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# PALESTINE EXPLORATION FUND.

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Patron—THE QUEEN.

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## *Quarterly Statement*

FOR 1879.

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# THE PALESTINE EXPLORATION FUND:

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NOTE.—The Price of the "Quarterly Statement" is Half-a-Crown.  
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THE  
PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

It is suggested to subscribers that the safest and the most convenient manner of paying a subscription is by means of a bank. A form is enclosed which may be filled up and sent to the banker as an instruction. Subscribers adopting this method will not receive any official receipt, but will see their names regularly acknowledged in the *Quarterly Statement*. Among other advantages, this method removes the danger of loss or miscarriage, and saves the Society's office the labour and expense of acknowledgment by official receipt and letter.

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We repeat what we said in the *notes* of the *Quarterly Statement* for January, 1878, that the payment of subscriptions *early in the year* greatly strenghtens the hands of the Committee.

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The reduction of the large map is complete, and the small map, which will be engraved in six, not in three sheets, as originally proposed, is already in the hands of Mr. Stanford, who will lose no time in executing the work. The time required for engraving will be certainly not less than eighteen months.

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The special work for the year 1879 will be the publication of the materials now in the hands of the Committee. Estimates have been prepared of the cost, and although it is as yet impossible to state the exact sum required, it is clear that an amount will be required at least equivalent to the expenses of a party in the field for a year and a-half or two years. Of course, publication of the results must be regarded as a necessary part of the work. The Survey of Western Palestine must not therefore be regarded as complete until it has entirely left the hands of printer and cartographer.

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The Expedition to Galilee, proposed for this winter, has been postponed for the present. The amount specially subscribed is transferred to deposit account as a

separate fund, and will not be used for any other purpose without permission of the donors. Names and promises of support for this expedition are received at the office, but it must be understood that the regular subscriptions of the year will be devoted to publications.

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A new edition of "Tent Work in Palestine" has been prepared, and is now ready. Those subscribers who wish for a copy at the reduced price are requested to send their names to the Secretary as early as possible.

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A meeting was held at the Royal Institute of British Architects on December the 2nd, at which Lieutenant Conder read a paper on the architecture of the Haram area. A discussion followed. The paper has been published in the Transactions of the Institute and in the *Builder*.

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The engagements of Mrs. Finn with the Committee have for the present ceased. Ladies' Associations will therefore be henceforth connected directly with the head offices of the Society.

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Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise to occasional omissions.

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The income of the Fund from all sources, from September 19th to December 31st, 1878, was £916 11s. 9d. The expenditure was as follows:—Paid on account of "Tent Work," £562 6s. 11d. ; office expenses, £163 18s. 7d. ; bills, £210 0s. 1d.

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It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The Survey, as stated above, will be actually completed when it is entirely published, and not before. But its completion does not mean the completion of the work of the Society, as reference to the original prospectus will show. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

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Several cases have been at various times discovered of postage stamps being lost on their way to the office. The only way to avoid such loss, unless subscriptions are paid through the bank, is to send money by P.O.O. or by cheque, *in every case payable to the order of Walter Besant, Esq., and crossed to Coutts and Co., or the Union Bank, Charing Cross Branch.*

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The ninth thousand of "Our Work in Palestine" is now ready (price 3s. 6d.), and may be ordered of booksellers. This book carries the work down to the commencement of the Survey, but does not embrace M. Ganneau's discoveries nor the results of the Survey itself.



The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

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Yorkshire, Durham, and the North : Rev. James King, 13, Paradise Terrace, Darlington. Mr. King has recently returned from the Holy Land ; communications for lectures, &c., can be sent to the Office at Charing Cross.

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SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

The Rev. Horrocks Cocks, The Parsonage, Egham Hill, Surrey, has also kindly offered his services among the Nonconformist churches.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that they leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

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The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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Attention is called to the statement already advertised, that subscribers to the Fund are privileged by the publishers to receive both the "Literary Remains of the late Mr. C. F. Tyrwhitt Drake," and the "Underground Jerusalem" of Captain Warren, at reduced rates. The former book will be sent for ten shillings, the latter for sixteen shillings, postage paid. But letter asking for them must be sent to the office at 11 and 12, Charing Cross only.

Cases for binding the *Quarterly Statement* are now ready, and can be had on application to Messrs. R. Bentley and Son, 8, New Burlington Street. They are in green or brown cloth, with the stamp of the Society, uniform in appearance with "Our Work in Palestine," and are sold at the price of eighteenpence.

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Lieut. Kitchener's Guinea Book of Biblical Photographs can be bought at Mr. Stanford's establishment, 55, Charing Cross. It contains twelve views, with a short account of each. They are mounted on tinted boards, and handsomely bound.

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## THE PRESENT CONDITION OF PALESTINE.

[Reprinted from the *Jewish Chronicle*, by kind permission of the Editor.]

### I.—THE PRESENT CONDITION OF THE COUNTRY.

SINCE the completion of the Survey of Palestine—which is on the same scale and which aims at giving the same amount of detail given for England by our Ordnance Survey—we may be said to possess more detailed and accurate information regarding the present condition of Palestine than exists in the case of any other Asiatic or African country. The waste lands, forests, and deserts are distinguished on the great map from the cultivated districts. The olives, figs, vines, and enclosed vegetable gardens are all shown, the springs and streams have all been surveyed, and the memoirs which accompany the map give detailed accounts of the water supply and cultivation. We have, therefore, at the present time reliable data ready for publication for a true estimate of the present condition of Palestine, and of its possible future value.

The desolate condition of the country has been over-estimated. It has been supposed that a great change in climate has occurred, and that there has been a great destruction of former forests. Both these statements are far beyond the true facts. The seasons of Palestine are identical with those described in the *Mishna*, and although we have no ancient observations to compare, and cannot therefore say with certainty that the rainfall is the same as in older times, still the springs and streams mentioned in the Bible are all yet flowing with water, and the annual rainfall of about twenty inches would be quite sufficient for the wants of the country if it were stored in the innumerable "broken cisterns," which only require a coat of cement to make them serviceable.

The climate is, no doubt, far more unhealthy than formerly, but this is due in great measure to the destruction of the splendid old system of drainage and irrigation, and to the loss of trees raised by cultivation. Good drainage and tree planting would do much to restore the land to its former condition as regards climate.

Palestine is by no means bare of trees, and its water supply is most abundant in the cultivated districts. A forest of oaks covers the hills

west of Nazareth—a beautiful woodland extends westwards from the low hills into the plains of Sharon. On Carmel and in the Hebron hills the thick copse has spread over former vineyards and orchards, and in lower Galilee many districts are clothed with a dense tangled brushwood, and with oaks and mastic trees. This luxuriant wild growth flourishes in spite of wholesale destruction by the fire-wood sellers, and unprotected by any forest laws, evidencing the richness of the soil where it grows.

This richness of the soil is also attested in the plains by the beautiful crops of barley and wheat, raised by merely scratching the ground with the light native plough; and the oil from the long olive groves on the low hills (of which 1,800 tons were exported in 1871), is said to be the finest in the world. On the high Hebron hills, and on Hermon, the vine grows most luxuriantly, and good wine is even now manufactured in Lebanon. The fruits of the country are numerous and delicious, and cotton, tobacco, indigo, millet, and sugar cane can all be grown easily.

The riches of the land are mainly agricultural. Mines have been found at Sidon and in Lebanon, copper, coal, and even tin having been discovered, but the quality of the mineral does not appear to be very good in any case. It seems, however, that rock-oil may be expected in the neighbourhood of the Dead Sea (where indications of its presence are said to have been noticed), and bitumen and salt are already obtained from the same vicinity.

There is one particular in which a marked difference is observable. This is in the amount of cultivation as compared with that of former times. The ancient terraces so carefully built up or hewn in the hill-sides now produce rich crops—but crops of weeds and thistles. For every inhabited village ten ruined towns are found. In the copses and on bare hill-sides the ancient wine-presses are cut in rock. The site of the vineyard of Naboth at Jezreel is marked on the Survey map by a collection of these ancient presses on the hill above the city, where not a vine plant is now grown. Old orchard walls and watch-towers of huge stones stand half ruined in the wild districts, and the same story is repeated throughout the length of the land—the cultivation has shrunk with a decreasing population.

The population of Syria is stated in consular reports not to exceed the incredibly low figure of two and a quarter millions in 26,000 square miles. In the country the people are packed in villages, containing 100 to 500 inhabitants, and the grounds of a village will average about 10 acres per soul. Two-thirds of the peasantry are Moslem. About 40,000 Jews are said to live in Syria, and in Palestine they are found chiefly in the four sacred cities, Jerusalem, Hebron, Tiberias, and Safed, and in the coast towns. The greater number are poor, and many are supported by the Halukah. The richer class are merchants and traders. The majority of the Jews are Ashkenazim, from Germany, Poland, and Russia.

It is said that if fully cultivated, even after the native fashion, Palestine is capable of supporting ten times its present population.

The question which really requires to be answered is: In what manner can this cultivation be carried out? It is proposed to show, in the succeeding articles, the reasons why former attempts have failed, and the true principle to be adopted, whether on a small scale under the existing government, or on a large scale, under a more enlightened and juster administration. It has been already proved that none are better fitted to carry out these improvements, and to direct the present population in agriculture, than the descendants of the ancient conquerors who made hewers of wood and drawers of water of the aboriginal population. The energy, industry, and tact, which are so remarkable in the Jewish character, are qualities invaluable in a country whose inhabitants have sunk into fatalistic indolence; and Palestine is still so cheap a country, and requires so moderate a capital for investment, that it may well attract the attention of the middle class among its rightful owners.

Of late years the Jewish population in Palestine, and in Jerusalem especially, has greatly increased in numbers. The community has also gained in power and importance. A building club has been established, and houses have, by means of Jewish co-operation, been built outside the city on the west. Many of the Jews are under British protection, and the total Jewish population of the Holy City is estimated as being from 8,000 to 10,000 souls; the trade of the town is rapidly falling into their hands, and they are buying up all the available land in the vicinity.

## II.—PREVIOUS ATTEMPTS AT COLONISATION.

No attempt to develop the resources of Palestine has as yet proved successful, though several have been made. The reasons of the various failures will be seen on examining the method of the various communities which have made attempts at cultivating and civilising the country.

A favourite idea among writers of late has been that the land should be colonised by the Jews. Colonel Warren proposed that the Morocco Jews—who are known to have made excellent workmen in Gibraltar—should be induced to emigrate to Palestine. But this was actually attempted, without success, long before he visited Palestine. In 1850, A.D., a colony of thirty families of Mugarbee Jews settled at Shefa 'Amr in lower Galilee, near Nazareth—a town famous in Jewish literature as being the ancient Shafram where the Sanhedrin sat after leaving Jammia. These colonists, or peasant Jews, cultivated corn and olives on their own land; yet, in a few years, they relinquished agriculture, and gradually withdrew to the seaport of Haifa, where their children are engaged in trade. The Jews in Palestine themselves remind Europeans that they are not an agricultural people.

Two important colonies have been founded in Palestine by a society of German Protestants, who denominate themselves the "Temple Society." In spite of the curious religious tenets of these peasants and mechanics, they have shown themselves very practical in their method of proceeding. The sites for the first settlements were wisely chosen in tolerably healthy

positions at the two ports of Jaffa and Haifa. Two neat villages have been erected, and in 1875 the Jaffa colony numbered over 200 souls and cultivated 400 acres; while that at Haifa numbered 300, and cultivated 700 acres.

Yet although both communities consist of sober, hard-working, domestic men, many being skilled artisans and all energetic and enterprising, they cannot be said to have been successful in their ambitious schemes for colonising the whole of Palestine and finally gaining possession of Jerusalem. They are divided among themselves; they have no leader of any capacity; and their cause is prejudiced in the eyes of practical and sensible men by their claim to represent the "true Israel," for whom they say the prophecies of a return to Palestine were intended—an idea not peculiar to Germans, but also shared by certain persons in England.

The Germans have never made friends with the native peasantry, whom they despise. They are, therefore, subject to continual persecution from the surrounding villages. They have never obtained title deeds to their possessions from the Turkish Government, and are liable to eviction at any time. Finally, want of money, and the entire unfitness of European constitutions for hard work in the fields under an Oriental sky, internal dissensions, mixed marriages, and individual self-seeking, are undermining the very existence of the community.

Near Jaffa are the lands of the "Mikveh Israel," better known as the Jaffa Agricultural School of the Alliance Israélite Universelle, consisting of 780 acres of market gardens, where Jewish children are trained and educated. This institution has also suffered from the hostility of the native population, and from the corruption of the Turkish Government.

It is said that 100,000 plants have been raised in the gardens of the Mikveh Israel and half a million vines. Unfortunately, however, the land is close to the great sand-dunes which bound the shore of Palestine, and which are being gradually blown inland by the sea breeze, advancing, it is said, a yard every year. These dunes threaten to invade the property, and to swallow up the gardens unless their course can be stayed by plantation.

The native peasantry are well worth a few words of description. They are brutally ignorant, fanatical, and, above all, inveterate liars; yet they have qualities which would, if developed, render them a useful population. They are naturally a clever and energetic race, industrious, and possessed of immense powers of endurance; their fortitude in bearing pain is remarkable, and their temperance and frugality enable them to endure the great heat of the sun when employed in the fields in a manner impossible for Europeans. They are good-natured and very docile under recognised authority. What is really wanted to improve their condition is: 1st. Impartial administration of justice; 2nd. A just system of taxation; 3rd. Security from the violence and exactions of the irregulars employed in levying the taxes. These three points are all included in the English scheme of reforms, which has been

signed by the Sultan, and it is earnestly to be hoped that the execution of these reforms, under the eye of England, may bring relief and prosperity to the down-trodden peasantry of the Holy Land.

In dealing with the fellahin, Jewish settlers would have one great advantage. They would probably learn the language easily, for the peasant dialect is very close to the Aramaic or Chaldean, which we know was spoken as late as the fourth century in Palestine, and which is called in the Talmud "the language of the ignorant."

Two attempts at agriculture have been made on the sounder principle of employing native labour. The northern half of the plain of Esdraelon was bought by a Greek banker named Sursuk about 1872. He is said to have obtained possession of seventy square miles, with twenty villages, for the sum of £20,000. The taxes alone of the villages are rated at £4,000 a year, and the income, taking good and bad years together, cannot be less than £12,000 per annum. How so one-sided a bargain came to be made is a piece of secret Turkish history, perhaps never to be cleared up, but the title cannot be considered secure under the ordinary government of the country.

The well-known Jewish banking firm of Bergheim in Jerusalem have cultivated their farm of Abu Shushah on the same principle observed by Sursuk, namely the employment of the natives of the place. A very little justice and kindness is enough to secure the affections of these poor peasants. The Bergheims own 5,000 acres, and have already introduced various European improvements. The native sheikh, or chief of the village, holds the position of foreman on the property, and the rest of the population obey him cheerfully. The younger Bergheims, well acquainted with the peasant dialect and with the customs and traditions of the country, are eminently fitted to manage the property. This settlement, conducted on sound principles by men who have command of money and experience of Palestine, ought to be a success.

The Bergheims, however, experience the same difficulty which lies at the root of every past, present, and future failure—the corruption of the Turkish Government. From the pacha down every official is venal and tyrannical. Nothing can be done with them without "baksheesh," and all their efforts are directed to the hindrance of an enterprise from which these harpies can gain nothing.

Native trade is killed by taxes on raw material, the peasantry are ground down by unjust taxation and shameless spoliation, agriculture is ruined by the conscription. The hills of Palestine might be covered with vines and the valleys run with oil, the plains might be yellow with corn and the harbours full of ships, but for the greedy pacha and the unjust judge.

### III.—THE PROPER METHOD.

In the previous notes attention has been drawn to the capabilities of Palestine, and to the reasons why former attempts have failed to develop those capabilities. It is not any sterility of the country, any

change of climate, or any absence of cheap labour, which has to be feared. The failures have been due, first, to want of money; secondly, to the false principle of endeavouring to introduce foreign labour which could always be undersold by the peasantry; thirdly, to the hostility of the natives, which was only natural towards those who threatened to dispossess them of their land; last, but not least, to the passive resistance of Turkish bureaucracy and to the insecurity of title which has deterred capitalists from embarking money in the attempt to develop the land.

The true principle to be wrought out is not that of superseding native labour, but of employing it under educated supervision. The peasantry are an energetic and very stalwart race, with immense powers of endurance, seasoned to the climate, temperate, good-natured, and docile. They are accustomed to obey their chiefs and elders, and when they see any prospect of fair pay and just taxation they can be made to work very hard, as has been proved in more than one instance. They are a people capable of great improvement, their faults are those of an oppressed race, and their natural quickness and power of adaptation would render it easy to accustom them to European improved methods of agriculture if gradually introduced and not forced upon them.

The best way of enriching the country is by purchase of estates in convenient and fertile districts, and the employment of capital in cultivation of the native products. The richness of the crops and the variety of the produce would then yield an ample return, and Palestine might become the garden of the world, situate as it is in so accessible a position, with the great Mediterranean waterway so close to its corn plains and olive yards.

The policy of the owners of property in Palestine should be to encourage the revival of the ancient native chief families whom the Turks have endeavoured to exterminate, and to rule the people through their native chiefs, whom they are accustomed to respect. Responsible agents would be required in every village, and these should be selected from among Europeans, and not from the upper class of Syrians, nor from the mongrel Levantines, Greeks, or Maltese, for an enterprise committed to the honesty of such men, would, from the first, be doomed to failure.

In choosing the best centre for such operations, the two main requisites would be accessibility and healthiness. The country has no roads and no drainage. It is, therefore, necessary to begin in a district easily reached from the shore, and, at the same time, to avoid the malarious districts along the coast. For this reason the plains of Sharon and of Acre, the Jordan Valley, and the Jerusalem mountains, should be avoided at first. Jaffa is not a good port, for during the winter it is almost entirely closed, and the rugged mountain wall, west of Jerusalem, makes communication with the coast difficult.

Modern Palestine has only one real harbour. The ports of Tyre, Sidon, Caesarea, and Jamnia, are closed, choked with sand, or artificially filled up. But in the centre of the coast line, the Bay of Acre is three miles broad, at the mouth of the Kishon, and eight miles long, and on

its south side the ridge of Carmel, reaching an altitude of 1,700 feet above the sea, runs out north-west and forms a promontory which breaks the force of the sea, while the hill affords shelter from the wind during the winter or autumn storms which beat from the south-west.

Under Carmel, in the hollow of the bay, lies the town of Haifa, the ancient Hephah of the Talmud ("the Haven"), famous for its Hizon fishery, whence the Tyrian purple was derived. The town is walled, and has a population of 4,000, of whom 1,000 are Jews. It has a Jewish cemetery, and from the middle ages has been a favourite resort of the Hebrews. The Carmel bay is even now a roadstead which good-sized vessels can visit throughout the winter. At a small expense it might be converted into a valuable harbour. A mole running out in continuation of the Carmel ridge might easily be built of the limestone from the mountain, and there are still ruins of an ancient port near this headland. Not only is the harbour good, but the position of the place is most favourable as regards the remainder of the land. The broad plain of Esdraelon—the richest ground in Palestine—lies immediately inland, and joins the plains which stretch northwards from Carmel. The river Kishon runs down from Esdraelon to the sea near Haifa, and along its course the roads to the interior rise with easy gradients. Haifa has on the other side easy access to the plains of Sharon. The great corn harvest of the Hauran is brought on camels by the Arabs, by the highway from Jordan, to Acre, at the north end of the bay; the main roads to Damascus, to Beyrout, to Upper Galilee, and to Nâblus, all lead from Haifa.

It has lately been proposed to start the Euphrates Valley Railway from this port, and although the steep gradients in the Jordan Valley and the waterless deserts beyond may make this route impracticable, there can be no doubt that the railroad to Jerusalem should start here. The Jaffa-Jerusalem railway would be a work of great engineering difficulty, because of the sudden slopes of the hills, which have a rise of 500 feet in less than half a mile. A railway to Nâblus from Haifa, and thence along the backbone of the country, would be more easily constructed, and would form a more important line of communication leading to a better port. If the Jaffa line is ever made, it must follow the course of the Valley of Sorek, or it would never reach the watershed at all. It would be about fifty miles long, while the watershed line through Palestine would not be more than eighty, connecting Nâblus and Jerusalem with Haifa.

It is in the proximity of the Haifa port that the first possessions of our farmers would be situate. Not, indeed, on Carmel itself, which is rugged and steep, covered with copses and having little arable soil, though that soil is of excellent quality. Nor would it be in the malarious plains of Acre and Sharon, which should be reclaimed gradually, like the Maremma, by drainage and plantation.

South of Carmel, about twenty miles from Haifa on the southern border of lower Galilee, there is, however, a district well suited as to



starting point. It is called the "Breezy Land," and consists of open downs of chalk, the feet clothed on the west by a beautiful open woodland of oak. The downs rise to a height of about 1,000 feet above the sea; the village lands extend into the plain of Sharon on the one hand, and to the plain of Esdraelion on the other. Further south is the rich plain of Dothan, and further east the well-watered valley of Jezreel, full of springs and extending to Beth Shan, of which Rabbi Simon ben Lachish said, "If Paradise is to be found in Palestine its gate is at Beth Shan."

The western side of the plain of Esdraelion runs with water in fresh sparkling streams, and clear springs which, even in autumn, swell the Kishon. The ground is in many parts only occupied by wandering Tureomans, and is not cultivated at all. Towards the north the villages belong (or did in 1875) to the Sursuk family, and the rich corn harvests and peasant prosperity of the Sursuk villages contrasts forcibly with the desolation of the Turkish hamlets.

At the south end of the great plain is the charming village of Jenin (En Gannin) with its palm groves and little stream. Corn, sesame, and millet, cotton, tobacco, and castor oil are cultivated in this district. The soil is a rich friable basaltic mud from the extinct volcanoes of Gilboa and Sheikh Iskander east and west of the plateau. Sugar might be grown at least in the Valley of Jezreel, and olives and figs abound on the western hills. This fertile district is easily reached either by the main road at the foot of Carmel, or by the route along Sharon, which intersects two ancient highways across the "Breezy Land."

The plain of Esdraelion is the part of Palestine which, if any military operations should be undertaken in the country, must be the scene of the decisive battle. Palestine is the natural bulwark of the Suez Canal—a country scarcely larger than Cyprus, surrounded by deserts and through which any hostile army *must* advance in order to reach Port Said.

An English occupation of this part of Palestine would have the great advantage that it would not conflict with French interest in the Holy Places. Jerusalem and Bethlehem are far south, Nazareth is north of this central district. The industrial and military centres are not in the towns which Christians agree in holding sacred. English occupation, or protection, would be an assistance to colonisation, or rather to farming by means of native labour. The English are favourites in the country. "England is the Sultan's sword," the peasants say, and while the Sultan as "head of the faith" holds a secure place in the affections of his people, the native Syrians are only too eager to carry out the "bag and baggage" policy, and to drive out the whole tribe of corrupt and tyrannical rulers whom the Turks send to administer the country.

Insecurity will always deter capitalists from sinking money in the East. Given a strong, wise, just government, and the country may be trusted to assert its ancient reputation for fertility. So long as an unjust and weak tyranny prevails, the Bedawin nomads will from time to time

range over the fertile plains and the peasant will not dare to till the land. The only radical change required is the total abolition of the present official staff, from the pacha down to the lowest mudir or kaimakam.

The gradual change which might be wrought even by private enterprise would be astonishing. The ancient cisterns, wells, and aqueducts would first be cleaned and repaired, and the system of irrigation extended. The old Roman roads would be re-made of the good material which lies ready to hand; wheeled vehicles could then be introduced, tram-lines and railways would follow.

The headquarters would be fixed in the healthier hill villages, but the uncultivated districts in the plains would gradually be taken in; the ancient system of drainage which carried the streams through the low rock-wall west of the plain of Sharon, would be repaired, and thus the stagnating water would run into the sea again and the marshes would be reclaimed. Quick growing grass would check the encroachment of the sand dunes on the coast, and as there is no frost in the plains the blue gum tree (*Eucalyptus Globulus*) with other fast growing trees would be planted, and must materially affect the climate in time. As the colonisation spread to the higher hills, where frosts occur, the old vine cultivation would be revived, Beth Laman and Beth Rima might again be famous for their wine, Tekoa and Netophah for their olives, Michmash for its wheat, and Jericho for its palms.

The scheme thus proposed may, however, appear too large to be of any great present interest, and unless a general movement towards the country occurred, the change effected in its climate and productions would be very small, but the preceding remarks will serve to show that there is nothing in the present physical condition of the country or in the character of its native inhabitants to deter those who may be interested in the development of the country. Palestine requires nothing but good government, an increased population and civilised cultivation to restore its prosperity.

The double object of promoting agricultural and mechanical education and enterprise is of primary importance for the future of the land, and it cannot be doubted that the remarkable linguistic talents of the Jews would give them great advantages over other Europeans. Palestine is said to have been so drained of men and money during the late war that the present time cannot fail to be a good one for the introduction of even moderate capital into the country; but the condition of the country, without roads or public works of any kind, seems to render agriculture more probably remunerative than mechanical employment. There is, however, no doubt an opening for such trades as smiths, carpenters, joiners, weavers, &c., for the native work is rude and clumsy, while the German productions are too expensive for general use.

It is with a sincere interest in the future of Palestine that these lines are written, and with a conviction that the duty of that influential

people which once ruled the land, is to support with the whole weight of their influence those projects for reform which at present seem to give the only hope of prosperity for the Holy Land.

C. R. CONDER.

## ZOAR.

WHERE was the *little* city to which Lot escaped from Sodom?

It may be visited from Jericho without much trouble, unless the rapid Jordan be swollen with water and Sheik Goblan with greed. Only a mighty man among the Gadites would defy both. (1 Chron. xii. 15.)

We propose to demonstrate the precise *position* of the long-lost survivor of the cities of the plain, grateful to the American Exploration Society for a *name* which is the very name we want, and hopeful that an intelligent traveller will carefully describe its *ruins*, of which we can speak only at a venture.

(A) As to the position.

The Biblical evidence is conclusive; it is, needless, therefore, to refer to Josephus, Jerome, &c. As camp-followers or prisoners, they are in this case but encumbrances.

Geological investigation has brought to light the fact that the Jordan, within historic times, can never have flowed into the Red Sea, but must have terminated in the Dead Sea, now 1,300 feet below the level of the ocean.

1. From the heights near Bethel, Lot "beheld all the plain of Jordan, that it was well watered everywhere, before the Lord destroyed Sodom and Gomorrah," &c. (Gen. xiii. 10). As the southern end of the Dead Sea and the western side of the plain near Jericho are hidden from these heights by intervening mountains, we should be predisposed to think that Zoar near Sodom was at the *north* end of the Dead Sea and on the *eastern* side of the plain. The expression, "Lot journeyed east," also inclines us to infer the same.

Abraham, near Hebron, "*looked toward* Sodom and Gomorrah and toward all the land of the plain" (Gen. xix. 28). It is not said of him, as of Lot, that he *beheld* Sodom, &c., so that this passage is neutral in the controversy.

2. The four kings returning from Kadesh (from the south) "smote also the Amorites that dwelt in Hazezon-Tamar"—which is Engedi (2 Chron. xx. 2). "And there went out the king of Sodom . . . and they joined battle with them in the vale of Siddim" (Gen. xiv. 7, 8). If the cities of the plain were at the south end of the Dead Sea, then the invaders must have marched half way up on its western side to Hazezon-Tamar, then turned back to Sodom, and then retraced their steps northwards once more. This is absurd; therefore we conclude that Zoar and the cities of the plain could not possibly have been at the southern, but, of necessity, at the northern end of the Dead Sea.

The Hebrew word for *plain* (*ciccar*) points to the same conclusion, being used topographically only of the valley of the Jordan.

