold wire (perhaps worn as ear-rings?). PG/1054 (from the queen's head). (L. *BM.* 122218.)

U. 11910. Beads: necklace of large double conoids of electrum and carnelian and flat date-shaped beads of gold and carnelian. PG/1054 (from the queen's neck). Pl. 132. (P. 30. 12. 562.)

U. 11911. Beads: hollow gold balls and balls of light yellow carnelian. PG/1054 (from the queen's neck). (L. *BM.* 122436.)

U. 11912. Gold finger-rings, 2, with plain borders between which 5 and 8 bands respectively of cable pattern. PG/1054. (L. *BM.* 122220.)

U. 11913. Drinking-tube, silver, with short gold mouth-piece, l. 0·35 m., d. 0·006 m. PG/1054. (P. 30. 12. 536)

U. 11914. *Brîm*, consisting of 1 length of gold chain, 1 gold and 2 lapis-lazuli large faceted date-shaped beads; no second length of gold chain was found. PG/1054. (P. 30. 12. 564.)

U. 11916. Two copper disks, slightly concave, d. 0·105 m., like the pans of a pair of scales. Found together near the NE. wall inside the domed chamber of PG/1054. (B. 8512.)

U. 11926. Stone bowl, white limestone, Type 19, ht. 0·08 m., rim d. 0·16 m., base 0·06 m. In bad condition. PG/1054.

U. 11927. Stone vase, white calcite, Type 93, ht. 0·12 m., rim d. 0·10 m. PG/1054. (L. *BM.* 123718.)

U. 11928. Limestone offering-table; the stem and dish were made separately; the dish (broken) had d. 0·37 m.; the stem was 0·34 m. high with base d. 0·24 m. Cf. the silver offering-table in Queen Shub-ad's tomb, U. 10914. PG/1054. (B. 7577–8, 8478.)

U. 11929. Gold hair-rings, spiral coils of gold wire, d. 0·03 m. PG/1180.

U. 11930. Beads: silver and lapis-lazuli double conoids. PG/1180. (B. 7374.)

U. 11933. Stone vase, white calcite, Type 80, ht. 0·12 m., rim d. 0·08 m. PG/1183. (P. 30. 12. 83.)

U. 11934. Ear-rings, a pair, each composed of 3 hoops of spirally coiled silver wire, d. 0·033 m., inside which is a ring of 5 hoops of spirally coiled very thin gold wire, d. 0·02 m. PG/1183. (B. 7443.)

U. 11935. Beads: silver double conoids, lapis-lazuli balls and double conoids, carnelian cylinders and rings. PG/1183. (B. 7439.)

U. 11938. Cylinder seal, lapis-lazuli, l. 0·034 m., d. 0·014 m. PG/1178. Pl. 198. (B. 14584.)

U. 11939. Beads: mixed sorts re-strung in the original order. PG/1178. (L. *BM.* 122490.)

U. 11940. Gold hair-rings, a pair, 4 hoops of spirally coiled wire. PG/1178.

U. 11941. Stone vase, dark green steatite, Type 14, ht. 0·14 m., rim d. 0·18 m., base 0·16 m. PG/1178. (P. 30. 12. 83.)

U. 11942. Stone vase, white calcite, Type 1, ht. 0·17 m., rim d. 0·12 m., base 0·12 m. PG/1178. (B. 8428.)

U. 11943. Stone bowl, white calcite, Type 27, ht. 0·055 m., rim d. 0·165 m. PG/1178.

U. 11944. *Brîm*, consisting of 1 gold and 2 lapis-lazuli large faceted date-shaped beads and 4 carnelian rings and 1 lapis ball (the last may have served as a button to fasten the chains, which were of silver and have perished, behind the head; cf. U. 11906). PG/1181.

U. 11945. Gold ear-ring, a spiral coil with broad leaf-shaped ends, d. 0·017 m. PG/1181. Pl. 219, Type 6. (L. *BM.* 122223.)

U. 11946. Stone vase, white calcite, only the lower part preserved, type not certain, ht. 0·05 m., d. 0·06 m. Broken in antiquity and mended with lead rivets. PG/1177.

U. 11948. Copper pin, Type 1, l. 0·245 m., with lapis-lazuli fluted ball head capped with gold. Broken. PG/1186. (P. 30. 12. 491.)

U. 11949. Two small stone bowls, ht. 0·028 m., d. 0·065 m., one inverted over the other with between them a cockle-shell containing green paint. PG/1186.

U. 11952. Cylinder seal, lapis-lazuli, l. 0·032 m., d. 0·013 m. PG/1187. Pl. 203.

U. 11957. Cylinder seal, translucent white quartzite, l. 0·038 m., d. 0·013 m. Found loose in the soil. Pl. 199. (B. 13224.)

U. 11958. Cylinder seal, shell, l. 0·017 m., d. 0·009 m. Found loose in the soil. Pl. 215. (B. 8028.)

U. 11959. Cylinder seal, l. 0·025 m., d. 0·011 m. Found loose in top soil. Pl. 216.

U. 11961. Cylinder seal, green stone, l. 0·031 m., d. 0·022 m. Found loose in the upper soil. Pl. 209. (P. 30. 12. 28.)

U. 11962. *Brîm*, consisting of 2 lengths of gold chain (l. 0·145 m.), 1 gold and 2 lapis-lazuli large faceted date-shaped beads, and 4 small carnelian ring-beads. PG/1195. (P. 30. 12. 652.)

U. 11963. Gold pin with triangular head, the top edge rolled over, Type 5, l. 0·07 m. PG/1195. Cf. Pl. 165.

U. 11964. *Brîm*, part of; 1 gold and 2 lapis-lazuli large faceted date-shaped beads; traces of silver represented the original chains. PG/1195. (L. *BM.* 122590.) (P. 30. 12. 653.)

U. 11965. Gold ear-ring, 1 only, normal small type with lunate ends. PG/1195. (P. 30. 12. 662.)

U. 11966. Amulet, lapis-lazuli, in the form of a fish (the tail broken off in antiquity), l. 0·02 m.; with it a carnelian date-shaped pendant. PG/1195. (B. 7573.)

U. 11968. Gold disk, of filigree work, d. 0·033 m. Originally mounted against a silver disk, which is now nearly all perished. PG/1195. Pl. 219. (B. 8240.)

U. 11970. Cylinder seal, green calcite, much decayed. Two registers: in each, seated figures. PG/1196. (B.)

U. 11971. Beads: silver and lapis-lazuli double conoids and date-shaped. PG/1196. (B. 7366.)

U. 11972. Stone vase, white calcite, Type 87, ht. 0·16 m., rim d. 0·09 m. PG/1197. (B. 8483.)

U. 11973. Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·01 m. PG/1197. Pl. 203.

U. 11974. Beads: gold and lapis-lazuli double conoids and date-shaped. PG/1193. (B. 7424.)

U. 11975. Beads: 2 carnelian and 2 lapis-lazuli date-shaped; also a set of very small beads, lapis and some carnelian. PG/1191. (B. 7437.)

U. 11978. Cylinder seal, shell, much decayed, but design visible, l. 0·031 m. PG/1194. Pl. 201. (P. 30. 12. 9.)

U. 11981. Cylinder seal, shell, l. 0·021 m., d. 0·01 m. Found loose in the soil at depth of *c.* 1·30 m. Pl. 216.

U. 11982. Gold ear-ring, 1 only, very small and thin example of the normal small type with lunate ends. PG/1207. (L. *BM.* 123670.)

U. 11983. Cylinder seal, dark steatite, l. 0·035 m., d. 0·025 m. PG/1208. Pl. 206. (B. 14311.)

U. 11984. Beads: a few small balls of lapis-lazuli and carnelian and of copper plated with thin gold foil. PG/1205. (P. 30. 12. 590.)

U. 11987. Cylinder seal, dark steatite, l. 0·02 m., d. 0·012 m. PG/1205. Pl. 214. (B. 11101.)

U. 11989. Beads: 1 large barrel and some small date-shaped beads of blue-glazed frit. PG/1203. (B. 7440.)

U. 11990. Cylinder seal, translucent greenish calcite, l. 0·026 m., d. 0·015 m. With inscription of Ug-il. *v.* p. 315. PG/1200. Pls. 191, 209. (B. 14593.)

U. 11991. Gold frontlet, oval type, l. 0·145 m., width 0·055 m. Plain. PG/1199. (B. 7336.)

U. 11992. Gold ribbon, in a spiral twist from a lock across the forehead, l. 0·175 m. PG/1199.

U. 11993. Gold ear-ring, one only, normal small type with lunate ends, d. 0·012 m. PG/1199. (B. 7337.)

U. 11994. Beads: small silver and lapis-lazuli balls and diamonds forming a bracelet; also 2 carnelian cylinders. PG/1199. (B. 7442.)

U. 11998. Beads: a few carnelian balls and diamonds. PG/1201. (P. 30. 12. 591.)

U. 12001. Beads: from a *brîm*; 1 gold and 2 lapis-lazuli large faceted date-shaped and 1 small carnelian cylinder. PG/1121. (B. 7446.)

U. 12003. Beads: a few small agate, lapis-lazuli, and carnelian, and some glass ring-beads. PG/1213. (L. *BM.* 122447.)

U. 12004. Cylinder seal, black steatite, l. 0·023 m., d. 0·01 m. PG/1213. Pl. 214. (P. 30. 12. 36.)

U. 12006. Beads: small lapis-lazuli balls. PG/1219. (B. 7447.)

U. 12007. Stone vase, grey limestone, Type 80, ht. 0·155 m., rim d. 0·09 m. PG/1216. (L. *BM.* 123723.)

U. 12009. Stone bowl, white limestone, Type 24, ht. 0·05 m., rim d. 0·15 m., base 0·095 m. PG/1216.

U. 12011. Cylinder seal, lapis-lazuli, l. 0·031 m., d. 0·008 m. Pl. 203. With it was a second seal of translucent white calcite, decayed and the design invisible. PG/1216.

U. 12012. Beads: small lapis-lazuli and carnelian. Re-strung in the original order. PG/1216. (B. 7448.)

U. 12017. Cylinder seal, green stone, l. 0·017 m., d. 0·009 m. Found loose in the soil at depth of *c.* 2·00 m. Pl. 210. (P. 30. 12. 43.)

U. 12019. Cylinder seal, shell, l. 0·026 m., d. 0·016 m. Found loose in the soil at depth of *c.* 2·00 m. Pl. 199. (L. *BM.* 122554.)

U. 12021. Stone bowl, white calcite, Type 15, ht. 0·06 m., rim d. 0·105 m., base 0·065 m. PG/1211. (P. 30. 12. 96.)

U. 12023. Cylinder seal, steatite, l. 0·028 m., d. 0·017 m. PG/1229. Pl. 216. (P. 30. 12. 26.)

U. 12024. Stone vase, white calcite, Type 60, ht. 0·11 m., d. 0·07 m. PG/1225. (B. 8404.)

U. 12025. Stone bowl, white calcite, Type 7, ht. 0·05 m., rim d. 0·09 m., base 0·065 m. PG/1225. (P. 30. 12. 90.)

U. 12026. Stone bowl, grey steatite, Type 19, ht. 0·031 m., rim d. 0·077 m., base 0·04 m. PG/1225. (P. 30. 12. 700.)

U. 12027. Stone vase, white calcite, Type 61, ht. 0·12 m., rim d. 0·08 m., base 0·03 m. PG/1225. (P. 30. 12. 95.)

U. 12029. Cylinder seal, mottled brown steatite, l. 0·032 m., d. 0·019 m. Found loose in the soil. Pl. 210. (L.)

U. 12030. Cylinder seal, black steatite, l. 0·023 m., d. 0·012 m. Found loose in the soil. Pl. 216.

U. 12031. Cylinder seal, shell, l. 0·023 m., d. 0·01 m. Found loose in the soil. Pl. 208.

U. 12032. Cylinder seal, lapis-lazuli, l. 0·01 m., d. 0·006 m. Found loose in the soil. Pl. 210. (L. *BM.* 122578.)

U. 12033. Cylinder seal, black steatite, l. 0·018 m., d. 0·007 m. Found loose in the soil. Pl. 216. (L. *BM.* 122572.)

U. 12034. Cylinder seal, shell, l. 0·025 m., d. 0·01 m. Much decayed. Found loose in the soil. Pl. 201. (L. *BM.* 122546.)

U. 12035. Beads: minute rings of lapis-lazuli and glazed frit and 1 large calcite barrel bead. PG/1226. (B. 7475.)

U. 12039. Beads: 3 carnelian double conoids. PG/1220. (P. 30. 12. 607.)

U. 12040. Cylinder seal, translucent green calcite, l. 0·016 m., d. 0·009 m. PG/1220. Pl. 212. (L. *BM.* 122573.)

U. 12041. Cylinder seal, lapis-lazuli, l. 0·022 m., d. 0·008 m. Very badly cut. PG/1226.

U. 12042. Gold hair-ribbon, narrow, 5 strands crossing over the forehead and going round the head. PG/1234.

U. 12043. Gold ear-rings, very large lunate type, d. 0·075 m. PG/1234.

U. 12046. Beads: small gold, lapis-lazuli, and carnelian, forming a bracelet. Re-strung in the original order. PG/1234.

U. 12047. Beads: necklace of gold, silver, and lapis-lazuli with very small carnelian rings. PG/1234.

U. 12048. Beads: 'dog-collar' of gold and lapis-lazuli triangles. PG/1234. (P. 30. 12. 569, 574, 659.)

U. 12049. Wreath of gold 'beech' leaves hung from strings of lapis-lazuli and carnelian beads. PG/1234.

U. 12050. Three gold flowers, and shell, lapis-lazuli, and gold petals of 3 more of silver. The silver flowers seem to have belonged to a 'comb' ornament; the gold flowers were on the head and may also have belonged to the 'comb' or may have been attached to the hair-ribbon. PG/1234. (L. *BM.* 122412.)

U. 12053. Cylinder seal, shell, l. 0·032 m., d. 0·018 m. Poor condition. PG/1227. Pl. 204. (B. 13206.)

U. 12056. Beads: lapis-lazuli double conoids. PG/789, (60). (P. 30. 12. 448.)

U. 12057. Beads: silver and lapis-lazuli double conoids. PG/789, (60).

U. 12060. Cylinder seal, lapis-lazuli, l. 0·028 m., d. 0·007 m. Two registers with simple geometric design. Found loose in the soil.

U. 12063. Beads: large lapis-lazuli double conoids; also a cylinder seal, lapis-lazuli, l. 0·026 m., d. 0·014 m. Two registers: seated deity and introduction scene; much decayed. PG/1050, (28). (B. 7421–3.)

U. 12064. Beads: 6 large lapis-lazuli balls. PG/1050, (24).

U. 12065. Beads: lapis-lazuli double conoids. PG/1050, (26). (L. *BM.* 122472.)

U. 12066. Beads: lapis-lazuli double conoids. PG/1050, (27). (L. *BM.* 122474, 122476.)

U. 12067. Beads: lapis-lazuli double conoids. PG/1050, (29). (L. *BM.* 122473, 122475, 122477.)

U. 12068. Beads: silver and lapis-lazuli double conoids; also a shell cylinder seal much decayed, with traces of design of crossed rampant animals. PG/1050, (31). (L. *BM.* 122478.)

U. 12069. Beads: silver and lapis-lazuli double conoids. PG/1050, (32). (L. *BM.* 122479–81.)

U. 12070. Beads: silver and lapis-lazuli ovoids. PG/1050, (33). (L. *BM.* 122482.)

U. 12071. Beads: lapis-lazuli conoids, large and small, and 1 large steatite lozenge. PG/1050, (30).

U. 12073. Beads: small lapis-lazuli double conoids. PG/1050, (37). (L. *BM.* 122483.)

U. 12074. Beads: lapis-lazuli double conoids. PG/1050, (38).

U. 12075. Beads: lapis-lazuli date-shaped. PG/1050, (34). (L. *BM.* 122485.)

U. 12076. Beads: large rectangular beads, silver and lapis-lazuli. PG/1050, (39). (L. *BM.* 122486.)

U. 12077. Beads: long date-shaped of silver and lapis-lazuli, small date-shaped and conoids of lapis. PG/1050, (40).

U. 12078. Beads: silver and lapis-lazuli double conoids. PG/1050.

U. 12079. Cylinder seal, lapis-lazuli, with silver caps fixed to the seal by bitumen running through the bore, l. 0·03 m., d. 0·011 m. Found with bones at 2·80 m. below the surface. Pl. 209. (B. 11104.)

U. 12080. Amulet, lapis-lazuli, in form of a frog, l. 0·009 m. Found loose in the soil at a depth of *c.* 2·50 m. (L. *BM.* 123669.)

U. 12082. Roundel, mother-of-pearl, d. 0·04 m., engraved with 8-petalled rosette; the inlay from the centre is missing. Found loose in the soil. (B. 8236.)

U. 12084. Cylinder seal, shell, l. 0·029 m., d. 0·017 m. PG/1241. Pl. 203. (L. *BM.* 123685.)

U. 12085. Beads: date-shaped of carnelian and glazed frit, and lapis-lazuli fly amulet. Found together at depth of 2·00–3·00 m. (L. *BM.* 122484.)

U. 12086. Cylinder seal, rock crystal, l. 0·019 m., d. 0·013 m. The bore-hole is lined with white paste. Found loose in the soil at a depth of 3·00 m. Pl. 209. (L. *BM.* 122567.)

U. 12087. Cylinder seal, baked clay, l. 0·031 m., d. 0·014 m. Very roughly incised pattern. Found loose in the soil at a depth of 3·00 m. Pl. 199.

U. 12089. Stone bowl, grey limestone, rough, d. 0·15 m. PG/1239.

U. 12100. Cylinder seal, shell, l. 0·043 m., d. 0·026 m. Very much decayed; traces of design of rampant bulls and stags. PG/1243. (B. 13223.)

U. 12109. Copper cramp, l. 0·037 m. PG/1250. Pl. 226.

U. 12110. Stone bowl, grey steatite, Type 42, ht. 0·065 m., rim d. 0·16 m., base 0·066 m. PG/1247. (B. 8391.)

U. 12111. Beads: 1 gold, 2 lapis-lazuli, and 2 carnelian cylinders; 1 carnelian ball, 1 fluted ball, and 1 barrel of lapis. PG/1247. (B. 7451.)

U. 12112. Cylinder seal, greenish steatite, l. 0·03 m., d. 0·009 m. Pl. 199. Also a second, of shell, l. 0·023 m., d. 0·013 m. Very much decayed; traces of design of hunters and animals. PG/1249. (B. 7453.)

U. 12113. Stone vase, white calcite, Type 3, ht. 0·12 m. PG/1248.

U. 12114. Cylinder seal, shell, l. 0·033 m., d. 0·016 m. Much decayed. Found loose in the soil at a depth of 3·00 m. Pl. 207. (B. 13202.)

U. 12126. Gold fillet, ribbon, l. 0·30 m., width 0·04 m., with punctured dot border and hole for attachment at each end. PG/1266.

U. 12127. Beads: 2 strings re-strung in the original order; lapis-lazuli fly amulet, gold double conoids, lapis double conoids, lapis, carnelian, and banded sard date-shaped beads. PG/1266.

U. 12129. Stone bowl, black steatite, Type 39, ht. 0·055 m., rim d. 0·10 m., base 0·045 m. Deco-

rated with an incised cable-pattern, the incised lines originally filled in with red pigment. PG/1266. (B. 8473.)

U. 12132. Stone vase, semi-translucent white calcite, Type 85, ht. 0·15 m., rim d. 0·06 m., base 0·033 m. PG/1266. (B. 8424.)

U. 12133. Gold hair-rings, a pair, 3½ hoops of spirally coiled wire. PG/1266.

U. 12134. Gold finger-ring, of open filigree work, 3 hoops of plain gold wire separated by bands formed of a thin wire bent S-fashion and soldered, d. 0·018 m., width 0·011 m. PG/1266. Pl. 138. (B. 8267.)

U. 12135. White calcite lamp, of the normal shape, with a figure of a bearded bull carved in relief against the outside, l. 0·12 m., greatest width 0·07 m., ht. 0·015 m. PG/1266. Cf. Pl. 182. (B. 8103.)

U. 12136. Copper model of a cockle-shell, used as a box for toilet paint. PG/1266. (B. 8508.)

U. 12137. Shell rings (16), d. between 0·015 m. and 0·02 m. PG/1266.

U. 12140. Stone vase, white calcite, Type 61, ht. 0·105 m., rim d. 0·065 m., base 0·025 m. PG/1267. (B. 8394.)

U. 12144. Gold fillet, ribbon, l. 0·23 m., width 0·007 m., perforated at each end. PG/1267. (B. 7325.)

U. 12145. Beads: necklace of carnelian cylinders and rings. PG/1267. (B. 7327.)

U. 12146. Beads: necklace of gold fluted balls and small date-shaped and lapis-lazuli fluted balls, double conoids, and barrels. PG/1267. (B. 7326.) (L. *BM.* 121465.)

U. 12150. Stone bowl, white limestone, Type 42, ht. 0·08 m., rim d. 0·22 m., base 0·065 m. PG/1281. (B. 8395.)

U. 12152. Beads: necklace of 2 lapis-lazuli and 1 carnelian large faceted date-shaped beads and small lapis barrels. PG/1279. (P. 30. 12. 585.)

U. 12154. Beads: 2 necklaces, (A) small lapis-lazuli rings and diamonds; (B) agate date-shaped with gold caps, gold, lapis, and carnelian balls. PG/1276. (P. 30. 12. 592.)

U. 12157. Cylinder seal, lapis-lazuli, l. 0·024 m., d. 0·012 m. PG/1276. Pl. 204.

U. 12158. Cylinder seal, black and brown marble, l. 0·026 m., d. 0·014 m.; with copper caps. PG/1276. Pl. 204. (B. 14594.)

U. 12160. Stone vase, white calcite, Type 61, ht. 0·095 m., rim d. 0·075 m., base 0·025 m. From a plundered grave (unnumbered) at a depth of 5·00–6·00 m. (P. 30. 12. 73.)

U. 12161. Stone bowl, white limestone, fragmentary, ht. 0·075 m., rim d. 0·13 m. PG/1280.

U. 12167. Conch-shell cut as a lamp, with a bird's head carved above the opening; cf. Pl. 102. PG/1277. (L. *BM.* 123667.)

U. 12169. Beads: lapis-lazuli large double conoids and small barrels, carnelian double conoids and rings, and 2 fluted barrel beads of faience. PG/1270. (B. 7602.)

U. 12172. Stone bowl, grey steatite, fragmentary. PG/1270. (B. 7492.)

U. 12173. Stone bowl miniature, white calcite, Type 37, ht. 0·05 m., rim d. 0·07 m., base 0·02 m. PG/1270. (B. 8400.)

U. 12174. Stone vase, grey calcite, semi-translucent, Type 92, ht. 0·10 m., base 0·10 m. PG/1270.

U. 12176. Inlay, triangles and squares of mother-of-pearl, red limestone, and black shale, probably from a wooden box which has decayed. PG/1248.

U. 12179. Stone vase, beaker, grey steatite, Type 13, ht. 0·12 m., base 0·05 m. PG/1278.

U. 12184. Gold fillet, ribbon, l. 0·31 m., width 0·026 m., with punctured dot border and hole at each end for attachment. PG/1284. (P. 30. 12. 604.)

U. 12185. Gold ribbon, 0·004 m. wide, twisted spirally round a lock of hair across the forehead. PG/1284.

U. 12186. Gold hair-rings, 2½ hoops of spirally coiled wire, d. 0·026 m. PG/1284. (P. 30. 12. 634–5.)

U. 12187. Beads: necklace of 4 strings: (A) gold and lapis-lazuli balls and flattened lapis conoids and carnelian cylinders with bleached patterns; (B) gold balls, lapis date-shaped, and gold and lapis fly amulets; (C) like (A); (D) gold fluted balls and gold and lapis cylinders. PG/1284. (L. *BM.* 122432.) (P. 30. 12. 570.)

U. 12188. Beads: 2 bracelets of gold and lapis-lazuli diamonds. PG/1284.

U. 12193. Stone bowl, white limestone, spouted, Type 44, fragmentary. PG/1287.

U. 12196. Beads: 2 large faceted date-shaped (l. 0·044 m.). PG/1290. (B. 7601.)

U. 12200. Beads: lapis-lazuli double conoids. PG/1290. (B. 7429.)

U. 12206. Beads: carnelian rings, lapis-lazuli rings and date-shaped. Re-strung in the original order. PG/1292. (B. 7458.)

U. 12214. Gold ear-ring, normal small type with lunate ends, d. 0·012 m. PG/1293. (B. 7470.)

U. 12215. Stone bowl, miniature, dark grey steatite, Type 22, ht. 0·02 m., rim d. 0·06 m., base 0·02 m. PG/1294.

U. 12216. Beads: small cylinders of glazed frit, now bleached white. PG/1294. (B. 7472.)

U. 12217. Stone bowl, white limestone, Type 98, l. 0·24 m. PG/1295.

U. 12219. Stone vase, white calcite, Type 60, ht. 0·115 m., rim d. 0·055 m., base 0·02 m. PG/1298.

U. 12220. Stone mortar, white limestone, Type 37, ht. 0·08 m., rim d. 0·20 m., base 0·10 m. PG/1298.

U. 12221. Beads: from a *brîm*; 1 gold and 2 lapis-lazuli large faceted date-shaped. PG/1299.

U. 12223. Stone bowl, white limestone, fragmentary, d. 0·24 m. PG/1300.

U. 12226. Stone vase, white calcite, Type 92, ht. 0·16 m., rim d. 0·07 m., base 0·025 m. PG/1300. (B. 8440.)

U. 12230. Stone vase, grey steatite, beaker with square base (?), very fragmentary. PG/1301.

U. 12236. Stone bowl, white calcite, Type 66, ht. 0·05 m., rim d. 0·11 m., base 0·055 m. PG/1304. (B. 8487.)

U. 12237. Beads: lapis-lazuli double conoids and carnelian rings. PG/1304.

U. 12238. Stone vase, white calcite, Type 92, ht. 0·135 m., rim d. 0·065 m., base 0·025 m. PG/1304. (B. 8426.)

U. 12242. Sceptre; at the top end a mushroom-shaped shell head inlaid with red and blue rosette, below it five bands of very thin gold foil impressed with designs in relief apparently taken from cylinder seals—the designs no longer recognizable: between the gold bands are rings of lapis-lazuli. Below this are bands of mosaic in shell and lapis triangles separated by rings of shell and red limestone. Restored in the original order. L. 0·415 m. PG/1236, Chamber A. Pl. 153. (L. *BM.* 122201.)

U. 12244. Stone bowl, white limestone, Type 48, ht. 0·04 m., rim d. 0·085 m., base 0·025 m. Shallow notches round the rim. PG/1307. (P. 30. 12. 79.)

U. 12245. Beads: necklace of small blue glazed frit rings. PG/1307. (B. 7469.)

U. 12246. Shell rings (20), d. between 0·015 m. and 0·025 m. PG/1307. (B. 7465.)

U. 12249. Stone vase, white calcite, Type 76, ht. 0·18 m., rim d. 0·09 m., base 0·075 m. PG/1308. (P. 30. 12. 70.)

U. 12251. Beads: necklace of balls, rings, and double conoids in silver, lapis-lazuli, and carnelian. PG/1310. (L. *BM.* 122487.) (P. 30. 12. 483.)

U. 12255. Bead: 1 large faceted date-shaped, lapis-lazuli, probably from a *brîm*. PG/1270. (L. *BM.* 122589.)

U. 12256. Group, from PG/1312. (1) Wreath of 16 gold 'beech' leaves suspended from strings of carnelian and lapis-lazuli beads. (2) Gold frontlet, an oval, l. 0·13 m., with chased rosette decoration; at each end is a long tie of twisted gold wire, one with a loop at the end, the other with a carnelian ring bead to act as button. (3), (4) Gold hair-rings, 2½ and 1½ hoops respectively of spirally coiled gold wire. (5) *Brîm*, consisting of 2 lengths of gold chain, l. 0·135 m., 1 gold and 2 lapis-lazuli large faceted date-shaped beads and carnelian ring beads between those. (6) Whetstone. (7) Silver pin, Type 1, l. 0·195 m., with lapis ball head capped with gold. (8) Beads: large carnelian cylinders, small lapis-lazuli double conoid and flattened rectangular beads; flattened double conoids of carnelian and 1 jasper cylinder. (9) Bronze axe, Type A 4, l. 0·13 m. (10) Stone bowl, white calcite, Type 19, ht. 0·12 m., rim d. 0·26 m., base 0·095 m. (11) Stone vase, white calcite, Type 61, ht. 0·125 m., rim d. 0·075 m., base 0·025 m. (12) Ostrich shell, natural, with traces of red paint on the outside; badly broken. (13) Cylinder seal, lapis-lazuli, l. 0·036 m., d. 0·015 m. Pl. 194. (B. 7517–25, 8393, 8396, 8964–6.)

U. 12257. Beads: silver and lapis-lazuli double conoids. PG/1132.

U. 12258. Group, from PG/1315. (1), (2), (3) Stone bowls, white calcite, Type 36, white calcite vase, Type 90; broken. (4) Silver pin, Type 1, l. 0·195 m., with lapis-lazuli ball head capped with gold. (5) Silver pin, Type 1, l. 0·12 m., with lapis ball head. (6) Cylinder seal, lapis-lazuli, l. 0·039 m., d. 0·014 m. Pl. 194. (7) Beads: bracelet of flat 4-fold gold spacers and small lapis-lazuli beads between. (8) Beads: bracelet of flat rectangular beads with central rib, gold and lapis-lazuli alternately. (9) Beads: 'dog-collar' of gold and lapis triangles. (10) Beads: necklace of gold and carnelian long date-shaped, two ranks. (11) Beads: necklace of silver filigree pendants hung from a double string of small gold date-shaped beads. (12) Beads: necklace of gold filigree pendants hung from a double string of lapis and agate cylinders, carnelian rings, and gold fluted balls. (13) Beads: necklace of gold and lapis ball beads, gold beads of wound wire (cf. Pl. 134, U. 9656), and very small glazed frit rings. (14) Wreath of gold 'beech' leaves suspended from a double row of lapis cylinders and carnelian rings. (15) Gold hair-ribbon. (16) Gold ear-rings, a pair, very large lunate type. (17) Gold hair-rings, a pair, 2½ hoops of spirally coiled wire. (18) Bead, 1, lapis-lazuli rhomboid, 0·024 m.×0·02 m. (19) Gold finger-rings, 5, made of fine strands of twisted wire. (20) Silver 'comb' ornament with flower finials, the petals inlaid with gold, lapis, and shell. (B. 7676–97, 7952, 8125, 8432, 8438.)

U. 12259. Beads: 1 large double date-shaped of spirally coiled gold wire, 2 lapis-lazuli faceted date-shaped and 2 carnelian rings; probably from a *brîm* of which the rest may have been of silver. PG/1314.

U. 12260. Stone bowl, dark grey steatite, Type 51, d. 0·20 m. PG/1316. (L. *BM.* 123699.)

U. 12261. Stone vase, white calcite, Type 5, ht. 0·105 m., base 0·077 m. Broken and riveted in antiquity. PG/1316. (B. 8427.)

U. 12263. Beads: necklace of 3 rows of small balls of gold and lapis-lazuli, re-strung in the original order. PG/1316. (P. 30. 12. 450, 644–5.)

U. 12264. Beads: necklace of gold and lapis-lazuli double conoids, re-strung in the original order. PG/1316. (P. 30. 12. 452, 637.)

U. 12265. Stone bowl, alabaster, Type 66, ht. 0·085 m., rim d. 0·173 m., base 0·043 m. PG/1316. (L. *BM.* 123703.)

U. 12266. Beads: 2 large silver date-shaped, 2 large faceted cylinders of lapis-lazuli, 1 large faceted double conoid, carnelian, and fragment of a greenish calcite cylinder seal. PG/1318. (B. 7466.)

U. 12267. Stone bowl, white calcite, Type 27, ht. 0·113 m. Broken and riveted in antiquity. PG/1318. (P. 30. 12. 99.)

U. 12276. Stone bowl, white calcite, fragmentary. PG/1319.

U. 12277. Stone vase, translucent white calcite, Type 61, rim d. 0·075 m. Found loose in the soil at depth of *c.* 4·00 m. (B. 11029.)