3. The magnificent panorama visible from the top of Pisgah settles the question before us once and for ever. "The Lord showed Moses all the land of Gilead, unto Dan, and all Naphtali; and the land of Ephraim, and Manasseh, and all the land of Judah unto the utmost sea, and the south, and the plain (Heb., *ciccar*) of the valley of Jericho, the city of palm trees, unto Zoar" (Deut. xxxiv. 1-3). Prof. Paine, the American explorer, correctly observes: "The order in the demonstration of the land was from a neighbouring district on the north to the extreme south, and round by a return to the nearest place in view, Jericho, and then naturally it went on to Zoar, a point nearer the land of Gilead, the place of departure. It would be unnatural and unaccountable to go back from Jericho to a point at the southern end of the Dead Sea, having once passed over that region, and then stop there. . . . Let Zoar be in the plain on this (*i.e.*, east) side Jordan northward near the base of the mountains. It will then be in full view from Pisgah." Dr. Tristram ("Land of Moab," 333) had previously observed: "The narrative is describing the panorama from north to south, and ends by the feature nearest the spectator—*i.e.*, the city in front of him. Now we detected these ruins (Zi'ara) while standing on Nebo."

What Mr. Grove first, I believe, declared to be highly probable, these arguments, old and new, demonstrate to be perfectly certain—*viz.*, that the Zoar of the Pentateuch was at the north end of the Dead Sea, and on the east side of the valley. We are *sure* now of its *general* position; we have yet to discover the *very spot* where it once stood.

(B) As to the name.

"Zoar we seem to owe to Dr. Tristram," so wrote Lieut. Conder. But what is the force of "*seem*"? Does he question the identification or the identifier? To solve the mystery I referred to a "Land of Moab," unhappily mapless—or rather, happily so for Zoar.

It is identified with Zi'ara (p. 330), and (329) it is also stated: "The ground fell in terraces for 3,000 feet to the Jordan valley."

This identification is cruel, because it would compel poor Lot and his tender daughters to traverse at least four miles of dreary mountain, and climb some 3,000 feet in order to be safe, and all this in the short hour between "when the morning arose," and when "the sun was (just?) risen upon the earth." The angels first said, "Escape to the mountain." Lot then pleaded for something less; Zi'ara would require more.

Its elevation is too great, for Zoar was obviously one of the cities of the plain and *in* the plain.

For lack of the map in the "Land of Moab" I was driven to refer to that of the American Society, 1875, in the hope of first finding Zi'ara, and then some name at the foot of the mountains which might stand for Zoar.

The best I could find was Tell esh Shâghur, situated at the point where Wady Hesbân opens into the plain.

In Jer. xlviii. 34, we read: "From the cry of Hesbon *even* unto Elealeh, and *even* unto Jahaz, have they uttered their voice, from Zoar *even* unto Horonaim," &c.

As Elealeh is north of Hesbon, and Jahaz apparently south, it was easy to conjecture that "*from Zoar even unto Horonaim*" was a line from *west* to east, and the map gave Tell esh Shâghur as nearly *west* of Hesban. This was another point gained.

The LXX (with but one exception) render Zoar, by the word Σηγόρ (Segor), a still nearer approach to Shâghur. But the last shadow of doubt as to the fact that Tell esh Shâghur really means the "Hill of Zoar" seems to vanish, when we find that the Hebrew equivalent for Z becomes at times in Arabic Sh—*e.g.*, Shûfa, derived from Zophim (*Quarterly Statement*, 1877, p. 39), and the equivalent for "A" in Zoar becomes Gh in Arabic—*e.g.*, Azzah (Hebrew for Gaza) becomes the modern Ghuzzeh.

It seems, then, to me that in Tell esh Shâghur, happily marked on the American map, we have the very site and name of ancient Zoar. The native name clings to the neighbourhood. Mr. Finn speaks of Una Sheggar; Dr. Tristram of M'Shuggar; the American map also gives Mushâqqâr.

Sodom must have been near Zoar on the west, and there are other Tells in that direction. "The vale of Siddim, which is the salt sea," is, as the words stand, a geological impossibility, *if* "*which*" refers to the "*vale*." But as the doctors (Aben Ezra, Gesenius, &c.) disagree as to the meaning of "*Siddim*," why not maintain that "*which*" explains "*Siddim*" as being the "*Salt Sea*," so called in the language, it may be, of the Emims (Deut. ii. 11), or else if Sidd means a cliff, translate "the valley of the cliff of the sea"—*i.e.*, the salt sea, if such a rendering be possible. Siddim can hardly be an Hebrew word, from the difficulty there is in dealing with it. When a great thinker ventures to hold the New Testament responsible for monkish tradition—*e.g.*, in regard to the place of the baptism of the Ethiopian Eunuch ("*Supernatural Religion*," vol. iii.), surely it is better not to maintain a geological impossibility in the Old Testament by continuing to assume that "*which*" refers to "*vale*," and not to "*Siddim*," or its last syllable "*im*."

With Zoar is associated the ascent of Luhith. Isa. xv. 5, states: "His fugitives shall flee unto Zoar . . . for by the mounting up of Luhith," and Jer. xlviii. 5: "In the going up of Luhith" (see lxx. 4, 5). I believe nothing whatever has been known about Luhith.

At Tell esh Shâghur begins the ascent of the pass to Hesbon.

Consul Finn travelled this way in May, 1855, and reports ("*Byeways in Palestine*," p. 11):—

"Our road lay up the hills, constantly growing more steep and precipitous, and occasionally winding between large rocks, which were often overgrown with honeysuckle in full luxuriance. The Arabs scrambled like wild animals over the rocks, and brought down very long streamers of honeysuckle—*Luwâýeh*, as they call it—which they wound round and round the necks of our horses."

Shall we hesitate to see in the name Luwáyeh the modern representative of Luhith, and to believe that the pass derived its name from the honeysuckle, in which it doubtless abounded then, as now?

Just as in the English Lake District a natural object has given us the Kirkstone Pass, so another gave to Palestine the "Honeysuckle Pass."

Luhith is commonly derived from a Hebrew word meaning "boards," but from the above coincidence I suspect it really comes from another very similar word signifying to weave or twist as a crown or garland.

(C) As to the ruins.

Tell esh Shâghur is merely marked on the American map as a hill, just on the south bank of Wady Hesbân, near the foot of the mountains, a mile east of Tell er Râmeh. No description is given of it, as far as I know.

It seems to me, however, so extremely probable that Canon Tristram ("Land of Moab," 347) unconsciously describes Zoar (or else its cemetery), that at the risk of being wrong I transcribe his words. He had been descending Wady Hesbân on its south side, and (on the same side, we may hope), to use his own words, "We descended on the edge of the Ghor Seisaban and entered on an open, undulating plateau.

"On the last rocky eminence which pushed forward into it were the most perfect primæval remains we had found in the country. Round the slightly-elevated crest at the western end of the ridge was a perfect circle of dolmens, each composed of three upright and one covering stone. Several of them had fallen, but the stones were in their places, and it was clear that they had been arranged in a circle round a great cairn, or central pile of stones, which crowned the "tell," and doubtless marked the burial-place of some hero, famous in his day, but who lived before Agamemnon."

If this hill should indeed prove to be Tell esh Shâghur, then the Gospel harmonists will perhaps hereafter allow that our Lord previous to *passing through Jericho* may have beheld these very monuments of ancient Zoar or at least the plain of Sodom while he uttered those solemn words,  
"Remember Lot's wife."  
W. F. BIRCH.

## TRANSFERENCE OF SITES.

TALKING the other day about the traditions of the Holy Sepulchre, and that many of them were traditions which belonged originally to the Temple Mount, it was suggested that a few notes on the Transference of Sites would be interesting. On considering the subject, it is doubtful if this is a correct title to express in all cases the true idea relating to this matter; Transference of Tradition would be even more doubtful. Identity of Tradition attached to Sacred Sites comes nearer, and the question of transference would be thus left out, or at least would not be

assumed as a necessary inference by the writer. The title adopted is, however, the simplest, and with this explanation it may be retained.

The sacrifice of Isaac is undoubtedly an event which belongs to the Temple Mount; the name Moriah is given in connection with it in Gen. xxii. 2. Josephus (*Ant. i. 13. 1, 2*) states that it was "the mountain Moriah," and that Abraham took Isaac "to that mountain, upon which King David afterwards built the Temple." This event is, at the present day, located at the Holy Sepulchre; the bush where the ram was caught entangled is now shown in the Abyssinian Convent; it is an old thorn, and pilgrims hang rags of bright colours on it. Here is what would be called the Transference of a Site, or the Transference of a Tradition. This is not the only case; Jerusalem was considered to be the centre of the earth. Where would that central point be? It could not have been at the spot which was afterwards to be the Holy Sepulchre, for that was "without the wall," and consequently not in Jerusalem. We must naturally conclude that it would be in the Temple,—for it was to the Temple that the Jews turned in prayer when in places distant from Jerusalem. We have an illustration of this in the Jews' wailing-place at the present day. Benjamin of Tudela associates the spot as connected with the Holy of Holies. The centre to which they turn is within the Haram Area, and not at the Holy Sepulchre. It is also the custom of the Jews to "orient" their synagogues to Jerusalem. That the Jews and Christians also accepted the same idea we can prove, according to Eutychius, from the words of Sophronius, the patriarch of Jerusalem, to Omar, who describes the place which he allots for the building of a Temple:—"I give to the Commander of the Faithful a place where he may build a temple, which the Grecian Emperors were unable to build; viz., the Rock on which God spoke to Jacob, which Jacob called the Gate of Heaven, and the Israelites the Holy place of Israel, and is held by them in such veneration that, wherever they are, they turn their faces towards it when they pray." This quotation gives us, so far, the ideas entertained on this point by Jews and Christians towards the end of the ninth century. Under a theoretic form of government, the centre was the seat of religion and power. It is a symbol to which many oriental ideas can be traced and explained. The Emperor of Delhi was called the "Centre of the Universe." Buddha was a Chakra-varta Rajah, but the Chakra is the wheel or circle of universal power, and the Chakra implies a centre. In the Judaic system, the seat of supreme power was the Temple, that was the true local of the centre. According to the Mohammedan belief the Sakrah is the centre of the world (see "History of Jerusalem," by Walter Besant and E. H. Palmer, p. 419). At this day, however, the centre of the world is pointed out to pilgrims in the nave of the Greek Church, at a point facing and not far from the door of the Holy Sepulchre. Adam's Grave seems to be a purely Christian tradition; but had the Jews made use of that as a type or figure, the Temple ought to have been the shrine of this holy place. Perhaps this may not be a familiar subject to most readers, and it would lead far beyond the limits

of this article to deal with it. At present the position of Adam's grave is shown in the Holy Sepulchre, and in connection with the rock of Calvary. The traditional grave of Adam has been transferred, or, it might be better to say, is believed also to exist in Hebron and in Mecca. For this last, see *Quarterly Statement*, April, 1877, p. 92. For Adam's Grave at Hebron, see Conder's "Tent Work in Palestine," vol. ii., p. 83, according to which Adam's tomb did exist in Hebron, but has now disappeared. It was shown in the time of Arculfus, as "not far" from the tombs of the patriarchs (Bede, B. V., chap. xviii). The place where the red earth was taken from to make Adam is shown at Hebron ("Tent Work," v. II. p. 84), and according to Dr. Manning's work on Palestine, p. 101, published by the Religious Tract Society, the same spot is shown in the Holy Sepulchre.

At Mount Gerizim we have another transference or identity of tradition. Rivalry of closely allied faiths seems to have something to do with the matter—for here the Samaritans believe that "King Joshua" founded their temple, on this mountain they have their Sacred Rock, the counterpart of the Sakrah at Jerusalem—this they believe is the site of their altar, and to this "they turn in prayer, wherever they may be" ("Underground Jerusalem," by Captain Warren, p. 218). Close to this is the spot where, according to the Samaritan tradition, Abraham offered up Isaac; "here also Melchizedek met Abraham and received his tithes." "Here Jacob dreamed his dream, and he called the name of that place Bethel; but the name of that city was called Luz at the first." "Here, also, was the altar that Jacob built on his return from Padan-Aram, and called Elelohe Israel. On this holy of holies the Ark rested," &c., &c. (*Ibid.* p. 219). Thus we find what seems to be a natural tendency of these traditions to gather round what may be called a sacred centre of worship.

Connected with the Sakrah at Jerusalem there are associated all the principal events of Scripture history, such as the Creation of Adam; it was the site of Paradise; Noah's Ark rested on the spot; Abraham's Sacrifice was offered; and it was also the place of Jacob's dream; all the rivers of the world flow from under this Sacred Rock—clearly a transference of the symbolical four streams of the first Eden. The mediæval travellers who visited Jerusalem repeat all these traditions. Sir John Mandeville gives a very long list of events connected with the Sakrah, making it the scene of New Testament as well as Old Testament history. The Mohammedans have long held this sacred spot, and to them we no doubt in this case get the localising of some of these traditions—and it is important to note that this tendency is not peculiar to any one faith.

The Sakrah, according to some theorists, has nothing to do with the original temple. The Bordeaux Pilgrim mentions a "*lapis pertusus*," to which the Jews came and wailed; this, Mr. Fergusson thinks, was a stone, "bored with two holes," mentioned in the Middoth, which stood at the south-west corner of the spot where his theory places the altar of



the Temple. This was the corner stone of the altar, and "was the Sakrah not only of the Jews, but at one time of the Saracens also" ("The Temples of the Jews," p. 184). Now the present Sakrah is a "holed stone," or *lapis pertusus*; a large hole communicates with the cave below, but it stands about 500 feet to the north of the position given to it by Mr. Fergusson, thus suggesting, according to his theory, a very important transference of site. In the Black Stone at the Kaaba of Mecca we have perhaps some of the earlier traditions which the Mohammedans transferred to the Sakrah. This Black Stone is the "corner stone" of the Kaaba; it is a veritable bit of Paradise, and will return to whence it came on the last day. Here is no doubt the source of the tradition that when Mohammed made his "night journey" from the Sakrah, that the Holy Rock wished to ascend with him, and was actually doing so when the Angel Gabriel held it down, leaving the impression of the hand, which is shown to pilgrims at the present day. At least we have here an identity of tradition in the belief that both are to go to heaven at the last day. The Mohammedan pilgrims perform the Tawwaf, or circuit round the stone, as they do round the Kaaba, with its stone, the only difference being, according to Professor Palmer ("Jerusalem," p. 418), that they must be careful to reverse the direction of the circuit; at Jerusalem they must pass round with their right hand to the rock, and at Mecca with the left. The Black Stone is the sacred object which makes the Holy House—the "Beit Allah"—the Kibleh, or the central point of prayer, and to that spot the faithful turn in prayer from all parts of the world. This we have seen is the case with the Samaritans at Mount Gerizim, and it is a very important identity, for it tends to confirm the tradition which comes to us that the Jews had also a Sacred Rock, the Eben Shatiyeh, or "Stone of Foundation's Foundation," in their temple, and which no doubt was their sacred centre. In the Mishna it is stated in relation to the Holy of Holies, that, "when the Ark was removed a stone was there from the days of the first prophets, and it was called "Foundation." It was three digits high above the earth, and upon it he (the high priest) put the censer. This may find confirmation in the repeated use of the rock in a symbolical sense in the Old Testament. Dent. xxxii. may be referred to, where it will be found as a type of the Most High. Strange to say that the Hadjis pray to the Black Stone, and although in all other cases they are true to their idol-aborring rules, yet they address it as "Allah." Burton in his book says that in thus praying to it, and asking for mercy and pardon, in which case he did like the others, he raised his hand to the stone and kissed the finger tips of his right hand. Near the same corner where the stone is placed is the Well of Zem-Zem, the water of which the pilgrim drinks and also uses to wash with, thus destroying all power of sin. Here no doubt is the source of the Mohamedan tradition of the waters under the Sakrah. Exodus xvii. 6 might also be the original story.

In some of the cases mentioned the Transference of Site is evident;

in one or two of the instances we see that the tradition has been transferred from one side to another, while, on the other hand, many of these sacred spots are of such an antiquity that we cannot say which was the earliest. No doubt but there must have been priority somewhere, but many of these ideas began so far back in the past that we can only now speak of their similarity as the identity of tradition. We can see clearly enough that there was a tendency to locate certain traditions at each holy place. There seems to have been a common property in the ancient religious history of these people, but at times they differed as to the scene of the event, and we see that it was the position of the Sacred Centre which led to this. Wherever their Central Temple was, there they placed the scene of the main events of their sacred history. When this important principle is realised a ruling idea is reached, which may serve so far as a guide, and when applied to any of these sacred localities one may almost predicate a certain set of traditions as belonging to them. It is not very difficult to give suggestions which will so far explain why the one spot was the supposed scene of so many events. The Temple was the accepted place of the Divine Presence. Being so, it became the scene of His works, and more especially of those great typical events which had a reference to Man and the Divine System. The Temple or Church is the theatre of the sacred drama, and as all the scenes have as types the same meaning to enforce, they belong naturally to the one piece, and there was no incongruity to the primitive mind in supposing that they were all performed on the same stage. When the subject is considered from a symbolical point of view, this becomes the true way of regarding it. The craftsman is taught that everything takes place on "the floor of the lodge," and the floor of the lodge is the top of Mount Moriah, thus presenting us with a most effective illustration from the region of "signs and symbols." It will also be noticed that this gives us a case of "Transference of Site" which takes place at the opening of every masonic lodge, and the explanation of which is to be found only in symbolism, and does not require us to fall back on the knavery of Priests and the blind credulity of Mankind, which are the usual modes of accounting for such things. This production of a site in virtue of some function, or from ceremonies being performed at it, is of importance as explaining the probable cause of transference. In some cases we can have no hesitation on the subject, but there are others where the figurative phrase may, from our scant knowledge, lead us to believe that the spot is the real and original site of the event. A good illustration of this may be given. Not long ago I saw over the door of a church in Brighton, noted for its tendency to a high ritual, the words "This is God's House and the Gate of Heaven." Now these are the words applied by Jacob to Bethel. The slightest consideration will bring home to the mind the idea that "Gate of Heaven" is a title which belongs to the Church, or it might be applied to any house of prayer, and that there need be no dispute between Brighton and Bethel as to which of them has got the portal leading to

a better world. "The keys of St. Peter," supposed to be in the possession of the Pope, would imply that the "Gate of Heaven" was at Rome; but it is only a continuation of the symbolism contained in Jacob's words. We have seen that Sophrinus spoke of a rock at Jerusalem, on which God spoke to Jacob, and "which Jacob called the Gate of Heaven." Sophrinus was the Christian patriarch, but the Mohammedans believe that Mohammed began his night journey from the Sakrah, thus giving it a claim to be the Gate of Heaven. They also accept it as the locale of Jacob's dream. This is often referred to, in language bordering on contempt, as being "only a Mohammedan tradition," but the difference is scarcely perceptible between the traditional Mohammedan and the ritualistic Christian. In the one case there is no danger of our being led astray, but in the other, if we had not accurate knowledge, we might be led into a difficult question as to whether Jerusalem or Bethel was the real site of Jacob's dream. Another good illustration of this tendency to evolution is found in the making of Calvarys, and known in many cases as the "Holy Sepulchre," all over Europe, each with the "Stations," at which the worshipper prays as at the Holy Sepulchre. This Transference of Site is still more completely carried out at Easter by the construction of a tomb in the churches to represent the Holy Sepulchre. In England these were called "Easter sepulchres," and in some cases the angels, soldiers, and the three Maries were all represented by priests, who acted and spoke, repeating the words at the tomb as given by the evangelists, thus dramatising the story to make it more realistic; and all this was done without the slightest idea of imposture. If such things were done in Jerusalem there could have been but small difficulty, supposing that the real sepulchre had been lost, in thus evolving a new one. It would be one of the simplest, and at the same time one of the most natural of operations; and it is this very simplicity—this natural action of the human mind—which has led to the complicated puzzle about the site of the Holy Sepulchre. If, as Mr. Fergusson thinks, the dome of the rock had been the real sepulchre, and had been taken from the Christians, and they were left without a shrine, it would have been almost impossible for them to avoid evolving a new one. The realistic character of the ritual, and the natural tendency to represent localities as well as persons, which was essential to the dramatic style of the ceremonies, would require but a very short space of time to clothe any spot with all the attributes of a sacred place. Let any one go to Jerusalem at Easter, even in our own day, and watch the Russian pilgrims, unlettered peasants, to whom archæological doubts and difficulties are unheard of, and we have a fair example of what the early pilgrims must have been—point to a stone, mutter the name of a saint, and they are on their knees in an instant kissing it. With such conditions sacred sites come quicker into existence than a crop of mushrooms.

The Santa Casa of Loreto comes in as a good case of the transference of a site. A visit I made to that shrine about a year ago led me to

consider the problem as to how such a story could have come into existence, and the conclusion I arrived at was that of natural growth, instead of the usual one of a concocted imposture. The house at Nazareth existed as late as 1291, but in that year the Saracens, under the Sultan Khalit, took the place, and the monks were no doubt turned out. The tradition is that the house went first to the town of Tersate, or Flumen, in Dalmatia, where it remained for three years, coming over to the Italian side of the Adriatic on the 10th Dec. 1294. Now, supposing that when the monks left Nazareth, and they carried off whatever they could belonging to the church, the figure, "framed by St. Luke," of the Virgin;\* would no doubt be carefully preserved. Such a precious relic would certainly have been an object of sanctity wherever it went. Crowds would be attracted, and the place would become a shrine. We can easily imagine how the monks would be questioned about such a sacred spot as the house where the Virgin had lived in. How often they would have to describe every detail, and it would not be long till the idea would occur of making a house of similar size and appearance. Such a proceeding would be in perfect keeping with the times. No deception would be intended, but when the house once existed, the step from its being understood as only a representation, till it was believed to be the veritable house from Nazareth, would be very short indeed. The story of a house flying through the air is not one that would occur to any person who wished really to deceive, something nearer to the limits of probability would have been selected. It is by getting the figure of the Virgin coming from Nazareth as a starting point, and the dates given above make it likely that it was brought from the Holy Land by the monks, which suggests a reasonable and probable origin of the tradition, and in this we have one of the most remarkable transference of a site on record. Supposing the theory here suggested should be correct, it would give some interest in the Santa Casa, for being made by the men who had just come from Nazareth, it may be assumed to be a fair copy of the original. In this view it becomes a record of some value. It is formed of stone, and not of brick, as generally described. There are some remains of old paintings on the walls. Loretto naturally recalls the Scala Santa at Rome, in which, according to Murray, the "stairs consist of twenty-eight marble steps, stated by the Church tradition to have belonged to Pilate's house, and to have been the identical ones which our Saviour descended when he left the Judgment Seat." In these cases a new site is produced by the transference, or at least supposed transference, of the structures connected with events. In the Coronation Stone at Westminster we have the transference of an object, and with its legendary character of being "Jacob's Pillar," we have transferred with it some of the attributes which have been already

\* This celebrated "*vierge noire*," is said to be made from cedar, and the work of St. Luke. It is 2ft. 5in. high, and stands in a shrine over the altar, for the Santa Casa has been made into a chapel. It was carried off to France by the French in 1797, and brought back to Loretto on the 8th December, 1802.

alluded to as belonging to the Sakrah, the Sacred Rock of Gerizim, and the Black Stone of Mecca, as central points of faith. At the present time there is no religious signification attached to it, but as the Coronation Stone, it becomes the centre on which our monarchs receive their power and authority to rule over the kingdom. It is thus, in a secular sense, the Eben Shatiyeh, or "Stone of Foundation," of the Government of this country. The attributes possessed by this stone can no doubt be explained from what we know of Celtic archæology, still the identity of ideas is in this case, as it gives us a sacred stone, with something of the character of a Sakrah, which has been transferred within an altar, so close to the centre of our political system, is worthy of consideration in relation to this subject.

To return to the dome of the rock. The Cathedral at Bosrah, which is figured in Fergusson's last work on "The Temples of the Jews," the date of whose completion is 512 A.D., presents such an identity in its general design, as well as in its details, that it should be considered that in this there is at least one point settled. The section of the Baptistery of St. John Lateran, given in the same book, is a further confirmation on this head. There is one point which weighs strongly with me as evidence that the building was not erected as a mosque, and I am rather surprised that I have not seen it noticed by any of the numerous writers on this subject. When I visited the spot, on the theory that the place was a mosque, I looked out for the Mihrab, but in its place there is a door opening towards the Kiblah at Mecca, and the Mihrab is placed on the left hand, where no Mohammedan architect could possibly have arranged it, if he had designed the building at first, and proving that it is a *later insertion*.\*

If the architecture of the dome of the rock permitted of the theory that it was built by Mahomedans, the only supposition that would explain it would be that it was constructed as a Kiblah, like the Caaba, which is not an ordinary mosque, and changed afterwards. According to the Mahomedan historians, Omar seemed to have been uncertain as to what ought to be the direction of prayer at Jerusalem. The tradition of the Night Journey, which had been related by the prophet himself to Omar, I should say, must have been the reason of this, for that story gave the spot a claim to the character of being "the Gate of Heaven," and as the rock tried to ascend with Mahomed it thus got transferred to it the attribute which belongs to the Black Stone, of being a veritable bit of paradise, and that it will go upwards on the last day.

We have here the suggestion of a possibility that the building forming the visible centre of a faith may be of a peculiar construction, and entirely different from all its other temples.

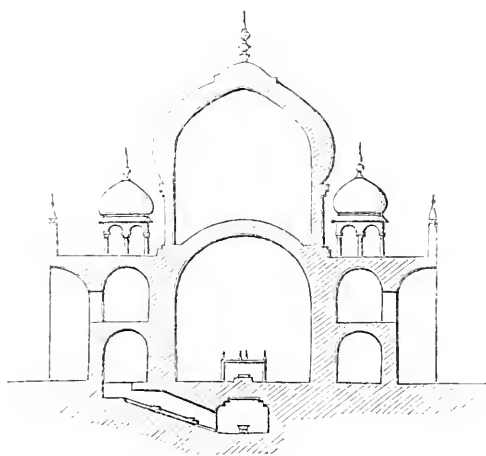
Lieutenant Conder's statement of the rock levels round the Sakrah is

\* It has been pointed out by the Count de Vogué, and it is strongly insisted by Prof. Palmer (see Jerusalem, Besant and Palmer), that the dome was never built for a mosque at all, but is identical with a wely or oratory, over a Muslim saint's tomb.

of some value, and tells so far, but does not seem to me to be demonstrative evidence—perhaps I undervalue its force. At the same time I would say that the absence of rock on the surface, or on the level, at the point where Mr. Fergusson's theory places the Holy of Holies, is a weak feature on his side. I allude to these only before giving what has all along been to me the greatest difficulty in Mr. Fergusson's views. The position Mr. Fergusson gives to the Temple, in order to leave the present Sakrah "without the gate," or without the wall, till the cave under it became the Holy Sepulchre, is to me very hard to accept. The cave, according to this theory, could not have been ever used before as a tomb, "for it was a new one in which no man had lain." It is, I think, difficult to believe that such a very remarkable rock, and its singular association with a cave, forming the summit of the mount, could have been left out, and receive no functional character in connection with the Temple and its worship till the death of Christ. The force of this point of view is a matter of probabilities, and I submit that this must have been highly improbable. Mount Gerizim has a cave on its summit in connection with its sacred rock. The region all round is noted for its sacred caves. Mr. Fergusson's own adopted term of "Tree-Worship" may be followed, and Palestine might be called a land where *cave-worship* is the striking peculiarity. In our own day Christian and Moslem have their shrines in caves. In Hebron, and Bethlehem, and Jerusalem almost every holy place is a cave, and yet, perhaps, the most remarkable of all these caves is that which exists on the highest point of the Temple Mount; so striking a feature is it that I cannot believe but that it must from a very early period have been looked upon as a sacred spot. Indeed, if the question were put, why did this height receive its first character of sanctity, the probability, I should say, was owing to this remarkable circumstance of the cave on its summit. I do not think we must necessarily assume that the Temple stood on the highest point, it may have been lower down, but were I to attempt a restoration of the old plan of Jerusalem the wall would be made to enclose the Sakrah. As a question of defence I should think that the military engineers would take this view of it also. On the north side of the platform on which the Dome of the Rock stands there is yet visible a depression, and it is this lateral hollow which gives to the ground on the south of it the character entitling it to be called a "mount." The Middoth calls it the "Mountain of the House." I think I am supported in this by the words of Josephus (A. J. xv. 11. 3), where he says: "This hill it was which Solomon, who was the first of our kings, by Divine revelation, encompassed with a wall." Immediately after he repeats this: "This hill was walled all round," and again he distinctly declares that these walls were joined together "as a part of the hill to the very top." Ezekiel's vision is supposed to have been based upon the Temple, and he confirms the words of Josephus, "This is the law of the house; upon the top of the mountain the whole limits thereof round about shall be most holy. Behold this is the law of the house" (Ez. xliii. 12). A passage in Conder's "Tent-Work in Palestine" (vol. i.,

p. 366), on the separation of the Temple hill might mislead. He there refers to a rock-cut trench forty feet deep, which separates the traditional Antonia from the Mahomedan quarter. This may be the military and defensive separations, but the lateral valley on the north side of the Dome of the Rock is the original condition which made the spot a "mount:" without this depression the site of the Temple would only have been the lower end of a spur.

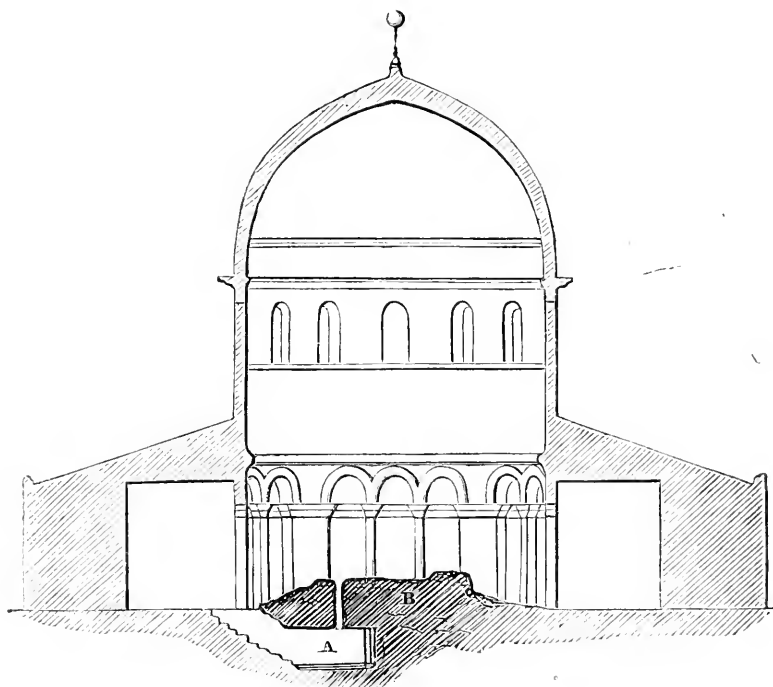
The Dome of the Rock, considered as a temple, is one of the most impressive shrines I have seen. No doubt but the dim light and the rich mosaics and colour from old stained glass help much to produce part of the effect, but the real source of the influence is the rough-looking mass of rock which forms the floor under the dome. At



SECTION OF TAJ MAHAL, AGRA.

first it looks as original and untouched with a tool as the top of a high-land mountain. A canopy of green, red, and yellow silk hangs picturesquely above it, and no marble floor, however artistically designed, or minutely or carefully wrought, could possibly affect the mind of the visitor as this grey and solemn mass of rock. I could accept a sanctity as belonging to it which could never be derived from sculptured stones or anything built by the hand of man. I know of no temple equal to this for its effect on the mind, and my experience of such places extends over the whole of India, and as far as Tibet, China, and Japan. The curious thing is that this splendid place of worship is as yet a puzzle, an archæological nut of the hardest kind to crack—not that we are deficient in theories—the difficulty is as to which is the true one. One explanation offered is that it is the building erected over the Holy Sepulchre by Constantine. This idea is supported by the theory that the archi-

ecture agrees with the period of that Emperor, and also by the fact that the arrangement of the building is identical with so many oriental tombs, and strikingly so with all the principal tombs of India. There seems to have been a typical idea of a tomb, which may be traced all over the east, and which in large and important examples assumed certain main features, and these features are to be found in the dome of the rock. If we take the Taj Mahal at Agra, or the tomb of Mahmud at Beejapoor, we have a large square or octagonal structure surmounted by a dome. Instead of the sepulchral cave, as in the Dome of the Rock, there are in

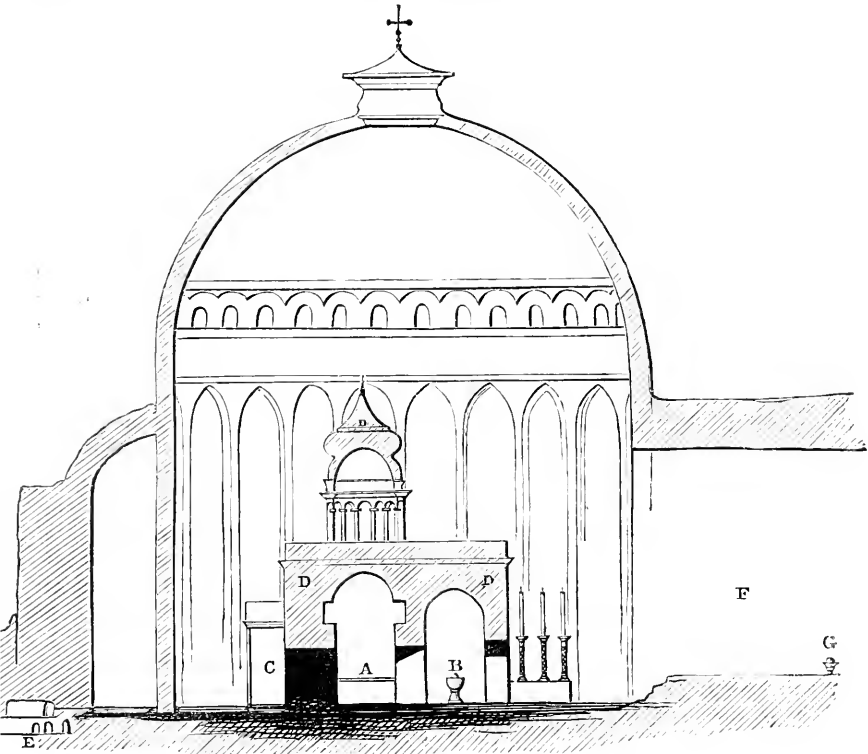


DOME OF THE ROCK.

these cases constructed chambers below the surface which contained the body ; under the dome is a cenotaph, and which occupies the same position as the Sakrah. In fact, a section of the Dome of the Rock and the Taj Mahal present a remarkable resemblance, so far as the parts just described are concerned ; and these are the essential features of such structures. Now, the curious thing is that the Holy Sepulchre contains all these characteristics, that of course is natural from its being a tomb ; but the striking fact is that of its being in this respect a repetition of the Dome of the Rock. It belongs to quite a different period of architecture, and is a ruder kind of work. The sepulchral chamber is of the kind now known



under the old name of *Kokim*. They were small tunnels, arched in form, cut into the rock, and the body was pushed into them. In the Holy Sepulchre the upper portion of the rock has been cut away to make the interior of the tomb larger, so that it could be entered, and the whole has been covered with marble, and now none of the rock is visible, but originally it was an artificially formed cave as a sepulchral chamber,\* covered with rock. Had the rock not been cut away, and the marble edifice not



HOLY SEPULCHRE.

been constructed, the Holy Sepulchre would have been another Dome of the Rock.

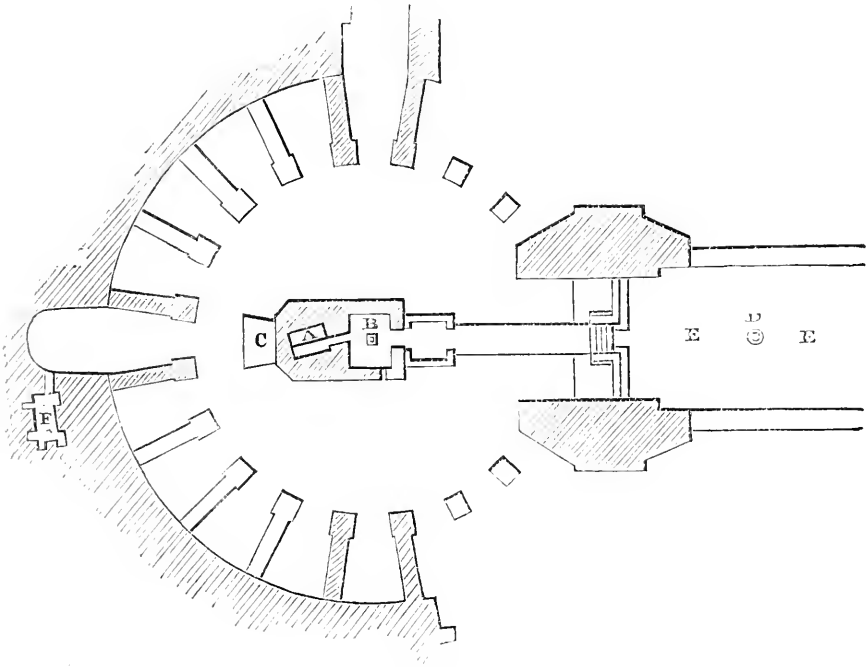
Although this seems very like a Transference of Site, yet there is no reason, at least from what has been here stated, to suppose that an imitation was intended. There is a similarity in these oriental tombs, and this one only repeats the usual features. Caves and rock-cut tombs being a peculiarity of the locality will explain why the remarkable coin-

\* "In the middle space of the inner circle is a round grotto cut in the solid rock."—*Areulf*.

vidence, just described, would have existed. The Holy Sepulchre becoming the Head, or Centre Church—the Mother Church of all Churches—becomes the successor of the Temple. We are apt to look upon the Temple as the early Christians did, as a place to be hated, and are thus led to forget that the one is only a continuation of the other. The Church is the legitimate heir of all that belongs to the Temple. The Temple was the centre for the Jews, and now the centre of the earth is at the Holy Sepulchre. It is the same with the story of Abraham's sacrifice, and with all the typical events—they are all fulfilled in the One Death. The Holy Sepulchre thus becomes by the single event the representation of a great many, and hence the reason why so many sites are transferred to it. Sæwulf, who on visiting Jerusalem in 1102, writes of the Holy Sepulchre,—“For all things which were foretold and forewritten by the holy prophets of our Saviour, Jesus Christ were there actually fulfilled.” The realisation of the idea which has been here dealt with is not without some practical value, and I can give a good instance to illustrate. Many of those who go to Jerusalem, and are not satisfied with the present Holy Sepulchre, begin to study the ground in order to discover the true site, and one idea seems to guide them all—that it must be a mound in the shape of a skull, which is the mode in which they interpret the word Golgotha. By referring to the old pictures of the crucifixion, we see always at the foot of the cross the representation of a skull. This is understood to be Adam's skull. In some pictures the whole figure of Adam is given; there is, to give an example, a group of this kind over the central west door of Strasburg Cathedral: He is rising to life again from the blood which is shed. By a reference to 1 Cor. xv. 22, we find that in Adam all die, and in Christ all shall be made alive. Here we have the simple connection between the Crucifixion and Adam's grave. It is a piece of very beautiful symbolism. Its consideration will save explorers from wasting time which may be better spent than trying to find a rock shaped like a skull. According to the rule of the Roman Catholic Church, this site is transferred to every altar where the mass is celebrated. According to the decrees of the Church, the sacrifice of the mass cannot be performed without a relic, that is, a portion of a dead body, being placed on the altar. This is one of the essential rules, from which there is no deviation, and by it the altar becomes a Golgotha, the place of the dead Adam, over which the ceremony is performed.

The twelve columns in the Sakrah are said to be one for each of the twelve sons of Jacob. And I find in Mr. Bonomi's diary the tradition, no doubt a Mahomedan one, that the twelve heads of the Beni Israel are buried under the Sakrah. This helps the tomb theory of the Dome of the Rock. Perhaps the breastplate of the high priest (Ex. xxviii. 9) is the starting point of this typical number of stones, and it is repeated in the crossing of the Jordan, where Joshua commands that twelve stones be brought up out of the river, “according unto the number of the tribes of the Children of Israel” (Jos. iv. 5). These stones

were erected at Gilgal. The Samaritans say that Joshua brought these twelve stones to Gerizim. All they can show now of their Temple is a part of the foundation formed of these traditional "Twelve Stones." In 1 Kings xviii. 31, Elijah, is described as taking twelve stones "according to the number of the tribes of the Sons of Jacob," and built an altar with them. The Christian also found an attraction in these twelve stones, for Arculph, as early as A.D. 700, mentions the church "on the site of Galgalis," and that within it were the twelve



PLAN OF SEPULCHRE.

- A Slab on which body lay. B Fragment of stone which formed door of tomb.  
 C Coptic Chapel. D Centre of the Earth. E E Greek Church.  
 F Tomb of Joseph of Armathen.

stones which Joshua ordered to be carried out of the Jordan. Willibald, who was only a few years later, mentions Galgala, which had a "wooden church," in which were these twelve stones. Sir John Mandeville describes Rachel's tomb as having in his day twelve great stones, which Jacob had placed over her in token that she had borne twelve children. Sir John forgets here that this one of Jacob's wives was not the mother of all the twelve sons. Benjamin of Tudela again says that the tomb was constructed of "eleven stones, equal to the number of the Children

of Jacob." At the present day there is a Mahomedan mosque at Nablus dedicated to "the ten sons of Jacob." Here the one idea is preserved in Jewish, Christian, and Mahomedan symbolism. There is an identity of words in the Hebrew connected with son, and stone, or rock; and there results from it the use of the term to "build up a house," meaning thereby the children, which are the stones, by which the family is built up. Euripides makes Iphigenia say, "For sons are the pillars of the house" (*Iphigenia in Tauris*, v. 57). Showing that the notion is not peculiar to the races of the Holy Land.

We have it stated by Areulph that the Holy Sepulchre "is encompassed by three walls, and supported by *Twelve Columns*" (Bede v. 117). According to Mr. Fergusson's theory this would be the Dome of the Rock, because he believes that the transference took place in the eleventh century, and Areulph's date is about A.D. 700. But if the transference did take place most probably the twelve pillars, which we have seen has been such a favourite number with Jews, Mohammedans, and Christians, would have been transferred also in constructing the new shrine. At least it might be put that if the twelve columns were found in the new shrine it would not surprise any one. The Dome of the Rock rests not only upon twelve columns, but there are also four strong piers, one between every three columns. In the present Holy Sepulchre the complete design of the columns is broken into by the Greek Church on the east side, but on the western half the arrangement is still entire, and if we take the two square columns at the cardinal points to represent piers, it will be found that it leaves four divisions of three columns, which if continued all round would give the oft-repeated twelve. This will be understood better by the shading on the plan, which is done to convey the idea. This, I know, is far too speculative to be assumed as a certainty, and I only give it as an idea which grew out of this question of Transference of Sites.

One curious point is worth calling attention to here, and that is that the tomb turns to the left hand on entering, which is the angle at which the altar or chancel of so many old churches diverge from the line of the nave. If that angle, which has had so many theories by way of explanation, could be traced back to the Holy Sepulchre it would in itself be a very interesting transfer.

I have tried to show that in the multitude of traditions and the confusion of sites, although seemingly a maze, that it is not altogether at times without some indication of a plan, and that by study and classification something may be made out of them which is of practical value, and that the whole subject may be worthy of more careful and serious attention than it has yet received as a branch of Biblical archæology.

WILLIAM SIMPSON.

## THE FELLAHHEEN OF PALESTINE.

NOTES ON THEIR CLANS, WARFARE, RELIGION, AND LAWS.

By MRS. FINN.

It is impossible to live for any length of time in the Holy Land without being struck by the diverse character of its present inhabitants—that is to say, of the settled population, as distinguished from the pilgrims who annually resort to the Moslem and Christian sanctuaries.

Not only in Jerusalem, but in the rural districts all over the land, the careful observer perceives that in this small country are collected together people of differing creeds, and of various perfectly distinct races. Not now to dwell upon the peculiarities that mark the difference between Samaritans, Maronites, Druses, we pass on to those commonly classed together as “*Arabs*,” because the various dialects which they speak have been supposed to be “*Arabic*,” because they profess the faith of Islam propagated by Arabs from Arabia, and because of Oriental customs which they all have in common.

The inhabitants of Palestine are divided into three very distinct classes.

First, the *Bedaween*, “*Arabs of the Arabs*,” who live in tents and roam the deserts.

Second, the *Fellahheen*, “*Ploughmen*,” or agricultural peasantry, who live in villages, and are freehold owners of the soil which they cultivate.

Third, the *Beladdeen*, “*Townfolk*,” who live, and who have lived from generation to generation, in cities, generally in their own freehold houses.

The first of these classes is fully entitled to be considered of Arab race. Many among the third class are also Arabs, being lineal descendants of the Arabs who came from Arabia as conquerors in and after the seventh century, and who settled in the towns, where we now find their children.

But we had not been long resident in Palestine before we found various reasons for doubting whether those specified in the second class, the *Fellahheen*, or peasantry, were Arabs at all. Both eye and ear began to note dissimilarities between them and the Arabs of the other two classes, those from the desert and those of the towns; and these differences were found in costume, features, stature, habits of life, and in speech. Nay, more, as we became better acquainted with the country, we found that, although known by the common name of *Fellahheen* everywhere, there were, in reality, many perfectly distinct clans, or rather tribes, inhabiting the land; and that these several clans could also be distinguished to some extent from each other. Their peculiarities were found, on a nearer acquaintance, to be very interesting, and well worthy of investigation.

Palestine is divided into districts, all existing independently of each other under the Turkish authority. The districts are after the Lebanon territory in the extreme north, and the Bekaa' or plain between the western range and the Anti-Lebanon.

(1) The country of the Metawila. (2) The district north of Esdraelon. (3) The Jeneen District, including Northern Samaria. (4) “The

Mountain of Nablûs." (5) "The Mountain of Jerusalem," including "The Mountain of Hebron." (6) The Gaza or Philistine District. (7) The Plain of Sharon as far as the Bay of Acre.

The Jordan Valley is chiefly peopled by wild Bedaween, and is, therefore, not included in the above districts.

In the "Jerusalem Mountain" district the Fellahh clans are the following:—Beni Hassan, Beni Zaid, Beni Kurrah, Beni Sâlim, Beni Mâlik, Beni Harith.

Besides the Wadiyah, or valley people, who are grouped around the Kedron Valley and its adjacent hills, the Beni Hassan on the south-west and the Beni Mâlik on the north-west were the clans with whom we came into most frequent contact in Jerusalem. We also saw a good deal of the Wadiyah, of Siloam, Olivet, Bethlehem, &c. In travelling we became acquainted, more or less, with the other more distant clans, and we had abundant opportunities for observing that the Fellahheen do not, properly speaking, form a nation. There is among them neither coherency nor spirit of patriotism. Just as the wild Bedaween are divided into distinct and generally hostile tribes, so the Fellahheen are divided into clans governed by their respective sheikhs. They speak a common language; they possess a common religion; their manners and customs are generally the same all over the country. Yet of national unity there is absolutely none. They never combine for any purpose, excepting when occasionally some clans aid each other in their faction fights. They are all classed, it is true, under the two great divisions of Yemey or Kais, wearing white or red as the badge of these parties; but even then there is nothing among them approaching to the co-operation of patriots as a nation, ready and willing to join hand in hand for the mother country. The Turkish Government well understand this important fact, and take it into practical account in their method of ruling the land. This state of things is enough to explain, in great measure, the backward condition of the people at large. They have no national life. Every district lives in and for itself, and wages its own petty wars with its neighbours, but has neither interests nor action in common with any other. The people of the various districts differ considerably from each other in outward appearance, in character, and in speech. They resemble each other just so far as to indicate descent from a common stock. They differ as the fragments of a nation may which has been broken up at an extremely remote period into distinct and hostile clans. All are Fellahheen, and yet all are apart from each other, independent, and commonly at enmity.

Though they have with each other no national cohesion, the Fellahh Arab clans cleave to the land with the tenacity of aboriginal inhabitants. No clan has for a long time overpassed the boundaries of its own district, and they show no disposition to do so. The gradual decrease of population, moreover, renders it unnecessary for them to extend the limits of their territory. They cling to the hills and the plains where their fathers lived and died. Nothing but the strong arm of government can

ever induce a Fellahh to quit his native village, and this only for compulsory service in the army. From the moment that he finds himself drawn by lot under the rules of the conscription his one idea is how soon he may contrive to get back again.

They reverence the Sultan as the Khalif of Mohamed, as their civil and spiritual sovereign, but they care nothing for the empire of Turkey. Many of them do not even so much as know the names of the villages a district or so from their own homes. They are influenced by no patriotism for Turkey. The very name is unknown to them. The empire as a whole has no name. The Government, whose seat is at Stanbool, and whose head is the Sultan, is called *Dowlet el Osmunli* (the Ottoman Government), whose rule is respected. But the phrase Belād et Trāk, "Country of the Turks," is a popular term of contempt to mean "the world's end," the remote cradle of the Turkish hordes that overran the East in the middle ages. Nevertheless, as above mentioned, the Fellahheen are loyal to the Sultan.

When Ibrahim, Pasha of Egypt, took possession of Syria for his father, Mehemet Ali, he had a good deal of trouble with the Fellahheen in some districts, especially with those of Bethlehem, whom he found a very different kind of folk to the meek and dispirited Fellahheen of Egypt. The sturdy mountaineers of Palestine had never been subjected to the iron hand of despotism by their Turkish rulers in the fashion that the Egyptians were governed, and many of them resisted Ibrahim Pasha, not only when first he occupied Syria, but at all convenient opportunities afterwards.

In the outbreak of 1834 the Fellahheen actually got possession of Jerusalem for a while. They entered by the sewer, from the south-east, and thus got (after some little difficulty in enlarging a passage for exit) into the Armenian quarter. They broke their way out into a house where there was a mill at work grinding corn. Subbuhh Shokeh, one of the Bethlehem Fowagri chiefs, was one of the foremost to emerge. He seized the astonished miller by the throat and silenced him, while the rest of the band made good their entrance. There was great confusion in Jerusalem for some time, but the regular troops of Mehemet Ali were in possession of the citadel, and their cannon and musketry were too strong for the Fellahheen.

One of our own men who had been there in service in the Egyptian army used to tell with glee how effectually Ibrahim Pasha disposed of the Fellahheen when he was encountered on the heights of Seopus with his troops and one or two field pieces. Seeing a crowd of the hostile Fellahheen, he would call his gunner, and bidding him drop a shot or two among them, disperse them like sheep. But it was not always so. Though in mortal fear of cannon shot, they would fight well when it came to a hand to hand encounter, as the Egyptians found on more than one occasion when the Fellahheen were only overpowered after a fierce struggle. The men of Lifta and those of Bethlehem fought well before they were subdued.

The introduction of the conscription was the measure which above all things embittered the Fellahheen of Palestine against the Egyptians, and caused them to favour the restoration of Syria to the direct rule of the Sultan, whose milder rule they greatly preferred to the tyranny of the Egyptians.

Fond of fighting as the Fellahheen are when they can fight in their own fashion and upon their own native mountains, they abhor being taken away from home to be put into the regular army, subjected to drill, and compelled to wear a uniform. Until lately the Sultan drew very few conscripts from Palestine. Indeed, in former years the attempt to levy any considerable number of recruits would have caused a popular insurrection. We witnessed one of the earliest attempts at a levy after the Turks regained the direct rule in Palestine. A couple of regiments were sent down from the north to obtain conscripts in place of those, whose time of service having expired, had been recently discharged. Great was the consternation among the natives, and yet the levy was in itself light enough. Very few were taken, and the term of service was only for five years. But the Moslem Fellahheen did not come in to market, and it was amusing to see, on the day that the regiments sent to make the levy arrived, while the troops were marching in at the Damascus Gate, north of Jerusalem, the Fellahheen were running out in streams at the opposite Gate of Zion the moment that they heard the soldiers' drums. Our two acquaintances, Khaleel of Lifta and his brother, owners of our camping ground, came and sat down on our doorstep to take sanctuary, and implore protection from the soldiers. When told that it was wrong to refuse to serve their Sultan the reply was, "On our head and our eyes be his service. He is our lord; but let us not go away as soldiers."

One of the sheikhs of Málhha brought his younger brother to the English hospital and begged the doctor to cut off a joint of his thumb in order to unfit him for service. On the doctor's refusal the lad went out of the city and actually laid his right hand on a stone and chopped off his thumb with his his own khanjar (short sword worn by all the Fellaheen).

So great was the terror of the conscription, that we were told some 1,500 of the Fellahheen had sought shelter (only for a time, of course) with the Bedaween on the other side of Jordan, having been met at Jericho by an Arab force which had encamped there to assist their flight.

Our Christian Fellaheh from Bethlehem fully shared in the joy of the Jerusalem Christians that their sons were ineligible. It was amusing to hear her by turns chuckling over and sympathising with the griefs of the Moslem mothers. Indeed, generally speaking, she agreed with her town-folk, the Christian Bethlehemites, that the Moslems were altogether an inferior people, and worse off than they, who had ever in time of need their sure refuge in the powerful protection of their convents, "which may God continue to build up!"

After the Crimean War, and when the prestige and moral strength of



Turkish government in Palestine had been considerably strengthened, conscription was enforced more thoroughly. The men were chosen by lot; and great was the grief of those who were so unfortunate as to draw the fatal paper consigning them to service and temporary exile.

But even then permission could be obtained to purchase substitutes, and the long hidden hoards of money, accumulated during a lifetime of saving, buried away in the ground, were resorted to. It was astonishing to find what large sums a mean-looking fellahh would command when engaged in the serious business of purchasing his exemption from foreign service, whether in engaging a substitute, or, in some cases, by simply bribing the officer in command to let him off. If all these means failed to effect a release, there was still a chance left of escaping during the march to the sea coast, where the conscripts were to be embarked. The conscription has fallen with far greater severity upon the Fellahheen of Palestine during the late war with Russia. Whole villages have been drained of their able-bodied men; the scenes during the period of recruiting were painful in the extreme—the despair of the men themselves, the agony of their wives and children, their aged fathers and mothers, when they were marched off manacled like criminals, to prevent escape. These poor people, after a brief period of military instruction, were sent into active service against the Russians. Hundreds of them perished in battle, hundreds more from the hardships of the campaign among the ice-bound fields and snowy defiles of Europe; in some cases they ended their days as wounded Turkish soldiers in the hospitals prepared by English kindness, blessing with tears in their eyes the noble lady who ministered to their dying hours, and could, alone of all around her, understand, because she had herself been in the Holy Land, what they meant, when in their own tongue, all unknown to their Turkish officers and comrades, they babbled of el Kuds esh Shereef—Jerusalem the Holy City—which they were never to see more, or the sunny vineyards and the mountains, now desolate for want of hands to till them.

And these men bore their sufferings patiently and bravely.

Under discipline, and especially under kind and firm treatment, the fellahh is capable of much good service, whether as a soldier or as a cultivator and builder. We found that they made excellent agricultural labourers and builders, and Captain Warren has spoken very highly of the Fellahheen who worked under his staff of English engineers in sinking shafts, driving galleries, and all the other arduous work connected with his excavations in Jerusalem.

These people are not the mere cowards which their unwillingness to serve in the regular army might lead one to suppose. The Fellahheen, though sometimes quite ready to run away and postpone the carrying on of a fight to some more propitious occasion, do, nevertheless, display considerable dash and bravery in warfare; and when beaten and taken prisoners they face death with fortitude.

It sometimes happens that the victorious side has many lives to claim from the vanquished enemy. The prisoners are well aware of the fate

before them, and they submit with almost apathetic resignation—in accordance with the cardinal doctrine of Islam—to the destiny ordained for them, as they firmly believe, by Divine decree.