U. 12278. Beads from a *brîm*: 2 lapis-lazuli and 1 silver large faceted date-shaped, and traces of silver chains. PG/1320. (B. 7463.)

U. 12280. Copper dagger-blade, Type 7, l. 0·225 m.

On one side the oxidization preserves on the metal the imprint of a sheath made of plaited fibre in an open-work pattern closely resembling that of the gold sheath U. 9361 on Pl. 151. PG/1320.

U. 12281. (A) Gold hair-rings, a pair, 2½ hoops of spirally coiled wire. (B) Gold finger-rings, 3, each made of fine twisted wire coiled spirally and soldered. Cf. Pl. 138. (C) Silver pin, Type 1, l. 0·195 m., with lapis-lazuli ball head with gold caps. PG/1237, B. (B. 7323–4.)

U. 12282. Gold ear-ring, normal small type with lunate ends, d. 0·015 m. PG/1321.

U. 12283. *Brîm* consisting of 2 lengths of gold chain, l. 0·115 m., and 3 large faceted date-shaped beads, 1 gold, 2 lapis-lazuli. PG/1321. (B. 8336.)

U. 12296. Cylinder seal, shell, l. 0·035 m., d. 0·016 m. PG/1322. Pl. 204. (L. *BM.* 122544.)

U. 12297. Beads: silver and lapis-lazuli barrels and ovoids. PG/1322. (L. *BM.* 122488.)

U. 12298. Beads: lapis-lazuli double conoids, barrels, and rings; carnelian double conoids, rings, and cylinder; calcite truncated flattened conoid. PG/1323. (B. 7462.)

U. 12299. Stone bowl, dark steatite, Type 25, ht. 0·03 m., rim d. 0·09 m., base 0·07 m. PG/1323.

U. 12303. Beads: carnelian rings, lapis-lazuli barrels, double conoids, and balls, with 1 flattened truncated cone; a few silver, decayed. PG/1327. (B. 7452.)

U. 12304. Beads from a *brîm*: 3 large faceted date-shaped, 1 silver, 2 lapis-lazuli. PG/1327. (L. *BM.* 122591.)

U. 12306. Beads: small date-shaped of lapis-lazuli, and a few silver. PG/1328.

U. 12307. Beads: silver and lapis-lazuli balls. PG/1329.

U. 12308. Beads: large date-shaped of silver and lapis-lazuli and carnelian rings. PG/1329.

U. 12309. Silver pin, Type 7, with lapis-lazuli ball head capped with gold. PG/1329. (P. 30. 12. 693.)

U. 12310. Stone vase, white calcite, Type 5, ht. 0·11 m. PG/1329.

U. 12311. Stone vase, white calcite, fragmentary. PG/1329.

U. 12312. Ear-rings, a pair; each consists of 3 hoops of spirally coiled silver wire interlaced with a similar ring of 3 coils of gold wire; d. of silver ring 0·03 m., of gold 0·02 m. PG/1329.

U. 12313. Stone vase, white calcite, Type 91, ht. 0·11 m., rim d. 0·08 m. PG/1330. (P. 30. 12. 86.)

U. 12314. Stone vase, white calcite, Type 91, ht. 0·11 m., rim d. 0·085 m. PG/1330.

U. 12315. Stone bowl, white limestone, Type 45, ht. 0·05 m., rim d. 0·135 m., base 0·045 m. PG/1325. (L. *BM.* 123710.)

U. 12316. Conch-shell cut as a lamp; a bird's head carved above the opening; the eye inlaid with lapis-lazuli. Cf. Pl. 102. PG/1325. (B. 7397.)

U. 12318. Gaming-pieces, all found together: 7 squares of black steatite with a dot of red paste inlaid in the centre of each; 7 squares of white shell of which 6 have eye design with lapis inlaid centre and 1 has an animal design (gazelle and tall plants); also 2 shell rods, square in section, having along one side linear decoration and on the other 3 sides, at each end, 2 incised concentric circles. *v.* p. 279. PG/1326. Pl. 98.

U. 12319. Limestone offering-table, the stem roughly engraved with palm design, the tray badly broken, ht. of stem 0·29 m. Cf. Pl. 180. PG/1325. (B. 7450.)

U. 12322. Stone bowl, red sandstone, fragmentary, base d. 0·09 m. PG/1329.

U. 12330. Cylinder seal, shell, l. 0·029 m., d. 0·013 m. Inscription of *en-ša(g)(?)-gan*. PG/1236. Pls. 191, 194. *v.* p. 316. (B. 7380.)

U. 12331. Cylinder seal, black steatite, l. 0·026 m., d. 0·012 m. Found loose in the upper soil. Pl. 216.

U. 12332. Lead plaque, rectangular but with rounded corners, plain and with a small hole through one end, l. 0·058 m., width 0·03 m., thickness 0·002 m. Found loose in the upper soil. (L. *BM.* 123672.)

U. 12335. Beads: 4 gold double conoids, 5 lapis-lazuli ditto, 1 carnelian cylinder. PG/1331. (B. 7486.)

U. 12340. Gold ear-rings, 3, normal small type with lunate ends, d. 0·01 m. PG/1334. (B. 8257.)

U. 12341. Beads: necklace of gold and lapis-lazuli ball beads re-strung in the original order. PG/1334. (B. 7449.)

U. 12343. Gold frontlet, oval, l. 0·11 m., width 0·04 m.; with hole at each end for attachment. PG/1335. (L. *BM.* 122350.)

U. 12344. Gold ribbon, twisted spirally round a lock of hair across the forehead, 4 lengths. PG/1335. (P.)

U. 12345. Beads: gold and lapis-lazuli balls and diamonds, lapis double conoids, carnelian diamonds. Re-strung in original order. PG/1335. (L. *BM.* 122351–4, 122435.) (P. 30. 12. 651, 655–6.)

U. 12346. Gold ear-rings, 2, normal small type with lunate ends, not a true pair as one is larger than the other, d. 0·008 m. and 0·01 m. PG/1336.

U. 12350. Cylinder seal, steatite, l. 0·012 m. Found with a copper pin. PG/1336. Pl. 199. (B. 14568.) (P. 30. 12. 416.)

U. 12351. Lyre. The original body was of wood, which has perished and been replaced by plaster; the sounding-box, uprights, and cross-beam are thus preserved; the feet, which seem to have been made separate, are less accurately moulded. *v.* p. 256. To the front of the sounding-box is attached a cow's head cast in copper, below which is a shell plaque made of 2 pieces with border-strip between showing 2 goats rampant and back to back in wooded country. Total l. 1·00 m., ht. 0·90 m. PG/1151. Pls. 118–19. (B. 8695.)

U. 12352. Gold ear-rings, a pair, very large lunate type, found loose in the top filling of a shaft close to PG/1234.

U. 12353. Lyre. Restored. The sounding-box is of wood (modern, as is all the woodwork through-

out) outlined on each side with a broad edging of encrustation in shell, lapis-lazuli, and red limestone; the uprights are entirely covered with similar encrustation and with bands of gold foil; the cross-bar is covered as for half its length with sheet silver (on which are 2 gold knobs) and was of plain wood for the other half, to which the strings were attached. Total ht. of frame, 1·20 m., l. 1·40 m. Attached to the front of the sounding-box is a bearded bull's head of beaten gold (ht. 0·295 m.), and below this a set of shell plaques engraved with animal scenes. *v.* p. 252. PG/1237. Pls. 104, 113–15, 117. (B. 8694.)

U. 12354. Lyre. Restored. The whole instrument was of wood overlaid with thin sheet silver. The sounding-box is outlined on each side with a narrow band of plain lapis-lazuli and shell mosaic, and to the front of it is attached a cow's head cast in silver, below which are shell plaques engraved with animal scenes. Attached by corrosion to the cross-bar are the silver-plated tuning-sticks or keys. The lyre was found crushed flat and it has not been possible to work the metal casing back to its original fullness. Ht. 1·06 m., l. 0·97 m. *v.* p. 253. PG/1237. Pls. 104, 111. (L. *BM.* 121199.)

U. 12355. Lyre. Restored. The whole instrument was of wood overlaid with thin sheet silver; it was crushed flat, and the metal was in such a condition that it was not possible to work it back to its original fullness; much of the detail of the modelling is therefore lost or obscured. The sounding-box is in the form of a boat, the high prow and stern making the uprights, which are joined by a cross-bar. In the forepart of the boat stands an antlered stag, 0·70 m. high, its front feet resting in a crook of the stem of a plant whose long-stalked arrow-bladed leaves rise on each side of the animal's head; the plant is of copper (now in very bad condition). Total ht. 1·16 m., l. 1·05 m. *v.* p. 255. PG/1237. Pl. 112. (P. 30. 12. 253.)

U. 12356. Copper statues of two stags, in the round, ht. 0·88 m., l. 0·56 m. Mounted on a square metal base once fitted over wood, they are probably the decoration of a harp or lyre of a type rather different from the rest; but all the woodwork has perished. The stags were standing, reared up on their hind legs, the front hoofs resting in the crook of the stem of a water-plant whose long-stalked arrow-headed leaves rise on each side of the beasts' heads. Found in lamentable condition; the whole of the body of one stag has perished; the remains of the two heads are corroded together and could not be separated. *v.* pp. 123, 301. PG/1237. Pls. 74–6, 113. (L. *BM.* 122610.)

U. 12357. A, B. Two statues, in the round, each representing a he-goat standing upright on its hind legs, the front legs fastened to the branches of a tree against which the animal is reared; the front hoofs may have rested on those branches (as by analogy with U. 12355, U. 12356, and various engravings on shell) but actually did not seem to do so. The legs and faces of the animals were of gold, the bellies silver, the horns, eyes, and shoulder fleece of separate pieces of lapis-lazuli, the body fleece of separate pieces of white shell, the tree with its leaves and flowers of gold, the pedestal of silver with mosaic panels in shell, lapis-lazuli, and red limestone. Gold sockets rising above the shoulders of the animals show that they were not free sculpture but supports for something which has now disappeared; under the statue (A) there was found a quantity of white substance, perhaps leather, which may have belonged to the missing feature. A—now in London—lay on its side and was crushed quite flat, but the silhouette was complete. The statue B—now in Philadelphia—was found broken in 2 pieces across the small of the back, but the thickness of the body and the spacing of the branches of the tree were preserved. The wooden cores had altogether perished; the component pieces of the fleece, &c., were kept together by wax and pressed out into shape without taking them apart, and the gold was similarly pressed out, except that the face of (B) was broken into 18 fragments and had therefore to be fitted together. *v.* pp. 264, 301. PG/1237. Pls. 77, 87–90. (L. *BM.* 122200.) (P. 30. 12. 702.)

U. 12358. Fragments of a canopy (?); mosaic border from a curved bar; gold bands, silver plating, mosaic band, shell rings and studs from straight slender rods; copper spear-heads with mounts of gold foil belonging to slender staves. *v.* p. 123. PG/1237.

U. 12359 to U. 12429 inclusive are groups of objects, each group belonging to one of the bodies in the great death-pit PG/1237. For details see p. 116. Pls. 145, 191, 193–5, 198, 220.

U. 12431. Staff-head, of white shell, with 2 shell and 2 black shale rings from the stem of the staff, d. 0·043 m. It lay close to the cross-bar of the silver lyre U. 12354, and might possibly have been the handle of a plectrum. PG/1237. Pl. 221. (B. 8913.)

U. 12432. Beads: lapis-lazuli and silver, numerous and of various types, together with silver pins, ear-rings, and hair-rings, from the bodies in the death-pit PG/1157. There are 14 distinct groups. (L. *BM.* 122272–4, 122276, 122464–71.) (P. 30. 12. 467, 469, 493–4, 594, 601, 655, 657–8, 663.)

U. 12433. Beads: lapis-lazuli and silver, numerous and of various types, together with silver pins, ear-rings, hair-rings, and a cylinder seal (Pl. 194), 15 groups, from the bodies in the death-pit PG/1332. (B. 7350–8, 7367–8, 7544–8.) (L. *BM.* 123768.)

U. 12435. Copper bull's head and shell plaques, from a lyre. The head in good condition except that both horns were damaged; the eyes inlaid with lapis-lazuli and shell, and a triangle of lapis let into the forehead. There was a collar of mosaic, lapis squares, and shell triangles, joining the metal head to the woodwork of the sounding-box; it was very fragmentary. The shell plaques

each measuring 0·058 m.×0·055 m., are silhouetted against a background of lapis mosaic, i.e. they are of the same technique as the 'Standard', U. 11164; above the plaques proper come 3 rows of diamond pattern separated by plain strips, and there are 2 such rows at the bottom also. PG/1332. Pls. 116–17. (P. 30. 12. 484, 696.)

U. 12436. Copper objects, a pair, strips of rather thin metal, curved in section, bent, measuring 0·51 m. long×0·047 m. wide; they lay one on the top of the other close to the remains of the lyre with the copper bull's head U. 12435. Precisely similar objects are pictured as carried by attendants on the inlay panel found at Kish (*v.* p. 127) and on the gold cylinder seal from PG/1054 (U. 11904, Pl. 193), where, in both cases, they are associated with harps or lyres. They are certainly musical instruments, apparently castanets. PG/1332. Fig. 21.

U. 12443. Nine gold leaves, 2 rosettes, and 4 copper stems of plants with gold foil at the ends, all coming from an elaborate diadem like that of Queen Shub-ad (U. 10948); also 2 gold hair-rings, spiral coils of gold wire, and a gold wire ring-pendant from a wreath. All found scattered on the floor of chamber A, PG/1236. (L. *BM.* 122495, 122508.) (P.)

U. 12444. Beads: 31 of gold, very many of lapis-lazuli. Found scattered on the floor of chamber A, PG/1236. (B. 7581.) (P. 30. 12. 581, 646.)

U. 12448. Cylinder seal, lapis-lazuli, l. 0·03 m., date-shaped form. PG/1236, chamber B. Pl. 195.

U. 12449. Gold chain, a single length (l. 0·12 m.) from a *brîm*. PG/1236, chamber B. (L. *BM.* 122211.)

U. 12450. Part of girdle: disks of lapis-lazuli set in heavy gold rings and threaded between strips of lapis, the sides of which are cut in curves to fit the rings. Three complete disks and 4 lapis links were found. PG/1236, chamber B. Pl. 132. (P. 30. 12. 559.)

U. 12451. Two large 'beech-leaf' pendants and 5 gold ring pendants from the normal wreaths; also 5 small leaves, 2 rosettes, and 1 gold wire palmette pendant from a diadem like that of Queen Shub-ad (U. 10948). Found loose on the floor of chamber B, PG/1236.

U. 12452. Beads: gold, lapis-lazuli, and carnelian rectangular oblongs. Found loose on the floor of chamber B, PG/1236. (L. *BM.* 122427.)

U. 12454. Beads: mixed lapis-lazuli beads found loose on the floor of chamber C, PG/1236. (B. 7399.)

U. 12455–6. Beads: gold, mixed types, large lapis-lazuli and smaller carnelian cylinders. Found loose on the floor of chamber C, PG/1236. (B. 7400.)

U. 12457. Gold binding for a sceptre (?); 2 sections of thin sheet gold with embossed designs of men and animals as if made from a cylinder seal. Found loose on the floor of chamber C, PG. 1236. Pls. 197, 217.

U. 12458. Beads: lapis-lazuli, mostly double conoids. Found scattered on the floor of chamber D. PG/1236. (B. 7401.)

U. 12459. Small gold varia: (A), single length of chain from a *brîm*, l. 0·145 m., (B) piece of plain gold binding, (C) triangular bead from a 'dog-collar', (D) 2 tooth-shaped beads, (E) a gold 'beech-leaf' from a wreath. Found scattered on the floor of chamber D, PG/1236. Pl. 220. (B. 7586–7.)

U. 12460. Beads: great numbers of very small lapis-lazuli balls and cylinders, perhaps from a head-dress like that of the standard-bearer in PG/779. Found together in the soil a little above the floor in chamber D, PG/1236. (B. 7402, 9608.)