They allow themselves—big brawny men—to be laid down in a row, with the foot of the enemy literally “on their neck,” to be slaughtered with the sword, like so many sheep, while, their faces turned towards Mecca, they pronounce the Moslem formula of faith, thus attesting with their last breath their belief in the Unity of God and the mission of the Prophet Mohamed.

The religion of the Fellahheen is nominally that of Islam, but they are generally speaking extremely ignorant of the Korán, being unable to read for themselves and dependent upon what they can pick up from their sheikhs, who are somewhat better instructed. There remain among them, however, superstitions and religious rites—relics of some ancient systems of religion—which are of the highest interest, and to which we shall refer again. There is generally a little mosque and a guest-chamber in every village, besides the “Place” (*Makám*) of some ancient saint or hero. Lieut. Conder has drawn attention to the importance of these latter sanctuaries, for such they are.

The clans are governed by their own hereditary sheikhs. The succession does not always descend to the eldest son; a father will not unfrequently nominate one of his younger children to the chieftainship, if he seems to be fitter for the office; but, of course, the choice must be ratified by the Turkish Government, who occasionally regard or encourage the claims of rival claimants. Hence arises many a feud, and enmities exemplified by the fellah saying, “Though your sister’s son were but mortar (utterly weak and insignificant) choke him, for he is your bitterest enemy.”

The sheikh rules his people by a code of unwritten traditional laws, some of them derived from those of the Korán, called the “Laws of Mohamed” (*Sheriyat-Mohamed*). But there are many local and special rules. Among these the most interesting is the fellah code of traditional laws in South Palestine, which is called the *Sheriyat Khaleel*—“Law of Abraham”—(literally “the friend,” this being the epithet by which Abraham is known in the country—*Khaleel Allah*, “the friend” of God). This code is thus called in distinction from the *Sheriyah Mohamediyeh* (“Law of Mahomed”), always administered in the courts of law in the great cities. The peasantry always prefer the law of Abraham to that of the Korán, and it is administered by the sheikh and the elders (*Hakimiyeh*). They look upon it as peculiarly sacred, and even in towns it is so much respected that neither the *kadi* (“judge” of Mahomedan law) nor the courts of the Sultan’s Tanzimát will ever directly reverse a sentence of the law of Abraham pronounced by the elders of the peasantry. Indeed, we have heard of cases in which the civil authorities interfered to enforce the “Abrahamic” code as against that of Mahomed. For instance, in 1858 a certain number of families from Hhahhul Noba, Beit Umma, &c., preferring to follow the *Law of Mohamed* (which they

thought would be more favourable to them in a certain question of landed property), were expelled by their neighbours, and went to rebuild an ancient village at a distance. The effendies of Jerusalem, for some factions reason, induced the pasha to compel them to return. He accordingly went and destroyed their village, which they had newly rebuilt. (This kind of expulsion is called *Sahh't Mashhootin*.)

The courts of justice held by the sheikhs with the village elders are accompanied by well-known formalities, and are conducted with care. The sessions are in public, and open to all comers. The sheikh who obtains a character for legal acumen and impartiality is resorted to by litigants from the whole country side. On the other hand, should he utter a decision or express an opinion contrary to the traditionary code, he is liable to be corrected, and to have his sentence questioned by the merest child present.

For a lawsuit of Fellahheen the necessary preliminaries are—

1. The *Erzak*, or trifling deposit, representing a larger sum or "property," which is to be the real forfeiture if so decided.
2. The *kuf'lah*, or securities (two persons or more), that the case shall be begun and continued and the sentence be obeyed.
3. The *sâma'* ("listener") or assessor.
4. The kadi or judge (*i.e.*, the sheikh chosen to decide the cause).

Besides these there are the plaintiff and the defendant. The parties all appear before the judge. The plaintiff says, "I have come to thee, our judge—this and thus—and appealing to the seventy-two prophets from all crooked ways and path of crooked ways. May retribution not have to overtake thee in thy pastoral property, or in thy most desirable of sons."\*

Then the plaintiff tells his tale. The defendant tells his afterwards.

The judge, after hearing all, and receiving the evidence of witnesses, if any are brought forward, sums up the matter to his assessor, the *sâma'*, in such a manner as, without pronouncing sentence, shows which way his mind lies.

The assessor turns to the two belligerent parties, and says, "Speak ye to each other in the way of reconciliation." If they do not make it up the judge gives sentence, and the fine is levied. This is divided between the judge and the assessor.

Appeal can be made to a new court by either party saying, "The truth of God is with another than thee." But this is rarely done, inasmuch as it reflects great disgrace on the first judge to have his sentence reversed, or even brought into suspicion.

It is always a subject for pride to a sheikh that his decisions are sought after and respected, and we have known cases in which profligate and unjust men have maintained their public character as shrewd and impartial judges. Many stories are told of the sagacity of the sheikhs in their mode of administering justice.

In the days of old Abdu'l Hâdy, grandfather of the present family,

\* This is the form used by way of adjuration to the judge to act justly and impartially in hearing the cause and in giving sentence.

while he was governor in Nablûs, a shop in the town was robbed, and no one could discover by whom it had been done. So the old fellow—peace be upon him, for he was truly a wise man—commanded the door of the shop to be taken off its hinges, and to be well bastinadoed. This was done in his own presence. A crowd gathered round, and he continually ordered the punishment to be continued, until nearly all the town had assembled, marvelling at the strange proceeding.

At length Abdu'l Hâdy, the governor, leaned down, and asked the door who had done it? who was the thief? Then he put his ear to listen for the answer. Turning and addressing the multitude, the governor then said, "The door declares that it was done by a man who has a cobweb on the top of his tarboosh." The people looked at each other, but one man unconsciously put up his hand to feel the top of his tarboosh. The governor instantly laid hold of him, and the man in astonishment confessed that he had indeed done it. He was the thief.

Sometimes noble traits of humanity and generosity were shown in the fellahh character.

A remarkable instance occurred during the scarcity and famine in 1854, when the war had raised the prices of provisions, and when the effendis of the city, by buying up the wheat stores, had caused extreme distress, especially to the poor Jews.

A fellahh then resolved to do what in him lay to mitigate the sufferings of the poor, and, though he himself was not rich or powerful, to reduce the price of corn. He brought his little store of wheat, a single camel load, into the market of Jerusalem, and spreading his own aba (cloak) on the ground, emptied the grain out of the sacks, crying aloud to the poor to come and buy, for that he had "lifted up his hand to the Most High God" to sell this his corn at a cheap rate in small quantities to the poor, in order to bring down the price and succour the starving.

Blessings were poured upon that poor man's head, and he went home happy to his village.

We had many opportunities of observing the conduct of the Fellahheen when engaged in warfare. The clans inhabiting the country districts where our summer encampments were established, were constantly at feud, and when the Turkish pasha at Jerusalem happened to be old and weak, or when he had not sufficient soldiers or sufficient influence to enable him to maintain order among the rival sheikhs, they usually broke out into fighting. The immediate cause was often trivial enough, but there was sure to be some well nourished quarrel of old standing ready to be fought out, and only awaiting opportunity.

On one occasion we had noticed an unusual chattering among the women near our tents, and in the evening, just before dark, a number of goats, cows, donkeys, and camels, were driven up by some women and girls.

"Who are these, Haj Ali?" "Truly, my lord, I know not—Fellahheen," was our groom's reply on being questioned; but he soon brought us word that "there is a great fight; all the Aboo Ghosh people are at it

so the women have brought their cattle here for refuge till it is over. No one will take them from the Ingleez." As he spoke another party came up, and the women in command on either side began to abuse and curse each other as soon as they came in sight.

"Are these friends of the first people?" "Lā—ā," laughed our groom; "they are of the opposite side, but they come also to take shelter with the English."

We saw and heard no more of that fight except that the Aboo Ghosh side were defeated with the loss of forty men. When all was over both parties fetched away their cattle, and said "thank you" for the protection enjoyed.

Another time a fellahh came to our tents to carry off the young fellow—one of the owners of the land upon which our tents were pitched—who was our servant, to the war, as one of the contingent of 100 men required from his village. He said that 2,000 men were to march that day against the Ibr Simbhân territory.

That day there were none left to work upon the threshing-floor close by save an old man with white beard and the little boys his grandsons; all the middle aged and the young men had disappeared and gone to the war.

A fellahh family had taken up their summer quarters in a sepulchral cave close by their threshing-floor, and a very few days afterwards we saw one of their women standing mounted on the top of a bank screaming for nearly an hour: "Come, O ye brave, and take revenge!"

The Shafat people had been fighting those of Lifta, and had captured two goats. They had also attempted to take this woman's donkey from her. Blows had been exchanged, and at least one head broken. They fought their fight out, but did not molest us.

On another occasion we watched the actual progress of the fight going on between the villages north-west and those south-west of Jerusalem. Several hundred men were engaged on both sides. There was but little bloodshed, however, and, as in many other instances, the mediation of the British Consul was effectual in obtaining a temporary truce, and after some little time, a settlement of the disputes existing between the belligerents.

During this fight one of the enemy challenged the sheikh—Ali Shaikha—to single combat. The mode of challenge was characteristic: "Come on, thou rider of a *kalesh*" (haek horse); thus offering affront both to the rider and to his valued mare. Ali knew well what his beast could do, and put her at the loose stone wall several feet high, riding at his adversary with the retort, "At least, I am not the son of a gipsy." The mare scrambled up, carried her rider safely on, and his adversary fell pierced by the bullets of himself and his followers. The fighting was carried on in the early morning and forenoon, after which the men went to their agricultural labours.

The watch fires were burning at night in every village, and one could hear the shrill voices of the women as well as of the men joining in the

war, or war cry. In the morning by daybreak the forces mustered. When a well-known champion joined them, the women would break out as he rode forward into improvised verse:—

“ Oh, thou Khaleel, thou art welcome ;  
 All these swords art thine, oh, Khaleel.  
 We will defend thee and fight with thee.  
 Welcome, welcome, oh, Khaleel,” &c., &c.

The men, and more especially the women, encourage the combatants during the actual fight, by improvised verses praising their favourite warriors and recounting their deeds of prowess. But in case of hesitation or of cowardice they fling at them every epithet of contempt or scorn that they can imagine or invent on the spur of the moment, and many a one has dashed afresh into the thickest of the fight, stung by the bitter jests and gibes of the girls and women from his village who were on the field carrying fresh supplies of gunpowder, succouring the wounded, and cheering on the men of their side with the invigorating scream of the “ El-el-cl-cl-loo.”

We always found that the women took the keenest interest in the warfare, that they acted as scouts and conveyed intelligence with great rapidity and accuracy over the hills, and that they were quick in detecting plots or secret movements of the enemy. Here is one of their impromptu battle songs:—

“ What does the coward's wife say to her husband ?  
 ‘ Oh, husband, remain in the hindermost ranks,  
 For if thou shouldst press forward thou mayest be hit,  
 And thus shall my children be made orphans.’  
 These be the words of the coward's wife to her husband.”

The custom, common among the Bedaween, was also known among the Fellahheen, by which women have the right and privilege of giving protection and of saving the life of any who might appeal to them, or whom they choose to claim as their *protégé*. Formerly, he who attempted to slay another in the presence of a woman would have been branded as a coward. The men also hurl opprobrious epithets at any warrior who evinces symptoms of fear or of hesitation. During a fight at Brit Nattey, one of the combatants seemed to his comrades in the fray to be hanging back. Immediately one of them shouted at him, “ Siknag !” which is the native form of the word “ Ashkenaz,” the appellation of the Russian or German Jews, as distinguished from the Sephardim, or Spanish Jews.

The Ashkenazim are generally small of stature, and are, for the most part, extremely timorous. They have only been recognised of late years as belonging to the same people as their proud, though also timid brethren, the Sephardim (who are the Jews recognised of old by the Turkish Government and by the natives). Hence the term “ Siknag ” was meant to imply utter derision and contempt.

Before and during the fighting individual champions often challenge each other to single combat. Great interest naturally attaches to these

encounters, which are watched with keen attention by both sides. Sometimes the dispute is decided by the event, but more commonly the struggle between one or more pairs of champions on either side ends in a general *melée* of the excited hosts, who cannot restrain their ardour beyond a certain point when watching the efforts of their chosen heroes.

Sheikh Nimmer el Anleh was noted for his high courage. Many anecdotes were told of his *nou-chalance*. One day, in the height of battle, he happened to look up at the sun, and saying "It is noon," he dismounted, spread his aba (cloak) on the ground, and began to say his prayers, though guns were levelled at him all round, and some not twelve paces off. Of course, no one would be so impious as to shoot him while actually saying his prayers. Another celebrated sheikh, Abd el Naby, coming up, found him thus engaged.—"Oh, Nimmer, what art thou doing? This is a time for fighting." Nimmer rejoined, "Why should fighting hinder praying? Let me finish, and then will I teach them." And so he did "teach" the enemy, as soon as he had finished prayer, leaping on his mare, rushing into the enemy's ranks, and slaying on all sides.

Of course, the victorious army are greeted, when they return home to their villages, by processions of the women, who go forth to meet them singing songs of triumph. The woman most skilled in improvisation leads the song with a couplet or so extolling the acts of the hero and of the victors. Her companions then take up the chorus, ending with the *Zughareet* (the shrill El-el-el-loo), waving their long sleeves over their heads, and clapping their hands with frantic joy. Another couplet is then given, followed by the chorus as before. The men, meanwhile, "burn as much powder" as they can, firing off their long guns at random in every direction, and as the guns are loaded to make the more noise, accidents sometimes occur. Each man carries, besides his gun, the short sword, or *khanjar*, of native manufacture, stuck in his leathern girdle. They are generally provided with powder of their own making. The wood of the vine, though useless generally, is considered to furnish the best charcoal for gunpowder. Brimstone and nitre are products of the country.

The combatants are for the most part infantry, only the sheikhs on either side being mounted, with perhaps their sons and cousins as retinue. The Fellahheen do not possess many horses or mares. The sheikhs, however, are usually well mounted, and their mares are not unfrequently thorough-bred Arabs, related to the desert race.

Prisoners are of course frequently taken in battle, and sometimes they are slain at the end of the fight. Any one considering himself "*a man*" would disdain to ask mercy. But if there be not much angry passion aroused, or if there be a mediator sufficiently honourable to command respect, lives are spared, and a council is held at which the claims for blood fines, &c., are heard and adjusted. Then the prisoners are only kept as hostages till the amount has been paid.

A computation is generally made of the losses on either side by death,

wounds, &c., &c., and the balance is paid to the victors. A truce is then made, or terms of peace adjusted. Of course, if the victory has not been decisive the fighting is continued—sometimes for weeks, sometimes for months, and even from one season to another—with intervals of formal truce, made and respected by both parties, in order to allow of crops being sown or reaped.

Fewer lives are lost in these fights than might be expected. There is but little deliberate aim taken. Most of the Fellahheen think it wrong to aim at the sheikh, and the casualties occur chiefly during a general *melee* or charge, or the storming of a rising ground, sometimes, though more rarely, in assault on a village.

The dead are buried by their own relations as soon as possible after the engagement. But it sometimes happens, especially in the Nablûs district, and we have also known it in the B'lad Arkob among the Beni Hassan, that the dead are injured after battle by their enemies. This only happens when bad passions have been called out by long-continued war or in retaliation for special acts of ferocity. A peculiarly savage and vindictive enemy will not only cut his fallen foe to pieces, but will prevent his burial, causing the body to be exposed to the sun by day and to the dews and cold of night. Sometimes the removal of the dead is not permitted, but a grave is dug on the spot where the man fell, and a cairn of stones is raised to mark the spot. This is sometimes done in cases of assassination, whether the deed was done to avenge a blood feud or gratify private enmity. But commonly the slain are taken to their own village by the relations, and there honourably buried amid the lamentations of the women.

The amount of the blood fine, according to fellahh usage, is 4,000 piastres for a man, and 2,000 for a woman (about £35). According to the law of the Kadi in the city, the amount is much greater—even 30,000 piastres—but in this, as in many other things, such as calculation of taxes and government dues, the fellahh proverb holds good—

“*Fee fark bain*  
*Hhusâb es-serai*  
*Wa-Hhusâb el kurai*”

(“There is a difference between palace-reckoning and village-reckoning”).

According to the Fellahheen, “Seraglio (Palace) Law” is “no law.” In various cases that we observed, the pasha for the time being happening to be strong and vigorous, imposed the blood fine, according to the Government Seraglio code. But this arrangement only lasted at the most till his time had expired; or till from some other cause the Turkish Government became weak. The Fellahheen, then taking advantage of the want of power manifested by the Turkish authorities, reverted to their own more ancient system. Those upon whom the blood fine had been imposed, and who had very rarely paid more than an instalment of the amount, refused to pay more than their own code required of them; and those on the opposite side, who had been compelled



to compound with their adversaries, and to accept money for life, or, as they would phrase it, for "blood," now seized the opportunity of vindicating their "honour" by exacting "blood" besides, and by slaughtering on that pretext any male relations of the man who had killed their relation, if they were unable to fall in with the criminal himself. They would often justify this procedure by means of a technical point. To make an arrangement by blood-fine valid, there should be "guarantors of the payment" (*Kufalah ed-defa'*), also "guarantors of the prohibition" (to shed blood), and further, "*Ashab el Arood*." In the absence of these (whom the Turkish officials, as being ignorant of native rules, had of course omitted to appoint), the avengers of blood claim the right to treat the compromise by mere payment of money as null and void, informal and invalid. Where all those persons have been duly appointed, the opposite party cannot exact blood for blood. Each of the guarantors is entitled to a fee: so that the expense of settlement is considerable. Should the person slain happen to have been a woman, the expense involved in the settlement is greater than in the case of a man, especially if she be a married woman; for in that case the slayer must provide another wife for her husband, as well as a wife for her brother or her nearest male relation. If she was unmarried, he has only to provide a wife for the nearest relation, and this, of course, lessens the expense.

But even after all this has been done, blood is sometimes exacted, and this by treachery, and it is supposed that the person thus acting is only vindicating his honour in taking life for life.

Cases have been known in which after the Deeyeh has been formally paid and accepted by a man for the murder of his brother, and after he had been apparently reconciled to the murderer, saying, "What has happened has happened; my brother has gone, let us be friends;" and all seemed to be settled and over, the avenger even going so far as to stay with his quondam enemy; that he would arrange with a friend who is trusty and able to keep his secret, to come at night in the dark and try to break open the door, the first man rushed out as if to drive off the intruder—who was informed where and how to fire—and killed the enemy, while the avenger of blood—the relation and instigator of the treachery—tore his garments, and pretended to deplore the sad event, and escaped suspicion, or at least punishment.

If the Bethlehemites who are Fellahheen kill a Ta'amri, it is not usual to pay *Deeyeh* ("blood fine") according to fellahh code, but *Khuweh* ("dues of brotherhood"), according to Bedawy or wild Arab code. For the Ta'amri, though cultivators of the soil, have among them many Bedawy usages.

Redress, or at least the payment of a fine, is considered to be due for bloodshed, even when injury short of actual loss of life has been inflicted.\*

Until lately, if a man was pursued by the avenger of blood, and was

\* The Thâr, or "blood revenge," is obligatory upon relatives of the slain to the fifth degree of consanguinity.

trying to escape, he was safe if he could succeed in catching hold of the dress of any woman, even though she might be his own wife. But times are altered, and that would probably be disregarded now. But a man in such circumstances could save himself even at the last moment by crying out, "I am the *Dakheel*" ("one who has entered the abode of") "So-and-so," invoking some powerful person or one of high rank, whose protection is at once secured by the bare fact that he has been thus called upon. It is then accounted as if the fugitive had actually entered (*dakhal*) or taken sanctuary in the camp or in the abode of that person. (Compare with this usage the verse, "The name of the Lord is a strong tower; the righteous runneth into it and is safe.") Supposing, however, that the pursuers disregarded the appeal, and slay their victim after all, paying no heed to the fact that he has invoked the aid of a protector, the personage called upon has certain rights which he must exercise, and duties which he must perform. Before the victim is slain he will call on some bystander in these words, "Ana *dakheel fulân, el amâneh andak,*" "I am the *Dakheel* ("protégé") of So-and-so—this trust is with thee," meaning that he, the dying man, has committed to the other as a trust the duty of going and reporting to the protector invoked that his *protégé* had been killed in despite of the honour of his name. The bystander is bound to accept, even against his will, the trust laid upon him. To be faithless to an *amâneh* ("trust") is a sin unpardonable in this world and in the world to come. "*Khâyin el amâneh, Wa nâkir el wadda*"—"the breaker of a trust and the denier of a deposit" (*i.e.*, he who denies that he has a deposit left in his safe keeping), is the most infamous character that can be given to the vilest of men.

When the news reaches the ears of him who was invoked, he has the right of assembling all his allies to help him in vindicating his honour. "Who is on my side?—who?" is the cry with which he calls upon them to arise and join their forces with his. According to the unwritten code of honour by which these matters are determined, the affronted chieftain should now ride to the place where his *protégé* was slain, and should exact vengeance during three days and a third by killing every male and taking all their property. The offenders have no right afterwards to claim either revenge for blood or the price of blood, nor the value of their property—all is forfeited and lost. At the end of the three days and a third, the relatives of the man who was slain (the *protégé*) put up a white flag in honour of the protector who has thus avenged their loss and vindicated the honour of his own name. Those who remain alive of the offending party are now safe in returning to gather up whatever may be left of their property, or those of their people who may have escaped with their lives. Justice and honour are considered to have been satisfied.

The privileges of "sanctuary" are universally recognised. A person may either claim "sanctuary" or protection from a person as in the case above described, or from God or some saint by resorting to the mosque or *Makam* ("Place") dedicated to the saint. Stores of grain or fruit, and

even valuables, are sometimes deposited within some sanctuary under the supposed guardianship of the saint, and things thus deposited are safe.

We had once an interesting case of some Fellahiheen (members of the family of one of the chiefs in the district) seeking sanctuary in the house of a British subject, Mr. Meshallam, in the valley of Urtas, near Bethlehem. They barely succeeded in crossing the threshold, or rather in falling over and within it, so close were the pursuers with drawn swords behind them—so close that one of Meshallam's servants got a sword-cut by accident from one of the enemy, in their pell-mell eagerness to come up with their intended victims. But the sanctuary was respected; the open door was not violated, or the threshold crossed, and the refugees were sheltered until the affair was so far settled that they could leave without danger to life. They then acknowledged the kindness shown to them, according to the custom of the country. Taking leave with great ceremony, they set out for their own village, parading a white flag on a pole (it is sometimes tied to a spear), amid rejoicings and the firing of guns, and proclaiming as they went, "Here goes the honour, 'the white flag,' for Meshallam. May God increase his good," &c., &c. Thus all the country round was informed that the appeal for refuge and protection had been duly met. They then invited their late host to a feast specially prepared for him.

But had the latter failed in his duties, or in honourable treatment of his guests, or in any way broken faith or trust with them, a black flag would have been hoisted instead of the white one, and would have been carried through the district amid jeers and curses, as representing the *dis-honour* of the offenders. His name would thenceforward be a scorn and a by-word among men. We knew of a similar instance in which the black flag was put up over the Khān at Solomon's Pools. Proclamation was at the same time made aloud, "Here is the honour of Sheikh So-and-so, of So-and-so; and this disgrace will cleave to him unless he make amends, and thus repair the good name he has lost." A black-and-white dog with a black tip to his tail was then taken and publicly named after the offender. The news spread all over the country, and he became a proverb even to his own slaves. "Sheikh So-and-so a man! Let him go and make his honour white; let him go and take his name off that black-and-white dog—then will we hear what he has to say. Till then who will receive his testimony or accept his suretyship?"

To take and give suretyship is very common in all kinds of transactions among both the Fellahiheen and the Arabs.

Not only is a *kafeel* (or rather more than one *kafeel*) required in transactions involving the payment of money, but in many other things, the performance of a promise, the carrying out of a contract, the execution of any stipulated agreement; all these are very commonly strengthened by the nomination of sureties, "*kufulah*" on either side, for the parties engaged. No man is considered worthy to be a *kafeel*, unless he has good reputation for honour and honesty, and he must moreover be competent to execute his obligations if necessary, or power-

ful enough to oblige the person for whom he has given his *kufālah* ("suretyship"), to fulfil his agreement, whatever it may be.

A builder will give the guarantee of sureties for the due completion of his contract. A seller, for the strict observance of the terms of the sale. The parties to a truce after war, or a treaty or agreement of peace, each give the guarantee of responsible *kufālah* that all will be done as has been stipulated.

It is considered an honour to be nominated *kafeel*, or surety for a personage of importance. Cases sometimes occur where such a person will reply when the opposite side say, "Who will be thy *kafeel*?"—

"I am *my own kafeel*." The words sound haughty, but a man of position would scorn to break the guaranty thus given, and he would be eternally disgraced if he were to do so.

The suretyship is not always given in writing, though that is the usual form, by writing the name and affixing the seal to the document, whatever it may be. But it is quite enough if a person declare himself before witnesses to be *kafeel*. He is as much bound to fulfil the obligations as if he had set his seal to the contract.

And how if a man breaks a trust? was a question which we asked of our native friends one day. The reply was as follows:—

"In case of a man (among either Bedaween or Fellahheen) breaking trust in regard to a sum of money deposited with him (God forgive us for thinking of such a thing!), he would be brought before a judge, who would ask him the reason.

"Hunger would not be accepted as a sufficient reason, but he might be excused if he would prove that it had been taken from him by violence of enemies, or by Turkish soldiers; but this would have to be fully proved.

"In all other cases he would have to repay fourfold, and he and all his posterity would be stigmatised with the name of 'Khayin amanet-ho' ('He who betrayed his trust'). And no character can be given viler than this to even the meanest of men."

## SUEZ AND ITS DESERT.

Notes by Mr. WILLIAM ANDREWS, of the Peninsular and Oriental Company.

THE desert near Suez is extremely arid; the rainfall is very small, and the sky rarely clouded. In summer the air becomes intensely heated, and owing to the great dryness of the climate desiccation is rapid, a dead camel drying up before the vultures can dispose of it.

Before the canal was made, the only drinking water was from brackish wells at distant intervals, and there was no agricultural class amongst the inhabitants, vegetables and fruit being brought from Cairo. After the completion of the sweet-water canal, cultivation commenced, and the gardens now cover 40 or 50 acres of land bordering the canal, sometimes beneath its level and sometimes above. The gardens are let out in

patches of from one quarter of an acre to six acres at rents, in the form of taxes to Government, of from £1 to £5 per acre. Latterly, land at a distance from Suez has been taken up upon the verbal promise of some official that it will be free from taxation for seven years, but this promise appears likely to be broken, and the poor but deserving cultivators declare that they will give it up should a threatened taxation be imposed upon them.

Several acres of the cultivated ground are covered with luxuriant crops of white clover, and between January and May no less than eight cuttings are obtained from it. Lettuce, cauliflowers, cabbage, turnips, carrots, beetroot, cucumbers, celery, &c., grow well, and are supplied to the shipping.

The maritime and sweet-water canals have had no appreciable effect on the climate of Suez; the annual rainfall seldom exceeds one and a half inches, and in some gardens does not reach half that amount. The ranges of Jebel Attaka and Jebel Tih are subject to a heavier rainfall; their ravines show evidence of fearful torrents; fig trees grow out of the rocks, and a line of desert vegetation follows the bed of each watercourse. In March, 1874, the summits of those mountains, and of ranges down the Red Sea were covered with snow, a sight unprecedented in the history of Arab tradition, and at mid-day from the plains of Suez, a cataract of many hundred feet in height may be seen pouring from the cliffs on the Attakas. A week later, while on a visit there, an insect would have perished of drought.

In October, 1877, a day without rain, but with thunder-clouds around, the outskirts of Suez, about nine o'clock in the evening, were alarmed by a flood deliberately and effectively making its way over the desert, regardless of gardens and huts, towards the sea. Some 200 of the latter collapsed under the solution of their mud foundations. Not only was a large portion of the railway swept away, but the flood cut into the fresh-water canal, and instead thereby of emptying it, filled it to overflowing, making it a channel for its waters. This torrent was generated at the Gineffe mountains, about twenty-five miles inland, and the dry desert has no absorption, but is a famous river bed; but fresh water for some weeks after was undrinkable in its brackishness.

Referring again to the fertility of the soil, I must observe that preliminary washing is necessary to carry off the surplus salt, or to raise it to the surface and then decompose it. I presume, when it loses its savour, as it does under a burning sun, it is good for the dunghill, and for its influence on crops. Nor in levelling the land, as is sometimes necessary, does the subsoil present any inferiority of fertility; the gravelly portions alone seem to have the power of resisting the fructifying influences of the sun and water.

As a specimen of an arid desert, probably the plains of Suez are unequalled. Only slightly above sea-level, with the Gibel Attaka on the west and Gibel Tih in the east, it is subject to the minimum of rainfall and basks in a rarely clouded sky, every pebble and stone on its

surface radiating heat until the air becomes intensely heated, and on a hot summer day it is enlivened each morning by whirlwinds of sand. Although not sandy as a rule, each stone on its gravelly surface has its sloping line of accumulated sand in reserve for the sport of the north or south-winds, as they occasionally get up a storm, obscuring the sun and the sky with their clouds of impalpable dust. The dead camel desiccates in a few days under the extraordinary dryness of the air, even before the vulture has time to fulfil its sanitary mission. Water there was none except of the most brackish nature in wells dug at distant intervals.

However, as isthmus-cutting became the order of the French mind—as it was the bugbear of the English—so Suez, as a preliminary process, had the sweet waters of the Nile brought to its door by means of a canal. Being a seaport, and its inhabitants of the coolie class, the agricultural element was wanting to utilise the advantage for some years. Vegetables and fruit reached us by rail from Cairo. As the Maritime Canal, however, was completed and bad times set in for Suez, necessity drove a few of the natives to the banks of the fresh-water canal to eke out a few onions and a little salad for daily bread, and the ships' demands for such articles stirred up enterprise. The gardens now extend to about 40 or 50 acres, bordering the canal—some beneath its level and some above—in patches let out to various holders of from 1 quarter acre to 6 acres, and at rents, in the name of taxes to Government, for from £1 to £5 per acre. Latterly, more distant land along the canal has been taken up upon the verbal promise of some official that it will be free from taxation for seven years, but this promise appears likely to be broken, and its poor but deserving cultivators declare that they will give it up should a threatened taxation be imposed upon them.

I have seen many lands known as sterile, but nothing equal to this desert; and I have seen many crops known as luxuriant, but nothing equal to the Burslem or white clover which now covers acres of this ground. Between January and May about eight cuttings of this crop are obtained, and its solid green mass is a delight to the eye. Lettuce seems the next most suitable vegetable, but there is no lack of excellent specimens of cauliflowers, cabbage, turnips, carrots, beets, cucumbers, celery, &c., &c. English peas are one continual crop during the winter months.

The soil is calcareous, and gypsum is a favourite of all clover plants, and hence its fertility. Some credit, however, must be given to the cesspools of Suez—the accumulations of generations—and these find outlet now to the gardens of the canal to the double advantage of the town.

As regards the climate of Suez, not the fresh-water canal, nor the Maritime Canal, nor the limited vegetation, has exercised any appreciable influence. The rainfall seldom exceeds  $1\frac{1}{2}$  inches per annum, and often not half that amount. Doubtless the Gibel Attaka and Gibel Tih have

heavy rainfalls, but not so the plain of Suez. The ravines in these mountains at all times of my visit were as dry as a bone, showing evidence in their piled up boulders of fearful torrents, and fig trees grow out of the clefts of these rocks, and a line of desert vegetation follows the course of their wadies.

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### THE VISIT OF BONOMI, CATHERWOOD, AND ARÜNDALE TO THE HARAM ES SHERIFF AT JERUSALEM IN 1833.

THE *Quarterly Statement* for April last noticed the death of Mr. Joseph Bonomi, and it contained some details of the visit which he made to Jerusalem in 1833 with Catherwood and Arundale. According to the paragraph it is made to appear that although Mr. Bonomi had visited the Haram in the dress of a Mahomedan pilgrim, he was unable to do anything, and that he and Arundale only assisted Mr. Catherwood, who introduced them into the Mosque for that purpose. Mr. Bonomi's diary, written at the time, has been placed in my hands for the purpose of writing a memoir of his life, and judging from the entries in it, the above statements scarcely seem to convey the exact facts of the case. As the work of these three gentlemen at that time may be called the starting-point of our reliable knowledge of the Haram es Sheriff, a few extracts from Mr. Bonomi's diary may be worth giving as bearing on that subject; at the same time they give information which is interesting in itself, and as a record of what may be now called "early explorations" in that spot they possess some value. It may be here premised that Bonomi had been, at the date when he went to Jerusalem, a good many years in Egypt, and had acquired Arabic so that he was able to speak it freely; he had also adopted an Eastern costume and lived in many respects the same as the people around him. This had made him familiar with their habits, as well as with the forms of their faith, and on coming to Jerusalem he took advantage of it as giving him a chance of getting an entrance to the Haram, which was difficult as well as dangerous for non-Mahomedans to attempt. At first he seems to have avoided being seen in the company of Catherwood and Arundale, as well as of others who were known as "Frangis" and Christians; and he appears to have succeeded so well, and passed for such a good Mussulman, that an old man asked him to stay there and marry his daughter. On Tuesday, 15th October, 1833, there is an entry in the diary that Mr. Bonomi was sent for by the Moufti Effendi, who, as well as those around him, were so pleased at inspecting a camera, with which Bonomi always made his sketches, that he was allowed afterwards to go into "the area of the Holy Mosque, walked all round, and made a view of the back of the Porta Aurea and a Minaret." This sketch of the Golden Gate is among Mr. Bonomi's papers. A report got current that he had come to draw

all the places that wanted repairs. Bonomi encouraged them in this belief, and some of the guardians took him all over the place to show him the spots where repairs were required. An entry made two days after describes all this, and states that one of the guardians "took me into the holy place and under the great stone,"—the cave under the Sakbra,—“and left me to say my prayers. Unfortunately there was a man in this dark room who must have seen my awkwardness, for he had been there longer than me, his eyes had become used to the dark, and by the time my iris was expanded I had made all the mistakes and found this witness of my errors staring at me. What will be the consequence? Shall I be turned out of the town?” Bonomi passed a sleepless night owing to this adventure, but nothing seems to have come of it, for we find him two days later discussing points of Mahomedan theology with the Moufti Effendi. Some of those present on this occasion seemed to be angry with the Moufti for allowing a man born in Frangistan to sit among the select company of his divan; the Moufti felt himself rebuked, and therefore told his friends that although “I had the misfortune to be born in Londra I was a Moslem, to which my talkative friend bore witness. I took my leave and went into the Haram Essiriff, drew a view in which the celebrated cupola is tolerably conspicuous, and which I began to colour. Finished a pencil view from another point. . . . 20th October. Continued my view of the Temple (Dome of the Rock) this morning. While I was working, several pilgrims dressed in the costume of the Hejaz were conducted by the dervish, crying out as they went hurrying up the steps, ‘Ya Beit Allah! Ya Allah!’ It seems to me part of the ceremony to hurry up the steps into the place, perhaps because one should seem desirous to enter the house of God as soon as possible.” From the diary he seems to have gone to the Haram every day, and made his sketches wherever he wished. He made sketches of the Dome of the Rock, but he never uses that name, he calls it “the Temple” or “the Mosque.” Some of his drawings of the Dome of the Rock I have seen; they are still in the possession of his family. Later on there are entries of sketching the exterior as well as the interior of the Aksa. On the 23rd October he states that he “finished the two views of the Temple, and after dinner the little church in the corner of the sepulchre. While I was drawing a young Turk sat by me some time. He told me the drawing was all proper except one part of it, pointing to the figures. I always endeavoured to keep them covered, so I could not work at them, they are merely sketched in; it shows considerable penetration and judgment on the part of a Turk to have discovered them to be figures at all. He was a good-natured fellow; I told him I hoped God would forgive me, for he is the Most Merciful, at which he laughed. But the worst thing that has happened for my character is the discovery of figures in my other drawing, made by the dervish who is the conductor of pilgrims to the Beit Allah, so many crimes added to my being the associate of Christians who begin to venture to draw within the sacred



enclosure, for Catherwood went there yesterday evening. The Governor saw him and spoke to him familiarly in presence of the dervish, who would have turned him out but for the patronage of the great man. He is so bold that I think I must make my escape before any examination should take place, for I should be found wanting." A note is added to this in the diary, that "Catherwood was within the wall but not on the platform of the Temple," meaning not on the platform of the Dome of the Rock.

These quotations are clear evidence that Bonomi got in to the Haram under the character which he had assumed, and that he made sketches where he desired. Later on he mentions copying ornamental inscriptions in the Octagon, and one day "helped to measure the Great Stone." No doubt but this is the Sakhra. This and other entries show that he assisted his friends when he could be of service; but that he was dependent upon them for facilities, is an idea which does not seem to have any probability after these quotations. If Catherwood got in under the pretence of measuring the Dome of the Rock by order of Mehemet Ali, and with a view to its repair, this was simply carrying out the *queue* started by Bonomi.

Judging from the extracts I should conclude that Bonomi was the first European who managed to enter the Haram and make sketches of the buildings within it. On the other hand, by referring to Mr. Fergusson's first work, published in 1847, it will be found that the drawings upon which he founds his theory have attached to them the names of Catherwood and Arundale. Hence, whatever merit is due on this account, belongs to the work done by them at that time.

It may be worth stating that Mr. Catherwood afterwards accompanied J. L. Stephens to Central America, Chiapas and Yucatan, and made a very extensive series of drawings connected with the archæology of that region, a large number of which are published in Stephen's accounts of his travels. Catherwood was lost in the wreck of the Arctic in 1854.

The extracts from Mr. Bonomi's diary tell in a very distinct manner what was the feeling of the Mahomedans at that time in regard to Christians entering within the Haram; and by contrasting it with the present state of things we see a great advance which has been made, leading us to hope that more will yet be gained, and that the prejudices which still stand in the way of excavations in the Haram will at last be overcome, and those explorations which are so essential to clear up the questions connected with it will some day or another be permitted.

WILLIAM SIMPSON.

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**NOTE.**—The Price of the "Quarterly Statement" is Half-a-Crown.  
Sent free to Subscribers.

THE

PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

The reduction of the small map makes satisfactory progress. It is expected that the outline will be completed in July, after which the hill work will be taken in hand. The memoirs are in Major Wilson's hands. No time will now be lost in printing them and preparing the illustrations.

An impression seems to have got abroad that with the completion of the field-work ceases the necessity for funds. The fact has been already pointed out in these *Notes* that it will cost as much to publish the materials in hand as to keep the expedition for two years in the field. The Survey cannot be called complete until the whole of these materials are published.

The Treasurer's Statement for the year 1878 is as follows:—

“The income of the Fund was less in 1878 than in 1877 by more than a thousand pounds. In this period of general depression every society shows a similar falling-off in support. A special cause for the decrease in our own case seems to be, however, a prevalent belief that the work is completed. The Survey of Western Palestine has, it must be remembered, to be published, and the cost of publication will probably be equivalent to the expense of maintaining an expedition in the field for two years. Again, while there is no exploring party in Palestine, no donations come in, and the Committee have to rely on the annual subscriptions. These continue pretty steady, and show little if any decrease.

“As regards the expenditure, there is an apparent increase in the management expenses, which is partly due to the fact that at the beginning of the year the sum of fifty pounds was owing to the account of the salary. The publication of *Tent Work* also caused a very large increase in the ‘parcels’ account. Printing and postage amounting to twenty per cent. of the whole is due almost entirely to the *Quarterly Statement*, and must be regarded as so much money returned to subscribers. The item of unpaid accounts, including a heavy charge on *Tent Work*, has been reduced since the beginning of the year by the sum of £532 9s. 8d. It is hoped that by the end of April the debt will be entirely wiped off.

“As regards the expenditure of the present year, we have, after payment of outstanding liabilities, most of which (March 25) are already paid, to provide for the publication of the memoirs, the large map, and the small map. In other words, the Committee have to take upon themselves the very serious responsibility of printing, engraving, and publishing the mass of materials which the work of the last seven years has placed in their hands.”

The special appeal made for the proposed Galilee Expedition was not continued because it was found that the expedition could not be sent out at the time originally proposed. The Committee have placed the sums subscribed in answer to their first call, amounting to £186 5s. 0d., on deposit account. It will be used for no other purpose.

About one hundred and eighty copies still remain of the new edition of *Tent Work in Palestine*. It is not likely that another library edition will be issued. Subscribers, therefore, who wish to possess this record of work and observation, should send in their names at once.

Work in Syria has again occupied the attention of the Royal Institute of British Architects, whose Council have presented their gold medal to the Comte de Vogüé for his researches in the Hauran.

The fourth number of the Transactions of the German Palestine Exploration Association has just been issued. It completes the first volume. The contents of this number are a continuation of the Pilgrimage of Duke Frederick II. of Liegnitz and Brieg to the Holy Land; the description of the Temple by Philip de Aversa; a paper on Capernaum by Professor Schaff, of New York, which we hope to translate for the next number; a note on the Birthplace of the Prophet Nahum, and a chapter on David's Tours, by Herr Schick.

A work of research and interest on the "Life and Times of Abraham" (Samuel Bagster and Sons) has been published by the Rev. H. G. Tomkins. The author has gathered together all the information recently acquired from the tablets of Babylonia and the hieroglyphs of Egypt, and published in the Transactions of the Society of Biblical Archeology, in the "Records of the Past," in our own *Quarterly Statements*, by M. Lenormant, Dr. Birch, Rev. Prof. Sayce, M. Chabas, and others. The aim of the writer has been to present faithfully the surroundings of Abraham, the people among whom he lived, their manners, customs, religion, and laws.

We may also call attention to a popular account of the Moabite Stone, called "Moab's Patriarchal Stone," which has been published by the Rev. James King, of Darlington, one of the authorised lecturers of the Society. The book, without pretending to the scholarship which distinguished Dr. Ginsburg's work on the same subject, gives all the information on the stone that can be desired in a popular volume. The history of the original discovery, the destruction, and restoration of the fragments, is a well-known and often-told story, which is here related with great clearness and in sufficient detail. A short treatise will be found in the work on the origin and development of alphabets.

We have received a second paper from Mrs. Finn on the Fellahheen of Palestine, which is published in the present number of the *Quarterly Statement*. Although Mrs. Finn has for the present ceased to hold meetings for the Society, her interest in the work still continues. These chapters on the habits and customs of the people are destined to form part of a forthcoming work on the same subject.

A model of Herod's Temple, executed by Mr. J. M. Tenz, has been presented by him to the Society. The modeller has adopted the traditional view of the position of the Temple, and has attempted to present a restoration of all the

chambers, vaults, gates, and corridors described by Josephus and Ezekiel. The model may be seen in the Society's room at the South Kensington Museum.

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It is again suggested to subscribers that the safest and the most convenient manner of paying a subscription is by means of a bank. Many subscribers have adopted, this method recommended in the *Quarterly Statement* of January last. Among other advantages, this method removes the danger of loss or miscarriage, and saves the Society's office the labour and expense of acknowledgment by official receipt and letter.

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We repeat what we said in the *Notes* of the *Quarterly Statement* for January, 1879, that the payment of subscriptions *early in the year* greatly strengthens the hands of the Committee.

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Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise to occasional omissions.

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The income of the Fund from all sources, from December 31st, 1878, to March 11th, 1879, was £783 4s. 3d. The expenditure was as follows:—Reduction of debt and liabilities on *Tent Work*, £783 6s. 2d; small amounts paid on exploration account, £19 15s. 2d.; rent, lecture account, parcels, postage, salaries, and offices, £202 11s. 3d.

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It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The Survey, as stated above, will be actually completed when it is entirely published, and not before. But its completion does not mean the completion of the work of the Society, as reference to the original prospectus will show. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

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Several cases have been at various times discovered of postage stamps being lost on their way to the office. The only way to avoid such loss, unless subscriptions are paid through the bank, is to send money by P.O.O. or by cheque, *in every case payable to the order of Walter Besant, Esq., and crossed to Coutts and Co., or the Union Bank, Charing Cross Branch.*

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The ninth thousand of "Our Work in Palestine" is now ready (price 3s. 6d.), and may be ordered of booksellers. This book carries the work down to the commencement of the Survey, but does not embrace M. Ganneau's discoveries nor the results of the Survey itself.

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The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

Archdeaconry of Hereford: Rev. J. S. Stooke-Vaughan, Wellington Heath Vicarage, Ledbury.

City and neighbourhood of Manchester : Rev. W. F. Birch, St. Saviour's Rectory.

Lancashire : Rev. John Bone, St. Thomas's Vicarage, Lancaster.

London : Rev. Henry Geary, 16, Somerset Street, Portman Square ; and Mr. C. Stuart Lockhart (address at the office).

Norwich : Rev. W. F. Greeny.

Suffolk : Rev. F. C. Long, Stow-upland, Stowmarket.

Peterborough : Rev. A. J. Foster, Farndish Rectory, Wellingborough.

Worcester : Rev. F. W. Holland, Evesham (Member of General and Executive Committee, and one of the Hon. Secretaries to the Fund).

Diocese of Ripon : Rev. T. C. Henley, Kirkby Malham Vicarage.

North Wales : Rev. John Jones, Treborth, Bangor.

Yorkshire, Durham, and the North : Rev. James King, 13, Paradise Terrace, Darlington. Mr. King has recently returned from the Holy Land ; communications for lectures, &c., can be sent to the Office at Charing Cross.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that they leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

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The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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Attention is called to the statement already advertised, that subscribers to the Fund are privileged by the publishers to receive both the "Literary Remains of the late Mr. C. F. Tyrwhitt Drake," and the "Underground Jerusalem" of Captain Warren, at reduced rates. The former book will be sent for ten shillings, the latter for sixteen shillings, postage paid. But letter asking for them must be sent to the office at 11 and 12, Charing Cross only.

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Cases for binding the *Quarterly Statement* are now ready, and can be had on application to Messrs. R. Bentley and Son, 8, New Burlington Street. They are in green or brown cloth, with the stamp of the Society, uniform in appearance with "Our Work in Palestine," and are sold at the price of eighteenpence.

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Lieut. Kitchener's Guinea Book of Biblical Photographs can be bought at Mr. Stanford's establishment, 55, Charing Cross. It contains twelve views, with a short account of each. They are mounted on tinted boards, and handsomely bound.



## A JOURNEY ON FOOT THROUGH ARABIA PETRÆA.

(A Paper read before the Geographical Section of the British Association.)

By the Rev. F. W. HOLLAND, M.A., F.R.G.S.

EARLY in the morning on the 29th of last March I arrived at Suez, having left London on the evening of the 21st. I had only ten weeks at my command; but allowing a fortnight for the journeys out to Suez and home again this would leave me eight weeks, which I hoped would prove sufficient to enable me to accomplish the objects of my expedition, which were (1) to examine the sandstone district in the Peninsula of Sinai, lying between the ancient Egyptian mining stations of Wady Mugharab and Serâbit el Kâdim, with the view of the possible discovery of other Egyptian ruins or inscriptions; (2) to trace out the various routes that the Israelites might have taken on their march northwards from Mount Sinai to Kadesh-Barnea, so as to institute a just comparison between the facilities or the difficulties which attend them; (3) to explore Jebel Mugarâh and Ain Kadeis, in the hope of throwing some additional light upon the question of the site of Kadesh-Barnea, and the boundary of the ancient kingdom of Edom; and (4) to follow the road from Wady el Arish by the ancient Lake Serbonis to Kantara, which Brugsch Bey has suggested as the route which the Israelites took when they left Egypt.

Having paid four previous visits to the Peninsula of Sinai, I was already well known to the Towârah Arabs who inhabit that region, and found little difficulty in coming to a satisfactory agreement with Sheikh Nassâr to accompany me with two other Arabs and three camels. As on former visits I preferred myself to travel on foot, as more convenient for taking notes of the country, and for using the instruments which the council of the Royal Geographical Society had kindly lent to me. I had no other companion or attendant besides my three Bedouin Arabs. Two of the camels carried my tent, baggage, and provisions for two months; the third one, the Sheikh, and the Arabs' supply of corn.

On Sunday evening, March 31st, I walked quietly down to the Wells of Moses, to which place I had sent on my camels, and the next day I fairly started on my desert journey. On reaching Wady Gharundel we found that Nassâr's tents had been removed here from Wady Nusb, where we had expected to find them, and I was compelled to stop one day as his guest, so that I did not reach the latter place till Friday. At Wady Nusb there are extensive ancient workings for manganese and hæmatite iron-ores, but there is *no direct communication* with the turquoise mines of Serâbit el Kâdim. Passing over the head of Wady Nusb, where there are many Sinaitic inscriptions, and up to the head of Wady Lahyan I entered Wady Sahow, and tracing it down discovered that after running in a westerly direction about four miles as a broad open valley with fine seyal trees and much herbage, it changes into a narrow winding rocky ravine, enclosed by high granite cliffs, in one place only nine feet wide, and finally, below a fall of considerable depth, takes the name of Wady Shellâl. It is impassable for camels, but a footpath leads down it. The

mouth of Wady Shellâl is well known, since the usual road to Wady Mokatteb leads past it, but the origin of its name, "The Valley of Cataracts," so-called from the fall which I have mentioned, and its connection with Wady Sahow has not, I believe, before been traced.

I found extensive turquoise mines in Wady Sahow in full work by the Arabs, but there were no traces of ancient workings, or Egyptian inscriptions; nor is there any direct road down Wady Sahow to Wady Mughârah, as I had been led to expect.

I returned by Wady Lahyan to Serâbit el Kadim, and stopping there two days had an opportunity of thoroughly exploring the ancient Egyptian mines on that mountain, and quite satisfied myself that they were worked for turquoise only. The Arabs still work these mines, and as at W. Mughârah have destroyed by blasting many of the hieroglyphic inscriptions.

On leaving Serâbit el Kâdim I followed the usual road by Wadies Kamileh and Bark, and the pass of Nukb Howa, to Jebel Musa, which I reached on April 14th.

I stayed here one day, ascending the mountain and renewing my acquaintance with the monks at the convent of St. Katharine. On the 14th I started onwards to trace the route of the Israelites northwards to Kadesh.

Crossing over the mountains from W. er Kahab to W. Tlâb I descended that valley, and then turning to the east, up W. Gharbeh, reached el Watiyeh, the pass in W. es Sheikh which marks, I believe, the site of Rephidim. I thus passed along the northern face of the high mountainous district, known to the Arabs by the name of El Jibâl, and, I think, to the Jews of old by that of Horeb, my object being to examine the water supply on the north-west of el Watiyeh. My camels I sent round by W. es Sheikh.

The next day I continued eastwards, south of the el Watiyeh range, for about four miles, till I reached the head of W. Sa'al el Reïyan ("the watery"), which I traced down to its junction with W. Sa'al el Atshân ("the thirsty"), which forms the usual road from Jebel Musa; I followed the course of W. Sa'al to Erweis el Ebeirig, from which point I crossed over north-east to W. Murrah.

I had before explored W. Sa'al el Atshân, and the other wadies to the south, and am of opinion that all these wadies are too narrow, rugged, and winding to have formed a road for the passage of the large host of the Israelites; nor can I at all agree with my friend Professor Palmer in finding in the numerous heaps of stone at Erweis el Ebeirig, the traces of the Israelitish camp at Kibroth Hataavah, nor, again, do I hold it possible to identify Ain Huthera with Hazeroth; the names are similar, but the difficulties of the route appear to me to place the latter identification out of the question.

After journeying eastwards to within a few miles of Ain Huthera I retraced my steps to Wady Murrah, which I followed up to its head, and ascending the pass of Aragib Rahi, and crossing an elevated sandstone

plateau, reached Ain el Akhdar, the gardens of which I had fixed upon as a shady and well watered spot for resting on Easter-day. I had thus examined what I may call the lower range of Jebel et Tih, without finding any road over it, except a difficult pass called Nukb Murrah; and having explored on this or in previous journeys every wady leading from Jebel Musa, in the direction of the Gulf of Akaba, I felt convinced that all were unsuitable for the passage of the 600,000 men, besides women and children, of the Israelites. I had also explored the country to the north-west of Ain el Akhdar with similar results.

On April 22nd, crossing Joûfa el Akhdar, the sandstone plateau, which lies to the north of the wells, I arrived at a large Arab encampment, where I was entertained by Zeid, whom I now took as guide in the place of one of my other Arabs. In the afternoon we ascended Nukb Dhalal, an easy pass to the top of the mountains, but there was no road beyond. There is excellent pasture on the limestone plateau which we reached, and the pass is evidently much used, but only for taking the flocks and camels to pasture there. Near the head of the pass there are some interesting nuwâmis, ancient storehouses, or dwellings.

Towards the north of the plateau of El Joûfah is situated a prominent conical hill of white sandstone, capped by a hard stratum of limestone containing echini and other fossils, and called Galâib. From this I obtained bearings to several mountain peaks, the position of which had been fixed by the Ordnance Survey.

The district to the S.E. of Galâib is called Zeranik, and consists of an elevated sandstone plateau, to which there is a gradual ascent of open ground from W. es Sheikh, and the pass of el Watiyeh.

From this I descended by W. Deresêyeh over a succession of terraces of white sandstone to the head of W. Zelleger. In the former wady we found a good supply of rain water that had been retained in a large pot-hole. There are extensive sand-drifts in the upper portion of W. Zelleger. Here bulbs abound, and in January, 1867, I found large numbers of crocuses, whence I believe comes the name Safran, by which this wady has sometimes been known. There is also a large quantity of retem or broom, with which probably is connected the name of Rithmah, the station of the Israelites which stands next to Hazeroth, which latter place I am inclined to place on the Joûfah plateau, where the ruins of ancient enclosures still exist.

W. Zelleger is a broad valley with a smooth, level bed, running north-east between two lines of low mountains, which appear to be very rich in pasturage. About twenty miles down it W. Arâdeh runs in from the south. This is a very large valley, with abundance of vegetation. About six miles lower W. Edeid enters from the north. I turned off up this valley in order to visit the pass of Nakh el Mirad, which has been described by Professor Palmer. Its rocky bed afforded a very bad road for walking, and W. Biyar, which runs into it about nine miles up, was no better, and we were heartily glad to reach our halting place at the wells, which give the valley its name. We found

some Arabs here watering their flocks and camels and washing their sheep.

Taking Zeid with me as guide, I walked on to the pass. We reached the base of Jebel Ejmech in an hour, and were just forty minutes in ascending to the top. The pass is steep and winding, and impracticable for waggons. This and the rocky character of the wadies leading to it appear to me to put it out of the question as a possible route for the Israelites. It is much used by the Arabs, but merely as a road for bringing down the goats and camels from the mountains to water them at the wells. From the summit of J. Ejmech I obtained a series of distant bearings to J. Katharine and other mountains, and while engaged in taking these Zeid was equally busy in manufacturing a flint implement to cut his toe-nails.

The wells, of which there were formerly more than a dozen, have suffered much from neglect, and two only contained water, but owing probably to the accumulation of the droppings of the animals around them for many centuries the water was very bad. Washing it was easy to dispense with, but we had nothing else to drink, and all suffered severely. Sheikh Nassar observed "that if my Lord Moses had brought the 600,000 Israelites here, they would all have fallen ill," as we had done, and was greatly amused at the idea.

We only stopped one night at the wells, and on reaching the junction of Wady Biyar with W. Edeid Zeid started off up the latter, and after three hours returned with a skin of excellent water.