U. 12461. Cylinder seal, shell, l. 0·044 m., d. 0·026 m. Two registers: above, inscription *a-gig-*[*hu?*]-^{d}*im* partly defaced. *v.* p. 316. PG/1236, chamber D. Pls. 191, 196. (L. *BM.* 122242–3.)

U. 12463. Six gold frontlets, of thin sheet metal, average size 0·17 m.×0·05 m., all worn together on the head of the same man. PG/1422. (L.) (P. 30. 12. 598–600.)

U. 12464. Gold frontlet, oval of thin sheet metal with hole at each end for attachment, 0·15 m.× 0·05 m. Found by the hands, against a silver vase. PG/1422. (P. 30. 12. 603.)

U. 12465. Gold ribbon, 0·01 m. wide, broken into several pieces; worn twisted spirally round a lock of hair. Found on and under the skull. PG/1422. (P. 30. 12. 595.)

U. 12466. Gold hair-ring, 3 hoops of spirally coiled gold wire, fairly thick, d. 0·023 m. Found not on the head but by the hands, near the silver vase, &c., between the two ear-rings U. 12467, as if the three of them had been tied together. PG/1422. (L. *BM.* 122221.)

U. 12467. Gold ear-rings, a pair, thin metal over a core probably of bitumen. The ring consists of a thick spiral coil with lunate ends, but whereas one end is of the normal sort the other splits into 2 lobes, each lunate. PG/1422. *v.* U. 12466. Pl. 146. (L. *BM.* 122217.) (P.)

U. 12468. Gold ear-ring, of the normal small type with solid lunate ends, d. 0·006 m. PG/1422. (P. 30. 12. 623, 636.)

U. 12469. Gold amulet in the form of a standing goat, in profile, its head turned to the front over the left shoulder, the hole for suspension running through the body from the rt. shoulder to the tail, ht. 0·023 m. Very fine work. PG/1422. Pl. 142. (L. *BM.* 122202.)

U. 12470. Cylinder seal, lapis-lazuli with gold caps, l. 0·027 m., d. 0·018 m. An inscription intentionally defaced. PG/1422. Pl. 211. (L. *BM.* 122216.)

U. 12471. Cylinder seal, lapis-lazuli with gold caps, l. 0·021 m., d. 0·012 m. PG/1422. Pl. 211. (P. 30. 12. 38.)

U. 12472. Gold bracelets, 4, penannular rings of metal, average d. 0·08 m. Two of the bracelets are solid and very heavy, 2 are light and tubular, made by hammering a thick gold plate over a core, such as wire, which has been withdrawn. One solid ring was worn on the right arm, the other three on the left. PG/1422. (L. *BM.* 122213–14.) (P. 30. 12. 577–8.)

U. 12473. Silver bracelets, a pair, penannular rings, solid and heavy, d. 0·10 m. One broken. PG/1422.

U. 12474. Beads: a very long chain of large and small jasper, chalcedony, agate, sard, marble, carnelian, &c., cut as cylinders, date-shaped, barrels, flattened square-ended date-shaped, alternating with gold balls, some plain, some ribbed, and one with relief pattern. These seem to have formed one chain which passed two or three times round the neck; the beads lay very thickly under the head. Re-strung on the original pattern, but not strictly in the original order. PG/1422. Pl. 132. (P. 30. 12. 566–7.)

U. 12475. Beads: banded sard, square with bevelled faces, forming a single necklace. Original order. PG/1422. (P. 30. 12. 568.)

U. 12476. Beads: a necklace of carnelian balls and gold ribbed balls strung alternately except in front, where 2 gold came together. Original order. PG/1422. (L. *BM.* 122433.)

U. 12477. Beads: flat diamonds of gold and carnelian, small gold and carnelian balls. Re-strung mostly in the original order. PG/1422. (P. 30. 12. 572.)

U. 12478. Silver axe, cast, Type A 8, l. 0·18 m. PG/1422. Pl. 223. (P. 30. 12. 579.)

U. 12479. Dagger, with copper blade, Type 2, in poor condition, gold guard to handle and 5 gold studs decorating the pommel; blade l. 0·23 m. PG/1422.

U. 12482. Copper box, cylindrical, ht. 0·045 m., d. 0·08 m., with copper lid having a flat knob handle in the centre. PG/1422. Type 110, Pl. 240.

U. 12484. Copper chopper, l. 0·14 m., ht. 0·12 m. PG/1422. Pl. 224.

U. 12488, A–C. Three copper spear-heads, Type 2, l. of point proper 0·35 m., total with tang 0·68 m.; to each is attached a tube of thin copper which was the binding at the head of the shaft, and with each goes a concave disk of copper from the butt end of the shaft. PG/1422. (P. 30. 12. 345.)

U. 12489. Copper dagger, Type 7, l. 0·23 m., and a whetstone of green stone, l. 0·12 m. PG/1424. (B. 7596, 8138.)

U. 12491. Box-lid, circular, of fine white steatite, with flat-topped central knob handle, d. 0·045 m. PG/1236. (B. 8914.)

U. 12492. Stone bowl, white limestone, Type 48, with nicked rim, ht. 0·04 m., d. 0·10 m. PG/1157. Pl. 176. (L. *BM.* 123709.)

U. 12494. Gold ear-ring, a pair, single-coil spiral with lunate ends, normal small type, of thin metal, d. 0·01 m. Loose in soil. (B. 7343.)

U. 12559. Cylinder seal, shell, l. 0·04 m., d. 0·027 m. Gilgamish and bull, worshipper and seated god, and inscription *dkal pa-ḫar-ḫar*. Loose in soil. *v.* p. 315. Pl. 191. (B. 7379.)

U. 12600. Beads: a necklace of carnelian ring-beads. PG/1337. (P. 30. 12. 606.)

U. 12601. Stone vase, white calcite, Type 5, ht. 0·09 m., rim d. 0·08 m. PG/1337. (P. 30. 12. 74.)

U. 12614. Gold finger-ring, made from a metal strip whose sides are curled upwards and inwards to give the effect of a double ring of thick wire; the ends not joined; d. 0·02 m. PG/1348. (B. 7332.)

U. 12615. Beads, forming a bracelet: small double conoids of twisted gold wire (cf. Pl. 134) alternating with carnelian rings and cylindrical beads. PG/1348. (B. 7333.) (L. *BM.* 123673.)

U. 12616. Gold ear-rings, a pair, spiral rings with broad lunate ends, normal small type. PG/1348. (B. 7334.)

U. 12617. Beads: a necklace of gold tubular beads, carnelian rings, a few minute balls of glazed frit, 2 carnelian balls, 1 agate cylinder, and 5 large gold double conoids with appliqué wire decoration. PG/1348. (B. 7335.)

U. 12619. Finger-rings, of gold (broken) and copper, d. 0·02 m. PG/1350. (P. 30. 12. 534.)

U. 12621. Ear-rings, silver, a pair, each consisting of two small spirals with lunate ends interlaced. PG/1351. (B. 7345.)

U. 12622. Beads: silver and lapis diamonds, balls and small cylinders, 2 large carnelian cylinders, and one elliptical of chalcedony. PG/1351. (B. 7474.)

U. 12625. Copper axe, Type S 7, l. 0·185. PG/1355.

U. 12632. Beads: a necklace of small carnelian and gold balls. PG/1359. (L. *BM.* 122443.)

U. 12633. Gold ear-rings, a pair, spirally curled, with broad lunate ends, normal small type, d. 0·015 m. PG/1359. (L. *BM.* 122225.)

U. 12634. Gold fillet, worn twisted round the hair, l. 0·16 m., width 0·007 m., with the ends rounded and pierced. PG/1359. (L. *BM.* 122246.)

U. 12635. Beads: 1 lapis and 1 silver cylinder, 1 silver double conoid, and 1 carnelian ring. Also a pair of small copper ear-rings of spirally coiled type with lunate ends. PG/1360. (B. 7430–1.)

U. 12637. Cylinder seal, shell, with copper caps, l. 0·04 m., d. 0·016 m. Presentation scene before a seated god; poor condition. (L. *BM.* 122539.)

U. 12638. Beads: minute lapis cylinders, carnelian rings, lapis date-shaped and white paste twisted tubular. Also 2 copper pins, Type 2, with rings attached for suspension near the head, l. 0·30 m. and 0·19 m. PG/1366. (B. 7467–8.) (L. *BM.* 123687.) (P. 30. 12. 400.)

U. 12639. Cylinder seal, black steatite, l. 0·034 m., d. 0·013 m. Poor engraving; broken and mended. From a ruined (unnumbered) grave 4·50 m. below the surface. Pl. 210. (B. 11096.)

U. 12640. Cylinder seal, shell, l. 0·032 m., d. 0·018 m., poor condition. PG/1368. Pl. 201. (B. 13203.)

U. 12641. Cylinder seal, glazed frit; poor condition. Presentation scene? PG/1368. (L. *BM.* 123686.)

U. 12642. Beads: carnelian cylinders and remains of cylinders made of thin silver plate over a wooden core. PG/1371. (B. 7461.)

U. 12645. Gold ear-rings, a pair, each of 2½ spiral coils of gold wire, d. 0·021 m. PG/1374.

U. 12646. Beads: a necklace of carnelian rings alternating with silver tubular beads. PG/1374.

U. 12647. Beads: a necklace of gold and lapis long double conoids. PG/1374.

U. 12648. Stone bowl, white calcite, d. 0·20 m. Fragmentary. PG/1374.

U. 12649. Stone vase, white calcite, Type 6, ht. 0·26 m., rim d. 0·17 m. Rim broken. PG/1374. (B. 8434.)

U. 12650. Copper pin with lapis and gold head, Type 1, l. 0·26 m. PG/1374. (B. 7491.)

U. 12654. Cylinder seal, lapis-lazuli, l. 0·034 m., d. 0·016 m. PG/1374. Pl. 198. (P. 30. 12. 12.)

U. 12658. Cylinder seal, lapis-lazuli, l. 0·044 m., d. 0·009 m. PG/1374. Pl. 192. (B. 8101.)

U. 12660. Stone bowl, white calcite, Type 66, d. 0·135 m. PG/1374. (L. *BM.* 123693.)

U. 12662. Beads: lapis and carnelian date-shaped balls. PG/1375. (L. *BM.* 122446.)

U. 12664. Group: cylinder seal, lapis-lazuli, l. 0·022 m., d. 0·01 m. Pl. 203. Also beads: small lapis and silver rings and 1 large lapis square. Ear-ring made of 2 intertwined 1½ spiral coils with lunate ends, 1 of copper, 1 of silver; and a plain silver finger-ring. PG/1379. (L. *BM.* 122493, 123678, 123729.) (P. 30. 12. 6, 518–19.)

U. 12665. Beads: small lapis balls, carnelian rings and cylinders, and 1 square carnelian with bleached bands. Also a number of shell rings, d. 0·025 m., apparently worn along the edge of the skirt. PG/1380. (P. 30. 12. 589.)

U. 12666. Cylinder seal, black steatite, l. 0·018 m., d. 0·009 m. Poor cutting. PG/1381. Pl. 210.

U. 12667. Cylinder seal, greenish calcite, l. 0·019 m., d. 0·01 m. PG/1381. Pl. 208. (L. *BM.* 122568.)

U. 12668. Bead: date-shaped, of rock crystal, with the boring lined with white paste, l. 0·024 m. PG/1381.

U. 12673. Stone bowl, greenish veined calcite, Type 18, ht. 0·09 m., rim d. 0·21 m. PG/1382. Pl. 176. (L. *BM.* 123702.)

U. 12674. Cylinder seal, lapis-lazuli, l. 0·029 m., d. 0·014 m. The stone is slung on a thin silver wire ring. PG/1382. Pl. 198. (P. 30. 12. 4.)

U. 12675. Cylinder seal, shell, l. 0·051 m., d. 0·008 m. Geometric ornament with minute incised circles once filled with dots of lapis-lazuli. PG/1382. Pl. 192.

U. 12676. Silver finger-rings, a pair, made of coiled wire, plain borders, between which 6 rings of twisted metal; cf. the gold examples, Pl. 138. D. 0·02 m. PG/1382. (B. 7490.) (P. 30. 12. 515.)

U. 12677. Group: cylinder seal, lapis-lazuli, l. 0·016 m., d. 0·009 m., geometrical pattern. Beads: carnelian rings and lapis double conoids, with 1 barrel-shaped of mottled marble. Silver ear-rings, a pair, each of 1½ spiral coils with lunate ends. PG/1383. (L. *BM.* 122510.)

U. 12678. Group: cylinder seal, shell, l. 0·036 m., d. 0·02 m. Poor condition. Pl. 203. Also stone bowl, white calcite, miniature, Type 48, with nicked rim, ht. 0·03 m., rim d. 0·03 m. Also copper pin, Type 1, with lapis ball head with gold caps, l. 0·32 m. Also copper pin, Type 7, with lapis cube head set in silver, l. 0·21 m. PG/1385. (B. 7376–8, 8474.)

U. 12679. Cylinder seal, shell, l. 0·028 m., d. 0·015 m. Poor condition. PG/1386. Pl. 212. (B. 14595.)

U. 12680. Group: cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·026 m. Pl. 203. Beads: 2 carnelian cylinders and 1 lapis date-shaped, apparently worn round the forehead. Stone bowl, white limestone, Type 24, ht. 0·045 m., rim d. 0·145 m. Copper axe, Type A 1, l. 0·15 m. PG/1387. (B. 8128.) (L. *BM.* 122499, 122566, 123711.)

U. 12681. Cylinder seal, dark steatite, l. 0·027 m., d. 0·015 m., slightly concave sides. Found loose in soil at depth of 4·00 m. Pl. 216. (B. 14596.)

U. 12682. Shell inlay plaque, fragment, l. 0·051 m., present width 0·012 m. A rampant ibex with plants in the background. The plaque was cylindrical and only one section of it remains. Found loose in the soil at a depth of *c.* 4·00 m. (L. *BM.* 122251.)

U. 12684. Stone bowl, white calcite, Type 36, ht. 0·05 m., rim d. 0·08 m. In it traces of yellow pigment. Found loose in the soil at a depth of *c.* 5·00 m. (B. 8476.)

U. 12693. Beads: carnelian barrels and lapis-lazuli balls. PG/1391. (B. 7432–3.) (L. *BM.* 123683.)

U. 12695. Stone bowl, white limestone, Type 18, ht. 0·08 m., rim d. 0·14 m., containing red pigment. PG/1394. (B. 7489, 8488.)

U. 12696. Group: beads, silver and lapis date-shaped strung alternately. (P. 30. 12. 587.) Stone vase, white calcite, Type 1, ht. 0·065 m., rim d. 0·065 m. PG/1395. Pl. 176. (L. *BM.* 123721.)

U. 12697. Stone vase, white calcite, Type 80, ht. 0·18 m., d. 0·09 m., mis-shapen. PG/1396. (P. 30. 12. 85.)

U. 12698. Group: beads, 2 carnelian and 1 lapis tubular, probably from a frontlet; silver ear-ring made up of 3 rings, intertwined, one of 1½ spiral coils with lunate ends, the second with one end plain and the other twisted into a penannular ring, the third of 1½ coils of plain wire. PG/1397. (B. 7476–7.)

U. 12699. Beads: 5 in all, lapis ball, carnelian barrel, light blue paste barrel, 2 minute silver barrels. PG/1398.

U. 12701. Group: (A) Copper pin, Type 1, l. 0·25 m., with lapis ball head and gold caps. (B) Gold ear-rings, a pair, small type, 1½ coils with lunate ends. (C) Beads: necklace of 3 strands of gold, lapis, and carnelian barrels. (D) Beads: date-shaped, of gold and lapis, having in centre a gold frog amulet l. 0·01 m. (E) Cylinder seal, lapis-lazuli, l. 0·02 m., d. 0·011 m. Pl. 198. (F) Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·007 m. Pl. 211. (G) Bracelets, plain, 1 silver, 1 copper, d. 0·04 m. (H) Silver finger-ring, 1½ coils of plain wire, d. 0·015 m. (J) Stone bowl, white calcite, Type 60, ht. 0·07 m., d. 0·185 m. (K) Stone vase, white calcite, Type 20, ht. 0·15 m., rim d. 0·08 m. PG/1400. (B. 7303–10, 8435.)