On reaching Wady Zelleger we followed it down to W. el Ain el Elya. Here the valley, which has hitherto been broad and open, takes a sharp turn to the south through a narrow rocky ravine. Water is plentiful, though not very good. An easy pass, Nukb el Chlyil, which we were about half an hour in crossing, brought us again to a succession of broad open valleys, and three miles on we reached Wady Sowâni. I had before travelled from this point up W. Zelleger. I now entered upon new ground. In W. Sowâni we obtained excellent water from some holes dug in its bed, and it appeared that in this way a very large supply might easily be obtained both here and also in many other places above a point where a large valley is contracted by rocks, and thus the water is brought near the surface. W. Sowâni runs down from J. Ejmech. We followed up its stony bed for half a mile, and then, turning to the right, north-east, up a narrow gully, crossed a rocky plateau, and descended into W. Shebaikheh, where there are many seyal trees and good pasturage. Here we camped for the night, and intended to stop the following day, which was Sunday, but the number of midges made rest impossible, and compelled us to travel on. Passing over some low granite hills, beneath a higher range which lay on our left, we reached W. el Atiyeh, about eight miles distant from W. Sowâni. This is a broad, open wady, with a smooth gravelly bed. We entered it opposite Jebel Haramât, a large outlying sandstone mountain.

The road which we had followed from W. Sowâni appeared in places

too steep and rocky for the passage of the Israelites with their waggons, so, taking Zeid with me, I traced down the lower portion of W. el Atiyeh to near its junction with W. Sowâni, and found that it afforded a far easier road. We rested in W. Sou'rah, in a small cave in which there was a spring, which formed a pool of delicious water. On returning we followed Derb es Sou'rah, a good road lying between W. el Atiyeh and our other route.

In the afternoon we continued our course north-east up W. el Atiyeh to Jebel el Herte, passing on the way a large Arab cemetery. I ascended Jebel el Herte, hoping to get a bearing to some fixed peak, but in this I failed, although I obtained a magnificent view of the surrounding country. It is not a high mountain, but from its prominent position is seen from far. At the top is a hole surrounded by large stones, as if for a beacon fire in old times. I have noticed similar remains on many other prominent mountains in that country. North of this point are a succession of low ranges of limestone mountains, through which the wady, which now takes the name of W. el Hessi, runs. As we ascended to a higher level the surrounding mountains gradually appeared lower, and the country became more open. About five miles on the name of the wady again changed to W. Edwah. Here we turned eastwards up a broad valley, still bearing the name of W. el Hessi, to a well about six miles distant, where we obtained water. Thus far I had, I believe, been following the route taken in 1840 by Baren Koller from Sinai to Akabah, and my names and distances agree fairly with his, as given in the *Royal Geographical Society's Journal* of 1842.

Wishing to explore what I believe to have been the route of the Israelites further northwards, we retraced our steps to W. Edwah. After following this up about four miles, we entered W. Sha'arah. The country now partook of the character of large rolling plains, with abundant herbage. I saw many traces of Arab camps, but the dryness of the season had driven all the Arabs northwards in search of pasturage; the herbage was very dry, and we had great difficulty in finding sufficient food for our camels; a difficulty that was much increased by large flights of locusts. After proceeding about fifteen miles further northwards, we crossed the watershed, and entered Wady Meleg, which flows towards the Arabah. This wady is a very remarkable one. It has formed a cleft in the hard limestone rock 40 to 100 feet deep. In this huge pot-holes, 20 feet or more in diameter, have been made by the boulders. Here the water lodges in a series of these natural wells, the sides of which are deeply worn by the ropes of water-drawers, proving that they have been used for many centuries. Zeid informed me that the wady took the names of el Alalik, and Nub'a further northwards. We reached this watering-place about 8.30 on May 1st, and stopped three hours to draw water and make bread. On starting onwards I took Zeid with me to examine the Wady lower down. In crossing some rising ground to rejoin our camels, we saw two Arabs and a camel pass behind a hill beyond. We dropped down till they were out of sight, and then running

on, stopped our camels, and Nassar and Zeid ascended the hill behind which the Arabs had disappeared. They soon returned, and reported that we were close upon a large góm, or raiding expedition. We instantly turned, and drove back our camels as fast as possible, avoiding all soft places that might leave tracks and rising ground. About 4 o'clock my Arabs began to breathe more freely, and we looked out for camping ground, while Zeid was sent back to try to gain some tidings of the direction that the góm was taking. Suddenly Selim exclaimed, "Here they come!" and looking back I saw two dromedaries carrying four men in hot pursuit. When about 300 yards from us they dismounted, and called upon us to surrender, which my sheikh refused to do. They then formed in a line, and with lighted matchlocks tried to drive us up a side valley. There was much clever manœuvring on both sides, and a great deal of angry gesticulation, shouting, and presenting of guns, our object being to gain time for Zeid, whom we saw running up in the distance, to reach us. It was neither my inclination nor my policy to fight, so I handed my gun to Nassar and walked quietly beside him with my umbrella up as a sign that I was a non-combatant, much amused at my position, deeply interested in observing their manner of attack and defence, and determined, when matters had come to a crisis, to claim as my escort whichever party was victorious. At last the raiders had approached within 30 yards of us. Nassar loudly appealing to God to witness between him and them, now drew a line upon the ground with my gun; this he did three times, each time retiring a few steps. Then taking his stand at the third line with Selim, they stood with guns presented ready to fire the instant the first line should be crossed. On reaching this, the four raiders halted; and seeing my English gun, and hearing Zeid running up from behind them, they came to the conclusion that we were the strongest; so, pulling down the handkerchiefs with which their faces were concealed, they exclaimed Salamák, "Peace be to you," and crossing the lines, my sheikh and theirs, who recognised each other, fell into each other's arms and kissed; and then we all sat round in a circle and heard their story of how they had tracked us from the watering-place at W. Meleg. They belonged to the tribe of the Haiwât, and with 50 dromedaries and 100 men were on their way for a raid in the Maâzi country to the north-east of Akaba. Three of them camped with us that night; one disappeared, we expected for the purpose of bringing up the rest of their force, and my Arabs stood to their guns all night, but we were not further molested. The want of pasturage and water had already led us to decide upon making for Nukhl. I had much wished to visit Akaba and Dr. Beke's Mount Sinai (Jebel en Nûr), but found it impossible to do so.

The presence of this raid, and the prospect of a return raid from the Maâzi made us abandon our plan of reaching Nukhl by the Hajj road, which runs from Akaba to Suez; and we took a more southerly route, which was known to my Arabs, but has not, I believe, been followed by any previous traveller.

After crossing a succession of hard flinty plateaux, divided by branches of W. Tasyibeh, we reached in  $1\frac{3}{4}$  hours a low hill called Muirdri beta Namús, from the large number of round houses or tombs scattered over its top and sides. We came to similar ruins farther on, and near these I found several drawings of ibex, and a well-cut Sinaitic inscription, the only one I saw in the Tih desert. In  $1\frac{1}{4}$  hours more, we reached W. Umm Shyish Heráni, in which there is a large well, much frequented as a watering-place. It was surrounded by eight stone troughs, and another group of troughs a short distance higher up the wady marked the position of another well, which has now disappeared. Two roads lead from this point to Nukhl. The northern one by the plain north of J. Fahih (probably that followed by Wallin in 1845, leading past Bir Kureis), the other across a mountainous district to the south. We took the latter as the safest from the dreaded raids; my Arabs pointing out in the distance J. Kureis and J. Themed. They told me that there are five well-known wells south of the Hajj road; viz., Themed, Kureis, Taiyibeh about three miles north of our road, Hersi, and Umm Shyish Heráni; Zeid added that there are many other *watering-places*, and much water after rain, but no more *wells*.

Our route was a dreary one across barren and monotonous ranges of chalk mountains, but groups of round tombs here and there in prominent positions proved its antiquity as a road.

After journeying three and a quarter hours we reached W. Nefés, a large valley running north-west. As we followed this down it gradually broadened out, and the mountains became lower. After three and a half hours we left the bed of W. Nefés, which turned towards the west, and for fourteen hours continued to cross a succession of wadies, divided by tracts of stony desert and low ridges. Our water began to run short, and we had to travel by night as well as day. We saw large numbers of storks here. At length we halted on May 4th at midday, about ten miles south-east of Nukhl, in W. Tureifeh, and sent on our three camels for water and flour, having almost run out of both. The sun set, and our camels had not returned. I was left alone with Sheikh Nassâr, who began to suffer greatly from thirst. He spoke with difficulty, and asked me to keep a look out for the camels, as his eyes began to grow dim from feverishness produced by thirst; and yet I was not able to induce him to touch the little store of water which he had put aside for me. This was only one instance of his self-denial for my sake; and whenever we were in difficulties with regard to food and water, all my three Arabs insisted on reserving whatever there was for me, no matter how much they were suffering. I never had more cheery or faithful attendants. They were all, too, most anxious to give me all the information they possessed, and I never found them willingly misleading me. I cannot speak too highly of the character of the Towarah Arabs for honesty and faithfulness.

At half-past eight Slim arrived with water, and letters from Nukhl, and it turned out that the Egyptian soldiers at the Castle had impounded my camels, and only let them go when night set in and they found no more *bakshêesh* forthcoming.

On May 5th we had a high south wind and sand-storm. It was the most trying day I had, the thermometer in the shade standing at 102° at midday. Being Sunday we had intended to rest, but want of pasturage, in consequence of the drought and locusts, compelled us to move on to within three miles of Nukhl.

We were now in the country of the Tiyâhah tribe. I was much afraid lest some of the Tiyâhah should be at Nukhl, and claim their right to take me on, in which case I should have had to part with my Towârah Arabs. Fortunately, only one was there, and we managed to give him the slip, making our way past Nukhl by the bed of W. el Arish, whilst he, determined to catch us, must have passed within half a mile of us on his way to our camp in W. Tureifeh, which we had just left. We pushed on northwards, and he did not succeed in overtaking us.

Our course now lay north-east up W. el Arish. About three miles north of Nukhl its overflow forms a large alluvial plain, which continues more or less, I believe, to the mouth at the Mediterranean Sea. The real bed of the wady is small, and lies to the west of the alluvium, which appears to be a deposit from the drainage from neighbouring ranges of white chalk hills. Large tracts of it were ploughed up by the Arabs ready for sowing corn after the rain; and in many places I saw the stubble of last year's crop of maize, doura, or barley. The process of ploughing is very simple. A rope is tied to a stake about a foot from the bottom, and a camel being attached to the other end of the rope, the stake is drawn along the ground backwards and forwards, scratching up furrows about one and a half feet apart. In these the corn is sown after rain. Isolated mounds of the alluvium show that the bed of the wady has at some time been at least 15 feet higher than at present.

Wady el Arish, on receiving W. el Aggâbah, sweeps round to the west of J. Ikhrim, between that mountain and J. Yeleg (*not* west of J. Yeleg, as shown on Professor Palmer's and Mr. Tyrwhitt Drake's map). It then flows to the east of Jebel Helâl, and through the north of that mountain by a narrow gorge. I need not stop to describe my route by the east of J. Ikhrim, across W. Garaiyeh and Jebel Sheraif to W. Muweilah. Professor Palmer and others have already done so. One passes over a succession of wadies conveying the drainage from J. Mugrâh to W. el Arish, all abounding with broom and desert herbage. All was dried up now, but in many spots the stones were thickly covered with lichen, which seemed to denote a considerable amount of damp, and vast quantities of white snail-shells (I have counted upwards of a hundred in one small shrub), tightly sealed to twigs or stones, were a sure sign that there must, during a great part of the year, be an abundant supply of succulent vegetation. There were also evident traces of volcanic action. J. Ikhrim appeared to consist of a disrupting core of igneous rock, which had displaced and thrown up the overlying strata of sandstone and limestone. Jebels Yeleg and Helâl, as far as I could judge from the distance of a few miles, had been formed in the same manner, and probably the limestone cliff extending eastwards from Nakb el Fahdi,



and the long ridge of Jebel Sheraif had been thrown up by volcanic action. It is interesting to notice this in the probable vicinity of Kadesh Barnea, where the opening of the earth (caused doubtless by similar agency) swallowed up Korah and his company.

At Jebel Sheraif we again fell short of water, and turned westwards to the bed of W. el Arish in hopes of finding some pools of rain-water. In this we were not successful, but Zeid rode over to Hathirah, a basin in W. Helâl, and obtained some there; but we had to pay for it. Thus I was reminded of Israel's offer to the Edomites at Kadesh: "If I and my cattle drink of thy water then I will pay for it" (Numbers xx. 19). There are six wells at Hathirah; in five the water is bad, but in one very deep one, excellent. As we approached W. Muweilah we found large numbers of sand-grouse, and had it not been the breeding season we could have kept ourselves well supplied with game. We often saw gazelle in crossing the Tih desert.

The head of W. Muweilah, which has been identified with "Bir-el-lahai-roy ("Hagar's Fountain"), forms a well-watered basin; and here and at W. Guscimeh, a little further on to the east, we found a number of Tiyâhâh Arabs watering their camels. They informed us that J. Mugrâh was the territory of the Hriwât Arabs, and not of the Azâzimeh as has always been stated; and they directed us to the principal camp of the Haiwât close at hand in W. el Ain. There we camped on May 11, and became their guests. A great dinner was at once organised in our honour, at which more than fifty sat down, and portions of bread, and boiled mutton, and *fit*, an Arab's chief luxury, were dealt out to each person by name by the skeikh, differing in quantity according to their rank and position. I had a portion of about three times as much as anybody else, and Arab manners compelled me to pocket what I could not eat; I was not allowed to give it to others. The meat and bread were not bad, but would have been more palatable to me if the sheikh's wife had left in less of the wool, and if I had had a cleaner plate than the skinny side of the sheep's-skin which formed the sheikh's great coat. However, I had an important bargain in view, so I tried to do justice to the feast, and to keep up the good impression which I had already created by dealing out before dinner with an ungrudging hand to my host and all his friends doses of Gregory's powder. I always found wherever I went that medicine was a sure way to a Bedouin's heart, and when my bottle of Gregory's powder was produced, almost everyone present took the opportunity of fortifying himself against some prospective, if not present, malady. And since gorging, whenever the opportunity occurs, is one of an Arab's commonest causes of illness, I could perform the office of doctor with an easy conscience. When, eleven years ago, I was leaving the Peninsula of Sinai after a walking tour of four months, Sâlim, who had been my constant companion, told me he feared that he was becoming blind. He had often lately been unable to see well. After asking him a few leading questions, I ventured to name certain places at which this blindness had occurred.

He threw up his arms, exclaiming "By Allah, you are a great doctor;" but looked heartily ashamed of himself when I pointed out that I had only named places at which we had stopped the day after I had bought a sheep or wild goat. He had literally eaten till he could not see. Well, after my dinner with the Haiwât, we proceeded to business, and in course of time, a bargain was made for an escort, consisting of the sheikh and seven Arabs, to accompany me on an expedition of five days to J. Mugrah, whilst my own Arabs stayed at their camp. *Sunday, May 12*, was a day of much-needed rest, but I walked some distance up W. el Ain, and ascended a mountain from which I obtained a splendid view of the surrounding country, and I saw clearly that Jebel Mugrah does not extend northwards in an unbroken line (as stated by Professor Palmer), but that a large plateau of a lower level intervenes between it and the mountains south of W. Marreh, and also that Jebel Mugrah breaks down to a lower level on the west in the same way, a lower range of mountains, through which W. Kadeis runs, intervening between the higher range and the basin formed by Wadies Jaifeh and Jerur. W. el Ain apparently takes its rise at J. Towâl el Fahm in the plateau north of J. Mugrah, but I was unable to ascertain whether the name Ain Gudeirat is given to a spring which I saw a few miles up W. el Ain, or to one nearer the head of that valley. In W. el Ain and W. Kusuineh are found numerous ancient walls which in former times supported terraces of alluvial deposit. These are still sown with corn by the Arabs, but the walls are neglected, and when broken down by floods are not rebuilt. Thus everywhere around one sees the desert gaining ground from the neglect of the Bedouin, and large tracts of land, which in the old days were reclaimed, and must have been extremely fertile, are now barren. By the simple plan of laying lines of large stones, or building walls across the broad wady beds, an enormous tract of corn-growing land was, and might still be, obtained in this district. That it was once a busy centre of life is proved by the very large number of flint flakes and arrow heads that lie on the surface of the ground, and by the numerous ruins of walls and houses, or tombs, many being evidently of a very early date; and the size of the stones employed in the building called forth from my Arab the exclamation "that there must have been giants in those days."

*On Monday, May 13*, I started with my escort of eight Haiwât Arabs and one of my own Arabs for Jebel Mugrah. They were a wild set of fellows, fully armed, and evidently ready for any mischief, and not easily to be led, but having placed myself under their protection I was perfectly safe now, although it turned out that they were the very men into whose hands I had nearly fallen in the raid at W. Meleg, and who would then have readily stripped me of everything; and by Arab manners and custom they would have been quite as fully justified in doing so then as they were bound to be my protectors now. We struck southwards towards Wady Kadeis, but soon we met numbers of Arabs driving in their flocks and camels to escape a raid of the Maâzi that

were coming our way; and we heard that they had three raiding expeditions out, of 100, 200, and 400 men. The latter were expected to sweep round by W. Kadeis by the very road which we intended to take, so we stopped about two miles short of it, and concealed ourselves for the night in a corner under the mountain, sending out scouts, who in the morning reported that the raid had turned eastwards south of J. Mugrah, but that they had carried off a number of Haiwât camels, and that there had been a fight in which five men had been killed and seven wounded; news which greatly excited my Arabs and lost me much valuable time, for they stopped on every opportunity to discuss it.

On the 14th we ascended W. Kadeis, its bed is rocky, but affords a fair road. At Ain Kadeis, about two miles up it, there are four springs, about 40 yards apart from each other, three on the mountain side and one in the bed of the wady. From the lower one of the former there flows a good stream of water down the wady for about 100 yards, forming pools where the Arabs water their goats. The upper spring is built round with large stones to a depth of about 5 feet, and there is a rude trough here and at the lower spring. There is another deeper well under a rock about 50 yards higher up the wady, surrounded by rudely-built troughs. We followed up the wady to its head. It is rocky and narrow, but contains occasional terraces and ruins. A very steep path led us over a pass into the higher range, and we descended into W. Harâsheh, which runs northwards to W. Hanîn. On the following day we continued to ascend W. Harâsheh and entered the rocky basin which forms the head of W. Lussan; this wady drains the southern portion of J. Mugrah, and has several branches, all known to my Arabs by the one name. When one has mounted it, Jebel Mugrah no longer presents the flat-topped appearance that it does from a distance, but consists of rounded limestone hills covered with herbage. There are many ruins and terraces formed by walls in the mountain basins, and large number of flint flakes are generally to be found near the ruins. I was astonished at the fertility of the ground, and saw corn growing in several places.

On the east Jebel Mugrah only extends to about lat. 35°. Here it terminates abruptly in a steep cliff, and is separated from J. Jerâfeh (a high mountain to the south of Palmer's W. Jerâfeh) by a broad, gently-sloping valley, to which the Haiwât Arabs gave the name of Ras W. Garaiyeh. A good road leads from it into W. Jerâfeh, known by the name of "Sikket el Gôm," because it is the road usually taken by raiding parties from the east. There appeared also to be a road leading northwards to W. Râmân to the broad caravan road followed from the north by Palmer; and this, I think, may be the old road from Kadesh which was known to the Israelites as "the way of the spies."

Kadesh Barnea, if not at W. Kadeis, may probably be placed near the south-east base of J. Mugrah in Ras W. Garaiyeh, which formed, perhaps, the western boundary of Edom. I regret extremely that I was unable to descend into this valley and thoroughly explore it, but nothing would

induce my Arabs to accompany me; and, being short of food and water, we were forced to return by W. Lussan. I hoped still to get round to the southern face of J. Muḡrâh by J. Araif, but my Arabs would not go; and on ascending the peak which stands at the south-east corner of J. Muḡrâh, I saw that a broken tract of low mountain lies to the south of it, which would have rendered a rapid inspection impossible. We returned on the fifth day to the Haiwât camp by a rocky and difficult pass leading from W. Lussan to W. Jaifeh, to the east of J. Meraifig, which certainly was not the route of the Israelites. The only other road runs much further to the west.

I started to return to Egypt that same afternoon, May 17th.

Descending Wady Muweilah, we reached W. el Arish, near the base of J. Helal. I then saw what a very bad road this wady afforded, owing the alluvium, which formed its bed, having been worn into a series of deep and irregular ridges and furrows. We were nearly an hour in crossing it, and to follow it down to the Mediterranean, as I had intended, would have been almost impossible. Besides, my three Towârah Arabs were loud in their praises of a direct road to Ismailia, well-watered and good, which I at once saw must have been a very important one in olden days when Petra was a flourishing city, and the Negeb, or "south country" of the Bible was a thickly inhabited and cultivated country, as I had seen clearly that it formerly was. So I determined to explore this road. Skirting the south of J. Helal, we reached on the second day W. Hâsana, a large wady running northward and to the west of J. Helal. Here are three wells built round with masonry, and with several curious round water-troughs, which looked as if they had been formed out of old columns. There were a large number of Terabin Arabs here watering their camels. They were much inclined to be troublesome, and to claim the right to take me on; but again my bottle of Gregory's Powder served me well, and by numerous doses I soon created a favourable opinion. I was much amused with one of my patients, who carried off a store for future use. He left me after making, as I thought, *every possible* inquiry as to the manner and time of taking his medicine; but he returned shortly to say that he had forgotten to ask me one *most* important question—"Was he to take it through his mouth or through his nose?"

On leaving W. Hâsana we crossed some low chalk hills lying to the north of J. Yeleg, having on our right a large plain sloping northwards, and having before us a long mountain range called Jebel Muḡhârah, between which and Jebel Yeleg runs W. Dôw towards the north-east. Crossing this we reached "Emshash," a group of seventeen wells. One only was built up with stone from the bottom, the coping-stones being deeply worn by ropes. Most of the wells had fallen in. The water was not good. After filling our water-skins Nassar descended the well for a wash—a process not calculated to improve the water for the next comers. How many had done the same before him? It was well not to ask. We now ascended a steep slope, on which were situated some old round

tombs, and entered the Mughârah range. Both J. Yeleg and J. Mughârah stretched westwards as far as I could see, and the intervening valley was said to have near its head another group of wells, like "Emshâsh," called "El Jidy." Near these ran a road to Suez. A long ascent by W. Mughârah brought us to the watering-place which gives this name to the mountain. It is now a dirty water-hole, but around it are massive foundations of masonry, and probably it was once arched over, the arch suggesting to the Arabs the name Mughârah, or cave. There were many ruins of round houses, or namûs, near, and opposite the water-hole a square building, about 30 feet by 20 feet, built of roughly-hewn stones without mortar. The interior was a heap of stones. Around the water-hole were twelve remarkably large watering-troughs, built of rude masonry.

We next crossed a wild pass, the road running northwards along the natural shelves of hard crystalline limestone, polished like marble in many places by the camels' feet.

This led us into W. Mutlâhah, in which were many fine seyal-trees; and again turning westwards we entered W. Hathâyib, a large basin, with cornfields. There were many Arabs of the Aiaideh tribe here, and as they seemed inclined to be troublesome, as soon as it was dark we slipped on past their camp, and, crossing J. Hathâyib, travelled on till midnight. On lighting a fire to make bread more Arabs soon appeared, and we had again, as they left with the intention apparently of bringing up others to stop us, to pack up our things and move on during the night. Our course continued due west over a rolling plateau with many sand-drifts, which increased as we approached the Isthmus of Suez. There were few points of interest on the road. The district through which we first passed after crossing J. Hathâyib was called Elloo; and about half way across the plateau was a prominent ridge, on which was situated a large group of namûs, and near them I found a great number of flint-flakes and several beautifully-made arrow-heads. The whole way, wherever there were no sand-drifts, the ancient road could be traced by these flint-flakes.

We were very short both of water and food, and pushed on as fast as possible; and early on Thursday morning, May 23rd, we arrived at Ismailia.

Thus ended my journey. I failed to accomplish *all* that I had hoped to do, but I believe that I have succeeded in fixing satisfactorily the route of the Israelites northwards from Mount Sinai. I have also thrown some additional light upon the position of Kadesh and the boundary of Edom; and, although I was unable to follow Brugsch Bey's proposed route of the Israelites out of Egypt, I have discovered an ancient road to Egypt from the east, which must formerly have been one of very great importance, and is of great interest to the Biblical student. There can be little doubt that it was the road followed by Abraham and Lot in their journeys to and from Egypt.

I have at least done my best to add to our knowledge of a most interesting country. The drought and the raids were against me, but in

the space of eight weeks I walked upwards of a thousand miles, at least one-third of that distance being over ground previously unexplored; and I have proved, I think, that any future traveller who will rough it a little, and has a slight knowledge of Arabic and Arab manners and customs, may easily follow my steps, and that there is a most interesting district within easy reach which still needs careful exploration, and which will, I hope, before long receive the attention of the Palestine Exploration Fund.

## THE FELLAHHEEN OF PALESTINE.

NOTES ON THE CHIEF TRAITS IN THEIR CHARACTER, THEIR  
FAULTS, AND THEIR VIRTUES.

By MRS. FINN.

THE Bedaween have a saying—

“El Medeny maidat ed-duniah,

El Fellâhh khamâr ed-dunieh,

El Bedawy Sultân ed-dunieh”

“The townsman is the table of the world (provider),

The peasant is the donkey of the world (menial),

The Bedawy is the Sultan of the world (ruler).”

But the Fellahheen give a different version, and retort, saying:—

“What is the townsman? The Sultan of the world.

“What is the Fellahh? The donkey of the world.

“What is the Bedawy? The dog of the world, for he snatches from everybody; but nobody dares to snatch from him.”

“What have we to do with thee, thou father of cabbages!” was the contemptuous speech made by a Bedawy to the Fellahh sheikh of a village near Bethlehem. And yet the Bedawy had in all probability never tasted a cabbage in his life, or even so much as had one in his hand

One day an acquaintance came to us with the following tale:—

“Fâtîmeh tells me that there has been a robbery in her village, and that they called in a Bedawy to find out the thief.

“He heated an iron and branded the tongue of every man, woman, and child, telling them that the tongue of the thief would swell, and that he would then make him pay the value of the theft.

“All their tongues swelled, and he made them pay the money among them!”

But the woman did not perceive the joke of the thing, though she told it of her people.

The Bedaween often outwit the Fellaheen, whom they utterly despise. A story is told on this point how that once a Bedawy and a Fellahh arrived at the same village as guests and repaired to the Sahha. Supper was put before them, and the Bedawy observed that it was only enough for one. He accordingly engaged the Fellahh in talk, asking, “What presents do you give to the bride at a Fellahh wedding?”

“What presents? why we give a silk robe, and a cotton robe, and silver ornaments; and then we give so much in money to the father, and so much to the brothers, and so much to the uncles and aunts.”

By the time that he had got to the uncles and aunts he perceived that the Bedawy had eaten up three-quarters of the supper, so he in his turn asked the Bedawy what they give the bride at a Bedawy wedding.

The Bedawy replied, bluntly, “A tōb (robe), a veil, a necklace, and a headdress,” and continued eating till all was finished, leaving the Fellahh still very hungry, and done out of his supper.

But the Fellahheen also retort upon the Bedaween. They tell how a Bedawy coming to a village one evening in the summer, entered the guest-chamber, and how among other things for supper they set before him the fruit then in season—namely, prickly pears, which he had never seen before. But in mockery of his ignorance of civilised usages and of the ordinary productions of nature in cultivated districts, they did not sholl the prickly pears, but left them in the husk, all covered as they are with innumerable sharp thorns.

The Bedawy, suspecting nothing, took up and ate the fruit as he was accustomed to eat cucumbers, which he had seen before, after which his hosts asked how he liked them. “God be praised for them! they are very refreshing,” said the Bedawy, “only the hair upon them is rather sharp, it is rougher than the hairs on cucumbers, and it sticks to my tongue and smarts!”