U. 12702. Group: beads, gold balls, carnelian

cylinders and barrels, agate boss, chalcedony elliptical, agate double conoid, lapis diamonds, silver and copper balls. Also gold ear-rings, a pair, 1½ coils with lunate ends, small type. PG/1401. (P. 30. 12. 632–3.)

U. 12703. Group: beads, lapis and silver diamonds and double conoids, lapis and carnelian cylinders and carnelian barrels. Also stone vase, white calcite, Type 87 (variant), ht. 0·11 m., rim d. 0·10 m. PG/1402. (L. *BM.* 122511, 123682.) (B. 7488, 8472.) (P.)

U. 12704. Group: (A) Stone vase, white calcite, Type 84, ht. 0·11 m., rim d. 0·07 m. (B) Stone vase, white calcite, Type 54, ht. 0·18 m., rim d. 0·08 m. (C) Stone bowl, grey steatite, Type 3, rim d. 0·20 m. Broken. (D) Stone bowl, white calcite, Type 54, rim d. 0·125 m. (E) Three silver finger-rings, each made of 3½ spiral coils of fine wire, d. 0·025 m. (F) Cylinder seal, lapis-lazuli, l. 0·039 m., d. 0·013 m. Pl. 192. (G) Cylinder seal, lapis-lazuli, l. 0·029 m., d. 0·013 m. Pl. 198. (H) Beads: lapis cylinders and double conoids, carnelian barrels and rings and some silver wire pendants much decayed; these exactly resemble the gold pendants on Pl. 140, and measure 0·012 m.×0·012 m.; also a lapis frog amulet, l. 0·004 m. (J) Beads: large double conoids and a few tubular of carnelian and 2 calcite beads, truncated cones. (K) Gold ribbon, width 0·003 m., worn on forehead, twisted. PG/1403. (B. 8405, 8430.) (L. *BM.* 122559, 123701, 123714.) (P. 30. 12. 520, 627.)

U. 12705. Group: (A) Beads: small lapis-lazuli tubular and carnelian barrels and rings. (B) Cylinder seal, lapis, l. 0·021 m., d. 0·013 m. Design of men and animals very poorly cut; it was stuck to the blade of the dagger. Pl. 211. (C) Dagger, copper blade, 0·135 m. long (tip missing), Type 7, with silver and ivory handle. (D) Copper spindle, l. 0·20 m., with lapis whorl. PG/1404. (P. 30. 12. 346–9, 576.)

U. 12706. Beads: lapis-lazuli and carnelian date-shaped, lapis barrels and double conoids, carnelian rings, chalcedony biconvex, one calcite biconvex; with them a silver frog amulet l. 0·022 m. Also cylinder seal, lapis, l. 0·024 m., d. 0·006 m. PG/1405. Pl. 208. (B. 7403–6, 7464, 8432.)

U. 12707. Group: (A) Stone vase, white calcite, Type 86, ht. 0·13 m., rim d. 0·07 m. (B) Stone bowl, white calcite, Type 15, ht. 0·065 m., d. 0·165 m. (C) Copper lamp, Type 115, l. 0·024 m. (D) Cylinder seal, shell, l. 0·037 m., d. 0·025 m., much decayed. Pl. 195. (E) Cylinder seal, lapis-lazuli, l. 0·035 m., d. 0·025 m. Pl. 198. (F) Beads: probably a bracelet, carnelian rings. (G) Beads: from a *brîm*, 2 carnelian and 1 lapis tubular. PG/1407. (B. 7592, 8436, 14585, 14598.)

U. 12708. Beads: carnelian date-shaped (broken), 2 lapis-lazuli double conoids, 1 haematite double conoid. PG/1408. (L. *BM.* 123690.)

U. 12711. Group: (A) Stone bowl, white calcite, Type 14, ht. 0·08 m., rim d. 0·11 m. (B) Stone vase, white calcite, Type 78, ht. 0·17 m., rim d. 0·10 m. (C) Stone vase, white calcite, Type 61, ht. 0·105 m., rim d. 0·045 m. (D) Stone bowl, grey stone, Type 19, ht. 0·085 m., rim d. 0·16 m. (E) Cylinder seal, lapis-lazuli, date-shaped, l. 0·034 m., d. 0·005 m. Pl. 192. (F) Beads: 3 carnelian tubular, worn on the forehead. (G) Beads: small lapis and silver double conoids and date-shaped carnelian. PG/1412. (B.7493–8, 8401, 8429, 8437, 8504.)

U. 12712. Weights, haematite (7) and pebble (2), mixed shapes, weighing respectively grains 27, 88, 152, 180, 193, 200, 517, 567. PG/1413.

U. 12715. Beads: necklace of small lapis and silver balls. Also remains of silver hair-ribbon. PG/1414. (B. 7414–15, 7557–8.)

U. 12717. Stone bowl, grey steatite, Type 41, ht. 0·075 m., rim d. 0·13 m. PG/1420. (L. *BM.* 123700.)

U. 12720. Cylinder seal, lapis-lazuli, l. 0·016 m., d. 0·009 m. Poor cutting. PG/1420. Pl. 196. (P. 30. 12. 17.)

U. 12721. Beads: tubular, 2 of carnelian and 1 of silver over a wooden core; worn on the forehead. PG/1420. (L. *BM.* 123677.)

U. 12724. Stone vase, white calcite, Type 6, ht. 0·27 m., rim d. 0·14 m. PG/1420. (L. *BM.* 123708.)

U. 12726. Stone vase, white calcite, Type 61, ht. 0·15 m., rim d. 0·085 m. PG/1421. (B. 8484.)

U. 12727. Stone vase, white calcite, Type 87, ht. 0·165 m., rim d. 0·085 m. PG/1421. (P. 30. 12. 88.)

U. 12728. Beads: collar of gold and lapis-lazuli fluted triangles. PG/1421. Cf. Pl. 145. (B. 7765.)

U. 12729. Beads: necklace of large gold and lapis-lazuli fluted balls with carnelian rings between. PG/1421. (B. 7731.)

U. 12730. Beads: necklace of 2 strands of gold and lapis-lazuli long faceted date-shaped. PG/1421. (B. 7539.)

U. 12731. Beads: necklace of 3 strands of gold and lapis-lazuli double conoids. PG/1421.

U. 12732. Gold pin, Type 1, with lapis-lazuli ball head with gold caps, l. 0·15 m. PG/1421. (B. 8320.)

U. 12733. Gold ear-rings, a pair, each of 2½ spiral coils of gold wire, d. 0·03 m. PG/1421. (B. 7344.)

U. 12734. Gold finger-rings, a pair, plain wire hoops, d. 0·02 m. PG/1421.

U. 12737. Stone vase, white calcite, Type 86, ht. 0·145 m., rim d. 0·09 m. PG/1388. (L. *BM.* 123720.)

U. 12738. Gold ear-ring, 1½ spiral coils with lunate ends, d. 0·014 m. PG/1388. (B. 7993.)

U. 12741. Animal's leg (bull's?), copper, originally the foot of a tray or pot, l. 0·05 m. Loose in the soil at depth of *c.* 5·00 m. Cf. Pl. 233, Type 24. (B. 7563.)

U. 12743. Stone vase, white calcite, Type 85 (variant), ht. 0·165 m., rim d. 0·095 m. Loose in soil, low down. (B. 8439.)

U. 12746. Mortar of grey stone, Type 18, ht.

0·055 m., rim d. 0·11 m. With it was a pestle also of grey stone, with rounded ends, l. 0·10 m. Found loose in the soil. (B. 8631–2.)

U. 12765. Cylinder seal, grey-brown steatite, l. 0·047 m., d. 0·012 m. Found at 5·60 m. below the plano-convex pavement at the NW. end of the cemetery area. Pl. 199. (L. *BM.* 122540.)

U. 13034. Copper pin with grotesque horned head, Type 6. Loose in the soil. Pl. 231.

U. 13050. Stone bowl, grey steatite, Type 49, ht. 0·17 m., d. 0·0335 m. Loose in the soil.

U. 13053. Gold finger-ring, made of thin strip metal with the sides bent upwards and inwards to give the effect of a double hoop of gold wire. Loose in the soil.

U. 13200. Three shell plaques, one engraved with a bull and stylized plant, one with a running man, the third too decayed to decipher. *c.* 0·03 m. sq. Pl. 98.

U. 13499. Cylinder seal, limestone, l. 0·032 m., d. 0·015 m. Pl. 194. (L. *BM.* 122548.)

U. 13508. Gold frontlet, oval, with the ends prolonged and pierced; thin metal, l. 0·087 m., width 0·035 m. PG/1464. (P. 31. 17. 80.)

U. 13509. Beads: 1 agate barrel, 1 agate cat's eye, 1 carnelian barrel, 4 gold balls with undulating parallel bands of repoussé work. PG/1464. (L. *BM.* 122720.)

U. 13510. Gold ear-rings, a pair, small type with $1\frac{1}{2}$ coils and lunate ends, d. 0·017 m. PG/1464. (P. 31. 17. 78.)

U. 13511. Beads, 2 necklaces: (A) Steatite cylinders and double conoids, calcite barrel, carnelian cylinders, fluted gold balls. Re-strung in original order. (B) Steatite rings, barrels and double conoids, flattened double conoid, jasper double conoids, gold ball and ring, disk pendant of carnelian with bleached border decoration. PG/1470.

U. 13513. Cylinder seal, lapis-lazuli, l. 0·013 m., d. 0·007 m. Two heroes fighting lions. PG/1470.

U. 13515. Cylinder seal, grey calcite, l. 0·036 m., d. 0·014 m. Loose in the rubbish filling, 1·50 m. below the surface. Pl. 201. (P. 31. 17. 117.)

U. 13516. Cylinder seal, white calcite, l. 0·036 m., d. 0·02 m. PG/1462. Pl. 201.

U. 13519. Cylinder seal, shell, l. 0·023 m., d. 0·013 m. Presentation scene with 3 standing figures. PG/1485.

U. 13521. Cylinder seal, white calcite, l. 0·037 m., d. 0·015 m.; broken. Loose in the soil at depth of 3·00 m. Pl. 200. (P. 31. 17. 118.)

U. 13522. Cylinder seal, brown steatite, l. 0·022 m., d. 0·012 m. Hero with rampant animals. PG/1491.

U. 13523. Beads: necklace of lapis double conoids, carnelian rings, lapis balls, rings of burnt haematite (?), and 2 lapis frog amulets. PG/1490. (P. 31. 17. 60.)

U. 13525. Gold hair-ring, $3\frac{1}{2}$ spiral coils of gold wire, d. 0·017 m. PG/1510.

U. 13526. Beads: carnelian barrel and long double conoid, lapis-lazuli barrel and double conoid, agate cylindrical. PG/1510. (P. 31. 17. 68.)

U. 13527. Stone bowl, greenish grey steatite, cut down from a larger vessel, Type 26, ht. 0·055 m., rim d. 0·21 m. PG/1520.

U. 13531. Beads: 4 carnelian rings, 8 long double conoids of glass paste, 34 glass paste barrels. PG/1517.

U. 13533. Stone bowl, white limestone, Type 22, ht. 0·10 m., rim d. 0·16 m. PG/1517.

U. 13534. Stone vase, white calcite, Type 92, ht. 0·16 m., rim d. 0·08 m. PG/1517.

U. 13536. Stone vase, white calcite, Type 92, ht. 0·155 m., rim d. 0·07 m. PG/1525.

U. 13538. Stone bowl, white calcite, Type 19, rim chipped, ht. 0·045 m., rim d. 0·095 m. PG/1525.

U. 13540. Beads: small rings and cylinders of glazed frit. PG/1527.

U. 13542. Cylinder seal, white calcite, l. 0·03 m., d. 0·02 m. Rampant lions; very poor cutting. PG/1527.

U. 13545. Stone tumbler, grey steatite, Type 1, ht. 0·075 m., rim d. 0·10 m. PG/1503. (L. *BM.* 123755.)

U. 13546. Beads: agate, lapis-lazuli, and carnelian barrels and double conoids and 1 cylinder; 17 in all. PG/1503.

U. 13548. Beads: 3 only, 2 large lapis-lazuli ovoids, roughly shaped, 1 bitumen double conoid. PG/1534.

U. 13549. Stone bowl, white calcite, Type 41, ht. 0·08 m., d. 0·135 m. PG/1534.

U. 13550. Beads: 5 only, 1 lapis-lazuli double conoid, 1 carnelian ring, 1 carnelian barrel, 1 crystal ring, 1 copper double conoid. PG/1529.

U. 13552. Cylinder seal, steatite, l. 0·02 m., d. 0·011 m. PG/1533. Pl. 205. (P. 31. 17. 125.)

U. 13553. Beads: 3 gold, 1 lapis, and 1 carnelian double conoids, 1 fluted gold ball, 2 carnelian and 1 agate tubular, 6 lapis barrels, 2 agate flattened double conoids, 2 rock crystal balls. PG/1553. (P. 31. 17. 63.)

U. 13554. Copper pin, Type 1, with lapis ball head and gold caps, l. 0·18 m. PG/1561. (P.)

U. 13555. Flint tool, l. 0·04 m. Found in PG/1561, but not necessarily belonging to the grave. Pl. 221.

U. 13556. Beads: steatite, lapis-lazuli, and carnelian, and 1 calcite flattened double conoid. Re-strung in original order. PG/1563.

U. 13557. Copper pin, Type 7, with lapis ball head with gold caps, l. 0·23 m. PG/1565.

U. 13558. Beads: lapis-lazuli double conoids and 1 large carnelian ring. PG/1556. (L. *BM.* 122772.) (P.)

U. 13560. Ten shell rings, apparently the decoration of a wooden staff. PG/1556.

U. 13562. Copper pin, Type 7, with lapis ball head with gold caps, l. 0·115 m. PG/1556.

U. 13563. Ostrich shell, originally painted red and decorated with bands of mosaic in shell and lapis round the top, which is cut open to form a mouth; cf. Pl. 156. Badly broken.