The Fellahh lads who tend the flocks are often brutishly ignorant. They are out all day, from early dawn, with their charge, and come home late only to eat and go to sleep. They have no one, excepting, perhaps, another shepherd like themselves, to talk to day after day and month after month. They take a little bread in their scrip, and with that and milk from their goats or sheep they are sufficiently fed. When milk is plentiful they will sometimes make cheese or curds and whey for themselves, milking one of the flock into the leather *jurābeh*, or scrip (often made of a kid skin), or into the leather bucket which they carry for drawing water for the sheep. The acrid sap of the fig-tree (white and milky) is added to curdle the milk. They also know what roots and leaves are good to be eaten among the plants that grow wild among the mountains, and in early summer they get partridge eggs among the standing corn, or young doves and pigeons in the old empty rock cisterns.

A Fellahh lad on being asked how old he was, replied, “You know the red cow? Her grandmother gave birth to her mother three days before I was born.” And this was all the account he could give of himself.

We saw another lad who, on being asked his name, said he did not know. “Don’t know your name! Why, what do men call when they want you to come? what do they say?”

“They say Hō! hō!” was all the answer we could get from the boy.

And yet in some things that boy was sharp enough. These shepherd lads are no mean adepts in the arts of wrestling, running,

slinging stones, and throwing at a mark. They will often hit even small birds on the wing with stones. They can make reed pipes, and play them skilfully. Some make similar pipes, larger and prettily ornamented, out of the large pinion bones of the common vulture (rookhameh) and other birds. When they grow tall enough to sling a gun at their backs, they often carry one, and become very fair shots. They also know every bit of ground, every hill, valley, rock, plain, or spring within their own district. Above all, these shepherd lads are skilful in the simple rough surgery needed by the sheep or goats which may get hurt during the pasturing over the rough ground upon the mountains. It is not uncommon for an animal to get jammed among the rocks, or to fall, and thus break a leg. The shepherds are proverbially excellent bone-setters, making splints out of any chance bit of wood, and binding the limb up with perhaps a rag torn off their own garments.

The townspeople amuse themselves by laughing at the stupidity of the Fellahheen. They say that if a Fellahh be asked, "Which is thy left ear?" he will raise his right arm over his head, and feeling downwards lay hold of his left ear and say, "Here!" not having the wit to put up his left hand to it.

One day a Fellahh had bought a pair of new shoes in Jerusalem, and was returning home towards Beit Jâla. On coming to a rough bit of road he took his shoes off to save them, but presently knocked his foot against a stone and hurt it, on which he exclaimed, "What a good thing it is that my shoe was not on my foot; it might have had a hole knocked in it with that blow!" The Bethlehemites look down on the people of Beit Jâla (their opposite neighbours) as being far less sharp than themselves. The Fellahheen generally treat themselves to smart new red shoes for some great festival, on the eve of which one may see them going along the high road from Jerusalem to their own village dangling the new shoes by a string from one hand. We have sometimes seen a large pair for the father and a little pair for each of his children thus carried.

Another town story at their expense is the following:—A Fellahh was one day pruning his vine, and managed to cut his hand. He got angry with the pruning-hook, and threw it away up over his head. Looking up after it to see where it would fall, it came down into his eye and struck it out. "Thou wretched thing! is it not enough that thou hast cut my hand, but thou must pick my eye out also?" and so saying, he trod upon it in a rage and cut his foot. On this he flung it away in terror as far as he could, and took refuge behind the broad trunk of a fig-tree. On seeing his wife coming, he cried out to her to "Beware of the pruning-hook, lest it come and wound thee also!"

The men of Dair-es-Sinneh, above Siloam, are proverbial for their stupidity, and the other Fellahheen tell stories about them such as the following:—One of these men was going out of the Gate of the Tribes (St. Stephen's Gate) on his way towards Siloam, with five asses, which



he was driving before him. After passing out of the gate he mounted one of his asses, and so rode down the hill. At Sitti Mariam, in the bottom, he stopped and counted the asses before him. There were but four. He turned back to Jerusalem to look for the fifth (which he was riding). At the gate he dismounted, drove in his asses to the open space within, and counted them. They were all right, five in number. Rejoicing, he turned back again to go home, and mounted again outside the gate. Arrived at Sitti Mariam, in the valley, he again counted his beasts; but lo! as before, there were but four. Again he went back to Jerusalem, dismounted at the gate, drove in his donkeys, counted them at the same place. They were five! This happened several times. At last he said, "By the life of my son! it is better for me to walk and have five donkeys than to ride having only four!" And with that he walked home, driving his five asses before him.

Another Fellahh of Dair-es-Sinneh is said to have climbed up a beanstalk, and got up to the moon. After walking about and seeing all that was to be seen there, he wished to come down; but his beanstalk was broken, and he could not reach it. So he pulled a bit of cord out of his pocket, and let himself down by that. But it was not long enough to reach the beanstalk, so he took out his knife and began cutting a piece from the top to join it on at the bottom, in order to lengthen it!

Stupid as the Fellahheen seem, however, and stupid as they often undoubtedly are, it is rather from want of cultivation than from lack of natural intelligence. We found them very capable of instruction, especially when young; and they are amenable to discipline, provided that strict justice governs the treatment they receive.

Some of them are clever in culture of the fig-tree, olive, and the vine, as also in managing field-crops and vegetables. They can be made excellent labourers and builders. They are idle in their own villages, chiefly from want of sufficient motive for exertion; but if the opportunity of earning wages is put in their way, they work steadily and well, provided that the amount of pay is made to depend upon their industry. A fine for idleness is the most sure preventive, and it rarely needs to be repeated.

The apparent stupidity of the Fellahheen may be explained by one of their own stories, to the effect that it is "All of no use talking to people of things which they have no sense to understand:"—

"Said the ass to the camel one day, 'How is it that with thy long legs and head so high up, thou never stumblest over stones, while I, with my little legs and eyes near the ground, am always stumbling?'

"'That,' replied the camel, 'is because I am always looking forward. I look out ahead for what's coming.'

"'Oh, dear!' replied the ass, 'that is quite beyond my comprehension.'

The Fellahheen are sharp enough in all matters that come within their own range of observation, and they are very shrewd in what concerns their own interests—so far as they understand them. They have

an excellent retentive memory. It is scarcely too much to say that they never forget anything, and they are quick of apprehension in matters upon which their faculties have been exercised, even while utterly stupid in others. They have the character of being avaricious, and certainly they are fond of money. We often observed that wherever Fellahheen were congregated, the counting of money or calculating of gains might be heard. Indeed, it was almost certain that if we happened to overtake two of them upon the road, or sitting by the wayside, their talk would be of money. They spend very little of their gains, and hoard up the rest in some secret place, which is not often revealed by them before they die. Their money is usually buried in some out-of-the-way place in the ground, or in some old ruin. There can be no doubt that, when Palestine comes to be fully cultivated, many of these stores of hidden cash will be discovered. Sometimes a Fellahh will lend out at interest a part of his savings, exacting from 50 to 100 per cent. interest. A Fellahh will not part with his money if he can help it, and will endure imprisonment and stripes in order to escape payment of Government taxes. We saw many instances of this; and a story is told of one of the Ibn Simhhân people, who was brought into Jerusalem to pay his arrears of taxes long due to the Turkish Government. He declared that he had no money; but this was unlikely, the family of Simhhân being well-to-do. Imprisonment produced no effect upon him, and the governor ordered him to be bastinadoed. He was laid down, and the cobaj was applied to his feet. One hundred strokes were borne, and he would not yield; two hundred, three, four, five, and six hundred were in vain; and it was not until he had suffered seven hundred strokes that he gave way, and, loosening the girdle he was wearing, took out of it the sum of 2,000 piastres (about £20), and paid it to the governor. He had borne all the pain of so fearful a beating in the hope of being able to carry his money back home again.

The Fellahheen have naturally far more gravity and dignity than the Syrians of the towns. They have also less of the conceit and vanity for which the townspeople, especially those on the sea-coast and in the north, are remarkable. Indeed, it is not difficult to detect a radical difference on these points between the town Syrians and the Fellahheen.

The town Syrians, moreover, have a certain *legèreté* and fickleness, with vivacity, which are not common to the Fellahheen, or even to the dwellers in the southern towns, where the Fellahh and the Arab elements predominate rather than the Syrian or the Greek. In manner, in address, in turn of expression and thought, in idiom, in the very mode of putting on the garments, these differences are apparent.

The character of the Fellahh is, in short, much nearer to that of the Arab than to that of the Syro-Greek. They are excitable, and appear quarrelsome to those who do not know them. They mingle so much gesticulation with their speech that a stranger often supposes a deadly fight to be imminent, if not actually going on, when he sees a group of eager Fellahheen vociferating at each other, cursing, it may be, and

swinging their arms about as if to knock each other down. (They never use their fists, and do not know how to do so; a blow with the open palm is all they ever do in striking with the hand, and this they call *keff*, the exact equivalent of our "cuff.") The accidental falling off of a turban in the midst of the uproar gives strength to the idea that all this means mischief, and that the short swords in their belts and the long guns at their backs will soon be brought into action. When, behold! a word has been spoken by one of the disputants, calm is suddenly restored, gravity and self-possession take the place of furious excitement, and in a few moments more the party separate, after exchanging the salutations of peace.

The word that was spoken with this purpose and intent may simply have been the customary salutation, "May God give thee a good morning" (or "evening" if spoken after noon), gravely uttered while stroking the beard, with a steadfast look at the person whose excitement is at its height. This greeting has, of course, been given before at the first meeting, and it has been reciprocated as usual by the person now addressed. Nevertheless, it now acts as a charm. He stops his furious gesticulation, and responds, "May He give thee a hundred good mornings." The wish interposed may have been, "May God lengthen thy life!" The effect is the same; a pause for reflection is secured while the appropriate compliment is returned. Or if real anger has been displayed, one will exclaim, "*Ya, Ibrahim* (or whatever the name may be), *edhkor Rubbak*" ("Oh, Ibrahim, remember (bethink thee of) thy Lord!") The rebuke is meekly taken, and the response given, "*Yehhya dhikerbro wa 'yedoom*" ("May the remembrance of Him live and remain"). Or it may be that the reprover will say "*Allel*." The other will then reply, "*La ila illa Allah*," &c., the formula of faith, "There is no God but God," &c. Sometimes a man finding himself getting angry, and inclined to use offensive epithets, will check himself, and repeat the "Oh, Ali (or whatever the name may be), may Allah give thee a good morning!"

"*Sally-an-Neby*," ("Pray in the name of the Prophet" Mohammed), is another of the phrases by which angry men are calmed; and the reply is given with the wish, "*Alai es-Salaam wa es-Salla*." "Upon him be peace. and through him is prayer" [made].

There is little or nothing among this people of what we call *fun*. They understand jokes, or rather humour, of a certain kind; but they cannot bear to be laughed at. Irony and sarcasm they can comprehend, and they themselves use both. "*Mashallah! huwa âkil!*" ("Wonderful!")—(literally, "What hath God wrought!") "He is a sensible fellow!" is an exclamation one may hear if a workman blunders in his task, and a mocking laugh will accompany the speech, adding pungency to the rebuke. Even the women, who are in some respects less intelligent, because less versed in the ways of the world, can appreciate humour, and be influenced by it.

The Siloam women commonly supply Jerusalem with milk, and are

very fond of mixing as much water with it as they can without detection. The woman who brought us our milk had, however, gone too far, and the milk was so thin and blue that our patience failed.

"Oh, mother of Ahhmet!" said I to her one morning, "I want to speak with thee."

"Be pleased to speak, O lady."

"Milk is good, and water is good. Allah made both of them, but we don't like them mixed; henceforth bring us thy milk in one jar and thy spring water in another, that we may drink them separately." The woman listened, considered a moment, broke into a smile, and said "*Taib*" ("Good, oh lady"). From that day forward we had milk pure and good from her. When the children or their elders in a strange place impertuned us for Backsheesh, we could generally turn the laugh upon them, in which they would join, by holding out our hand and saying, "No; it is you who ought to give us backsheesh for our trouble in coming here."

The Fellahheen do not easily or commonly laugh, except in scorn. In this they resemble the Arabs. They are keenly alive to ridicule. To tell an old man that he has behayed as a child, to say that "his intelligence is small compared with the whiteness of his beard," is in effect to have administered a most stinging rebuke; a similar reproof to a young man, "child" (for they still, as of old, call grown-up young men "child" in familiar and endearing, as well as in contemptuous, phrase), would be to say to him, "*In waled istahly*" "Oh, child, be shamefaced!" ("Be modest;" "Don't presume;" or "Be ashamed," the phrase means all three).

The Fellahheen have been supposed by some to be devoid of humour. It is true that in some districts they are more stolid and stupid than in others; yet there is no part of the country in which witty proverbs, sententious sayings, and humorous parables are not understood and welcomed; a happy hit, a clever retort, a bit of retribution cleverly devised, will sometimes do more than force could in mastering a troublesome Fellahh. We found their sense of humour to be keen. There is true perception of wit in the retort, when two men, of whom one was thoroughly inferior, were compared with each other: "Truly they both have large eyes; but yet there *is* a difference between a hawk and an owl." And in the remark on the use of adversity, "Nothing will get oil out of an olive but crushing it;" and even in the words used to admit ignorance, when replying to the question; "How old is that tree?" "Praise be to Him who (alone) knoweth." Their epithets or descriptions of men are often very witty. "That priest of yours, a span and a half high," was the description of a European cleric, very short in stature, and more nimble than dignified in his gait. Aboo Nadarât, "the father of spectacles, whose eyes nobody sees," was the description of another European whose dark spectacles were generally believed to be worn to hide his countenance and expression of face rather than because his eyes were weak.

"Hah! hah!" cried some children in Safet one day, as they ran after

a European whose chin was shaven, while he wore a full moustache and whiskers. "Hah! hah! there goes the Frank who cuts a hole out of the middle of his beard!"

Proverbs are in use all day long; they think in proverbs, and speak in them, and invent fresh ones, pithy and to the purpose, without the slightest effort.

The Fellahheen are often very clever at understanding hidden allusions and enigmatical sayings.

A man once came to his friend Ibn Hhanna and asked his mediation with the father of a girl whom he wished to marry. But the friend, not being particularly desirous of furthering the matter, and knowing moreover that the would-be bridegroom was unusually thick-headed, gave him the following message to the girl's father, Ahhmed Moosa: "Ibn Hhanna salaams thee and says to thee, 'Look at a she-goat; but let her milk alone.'"

The man went, gave the message, and returned, saying, "Ahhmed Moosa salutes thee, and says, *Ala rāsy*" ("Upon my head be it"—i.e., "I will obey").

"Very well," said his friend, "then go home and wait till he sends for thee," which he did, but was *not* sent for, the girl's father having understood the message to mean, "Look at this man; but do not negotiate with him or accept his gifts." The Fellahheen are crafty and ingenious in stratagem, quick also in detecting or guessing the devices of others; but this, of course, only in matters to which they are accustomed. They are excessively cautious and even suspicious in their dealings with strangers, and rarely, if ever, give a direct answer to a question.

"Art thou going home, Ibrahim?"

"Why? does my lord require anything?"

"No, but art thou going home?"

"I will take a message to the sheikh of my village; he is in the bazaar to-day."

"I have no message for the sheikh of thy village, oh Ibrahim; but I do want to know if thou art going home."

"Wherever my lord pleases to send me, there will I go," and so on, *ad infinitum*; but no direct answer. A question is almost invariably met by another question. A Fellahh, if met on the high road and asked, "Whence comest thou?" will answer, "From behind," and thus avoid giving information; and to the further query, "Where goest thou?" answers, "Ala Bab Allah" ("To the gate of God" [whither God pleases]), or "According as God may open the way".) This habit of evasion is inborn, and is practised by the veriest infants, who can but lisp out the question, "*Lais?*" (for "*Laish?*" Why?).

Insolence in time of prosperity, and where government is weak, is a common fault of the Fellahheen.

The Fellahh servant of one of our friends being about to be married, bade his master to the wedding, which was to take place at his village, where the famous Abd en Neby was sheikh.

This sheikh was, like all others of his district (in the Hebron country), noted for his hospitality to guests, and the wedding was a very gay one, being attended by sheikhs and people from all the country round. One of the chief guests had put on a new *aba* (mantle) of fine black camlet in honour of the occasion. According to custom, everybody on observing this new garment saluted the wearer with the word "*Mobarak*" ("May it be blessed"). To each one the customary reply was made, "*El Halaleh b'yedak*" ("Its halter is in thy hand"), which is equivalent to saying, "It is at your service." Another guest, very greatly his inferior in rank, but who from private motives was seeking a quarrel, pressed forward with the salutation, and on receiving the answering compliment as above, said, insolently, and to the amazement of the assembled sheikhs, "*Kabbaltuha*" ("I have accepted it"), a reply only made by a great man to his inferior in such circumstances, to show his gracious acceptance of the proposed gift as an act of becoming homage.

But custom required that the garment be forthwith handed over, unless the wearer had chosen to mar the festivities by saying, "Come and take it by force," which would involve a combat for life or death. He therefore simply said, "For the honour of our host, Sheikh Abd en-Neby," and taking it off his shoulders gave it to the man, who instantly put it on, saying, defiantly, "If he and two hundred men at his back were to try, he should not have it again." That man was then seeking to compass the death of the other, and he accomplished his purpose some months afterwards—not openly, for he was a boastful coward, and the other was known for his skill and prowess, but by paying others to do treacherously what he himself dared not to attempt. He had an ambush set and his victim murdered by hired assassins. One of the men concerned in the deed, not as actor, but as spectator, had been the night before actually eating with the victim. On hearing what had happened, the poor Fellahh woman who had cooked their supper, and who was much attached to the murdered man, bewailed herself, beating her breast and crying, "Woe is me! woe is me! I left out the salt by mistake when making the bread last night for their supper. Oh, that I had put it in, then would not that Abdallah have dared to let my lord be murdered in his presence; he would have been compelled to defend him after eating his bread and his salt. Woe is me! Woe is me!" And she spoke in accordance with universal custom in respect of the sanctity of life after a meal where people have eaten bread and salt together.

The sheikhs of that man's tribe offered to give him up to justice, but intrigue was at work to screen and hide the criminals, and their offer was not accepted by the responsible authorities (who were not all either Turks or Arabs).

Among the faults of the Fellahheen lying is one of the greatest and most common. They certainly can appreciate truth-telling in others, and even admire it, but can scarcely utter anything but lies themselves. To lie skilfully is considered a very great and useful accomplishment; the merest infants practise it as soon as they can speak. "A man who

does not tell lies is like meat without salt." And even the Fellahheen of Christian villages are almost as bad as their Moslem country-folk in this respect.

"Why didst thou tell that falsehood?" was asked one day of a Bethlehem Christian woman.

"Oh, lady," she replied, "thou knowest the *a'uleh* (custom) of us Fellahheen is to tell lies."

"But what, then, is thy religion, is it Fellahh or is it Christian?"

"Christian; but lying is our custom."

"Where, then, is your honour" (*sharaf*)?"

She laughed. "We have no honour."

But there is a proverb that shows that the difference between truth and falsehood is understood. When a very wonderful tale is told, the hearers will contemptuously ejaculate, "*Kizb*" (a lie)!

"How dost thou know that it is a lie?"

"*Min kuburho*" ("From its bigness"), is the ready response.

Some villages have an evil reputation for untruth, or, as the natives put it, "The people of so-and-so are not good, their tongue is long."

Stealing, in the sense of petty pilfering, is another common fault described in the same fashion. "So-and-so is not good, her hand (or arm) is long." But pilfering is commoner among the Moslems than among the Christian Fellahheen. And indeed we found many of the Bethlehem Christians, especially the women, to be scrupulously honest, not even taking little portions of food for their children, a kind of pilfering which is considered quite lawful by people who would on no account take any valuable article or money from their employers.

Stealing cattle is considered a very grave offence, to be atoned for only by returning fourfold in case of a sheep, and fivefold in case an ox has been stolen.

Some villages have a much worse reputation than others for thieving. Siloam used to be considered one of the worst; also the village of Esawiyeh, north-east of Olivet.

The Moslem Fowagris of Bethlehem always had a very bad reputation in this respect. Indeed one quarter of the town of Bethlehem, inhabited by one of the two Moslem clans, was known as a perfect nest of robbers. Abbo er Rummān and his son, Selāmeḥ, with the chief of their clan at Bethlehem, Sheikh Salim Shakhtoor, were among the ringleaders, and they were many of them desperate and villainous men. In league with these was Hamīn Hadoob and others, of Jerusalem, and some of the Siloam folk. They robbed the peasantry on the road or in the villages, as well as pilgrims or travellers, or people living in Jerusalem. Nothing came amiss to them in the way of plunder, and they did not stop short of murder when it suited their ends.

In former years there were other notorious thieves, one of whom, Saadeh, was at last, after being often taken, and escaping only to renew his depredations, caught and hanged on a tree outside the Jaffa Gate of Jerusalem by the Government.

In years gone by Sabbuhh Shokeh, sheikh of the other clan of Fowagri Moslems of Bethlehem, was as great a thief and robber as the people of Salim Shakhtoor still are.

There is a story of Sheikh Sabbuhh joining Khalâweh of Urtas in sundry midnight marauding expeditions. The favourite amusement of at least part of a night thus spent by robbers is to steal one or more sheep from some flock out with its shepherd in the open country. A Fellahh will think nothing of throwing a sheep over his shoulders and running off with it, while his companions engage the shepherd either in fighting or in pursuit on a false scent. The thieves meet at their rendezvous, where the sheep is soon killed, flayed, and roasted whole in a pit dug in the earth, and the party feast upon their ill-gotten booty before returning to their own villages. Of course, when the shepherds are vigilant, and have firearms, they can and do offer successful resistance; but sometimes they are killed by the thieves, who are also armed with sword and gun.

The shepherds, when they lose a sheep or a goat by death, are always expected to bring at least the ears to the owner, if the distance be too great for them to carry the whole carcass; and thus to prove that they have not themselves slain and eaten of his flock.

The two men above mentioned had been out one night, and had been stealing sheep and other trifles. They were near the high road from Jaffa where it passes through the village of Abou Gosh, and falling in with a camel carrying up to Jerusalem a load of calico for market, they stopped it, and, unloading the beast, each of them carried off half the calico on his back to a convenient hiding-place, whence they could get it safely off to their respective villages unobserved.

On another occasion Sabbuhh Shokeh, by way of bravado, said to his companion, as they were returning home at daybreak after a night of robbery, that he would carry home a hand corn-mill of stone on his shoulders. Presently the sound was heard of a woman, who was up with the dawn, grinding the corn for her family baking. Sabbuhh told his companion to wait outside, and, walking into the cottage, he saluted her with a "Good morning."

"Who art thou?" said she, not liking his looks.

"A guest," replied he; and perceiving that there were two corn-mills, he asked her which was the best one.

She said, "This one which I am using."

Without further ado he lifted it, heavy as it was, on his shoulder, and got clear off before she could awaken her husband.

A man from Beit Safâfa hid his money in a cave near Mar Elias. On the top he put a shoemaker's hammer with his own mark, in order that should any one find and steal the money, it might be the means of convicting them. Two young fellows, great rogues, having stolen two sheep one day, went into this cave to kill them; and wishing to hide the heads and feet and offal, dug a hole for that purpose, and thus they came on the jar containing the money. They took the money, and for



mischief filled it instead with the offal, burying the heads and feet in another hole. As for the shoemaker's hammer, they being as clever as the owner of the money, flung that away on the high road. Here it was picked up by another man, a stranger, who sold it in Jerusalem to a shoemaker. The owner of the money, on visiting the cave, found something less than money in his jar. He went immediately to the city, and examined the hammers in the shoemakers' shops. He found his own hammer. "Where did you get this hammer?" "From so-and-so." The latter was then arrested and taken to prison for the robbery; but he proved his innocence. "I heard of the case," said our informant, "and suspected the real thieves, and questioned them. They gave evasive answers. 'Why do you trouble yourself about such affairs?' 'That doesn't concern you.' I was satisfied they were the thieves, but could not bring it home to them. Two or three days after they, in their turn, were accused of something of which they were innocent, and had to spend eight or nine thousand in bribery to get clear. 'Well,' said I, when I next saw them, 'what became of all your money?' They laughed, and said, 'The winds brought it, and the whirlwind carried it off' (a common proverb, answering to 'Lightly come, lightly go'). The other said, 'Surely it was better not to have to spend one's own money in bribes. If it must be spent, let it be another's.'"

It is remarkable to find that truth, honesty, and honour can be thoroughly appreciated by people with whom lying and theft are so common.

The "English word" was synonymous among the Fellahheen for truth, and they were convinced of the integrity of English people. Of this we had innumerable instances, and of the way in which they would trust the simple word of an Englishman. "Cease bargaining," a peasant in the bazaar would say; "I have given the English word; I won't alter it."

They would also trust us with their goods and animals, having no doubt as to failure of payment.

One of our people, a European, was going to Jaffa on business, having with him an officer in Turkish service, whose horse fell lame, and he dismounted, giving the officer his horse, and walked on across the plain. Meeting a Fellahh, a stranger, who was well mounted, he asked him to let him hire his horse.

The Fellahh replied, "Good! I can trust a Frank; but I shall want fifteen piastres."

"You shall have fifteen piastres, but where shall I leave your horse? Come you and meet me at the gate of Jaffa."

The Fellahh agreed without a word more, dismounted, and allowed the Frank stranger to ride off on his horse, who, of course, duly met and paid him afterwards as agreed.

We have known horses taken in the same way when standing for hire in the city, with only a message to the owner through some bystander. So complete was the faith in the horse being returned, and the proper

hire paid, that the owners were pleased to have their beasts thus used, and would come to the house named for their pay.

Cursing and swearing are lamentably common among the Fellahheen. The children utter imprecations almost before they can speak. Oaths are mingled with the most ordinary talk. Simple "yes" and "no" are unknown, and affirmations are always accompanied by an appeal to God or the Prophet, or both.

It is not according to the idiom of the language to say "Yes," "No," as in English. The usual form of an affirmative reply is the repetition of part of the question. "Is Ibrahim running?—He is running." "Has he brought his camel?—He has brought him." But if "Yes" were said it would be combined with an oath. "*Eiwa-ei-wallah*" ("Yes, by God"). "No" is more common than "Yes," and is often expressed by a significant click of the tongue, with a toss up of the head and eyelids. But "No" is also more commonly and decidedly expressed by a negation of the question: "Has Ali come?—He has not come." A very emphatic negative is usually preceded or followed by a sonorous "*Wallahi*" ("By Allah").

False swearing is another most common vice among the Fellahheen. For a few pence a man will come forward as witness and swear anything that is desired of him. A case had been tried in the Pasha's Turkish court at the Seraglio, in which two Fellahheen were in litigation. After the proceedings were over, a friend of ours was riding along the Bethlehem road, and the man who had won his cause was walking by his side. They overtook two other Fellahheen who were going the same way, and were talking busily. One of the two was almost blind, and he was talking of that very case, and telling how he had been engaged by the opposite party to come and bear false witness for a payment of 60 piastres (about 10s.). "But," continued he, "the stingy fellow who wanted my evidence shut me up in a room to wait till he was ready for me to appear in court, and he never so much as gave me 100 paras (about 5d.) wherewith to get my breakfast. If he had but given me that I should have been content, but he shut me in till I got so hungry that I climbed over the wall and ran away; and he never told me, either, what I was to say in my evidence for him—he was in such a hurry. If he had told me what to say I might have gone to the court and earned the 60 piastres he promised me for my witness." Our friend here addressed the man. "How, old man (may God give thee a good evening), wouldst thou, being blind, have testified about what happened in a dark night? Thou canst not see much even by daylight. And dost thou know Esau?" (This was the person under accusation, and who was at that moment walking beside our friend.)

"I do not know him. I have never seen him."

"Thou dost not know him even by sight; and how canst thou appear as a witness against him, or swear that thou hast seen him do things?"

"But 60 piastres, my lord! That is much to me; and besides, the other one (the accuser) was going to tell me what to say."