U. 13564. Stone bowl, grey calcite, Type 49, ht. 0·085 m., rim d. 0·175 m. PG/1556.

U. 13569. Stone bowl, white calcite, Type 22, ht. 0·09 m., rim d. 0·23 m. PG/1556.

U. 13572. Beads: silver and lapis-lazuli double conoids. PG/1579.
U. 13574. Cylinder seal, white calcite, l. 0·04 m., d. 0·023 m. PG/1586. Pl. 204.
U. 13575. Stone bowl, white calcite, Type 48, with nicked rim, ht. 0·035 m., rim d. 0·105 m. PG/1575. (P. 31. 16. 414.)
U. 13577. Whetstone, hexagonal in section, l. 0·11 m., d. 0·01 m. PG/1572.
U. 13578. Stone bowl, white calcite, Type 25, ht. 0·06 m., rim d. 0·15 m. Loose in soil, at depth of 4·50 m.; fourth stratum below 1st Dynasty seal-bearing level.
U. 13579. Stone bowl, white limestone, Type 45, ht. 0·05 m., rim d. 0·105 m. PG/1554.
U. 13580. Stone bowl, grey calcite, Type 20, ht. 0·085 m., rim d. 0·22 m. Broken and riveted in antiquity. PG/1573.
U. 13582. Stone vase, white calcite, Type 60, ht. 0·175 m., rim d. 0·075 m. PG/1573. (P. 31. 16. 387.)
U. 13589. Stone bowl, white calcite, Type 48, ht. 0·055 m., rim d. 0·105 m. PG/1585.
U. 13592. Stone bowl, translucent white calcite, Type 66, ht. 0·05 m., rim d. 0·075 m. PG/1588.
U. 13593. Stone vase, white calcite, Type 89, ht. 0·14 m., rim d. 0·075 m. PG/1588. (L. *BM.* 123736.)
U. 13594. Beads: minute gold double conoid, lapis ring, sard barrel. PG/1588. (P.)
U. 13598. Beads: 2 carnelian rings, 1 carnelian cylinder, 3 glass paste double conoids. PG/1601. (P. 31. 17. 99.)
U. 13607. Clay sealing in two fragments, d. of whole *c.* 0·013 m. Inscription of Mes-anni-padda. Found loose in soil. *v.* p. 313. Pls. 191, 207.
U. 13686. Clay sealing, d. *c.* 0·035 m. Inscription of Nin-Tur Nin. Found loose in soil. *v.* p. 313. Pls. 191, 207.
U. 13770. Stone bowl, white limestone, Type 19, ht. 0·07 m., rim d. 0·105 m. PG/1648.
U. 13771. Stone bowl, white limestone, Type 19, ht. 0·062 m., rim d. 0·14 m. PG/1648. (P. 31. 16. 420.)
U. 13772. Stone bowl, white limestone, Type 45, ht. 0·067 m., rim d. 0·15 m. PG/1648. (P. 31. 16. 419.)
U. 13773. Stone bowl, white limestone, Type 19, ht. 0·062 m., rim d. 0·17 m. PG/1648. (P. 31. 16. 418.)
U. 13774. Stone bowl, white limestone, Type 45, with slight base and rim groove, ht. 0·067 m., rim d. 0·15 m. PG/1648. (L. *BM.* 123760.)
U. 13775. Stone bowl, white limestone, Type 19, ht. 0·075 m., rim d. 0·16 m. PG/1648. (P. 31. 16. 417.)
U. 13776. Stone bowl, white limestone, Type 19, ht. 0·055 m., rim d. 0·145 m. PG/1648.
U. 13777. Stone bowl, white limestone, Type 19, ht. 0·11 m., rim d. 0·22 m. PG/1648.
U. 13780. Stone bowl, white limestone, Type 19, ht. 0·062 m., rim d. 0·17 m. PG/1648. (P. 31. 16. 459.)
U. 13782. Copper tripod (?) with hollow cylindrical stem wherein remains of wood, and 3 curved legs ending in rather sharp points, ht. 0·05 m., d. 0·08 m. PG/1648. Pl. 226.
U. 13783. Beads: gold and lapis-lazuli double conoids in graded sizes. PG/1648. (L. *BM.* 122761–4, 122766–9.) (P. 31. 17. 46–52.)
U. 13784. Beads, probably from a *brîm*: 1 gold and 3 lapis very large faceted date-shaped, 2 smaller lapis ditto, and carnelian rings. The gold bead is of thin metal over a bitumen core. PG/1648. (P. 31. 17. 132.)
U. 13785. Stone bowl, white limestone, Type 19, ht. 0·065 m., rim d. 0·145 m. PG/1648.
U. 13788. Dagger: electrum blade, Type 7, l. 0·207 m., width 0·03 m., gold guard, handle originally of wood with the pommel set with small gold studs; rather poor workmanship. PG/1618. Pl. 146. (L. *BM.* 122701.)
U. 13790. Gold fillet, plain strip metal, l. 0·345 m., width 0·025 m., the ends rounded and pierced. PG/1618. Pl. 146.
U. 13791. Gold hair-rings, a pair, spiral coils of wire, d. 0·026 m. PG/1618. Pl. 146. (L. *BM.* 122706.)
U. 13792. Gold ear-ring, 1 only, 2 spiral rings with broadened lunate ends, interlaced; d. of rings 0·022 m. PG/1618. Pl. 146. (L. *BM.* 122707.)
U. 13793. *Brîm* consisting of 2 lengths of gold chain, 3 large tubular beads, 1 of gold, 2 of lapis-lazuli, square in section, 2 ribbed gold balls, and 2 ribbed lapis balls. PG/1618. Pl. 146. (L. *BM.* 122714.)
U. 13794. *Brîm* consisting of 2 lengths of gold chain, 1 gold and 2 carnelian large tubular beads, and 4 small gold balls. PG/1618. Pl. 146. (L. *BM.* 122712.)
U. 13795. *Brîm* consisting of 2 lengths of gold chain, 1 gold and 2 lapis-lazuli faceted date-shaped beads, 4 carnelian rings. PG/1618. (L. *BM.* 122715.)
U. 13796. *Brîm* consisting of 2 lengths of gold chain, 1 gold and 2 lapis-lazuli large faceted date-shaped beads, 4 carnelian ring beads, PG/1618. Pl. 146. (L. *BM.* 122713.)
U. 13797. Beads: double conoids of gold and (discoloured) lapis-lazuli. PG/1618. (L. *BM.* 122716.) (P. 31. 17. 45, 54–6, 70, 136.)
U. 13799. Stone vase, white calcite, Type 6, ht. 0·28 m., rim d. 0·14 m. PG/1618. (L.)
U. 13888. Cylinder seal, steatite, l. 0·02 m., d. 0·007 m. Inscription: *lugal-tur-nir* (?). *v.* p. 316. Loose in soil. Pl. 191.
U. 14002. Beads: 38 lapis-lazuli double conoids. PG/1611.
U. 14006. Beads: 5, 1 carnelian faceted double conoid, 1 lapis-lazuli cylinder, 3 lapis double conoids. PG/1609. (L. *BM.* 122803.)
U. 14007. Beads: 2 strands of a necklace, lapis-lazuli and some carnelian rings, 1 lapis cylinder, and a rectangular lapis pendant. PG/1603.
U. 14010. Gold ear-ring, single spiral coil, d. 0·018 m. PG/1594.
U. 14013. Cylinder seal, limestone, l. 0·039 m., d. 0·023 m. PG/1627. Pl. 196.

U. 14016. Stone vase, white calcite, Type 89, ht. 0·165 m., rim d. 0·08 m. PG/1605.

U. 14017. Stone vase, white calcite, Type 63, ht. 0·05 m., rim d. 0·05 m. PG/1605. (L. *BM.* 123743.)

U. 14019. Stone vase, white calcite, Type 76, ht. 0·18 m., rim d. 0·115 m. PG/1562.

U. 14020. Stone vase, white calcite, Type 87, ht. 0·172 m., rim d. 0·10 m. PG/1562. (P. 31. 16. 386.)

U. 14024. Stone vase, white calcite, Type 89, ht. 0·165 m., rim d. 0·09 m. PG/1629.

U. 14025. Gold hair-rings, a pair, each consisting of 2½ spiral coils of wire, d. 0·032 m. Found just below the wrist. PG/1629.

U. 14026. Beads: a bracelet made of minute carnelian and lapis-lazuli rings strung in triangles which alternate with gold triangles made of minute beads soldered together; 17 gold spacer triangles, each 0·012 m. high. PG/1629. Cf. Pl. 133. (B. 8939.)

U. 14028. Stone vase, white calcite, Type 6, ht. 0·32 m., rim d. 0·085 m. PG/1613.

U. 14029. Beads: necklace of gold and lapis-lazuli ovoids with a flattened ovoid sard as clasp. PG/1608. (P. 31. 17. 147.)

U. 14030. Copper pin, Type 1, with ball head of glazed frit, l. 0·185 m. PG/1608.

U. 14031. Gold ear-rings, a pair, each of 2½ spiral coils of wire, d. 0·023 m. PG/1608.

U. 14033. Stone bowl, white calcite, Type 22, ht. 0·03 m., d. 0·09 m. PG/1608. (P. 31. 16. 445.)

U. 14034. Stone bowl, white calcite, roughly made miniature, Type 30, ht. 0·025 m., rim d. 0·02 m. PG/1608. (P. 31. 16. 395.)

U. 14035. Stone bowl, white calcite, Type 16, ht. 0·14 m., rim d. 0·21 m. PG/1625.

U. 14036. Beads: necklace of 4 strands of gold and lapis-lazuli ovoids with a lapis disk, d. 0·017 m., as clasp. PG/1625. (B. 8942.)

U. 14037. Gold ear-rings, a pair, each of 2½ spiral coils of wire, d. 0·035 m. PG/1625.

U. 14038. Gold fillet, l. 0·30 m., width 0·015 m., with rounded ends, pierced and a border of repoussé dots. PG/1625.

U. 14041. Cylinder seal, lapis-lazuli, l. 0·035 m., d. 0·01 m. PG/1625. Pl. 195. (P. 31. 17. 7.)

U. 14044. Stone vase, white calcite, Type 61, ht. 0·11 m., rim d. 0·065 m. PG/1625.

U. 14045. Clay offering-table, Type 243, having on the stem 2 bands of criss-cross decoration and 2 bands of hatched triangles; badly broken, ht. 0·27 m., rim d. 0·20 m. PG/1625.

U. 14046. Stone bowl, dark green stone, Type 22, ht. 0·045 m., rim d. 0·11 m. PG/1635.

U. 14047. Beads: necklace of 4 strands; lapis-lazuli double conoids, carnelian cylinders, 2 gold double conoids, 1 lapis and 1 carnelian pendant; in original order. PG/1634.

U. 14048. Stone vase, white calcite, Type 64, ht. 0·075 m., rim d. 0·075 m. PG/1634.

U. 14049. Stone vase, white calcite, Type 3, ht. 0·15 m., rim d. 0·11 m. PG/1634.

U. 14050. Gold ear-rings, a pair, each of 2½ spiral coils of thin wire, d. 0·017 m.; and a single example of 1½ coils of thick wire. PG/1634. (B. 8938.)

U. 14051. Stone bowl, white calcite, ht. 0·09 m. Broken. PG/1634.

U. 14056. Beads: carnelian rings, 1 barrel and 1 double conoid, 2 lapis-lazuli double conoids. PG/1636.

U. 14057. Stone vase, white calcite, Type 59, ht. 0·06 m., rim d. 0·11 m. PG/1636. (P. 31. 16. 449.)

U. 14058. Stone vase, steatite, Type 29, decorated with bands of rough half-circles in relief, ht. 0·03 m., rim d. 0·04 m. PG/1633. (L. *BM.* 123759.)

U. 14059. Stone bowl, dark grey stone, Type 19, ht. 0·03 m., rim d. 0·065 m. PG/1633. (P. 31. 16. 406.)

U. 14066. Beads: 2 only, large double conoids of burnt lapis-lazuli. PG/1628.

U. 14071. Stone bowl, greenish steatite, Type 50, ht. 0·125 m., rim d. 0·275 m. PG/1524. (P. 13. 16. 379.)

U. 14072. Stone vase, white calcite, Type 89, ht. 0·15 m., rim d. 0·07 m. PG/1524.

U. 14073. Beads: lapis double conoids, carnelian rings, and a pear-shaped rock-crystal pendant. PG/1524.

U. 14075. Beads: 2 lapis-lazuli cylinders, 1 silver double conoid. PG/1619.

U. 14078. Stone bowl, white limestone, Type 48, ht. 0·06 m., rim d. 0·11 m. PG/1619.

U. 14082. Cylinder seal, black steatite, l. 0·023 m., d. 0·009 m. Heroes fighting rampant lions. Found loose in soil at depth of 6·50 m. in late rubbish.

U. 14083. Gold ear-ring of 1½ spiral coils of wire, d. 0·017 m. PG/1642.

U. 14086. Beads: 2 only, lapis-lazuli faceted double conoids, large. PG/1646. (P. 31. 17. 83.)

U. 14087. Cylinder seal, shell, l. 0·03 m., d. 0·012 m. Poor condition. PG/1646. Pl. 195. (P. 31. 17. 116.)

U. 14088. Beads: a necklace of lapis-lazuli ovoids, burnt. PG/1650.

U. 14090. Cylinder seal, glazed frit, l. 0·031 m., d. 0·014 m. PG/1650. Pl. 202. (B. 11964.)

U. 14091. Gold ear-rings, a pair, of 2½ spiral coils of wire, d. 0·022 m. PG/1651. (P. 31. 17. 75.)

U. 14092. Stone vase, white calcite, Type 89, ht. 0·13 m., rim d. 0·055 m. PG/1651.

U. 14093. Stone bowl, dark green steatite, Type 19, ht. 0·09 m., rim d. 0·16 m. PG/1651. (L. *BM.* 123750.)

U. 14096. Beads: necklace of carnelian cylinders and lapis-lazuli barrels strung alternately. PG/1651. (L. *BM.* 122791.) (P. 31. 17. 137–8.)

U. 14100. Stone bowl, translucent yellowish calcite, Type 19, ht. 0·08 m., rim d. 0·15 m. PG/1656. (P. 31. 16. 444.)

U. 14203. Silver pin, Type 1, with lapis-lazuli ball head and gold caps, l. 0·165 m. PG/1660. (B. 9609.)

U. 14206. Stone bowl, white calcite, Type 41, ht. 0·08 m., rim d. 0·15 m. PG/1661.

U. 14207. Stone bowl, white calcite, Type 48, with nicked rim, ht. 0·045 m., rim d. 0·11 m. PG/1661. (P. 31. 16. 412.)
U. 14209. Stone vase, white calcite, Type 89, ht. 0·145 m., rim d. 0·065 m. PG/1664. (P. 31. 16. 383.)
U. 14215. Beads: carnelian cylinders and lapis-lazuli barrels. PG/1665. (B. 8951.)
U. 14216. Cylinder seal, shell, l. 0·03 m., d. 0·008 m. PG/1665. Pl. 202. (B. 8952.)
U. 14218. Stone bowl, white calcite, Type 42, ht. 0·045 m., rim d. 0·09 m., with 2 small lug handles. PG/1666. (P. 31. 16. 416.)
U. 14219. Beads: lapis-lazuli and carnelian barrels. PG/1666.
U. 14220. Stone bowl, white calcite, Type 96, with 4 lug handles, much broken, rim d. 0·22 m. PG/1667. (P. 31. 16. 438.)
U. 14221. Beads: lapis-lazuli double conoids, 1 faceted double conoid, and 1 faceted carnelian double conoid. PG/1668.
U. 14222. Stone bowl, translucent white calcite, fragments. PG/1668. (P. 31. 16. 441.)
U. 14223. Stone vase, white calcite, Type 89, ht. 0·16 m. PG/1668.
U. 14224. Stone vase, white calcite, Type 89, ht. 0·165 m. PG/1668.
U. 14226. Cylinder seal, shell, l. 0·014 m., d. 0·032 m. Animals fighting. Poor condition. PG/1671. (B. 14533.)
U. 14229. Weights (?), 1 spherical and 1 cylindrical of haematite, and 4 small pebbles. PG/1674.
U. 14230. Stone vase, white limestone, Type 96 (?), fragmentary. PG/1675. (P. 31. 16. 461.)
U. 14231. Beads: 4 double conoids of glazed frit and 1 of carnelian, 1 carnelian cylinder. PG/1681.
U. 14233. Beads: 2 lapis-lazuli faceted double conoids. PG/1685.
U. 14235. Stone vase, white calcite, Type 89, ht. 0·125 m., rim d. 0·05 m. PG/1686. (P. 31. 16. 432.)
U. 14253. Stone vase, white calcite, Type 9, ht. 0·08 m., rim d. 0·13 m. PG/1698. (P. 31. 16. 381.)
U. 14256. Beads: 2 lapis-lazuli faceted double conoids, 2 carnelian rings. PG/1698.
U. 14257. Copper head ornament (?), a triangle of thin plate metal with 3 knobs rising from the base; the apex, which may have been the stem of a 'comb'-like ornament, is broken. Present l. 0·065 m. PG/1702. Pl. 219.
U. 14258. Beads: 1 gold and 2 calcite large date-shaped beads, possibly from a *brîm*. PG/1702. (L. *BM*. 123733.) (P. 31. 17. 133.)
U. 14259. Amulets (?); 3 claw-shaped strips of horn pierced at the larger end for suspension, l. 0·105 m. PG/1702. Pl. 220. (P. 31. 16. 548.)
U. 14262. Beads: 3 cylinders and 1 double conoid of sard, 1 calcite barrel. PG/1702. (L.)
U. 14263. Stone vase, white calcite, Type 89, ht. 0·145 m. PG/1703. (P. 31. 16. 389.)
U. 14265. Stone bowl, white calcite, Type 19, ht. 0·065 m., rim d. 0·14 m. PG/1705.
U. 14270. Cylinder seal, shell, l. 0·032 m. PG/1720. Pl. 201. (B. 14534.)
U. 14271. Beads: lapis-lazuli barrels and one triangular calcite pendant. PG/1720. (P. 31. 17. 59.)
U. 14273. Beads: a necklace of 3 strands, gold and lapis-lazuli double conoids and minute rings. PG/1726. (B. 8944.)
U. 14274. Gold ear-rings, a pair, each of 2½ spiral coils of wire, d. 0·026 m. PG/1726.
U. 14275. Stone bowl, white calcite, Type 16, ht. 0·085 m., rim d. 0·155 m. PG/1726.
U. 14276. Copper pin, Type 5, with the rolled triangular head; l. of head 0·03 m., stem broken. PG/1727.
U. 14277. Beads: glazed frit barrels, 1 lapis-lazuli double conoid, 1 carnelian ring. PG/1727.
U. 14279. Stone vase, white calcite, Type 61, ht. 0·24 m. PG/1722. (L. *BM*. 123738.)
U. 14280. Stone bowl, dark green stone, Type 50, ht. 0·105 m., rim d. 0·205 m. PG/1722.
U. 14281. Stone bowl, white calcite, Type 48, ht. 0·055 m. PG/1722. (P. 31. 16. 415.)
U. 14283. Clay model boat, rough, l. 0·13 m., ht. 0·04 m., width 0·06 m. PG/1722.
U. 14284. Stone bowl, white limestone, Type 16, ht. 0·165 m., rim d. 0·275 m. PG/1722.
U. 14288. Beads: lapis-lazuli and silver double conoids. PG/1723.
U. 14291. Stone bowl, white calcite, Type 48, ht. 0·05 m., rim d. 0·105 m. PG/1726. (P. 31. 16. 447.)
U. 14292. Stone bowl, white calcite, Type 49, ht. 0·125 m., rim d. 0·185 m. PG/1730. (P. 31. 16. 429.)
U. 14293. Cylinder seal, shell, l. 0·026 m., d. 0·013 m. PG/1733. Pl. 202.
U. 14294. Stone vase, white calcite, Type 89, ht. 0·145 m., rim d. 0·085 m. PG/1733. (P. 31. 16. 390.)
U. 14297. Stone bowl, grey calcite, Type 22, ht. 0·095 m., rim d. 0·26 m. PG/1736. (P. 31. 16. 424.)
U. 14303. Beads: lapis-lazuli double conoids, one with a spread-eagle engraved on it, and a lapis fly amulet. PG/1738.
U. 14306. Beads: 9 lapis-lazuli faceted date-shaped, 5 carnelian rings. PG/1744.
U. 14307. Stone bowl, white calcite, Type 19, ht. 0·075 m., rim d. 0·125 m. PG/1744.
U. 14309. Stone vase, white calcite, Type 61, ht. 0·125 m., rim d. 0·085 m. PG/1744. (P. 31. 16. 388.)
U. 14312. Stone bowl, white calcite, Type 19, ht. 0·055 m., rim d. 0·11 m. PG/1745. (P. 31. 16. 366.)
U. 14315. Gold frontlet, oval, with elongated ends pierced; in the centre, an 8-petalled rosette engraved; l. 0·115 m., width 0·036 m. PG/1750.
U. 14316. Beads: 2 lapis-lazuli and 1 gold large faceted date-shaped beads, probably from a *brîm*. PG/1750. (B. 8940.)
U. 14317. Beads: a necklace of 2 strands of lapis-lazuli ovoids with 1 lapis truncated cone pendant. PG/1750.

U. 14319. Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·012 m. PG/1750. Pl. 193. (B. 14307.)

U. 14321. Beads: 2 only, lapis-lazuli date-shaped. PG/1751.

U. 14325. Beads: necklace of lapis-lazuli barrels and ovoids, with lapis pendant in form of a flattened cylinder. PG/1752. (P. 31. 17. 97.)

U. 14327. Cylinder seal, shell, l. 0·037 m., d. 0·019 m. PG/1753. Pl. 195.

U. 14328. Stone bowl, white calcite, fragmentary. PG/1743. (P. 31. 16. 458.)

U. 14331. Stone vase, white limestone, Type 70, ht. 0·09 m., rim d. 0·11 m. PG/1755.

U. 14332. Stone bowl, white calcite, Type 16, ht. 0·065 m., rim d. 0·095 m. PG/1755. (P. 31. 16. 410.)

U. 14333. Beads: necklace of 3 strands; lapis-lazuli barrels, carnelian and haematite rings, lapis cylinders, with 2 lapis pendants, flower-shaped (?). PG/1756.

U. 14335. Beads: necklace of double conoids of glazed frit and 1 of lapis-lazuli, 1 carnelian ring, 1 crystal cylinder. PG/1758. (L. *BM.* 122792.)

U. 14336. Beads: lapis-lazuli double conoids. PG/1759.

U. 14401. Stone bowl, basic diorite, Type 8, ht. 0·12 m., rim d. 0·21 m. PG/1618. (P. 31. 16. 378.)

U. 14402. Stone vase, white calcite, Type 84, ht. 0·19 m., rim d. 0·11 m. PG/1618. (P. 31. 16. 391.)

U. 14403. Stone bowl, white limestone, fragmentary. PG/1618.

U. 14404. Stone bowl, white calcite, fragmentary. PG/1618.

U. 14405. Beads: lapis-lazuli double conoids. PG/1618 *bis*.

U. 14441. Stamp seal, shell, in the form of a recumbent calf with its head bent back over the body. On the under side is engraved a scene of 2 men rowing a boat; the boat seems to be made of reeds intertwined vertically and horizontally and has a beak projecting from the prow; the figures seem to bear circular shields; l. 0·033 m. Found loose in the soil at a depth of 9·30 m. close to but outside the grave PG/1769; it must be earlier than the grave. Pl. 200. (L. *BM.* 122840.)

U. 14443. Cylinder seal, calcite, l. 0·035 m., d. 0·015 m. PG/1774. Pl. 194. (L. *BM.* 122830.)

U. 14444. Beads: small barrels of black-and-white granite and 1 of lapis-lazuli, and a baked clay ring. PG/1779.

U. 14445. Stone bowl, white calcite, Type 59, ht. 0·06 m., rim d. 0·11 m. Loose in the soil at a depth of 7·30 m.

U. 14446. Stone tumbler, dark grey stone, Type 31, ht. 0·145 m., rim d. 0·09 m. PG/1803.

U. 14447. Stone bowl, dark grey stone, Type 16, ht. 0·105 m., rim d. 0·145 m. PG/1810.

U. 14448. Stone vase, dark grey stone, Type 94, ht. 0·085 m., rim d. 0·13 m. PG/1810. (L. *BM.* 123767.)

U. 14449A. Stone bowl, dark green stone, Type 19, ht. 0·03 m., rim d. 0·06 m. PG/1810. (P. 31. 16. 397.)

U. 14450. Stone bowl, grey calcite, Type 24, ht. 0·045 m., rim d. 0·10 m. PG/1810. (P. 31. 16. 450.)

U. 14451. Stone bowl, dark greenish stone, Type 41, ht. 0·075 m., rim d. 0·10 m. PG/1803.

U. 14452. Stone bowl, dark greenish stone, Type 14, ht. 0·085 m., rim d. 0·145 m. PG/1811. (L. *BM.* 123752.)

U. 14453. Stone bowl, dark greenish stone, Type 22, ht. 0·09 m., rim d. 0·23 m. PG/1809. (L. *BM.* 123762.)

U. 14455. Stone bowl, white limestone, Type 22, ht. 0·05 m., rim d. 0·19 m. PG/1814.

U. 14456. Stone bowl, white limestone, Type 16, ht. 0·085 m., rim d. 0·135 m. PG/1814. (L. *BM.* 122877.)

U. 14457. Stone bowl, yellowish calcite, fragmentary. PG/1814. (P. 31. 16. 442.)

U. 14458. Stone bowl, dark greenish stone, Type 16, ht. 0·075 m., rim d. 0·11 m. Loose in soil at a depth of 13·00 m. inside a spouted clay bowl.

U. 14459. Stone bowl, translucent white calcite, Type 85, with a nicked ridge in low relief round the sides; ht. 0·07 m., rim d. 0·11 m. PG/1812. (B. 9015.)

U. 14461. Clay zoomorphic vase. A barrel-shaped wheel-made body with a horned head serving as a spout and a hole in the middle of the back for filling; below are axle-trees to take the axles of wheels which served instead of legs for the animal; in the front of the body is a projecting knob perforated to receive the string by which the animal could be pulled along. The wheels were not found with it but are supplied from examples found in neighbouring and contemporary rubbish. L. of body 0·18 m., ht. 0·12 m., ht. of head from bottom of axle-tree 0·14 m. Found loose in the soil in the lower grave stratum. Pl. 188. (L. *BM.* 123764.)

U. 14464A. Stone bowl, white calcite, Type 64, ht. 0·105 m., rim d. 0·12 m. PG/1750.

U. 14466. Stone vase, white calcite, Type 76, ht. 0·185 m., rim d. 0·10 m. PG/1697. (L. *BM.* 123734.)

U. 14467A. Stone vase, white calcite, Type 61, ht. 0·145 m., rim d. 0·08 m. PG/1749. (P. 31. 16. 393.)

U. 14468A. Stone vase, white calcite, Type 3, ht. 0·195 m., rim d. 0·095 m. PG/1749. (P. 31. 16. 380.)

U. 14469. Ostrich shell decorated with applied mosaic round the top, which is cut open to make a mouth. PG/1749. Badly broken. Cf. Pl. 156. (L. *BM.* 122851.)

U. 14470. Silver head-ornament with broad triangular palm and five spokes tipped with lapis-lazuli balls, l. 0·35 m. Cf. U. 8212. Pl. 137. PG/1749.

U. 14471A. Gold ear-rings, a pair, large lunate type, d. 0·11 m. PG/1749. (B. 8803.)

U. 14472. Gold hair-ribbon, width 0·007 m., PG/1749. (B. 8806.)

U. 14473. Gold pin, Type 1, with lapis-lazuli ball head and gold caps, l. 0·135 m. PG/1749. (B. 8802.)

U. 14473 A. Cylinder seal, l. 0·039 m. PG/1749. Pl. 200. (B. 14570.)

U. 14474. Gold hair-rings, a pair, each of 2½ spiral coils of gold wire, d. 0·03 m. PG/1749. (B. 8804.)

U. 14475. Beads: collar of lapis-lazuli and gold triangular ribbed beads strung alternately. PG/1749. (B. 8805.) (L. *BM.* 123763.)

U. 14476. Gold finger-rings, a pair, plain, d. 0·023 m. PG/1749. (L. *BM.* 122708, 122839.)

U. 14477. Beads: gold and carnelian double conoids. PG/1749. (B. 8807.)

U. 14478. Beads: carnelian tubes and gold tubes decorated with applied patterns in wire. Cf. Pl. 220, U. 9281. PG/1749. (B. 8808.) (L. *BM.* 122837.)

U. 14479. Beads: necklaces, 1 of gold, lapis-lazuli and carnelian double conoids, 1 of gold and lapis fluted balls. PG/1749. (B. 8812–13, 8820.) (L. *BM.* 122773, 122775–6, 122781–2.) (P. 31. 17. 25–33, 96.)

U. 14480. Beads: gold and lapis-lazuli cylinders and carnelian rings, from the border of the cloak. Cf. Pl. 130. PG/1749. (B. 8809.)

U. 14482. Wreath of lapis-lazuli cylinders and carnelian rings with gold flowers with lapis centres and gold open-work pendants with spirals of wire filigree. Cf. Pl. 220. PG/1749. (B. 8811.)

U. 14483 A. Paint-box, in 2 compartments, made of square plaques of plain mother-of-pearl framed in strips of inlay of shell and mother-of-pearl; the lid, of mother-of-pearl, turns on a swivel-pin; l. 0·052 m., ht. 0·02 m. PG/1749. Pl. 103. (B. 8799.)

U. 14484. Gold wire, originally decorated with silver beads (?) now perished, which was worn round the forehead. PG/1749. (B. 8816.)

U. 14485. Beads: elliptical carnelians. PG/1749. (B. 8810.) (L. *BM.* 122881.)

U. 15145. Beads: 4 carnelian and 1 silver long double conoids; the silver on a copper core. PG/1786. (P. 31. 17. 64.)

U. 15146. Stone bowl, white calcite, translucent, Type 54, ht. 0·03 m., rim d. 0·08 m. PG/1786.

U. 15147. Stone bowl, white calcite, fragmentary. PG/1786. (P. 31. 16. 440.)

U. 15151. Weights, of haematite, date-shaped, 10 found together; weights respectively, grains 270, 135, 100, 95, 70, 48, 45, 40, 25, 15. PG/1788. (L. *BM.* 122861–2.) (P. 31. 16. 507–8, 510–11.)

U. 15152. Stone bowl, grey limestone, Type 20, cut down from a larger vessel, ht. 0·04 m., rim d. 0·105 m. PG/1789. (P. 31. 16. 408.)

U. 15301. Group: (A) gold ear-rings, a pair, small lunate type; (B) gold ribbon fillet, twisted spirally; (C) 3 gold finger-rings, one made of 2 hoops of thin gold wire, the others of sheet metal with the edges bent over and inwards to give the effect of 2 solid hoops; (D) beads: silver (all decayed), lapis-lazuli, agate, and carnelian. PG/1845, Burial J.

U. 15302. Cylinder seal, dark steatite, l. 0·02 m., d. 0·012 m. PG/1845, Burial J. Pl. 211. (B. 11963.)

U. 15303. Cylinder seal, lapis-lazuli, l. 0·019 m., d. 0·01 m. PG/1847, Burial C. Pl. 211. (L. *BM.* 122836.)

U. 15304. Gold ear-rings, a pair, small lunate type; also small gold, lapis-lazuli, and carnelian beads in original order. PG/1847, Burial C. (L. *BM.* 122717.)

U. 15305. Group: (A) gold ear-rings, a pair, small lunate type; (B) beads: 10 large beads of calcite, chalcedony, steatite, copper, and jasper, various shapes mixed; (C) string of small beads in agate, lapis-lazuli, crystal, carnelian. PG/1847, Burial A. (B. 8932, 8953.)

U. 15306. Beads: small gold and lapis-lazuli balls. PG/1845, Burial L.

U. 15307. Cylinder seal, dark green steatite, l. 0·018 m., d. 0·01 m. Two men and 2 scorpions. PG/1845, Burial L. Pl. 211. (P. 31. 17. 126.)

U. 15308. Cylinder seal, dark green steatite, l. 0·03 m., d. 0·016 m. PG/1845, Burial K. Pl. 211. (B. 11965.)

U. 15309. Cylinder seal, lapis-lazuli, l. 0·014 m., d. 0·005 m. PG/1845, Burial K. Pl. 211. (P. 31. 17. 22.)

U. 15310. Group: (A) gold fillet of narrow spirally twisted ribbon; (B) gold finger-ring made from a strip of thin metal with the edges bent over and inwards to give the effect of two solid hoops; (C) beads: necklace of gold, haematite, steatite, agate, carnelian, and lapis-lazuli, mixed shapes; (D) beads: necklace of small gold and lapis balls; (E) beads: necklace of small lapis and carnelian balls. PG/1845, Burial K. (P. 31. 17. 98.)

U. 15311. Gold frontlets, 2, one a plain oval l. 0·105 m., width 0·035 m., the other oval with elongated ends, l. 0·12 m., width 0·037 m.; also 1 small lunate gold ear-ring. PG/1846, Burial C.

U. 15312. Beads: gold, lapis-lazuli, carnelian, agate, and limestone mixed shapes. PG/1846, Burial C. (P. 31. 17. 67.)

U. 15317. Beads: lapis, chalcedony, and agate, one of the latter with a bleached design in the form of a cross. PG/1845, Burial M.

U. 15318. Cylinder seal, steatite, l. 0·19 m., d. 0·01 m. PG/1845, Burial M. Pl. 211. (B. 11962.)

U. 15319. Gold frontlet, oval type with elongated ends, l. 0·135 m., width 0·045 m. PG/1845, Burial M. (L. *BM.* 122703.)

U. 15320. Cylinder seal, shell, much defaced. Found below burial M in PG/1845. (P. 31. 17. 115.)

U. 15472. Gold roundel of filigree work, a rosette with 13 petals, once inlaid with coloured stone (?). Loose in the soil at a depth of about 7·00 m. (P. 31. 17. 74.)

U. 15473. Cylinder seal, lapis-lazuli, l. 0·019 m., d. 0·009 m. Loose in the soil at a depth of *c.* 5·00 m. Pl. 207.

U. 15476. Cylinder seal, shell, l. 0·018 m., d. 0·001 m. Loose in the soil. Pl. 201.

U. 15477. Cylinder seal, shell, l. 0·037 m., d. 0·021 m. Found in the Ist Dynasty stratum above the graves of the early cemetery. Pl. 200.

U. 15479. Cylinder seal, black steatite, l. 0·029 m., d. 0·013 m. Loose in the soil at depth of *c.* 5·00 m. Pl. 200. (P. 31. 17. 130.)

U. 15483. Cylinder seal, shell, l. 0·032 m., d. 0·016 m. Loose in the soil at depth of *c.* 7·00 m. Pl. 202.

U. 15633. Copper tool, Type 5. PG/1845, Burial K. Pl. 229.

U. 15766. Stone bowl, white calcite, Type 48, with nicked rim, d. 0·115 m. PG/1680. (P. 31. 16. 437.)

U. 15767. Stone bowl, dark green stone, rim d. 0·09 m. PG/1767.

U. 15771. Stone bowl, yellow calcite, Type 24, ht. 0·09 m., d. 0·22 m. PG/1634. (P. 31. 16. 466.)

U. 15772. Stone bowl, white calcite, Type 19, ht. 0·09 m., rim d. 0·195 m. PG/1682. (P. 31. 16. 423.)

U. 15811. Gold ear-ring, made of 1½ spiral coils with double lunate ends. Found loose in the soil. Cf. Pl. 146.

U. 17649. Stamp seal, grey steatite originally glazed; button type; ht. 0·015 m., d. 0·033 m. Inscription in Indus characters. Found in the filling of PG/1847. *v.* p. 192. Pl. 211. (L. *BM.* 123208.)

U. 17650. Cylinder seal, shell, l. 0·024 m., d. 0·013 m. In the filling of the shaft of PG/1847. *v.* p. 193. Pl. 211. (B. 14489.)

U. 17656. Cylinder seal, lapis-lazuli, l. 0·033 m., d. 0·01 m. PG/1847, below the mud floor and SW. of the brick enclosure. Pl. 211. (B.)

U. 17657. Clay animal figurine, hollow, made in a mould and finished by hand, l. 0·075 m., ht. 0·045 m. PG/1847. Pl. 221.

U. 17660. Group: (A) gold ear-rings, 3, small hollow lunate type; (B) beads: minute gold balls, carnelian balls and rings and 1 cylinder, steatite and marble date-shaped, agate squares and conoid pendant (or spindle-whorl?) apparently of wood; (C) cylinder seal, shell, l. 0·021 m., d. 0·01 m. Two rampant animals; (D) a pair of thick copper bangles. PG/1849, Burial A. (B. 14490.) (P. 32. 40. 228.)

U. 17694. Weight, haematite, roughly rectangular, l. 0·021 m., ht. 0·011 m., grains 140. PG/1847, below the 3rd floor-level.

U. 17787. Beads: 3 necklaces: (A) carnelian, 2 double conoids and 1 date-shaped, silver, 5 double conoids, agate, 3 barrels, and 31 flattened date-shaped, steatite, 1 flattened date-shaped; (B) 17 agate biconvex; (C) 23 agate date-shaped and 14 gold balls. PG/1852. (L. *BM.* 123141, 123153.) (P. 32. 40. 229.)

U. 17788. Gold ear-rings, a pair, small lunate type, d. 0·018 m. PG/1852. (B.)

U. 17796. Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·015 m. Presentation scene. PG/1852.

U. 17798. Beads: necklace, 14 gold date-shaped, 2 crystal flattened date-shaped, and carnelians, 11 date-shaped, 9 diamonds, 2 balls, 2 large date-shaped, 1 cylinder, and 1 with bleached pattern. PG/1853. (B. 9542.)

U. 17799. Beads: 2 agate date-shaped, 2 cat's eyes, 1 carnelian date-shaped and 2 balls, 4 gold balls and 4 balls of copper plated with gold foil. PG/1854. (P. 32. 40. 230.)

U. 17800. Group: (A) gold fillet of twisted ribbon, very thin and poor; (B) beads: small carnelian balls and very small gold fluted balls; (C) copper pin, Type 1, l. 0·08 m., with carnelian ball head. PG/1847, Burial G. (B. 10190–3.)

U. 17801. Group: (A) gold ear-rings, a pair, small hollow lunate type, d. 0·014 m.; (B) beads: cylinders, barrels, flattened date-shaped and date-shaped of crystal, agate, marble, lapis-lazuli, carnelian, and cat's eye; also, probably from a separate string, small balls of carnelian and of copper plated with gold, the latter mostly perished. PG/1849, Burial C. (L. *BM.* 123157.) (P. 32. 40. 231.)

U. 17803. Group: (A) gold ear-ring, small hollow lunate type, d. 0·011 m.; (B) beads: 1 necklace of very small balls of carnelian alternating with very small fluted balls and double conoids of gold; second necklace of lapis-lazuli and mother-of-pearl (or shell) lozenge-shaped beads flat and pierced through the centre of the flat sides. PG/1847, Burial E. (L. *BM.* 122970, 123136, 123149.) (P. 32. 40. 450.)

U. 17804. Group: (A) gold fillet of very thin ribbon twisted; (B) gold ear-rings, a pair, small hollow lunate type, d. 0·015 m.; (C) gold finger-rings, 2, made of metal strips with the edges bent over and inwards to give the effect of 2 solid hoops; (D) beads: 3 very small gold balls, carnelian, agate, lapis-lazuli, and chalcedony barrels, date-shaped, double conoid and rectangular. PG/1847, Burial F. (B. 9354–6.)

U. 17805. Cylinder seal, black steatite, l. 0·018 m. Seated figure. PG/1849, Burial D. Also a few beads, lapis-lazuli, agate, carnelian, and steatite, and 1 small gold ball; from the same burial. (P. 32. 40. 232.)

U. 17806. Group: (A) gold fillet of narrow twisted ribbon; (B) gold ear-rings, a pair, each consisting of 2 small rings of the normal lunate type intertwined, one with d. 0·015 m., the other d. 0·013 m.; (C) gold finger-ring made of strip metal with the edges bent over and inwards to give the effect of 2 solid hoops, d. 0·02 m.; (D) beads: gold and carnelian, lapis-lazuli and silver diamonds, gold and carnelian barrels and double conoids, large date-shaped, balls, cylinders, and double conoids of agate, lapis, and carnelian, in original order; (E) cylinder seal, lapis, l. 0·009 m., d. 0·007 m. PG/1849, Burial E. Pl. 211. (L. *BM.* 123142, 123147.) (P. 32. 40. 233.)

U. 17807. Group: (A) gold frontlet, plain oval type, l. 0·08 m., width 0·03 m.; (B) gold fillet, narrow twisted ribbon; (C) gold ear-rings, a pair, each made of 2 ordinary rings of the small lunate type intertwined; (D) gold finger-rings, 2, 1 a plain wire hoop, 1 of strip metal with the edges bent

over and inwards to give the effect of 2 solid hoops; (E) beads: very small tubes of gold and agate strung alternately; gold and carnelian diamonds strung alternately; 2 lapis-lazuli cylinders, 3 very large agate tubular, a cat's eye and a crystal date-shaped; 3 separate strings. PG/1847, Burial M. (B.)

U. 17808. Beads: small gold balls, large agate square, chalcedony square, agate, carnelian, and lapis-lazuli date-shaped, and 1 crystal ball. PG/1848, Burial J.

U. 17810. Group: (A) 3 gold frontlets, oval type with elongated ends pierced, l. 0·10 m., width 0·04 m.; (B) gold fillet of narrow twisted ribbon; (C) gold ear-rings, a pair, small hollow lunate type, d. 0·015 m.; (D) 1 silver ear-ring, same type; (E) beads: gold balls, some fluted, double conoids and diamonds, carnelian and lapis diamonds, carnelian cylinders, balls, and barrels, lapis double conoids. Order uncertain, but clearly two different necklaces. PG/1849, Burial F.

U. 17811. Group: (A) 6 gold ear-rings, small hollow lunate type, worn 3 in each ear, d. *c.* 0·013 m.; (B) gold finger-ring made of strip metal with the edges bent over and inwards to give the effect of 2 solid hoops, d. 0·02 m.; (C) beads, gold double conoids, silver disks, lapis-lazuli diamonds, carnelian and steatite date-shaped; (D) cylinder seal, shell, l. 0·023 m. Two columns of inscription. PG/1849, Burial G. Pl. 211. (B. 8937.) (P. 32. 40. 234, 325, 446–8.)

U. 17812. Group: (A) gold ear-rings, small elongated form of the usual spirally coiled hoop with lunate ends; (B) beads: minute fluted gold balls, carnelian balls, 1 large carnelian flattened ball, and 1 large ball of copper plated with gold; (C) cylinder seal, dark steatite, l. 0·024 m. PG/1847, Burial H. Pl. 211. (L. *BM.* 123184.) (P. 32. 40. 235, 449.)

U. 17813. Group: (A) 3 gold frontlets, oval with elongated ends, l. 0·14 m., width 0·045 m.; (B) gold fillet, narrow twisted ribbon; (C) 2 gold ear-rings, spirally coiled, with lunate ends, d. 0·02 m. With one of them a silver ring; (D) 2 gold bracelets, of thin gold plate bent over a copper core, d. 0·07 m.; also 1 silver and 2 copper plain wire bracelets; (E) beads: a string of very small fluted gold balls and carnelian balls and 1 long and thin date-shaped lapis-lazuli bead with gold caps; (F) beads: large, gold balls, agate, carnelian, marble, and jasper tubular, flattened date-shaped, disks and date-shaped; (G) copper axe, Type S 10, l. 0·18 m., width 0·065 m. PG/1847, Burial R. Pl. 147. (L. *BM.* 123125–6.) (P. 32. 40. 227, 438–43.)

U. 17814. Gold frontlet, plain oval of thin metal, l. 0·09 m., width 0·015 m. PG/1847, Burial P. (B. 10204.)

U. 17815. Group: (A) 4 gold frontlets, oval with elongated ends pierced, l. 0·105 m., width 0·032 m.; (B) gold fillet, narrow twisted gold ribbon; (C) gold ear-rings, 2 small lunate type, interlaced to make one ear-ring; (D) gold finger-ring, made of strip metal with the edges bent over and inwards to give the effect of two solid hoops, d. 0·02 m.; (E) beads: small gold balls, plain and fluted, with carnelian and lapis-lazuli date-shaped, gold and carnelian diamonds, large gold balls, long carnelian tubular, carnelian date-shaped, lapis date-shaped, agate barrels; 3 separate strings; (F) cylinder seal, shell, l. 0·031 m., d. 0·019 m. PG/1847, Burial T. Pl. 211. (B. 9515–18, 9554, 9561.)

U. 17816. Group: (A) 2 gold frontlets, oval with elongated ends, l. 0·11 m., width 0·03 m.; (B) gold fillet, narrow twisted ribbon; (C) gold ear-rings, 3, small lunate type, d. 0·013 m.; (D) gold finger-ring, plain wire hoop, d. 0·018 m.; (E) beads: gold and carnelian diamonds, gold balls with carnelian rings and date-shaped, large gold balls with carnelian tubular (2) and barrel, 1 steatite, 1 quartz, 1 agate date-shaped, and 1 shell ball. PG/1847, Burial S. (B.) (L. *BM.* 123137.) (P. 32. 40. 236.)

U. 17817. Group: (A) beads: gold balls, small steatite date-shaped, carnelian ball, and lapis-lazuli fly amulet; (B) cylinder seal, dark steatite, l. 0·025 m., d. 0·011 m. Goddess on goose and a worshipper. PG/1847, Burial U. (B. 10195.)

U. 17887. Copper bulls' heads, 5, all of the same general type but differing a good deal in size and slightly in execution. Found in the foundations of the wall of plano-convex mud bricks which ran above the shaft of PG/1850. *v.* p. 212.

Measurements

	across tips of ears.	*from top of head to muzzle.*	
A . . .	0·15 m.	0·11 m.	(L.)
B . . .	0·14 m.	0·115 m.	(B.)
C . . .	0·135 m.	0·105 m.	(B.)
D . . .	0·15 m.	0·095 m.	(P. 32. 40. 226.)
E . . .	0·14 m.	0·105 m.	(B.)

Pl. 143.

U. 17904. Cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·015 m. Three columns of inscription intentionally erased. PG/1850, Burial 3. Pl. 211.

U. 17906. Beads: 4 gold balls and 1 diamond, 3 gold ribbed balls, 6 carnelian barrels and 2 date-shaped, 5 apatite barrels, 2 agate biconvex. PG/1851, Burial 1. (B.)

U. 17907. Beads: 6 large date-shaped beads of stalagmitic calcite, white and translucent. PG/1850, Burial 3.

U. 17908. Beads: 3 agate and 1 blue granite flattened barrels, flattened marble date-shaped. PG/1850, Burial 3. (B.)

U. 17909. Gold ear-rings, a pair, small lunate type, d. 0·016 m. PG/1850, Burial 3. (B. 9547.)

U. 17910. Gold frontlet, oval, l. 0·113 m., width 0·03 m. PG/1850, Burial 3.

U. 17911. Group: (A) gold frontlet, oval with elongated ends, l. 0·125 m., width 0·024 m.; (B) gold fillet, narrow twisted gold ribbon; (C) gold ear-rings, a pair, small hollow lunate type; (D) finger-ring of spirally coiled silver wire; (E) 2 silver bracelets, plain, d. 0·06 m.; (F) silver pin, l. 0·015 m.; (G) beads: 2 necklaces, one

of small gold ribbed balls and agate date-shaped alternately, the other of agate flattened date-shaped, 2 carnelian tubular, 1 lapis-lazuli flattened barrel, 1 date-shaped granite, 3 lapis double conoids, 1 barrel of amber (?); (H) shell cylinder seal. PG/1850, Burial 8.

U. 17912. Group: (A) 2 gold frontlets, oval, l. 0·15 m.×0·048 m. and 0·13 m.×0·035 m.; (B) 2 gold bracelets, tubular, d. 0·07 m.; (C) gold ear-ring, small lunate type, single; (D) 2 silver bracelets, plain wire hoops, d. 0·07 m.; (E) beads: necklace of gold balls, large, between carnelian tubular, barrels and ball, chalcedony flattened date-shaped, agate date-shaped, green chalcedony tubular. Pl. 147; (F) cylinder seal, lapis-lazuli, l. 0·03 m., d. 0·015 m. Pl. 211. PG/1850, Burial 9. (B. 9134–40.)

U. 17913. Gold ear-rings, a pair, a single loop widening to a lunate form below but split into 2 flat plates which are soldered together along the inner curve of the crescent but are bent apart below. Unique example. PG/1850, Burial 8. Pl. 219.

U. 17915. Group: (A) gold fillet, narrow twisted ribbon; (B) gold ear-rings, a pair, small lunate type; (C) beads: necklace of gold and carnelian barrels strung alternately. PG/1851, Burial 4. (B. 9132.)

U. 17917. Group: (A) 2 gold frontlets, oval with elongated ends, l. 0·12 m., width 0·035 m.; (B) gold ear-rings, a pair, small lunate type; (C) gold finger-ring, 4 spirally coiled hoops of thin tube; (D) silver bracelets, 4, plain; (E) beads: necklace of gold diamonds and double conoids, carnelian date-shaped, cylinders, barrels and diamonds, agate barrels; (F) beads: necklace of large gold balls, agate barrels and flattened date-shaped, carnelian tubular, &c. PG/1850, Burial 13. (B.)

U. 17926. Copper trident, l. 0·26 m., d. 0·057 m. PG/1850, Burial 9. Pl. 230.

U. 17927. Bone toggle (?), very finely turned, l. 0·035 m. PG/1852. Pl. 218. (B.)

U. 17930. Group: (A) gold fillet of narrow twisted ribbon (broken); (B) 1 gold ear-ring, small lunate type; (C) beads: gold diamonds and ribbed balls, carnelian diamonds and barrels, agate flattened date-shaped, steatite date-shaped and carnelian balls. PG/1850, Burial 14. (B.)

U. 18212. Copper bowl, spouted, Type 118, ht. 0·028 m., rim d. 0·12 m., l. of spout 0·045 m. PG/755. Pl. 240.

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