“Then I tell thee thou art a wicked man, to go and swear against another for 60 piastres. Here he is, Esau himself, and I tell thee so before him.”

“O Esau,” said the old man, unabashed, “if I had sworn against thee it would have put 60 piastres into my pocket, and it would have been very bad for thee. But thine accuser did not give me the paras to buy my breakfast, so I could wait no longer, but ran away, and thou hast escaped.”

“Then,” said Esau, magnanimously, “I will give thee the paras for thy breakfast.”

“No,” said the old man, coolly, “thou shalt give me more, even the price of mending my shoes; for have not I walked to town and back all for nothing on thy account?”

In enumerating the faults of the Fellahheen we must not omit to mention selfishness; and in some districts more than others, cruelty and indifference to suffering, whether of man or beast.

There is but little cold-blooded murder. But some districts and villages have an evil reputation for this kind of crime. Generally speaking, however, they do not kill each other, excepting in the clan feuds or in avenging blood. There is an ugly expression used among the Fellahheen of South Palestine in speaking of an enemy slain in war. “*Dhabbahtho bisnâny*” (“I slew him with my teeth”). And it is said that there have been instances of killing in battle in this fashion by biting at the throat. In the Nablous district (Samaria), where the people are much more ferocious, the expression is, “I have drunk his blood,” but that is understood figuratively.

The virtues of the Fellahheen are few and simple: courage in battle, attention to the rites of hospitality, a certain devotion to their village sheikh, some reverence for old men, respect for various superstitious religious observances, a general conformity to the tenets of Islâm, veneration for Mohammed the Prophet, and loyalty to the Sultan as their sovereign and as head of the Moslem religion—these are the chief points observed by a Fellahh of honour and repute. The Sultan is always mentioned in terms of reverence and devotion. They know but little of Mohammed the Prophet; still he is held in highest honour, and the phrase may commonly be heard, “*Sally en-Neby alai es-Salaam*” (“Pray in the name (or in honour) of the Prophet upon whom be peace”).

The religion of Islâm is nominally professed. The resignation which it inculcates is universally practised. But many superstitious observances derived from their forefathers have a considerable hold upon the Fellahheen, and influence their whole life and habits.

To their village sheikh they show but moderate respect; indeed, in most villages there are rival sheikhs and rival factions, but the chief sheikh of the clan or district is much more regarded, especially if he have a character for generosity and bravery in fight.

; All the sheikhs are treated by their people with a certain amount of

ceremony. They, of course, occupy the place of honour in the village guest-chamber, and they are accompanied, in their visits to other villages or to Jerusalem, by a sort of body-guard of followers, called their "tail" (*dail*). These are generally on foot while the sheikh is mounted. It sometimes happens that the sheikh is also on foot; in that case his people literally follow him along the road, those of highest rank or nearest relationship being only just a step or so behind, so that he can converse without the trouble of turning his head. When mounting or dismounting, his people will help him, and hold his stirrups, or his spear or gun, if needful. A great sheikh will of course have a great following wherever he goes abroad, and he is always treated with much respect by his own people. Some of these sheikhs have exercised very great influence over the whole district and upon their people. A Fellahh of Beit Jibrin, having been caught and taken to Jerusalem for the offence of stealing cows from a neighbouring district, was beaten repeatedly and severely by the Turkish Government to make him confess; but all in vain. At length his own chief, Shiekh Muslehh, being in Jerusalem, went to the prison to see him, who, holding up his own beard, adjured the culprit, "By this brown thing, tell me, didst thou steal them?" The man at once confessed, "out of respect for the beard of his sheikh," the beard being the very token and emblem of human dignity and honour among the inhabitants of Palestine.

Courage in battle and presence of mind are virtues esteemed more highly than all the foregoing. The men perform many feats of bravery in battle, and they sometimes show considerable presence of mind in time of danger. We heard of one who, feeling himself hard pressed by his pursuers, flung himself over the edge of a precipice. They ran round to catch and finish him at the bottom; but he had hung on at the top by his hands, and, while they were running round, he climbed up again and got safe off.

Another of whom we were told was pursued to the mouth of a circular well. Being a good swimmer, he jumped in. His enemies fired at him from above, but he dived each time and kept them, it was said, at this work the greater part of a night, until some of his own side coming up, drove off the others and got him safe out.

To beg for mercy when beaten is considered unworthy of a brave man. When a Fellahh warrior falls into the power of his enemies, he generally bears his fate stoically, or rather with the stolid resignation peculiar to the profession of the faith of Islâm.

The Fellahh custom is for them to ask the man in their hands, "Where is so-and-so?" naming one on their side whom he has killed.

"Here!" he replies, pointing with his hand under his girdle. "I claim to have taken his life."

Again they ask, "Where is so-and-so?" naming another of his victims.

Again he answers, "Here!"

A friend of ours once saw a Fellahh answer thus to thirteen names of

men whom he had slain, and then add, "With this right hand I slew them! Do what you can." He was laid down with his face to Mecca and slaughtered like a goat, his throat being cut with the short sword, according to the usual way of slaying sheep or men. By appealing for mercy to one of those present, he might have saved his life. But that is considered too great a disgrace for any one who considers himself "*a man.*"

Next to resignation to the will of God and bravery in battle, one of the very highest virtues is that of hospitable entertainment of strangers and guests. With this many interesting customs are connected, but we have no space to speak of them on the present opportunity.

### JACOB'S WELL, ITS HISTORY AND ASSOCIATIONS.

THE plain of Mukhna, thought to be the same as the ancient plain of Moreh, is situated in the very centre of the Holy Land. In journeying from Shiloh to Shechem, about midway between the two places, we ascend to the crest of a ridge of hills, and from the summit obtain the first view of this fertile plain. It runs almost due north and south, and extends about seven miles in length, varying from one to two miles in breadth. This great plain, unbroken by fence or village, presented to our eyes during the spring of last year a scene of fertility and rural beauty not to be surpassed throughout the whole of Palestine.

The main road, winding through the plain, could easily be seen by its light appearance, and the clumps of aged olive-trees growing by the roadside, while all around the fields smiled with ripening corn. Many peasants were busy in the cultivation of the soil, and from one spot alone we were able to see at least one hundred yoke of ploughing oxen. The greater part of El Mukhna is enclosed by low undulating hills, and at the north-east extremity, towering high above the other hills, stand the celebrated twin mountains of Ebal and Gerizim. Far away on the northern horizon, on a clear day, can be seen the lofty hill of Great Hermon.

Between Ebal and Gerizim, running at right-angles to El Mukhna, the far-famed vale of Shechem.

The patriarch Abraham, when commanded to leave his home and country, ultimately pursued his journey across the Syrian desert, until he came to the borders of the Promised Land. On arriving at the banks of the Jordan he crossed the river and continued his way towards the west until he came "unto the place of Sichem unto the plain of Moreh. And the Canaanite was then in the land. And the Lord appeared unto Abraham and said, Unto thy seed will I give this land: and there builded he an altar unto the Lord." The first recorded halting-place of Abram is not without significance, for Sichem stood in

the centre of Palestine, insomuch that it was designated the middle or more correctly the navel of the land; and thus by Divine guidance did he proceed to the central spot of the country intended as the future home of his favoured posterity. The patriarch Jacob, journeying from Padan-aram to Canaan, seems to have followed in the footsteps of his grandfather Abraham, and first purchased a possession in the Promised Land not far from the Vale of Shechem. In this valley, after the conquest of the land, the national gatherings of the Israelites took place, and here Joshua, in his old age, assembled all the people that they might hear from his lips for the last time the whole counsel of God.

At the bend of the path, where the road turns into the Valley of Shechem, a low spur rising at the base of Mount Gerizim runs for a short distance in a north-east direction, and thus separates the valley from the plain. On arriving at the low ridge we turn aside from the main road, and follow a little path on the right hand. In a few minutes we come to a low crumbling wall, where, after clambering over loose stones, we step upon a mound composed of heaps of ruins, and the fragments of large granite columns. This mound lies at the meeting of the two valleys and links together the sacred history of upwards of three thousand years. At the south-east corner of this mound the traveller is led forward to a hole broken through the roof of a vaulted chamber with a pointed roof. On looking through this opening into the chamber beneath, several large stones are observed, probably the fallen arch-stones, scattered over the floor, and about the middle of the little chamber is a small dark aperture, the mouth of the shaft of Jacob's Well. Standing on the ground by the vaulted chamber we notice that the landscape is both extensive and impressive. Westward stretched the fertile Valley of Shechem, on the north of which rises the rocky slopes of Ebal, while on the south side rises abruptly to the height of 800 feet the sacred Mount of Gerizim. Southward, stretching as far as the eye could reach, was the wide-spreading plain of El Mukhna, over which we had passed. Due eastward, across the plain, El Mukhna sends forth a broad green arm among the hills. This arm is still called the Vale of Shalem, and takes its name from a hamlet of that name standing on the rocky acclivity on the north side of the valley. This village has been identified by Dr. Robinson with every show of probability as occupying the site of that Shalem—a city of Shechem—before which Jacob pitched his tent on his return from Padan-aram to Canaan. Down that valley the little stream from Shechem drains into the Jordan, from which river Jacob ascended by that wady, and halting where the vale opens into the plain, pitched his tent before Shalem.

“ And Jacob came to Shalem, a city of Shechem, which is in the land of Canaan, when he came from Padan-aram, and pitched his tent before the city. And he bought a parcel of a field, where he had spread his tent at the hand of the children of Hamor, Shechem's

father, for an hundred pieces of money, and he erected there an altar."

"The practical wisdom of the shepherd prince who crossed the Jordan with his staff and came back at the head of two great bands was never more signally displayed than in securing a possession in this the garden of Canaan, and in afterwards prospectively bestowing it on his favourite son." This parcel of ground became the homestead of the patriarch and his household, and over it and the adjoining plain his flocks freely roamed. When Jacob had removed to the hill country of Judea he still retained his purchased possession, and from the Vale of Hebron sent forth his beloved son Joseph to see how fared his brethren and their flocks in the Vale of Shechem. "And his brethren went to feed their father's flock in Shechem. And Israel said unto Joseph, Do not thy brethren feed the flock in Shechem? come and I will send thee unto them. And he said to him, Here am I. And he said to him, Go, I pray thee: see whether it be well with thy brethren and well with the flocks; and bring me word again. So he sent him out of the Vale of Hebron, and he came to Shechem." To Joseph and his descendants did the dying patriarch bequeath this purchased possession, and Joseph's dying request was that his bones might be buried there. "And Joseph took an oath of the children of Israel, saying, God will surely visit you, and ye shali carry up my bones from hence."

This injunction after a long period of years was strictly obeyed, for when the Israelites set forth from Egypt for the Promised Land they carried with them the mummy of Joseph. "And the bones of Joseph which the children of Israel brought up out of Egypt, buried they in Shechem in a parcel of ground which Jacob bought of the sons of Hamor, the father of Shechem, for an hundred pieces of silver: and it became the inheritance of the children of Joseph." It seems somewhat strange that nowhere in the Old Testament is it stated that Jacob dug a well, although the existence of the well at the present day in the parcel of ground, and the distinct statement of the Samaritan woman that Jacob gave the well, put the fact beyond a doubt.

The geological structure of Palestine is largely composed of limestone; and as the well penetrated far beneath the surface, and was generally bored through the rock, it will readily be seen that a deep well was a work both gigantic and abiding. Sinking a well in the East is a greater undertaking than the erection of a castle or the construction of a fortress; but when once the well is bored through the rock it remains almost indestructible, so that while temples fall into decay and pyramids gradually crumble before the ravages of time, the boring through the solid rock remains sure and steadfast; a link of connection between the centuries, and a bond of union that knits together the successive generations of the sons of men. Such wells were made at an enormous cost, and the name of the constructor was handed down from age to age as a benefactor to posterity. Not only are the scenes of sacred history identified by the imperishable wells, but their very existence tends to establish the historical character of the word of God.

The wells still to be seen at Beersheba are witnesses of the life of Abraham; and the well of Jacob in the Vale of Shechem is an abiding monument of the earliest and latest events in sacred history. They were usually sunk at the foot of the hills, where the best supply of water was likely to be found, and were places of resort for many classes of people. Shepherds in ancient days led their flocks, and shepherds even at the present day lead their flocks to the well's mouth, that the animals may drink of the cool refreshing water drawn from the deep rocky bed. A well was the natural halting-place of caravans, and way-faring men looked forward to it as a resting-place for the night. The women of the neighbourhood assembled in the evening to talk and to draw water from the well; thus it was by a well that Eliezer met Rebekah, Jacob met Rachel, Moses met Zipporah, and Our Saviour met the woman of Samaria. Thus do the wells of the East suggest to the mind pictures of the ancient life of the country, and lead back our thoughts to the days of the prophets and the patriarchs.

It has been urged that there is abundance of water at no great distance from Jacob's parcel of ground, and therefore it is highly improbable that the patriarch dug a deep well in his purchased possession.

In answering this objection it ought to be noticed that the first assertion forming the premises of the argument is quite correct, for in the neighbouring Vale of Shechem there flows a bountiful supply of water. Within half a mile of the well we crossed over a gushing stream, and close by are three springs or fountains from which water bubbles forth in a never-failing supply. In company with El Karey, the missionary, we walked through Nablus, which occupies the site of ancient Shechem, and is situated about a mile and a half from the well. In the streets and suburbs we noticed many springs, and were surprised to learn that in the town and neighbourhood there are over seventy perennial fountains, so that the Valley of Shechem is the best watered, and consequently the most fertile, valley of Palestine. Notwithstanding this, however, I think the conclusion that Jacob did not dig the well is false, and believe that, even if no other evidence existed than the known character of Jacob, and the fact that the well is in the parcel of ground, the probability is in favour of the well being constructed by that patriarch.

The well, as a fact, does exist now, and has existed from time immemorial, and at enormous cost and labour must have been sunk by some person of wealth, who desired an abundant supply of water independent of the adjoining springs. Whatever objections, therefore, are urged against the patriarch being the constructor, are equally applicable to any other person; and since the well has been dug, there is no person in the history of the district so likely to have undertaken this gigantic work as the patriarch Jacob, the great shepherd prince of ancient Israel. His grandfather Abraham, a man very rich in cattle, in silver, and in gold, dug wells of water in the hill country of Judea, and in consequence of some disputes with the inhabitants regarding the ownership of the



well, Abraham made a covenant with Abimelech, and to confirm the oath named the well Beersheba—that is, the well of the oath. Isaac also had many contentions with the inhabitants of the land respecting the wells, for not only had he to dig again the wells of his father, which had maliciously been stopped by the Philistines after the death of Abraham, but when he found it desirable to sink other wells, the natives persistently strove for the possession of them.

On arriving at the plain of El Mukhna by the Vale of Shechem, Jacob, for his part, doubtless recalled to mind the fierce contentions that both his father and grandfather had with the inhabitants of the land. He could not but remember also that the root of that contention lay in the fact that both Isaac and Abraham had digged wells in ground that was not their purchased possession; and consequently Jacob wisely resolved to buy a parcel of ground of the people of the land, so that no disputes might arise respecting the heritage of the soil. His household was very extensive, and it was necessary that every day he himself, his children, and his cattle, should have an abundant supply of water. Many springs of water were bubbling forth perennial streams; but the patriarch was a stranger in a strange land, and the abundant supply required daily for his flocks might incite the anger of the children of Hamor, and be urged as a plea for that jealous contention so often endured by Abraham and Isaac. Under these circumstances it appears natural to suppose that the peace-loving Jacob secured for himself a never-failing source of living water by digging a deep well in his own purchased possession.

“How truly,” says Dr. Tristram, “in keeping with Jacob’s peace-loving character was this act of sinking a well in a plain at so enormous a cost—so near the city and its abundant springs and rills—fearing lest his sons should quarrel with the Shechemites concerning the water more precious than land. The land might be roamed over by the flocks, for the people were few; but the springs were not to be drunk up by the herds of the stranger. Therefore, following the examples of his father and his grandfather, Jacob determined to sink a well, but profiting by the remembrance of their experience at Beersheba, with characteristic caution he first purchased the piece of land of the lord of the country, of Hamor the father of Shechem.” The well at one time must have been of considerable depth, probably the deepest in Palestine; and being in great measure bored through the rock, this gigantic undertaking, when once consummated, would remain as a valuable legacy to posterity. It is never once alluded to in the Old Testament, but this may arise from the fact that wells became common in the country, and the neighbourhood of Shechem being well supplied with water the people were not dependent upon it for their supply. It could not, however, be destroyed.

That, however, which gives an undying interest to Jacob’s Well, and renders it one of the most interesting spots in the world, is the fact that Our Blessed Lord sat one day by the well’s mouth, and in conversation with a Samaritan woman unfolded to her the spiritual

nature of that dispensation He came from heaven to proclaim. One day in the month of May of the present year we sat down by Jacob's Well, and it was to us a deep delight to sit on a spot where the Saviour once sat, and to gaze upon the wide plain, the fertile vale and towering Gerizim just as they met His sacred gaze eighteen hundred years ago. Taking out our Bible we read the fourth chapter of St. John; and the passage read by the well seemed to acquire additional freshness, and brought vividly to our minds the truth and accuracy of the Scripture narrative. "Then cometh He to a city of Samaria, which is called Sychar, near to the parcel of ground that Jacob gave to his son Joseph. Now Jacob's Well was there. Jesus, therefore being wearied with His journey, sat thus on the well: and it was about the sixth hour." He must have left Jerusalem very early in the morning in order that He might walk during the cool hours of morn, even as pilgrims do at the present day. Passing over the heights of Benjamin, Christ would pursue His way by the main road, going through Bethel and near to Shiloh, both of sacred memory. Over that ridge of hills on the south side of El Mukhna, and along that dusty road which for five miles runs through the plain, both hills and path being seen by us as we sat at the well's mouth, our Saviour must have continued the long and toilsome journey. Midday had come, and therefore for some hours the sun had poured upon the solitary traveller his fierce rays, and therefore it was natural that He, weary with the journey, should quench His thirst with the cool water drawn from its rocky bed.

"There cometh a woman of Samaria to draw water." It has been urged, and as it seems to us justly, that it is not likely that a Samaritan woman would walk from a town a mile and a half off, as the present Nablus is, to draw water from Jacob's Well, when there were abundant springs in Shechem itself, and many more springs which she would have passed in coming from Shechem. Many answers have been given to this objection. First, it is said that the veneration for the memory of the patriarch, and the superiority of the cool water, are sufficient reasons for the woman going a long distance. Secondly, it has been suggested that Sychar might not occupy precisely the same site as the ancient Shechem, or the present Nablus. Eastern towns often change their sites—*e.g.*, Hebron has ascended and descended the adjoining hills, extending and changing its site at different periods. The present Nazareth does not cover the exact site of ancient Nazareth, and while the modern barracks by Nablus were being built, which occupy a position midway between Jacob's Well and the town, the workmen struck upon many old foundations, which tend to prove that the ancient city extended a considerable distance down the vale, eastward of the modern town.

El Karey, the present missionary at Nablus, suggested to us that the woman did not go to the well to draw water for domestic purposes, inasmuch as the ancient custom was for women to draw it in the evening; thus we read that Abraham's servant "made his camels to kneel down

without the city by a well of water at the time of the evening, even the time that women go out to draw water;" and as the time when our Saviour spoke to her was mid-day, El Karey further remarked that the Samaritan woman was probably working in the adjoining fields, and during the noontide meal approached the well simply that she might drink.

All the foregoing suggestions are reasonable, and carry with them a certain amount of conviction to many minds, but in my own opinion the true answer to the objection may be found in the following consideration. As I sat by the well and looked northward, I noticed at the bottom of Ebal, at the south-east corner of the mount, about half a mile from us, a small village, and on further inquiry found it to be the village of Aschâr. The close resemblance of this name to Sychar is very evident, inasmuch as the two names contain the same consonants, and it is one of the fundamental laws of philology that in tracing a word through its successive changes, the consonants, and not the changing vowels, are the means by which words can be traced to a common origin. It is not surprising, then, that some have suggested that the present Aschâr occupies the site of the Sychar mentioned in St. John's Gospel. Dr. Thomson, in the "Land and the Book," speaking on this subject, says:—"If Nablus occupies the place of Shechem, it is one of the oldest cities in the world; nor is there anything improbable in this, for its natural advantages, great beauty, and abundant supply of water, mark out the site for a city. This latter fact, however, seems to prove that Shechem was not the Sychar mentioned in the fourth chapter of St. John. It is incredible that 'the woman of Samaria' should have gone two miles away from these fountains to draw water out of an immensely deep well. If we admit the identity of the present well of Jacob with that mentioned by St. John, there can be but little doubt that Sychar was a small Samaritan town not far from that spot; and there is a village north of it now called Aschâr. This is so like John's Sychar that I feel inclined to adopt it." It is gratifying to me that this view is adopted by Lieutenant Conder in his "Tent Work in Palestine." In vol. i., page 75, he writes:—"The little village of Askar stands on the slope of Ebal, within sight of Jacob's Well, about half a mile from it, and a little over a mile from Nablus. . . . It is here, no doubt, that we recognise the Sychar of the fourth gospel. An unaccountable confusion has grown up lately between Sychar and Shechem. . . . It will be evident to all readers of the Gospel narrative that Sychar, 'a city of Samaria,' near Jacob's Well, is a description hardly to be expected of Shechem, which is moreover mentioned by its original name in the New Testament (Acts vii. 16). The early Christians recognised the description, and place Sychar a mile east of Shechem, as noticed in the 'Itinerary of Jerusalem, 333 A.D.' It is clear that they refer to Askar, and the identity is maintained by Canon Williams and others; but a difficulty has always been felt by students because the modern name begins with a guttural, which cannot have occurred in

the name Sychar. This difficulty the Samaritan chronicle seems to me to remove, for in it we find a town mentioned apparently near Shechem called Ischar, which is merely a vulgar pronunciation for Sychar; and the Samaritans themselves in translating their Chronicle into Arabic call it 'Askar. Thus the transition is traceable from the Hebrew form, having no meaning in Arabic but originally 'a place walled in,' through the Samaritan Ischar to the modern 'Askar, a 'collection' or 'army,' in Arabic."

A Christian church seems to have been built over or near to the well in the time of Constantine the Great. The Bordeaux Pilgrim, who visited the spot in 333 A.D., saw no church there, but according to Jerome the noble lady Paula, in 383, entered a church built on the side of Gerizim—"circa puteum Jacob" (around Jacob's Well).

Bishop Arculf, in 700 A.D., saw the church, sketched it, and describes it as cruciform in shape, built over the well. It was, however, destroyed before the Crusaders' time. Probably the ruins scattered round the spot at present belong for the most part to this ancient church.

Over the well is a small vaulted chamber, into which we descended through a large hole in the roof. The chamber is 8 feet high, 7 wide, and 12 long. At the end is a long vault running at right angles, and from this run three smaller vaults parallel to each other. These underground chambers seem to have been the substructures of some church, but as we discovered in them the pointed arch and groined roof, they certainly do not belong to Constantine's time, but are probably the work of the Crusaders of the twelfth century. The well's mouth, which is under the pavement of the small vaulted chamber, has been arched over. Some of the arch stones had been taken away, and through the opening we looked down into what seemed to be a dark hole. As we continued to gaze intently into this shaft, we noticed that the top part was lined with masonry, of good polished ashlar work. Deeper and deeper we traced the masonry, to a depth of about twenty feet, after which, as it seemed to us, the bore was through the rock. We then dropped a stone into the deep shaft, and while it was descending counted sixteen. This was repeated about a dozen times, with the same result. We therefore judged it to be about 80 feet deep. The stones made no splash on reaching the bottom, from which it was evident that there was no water then in the well, although we were afterwards told that water is sometimes drawn from its rocky bottom. The well was originally much deeper, but other travellers, like ourselves, keep dropping stones into it out of curiosity; and as this goes on from generation to generation, it is clear that a vast accumulation of *débris* chokes up the lower depths of the shaft. We therefore agree with El Karey in thinking that originally the well was probably 150 feet deep.

The Palestine Exploration Fund desire to clear out this rubbish and build a low wall round the well's mouth, such as would exist in the time of Christ. Lieutenant Kitchener, in 1877, was prevented from carrying out the work by the disturbed condition of the country. I

hope that before long it will be found possible to expend the small sum necessary to protect from further injury one of the most venerable monuments in the world.

Among the surrounding ruins we found fragments of three red granite columns lying prostrate on the ground. Half a mile up the valley we found a fourth column, fifteen feet long, lying by the roadside. On making inquiry we learned that this column had been brought from the well to form an entrance to the modern barracks. The idea, however, was not carried out, and the venerable column was cast aside, and now lies neglected by the roadside. The four reminded us of the columns in Helena's Basilica at Bethlehem, and perhaps formed part of the original church built in the days of Constantine.

The Old Testament, the Samaritan woman, external evidence and tradition extending back to at least the fourth century, testify that the well is the work of the patriarch.

Jews and Samaritans, Christians and Moslems, agree that this rock-cut bore is Jacob's Well, so that "of all the special localities of Our Lord's life in Palestine, this is, perhaps, the only one absolutely undisputed."

JAMES KING.

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#### NEPHTOAH AND KIRJATH-JEARIM.

THE following notes may perhaps be useful as throwing some light on the question raised by Rev. A. Henderson in the October number of the *Quarterly Statement*, respecting the line of the boundary of Judah, between Jerusalem and Beth-shemesh:—

This boundary has usually been drawn westwards by Lifta (supposed to be Nephtoah), and Kuriet el 'Anab, supposed to be Kirjath-jearim.

There is, however, one very great objection to such a line, namely, the passage in the history of Saul (1 Sam. x. 2), which incidentally mentions the tomb of Rachel as being in the "border" of Benjamin. The word גבול, used in this passage, is the word used in the book of Joshua to define the "boundary line" between the tribal possessions. The Rabbinical writers agree with this statement, saying that Rachel died within the territory of Benjamin.

There is another objection also respecting *Lifta*, namely, that the Arabic does not contain the guttural of the Hebrew Nephtoah. No town of the name of Nephtoah is mentioned, either in the passage of Joshua (xv. 9) or elsewhere in the Bible; the place is called "the fountain of the waters of Nephtoah (בְּעֵיִן מֵי נַפְתוּחַ), and the word בְּעֵיִן translated "fountain," means a group of springs, or a large supply of water, such as does not exist at Lifta.

The Babylon Talmud Commentary on the tract Yoma of the Mishnah (fol. 31a) informs us that Nephtoah was the same place as Etam (עֵיטָם), whence an aqueduct ran to the Temple. The Etam in question has been recognised by Dr. Tobler and others as the present 'Ain 'Atān, close to the so-called Pools of Solomon, south-west of Bethlehem. From

this spring an ancient aqueduct still leads to the Temple enclosure in Jerusalem.

The site thus indicated by Jewish tradition, in a passage which has special value because the notice is merely incidental, appears very appropriate. First, because in this case the boundary line, running from Jerusalem southwards, and passing west of Bethlehem, would naturally be drawn close to Rachel's Sepulchre, on the watershed of the country. And, secondly, because a collection of springs, such as is indicated by the word *מעין*, does exist at this spot.

It seems, therefore, that there is a sufficient *primâ-facie* case to make the inquiry worth pursuing, and in order to make the question clearer it will be well to examine very carefully the special terms employed, in the passage of the book of Joshua which describes the boundary line, starting from En Rogel, the spring east of Jerusalem now generally identified with the so-called "Fountain of the Virgin."

#### JOSHUA XV.

Ver. 8. "The border *went up* by the valley (*גי*) Ben Hinnom to the shoulder (*כתף*) of the Jebusi to the south, and the border ascended to the top (*ראש*) of the hill which is facing Gehinnom west, which is by the end (*קצה*) of the Emek Rephaim northwards."

Ver. 9. "And the border was drawn from the top of the hill to the springs of the water of Nephtoah, and went out to the cities of Mount Ephron (*עפרון*); and the border was drawn to Baalah, which is Kirjath-jearim."

Ver. 10. "And the border compassed (*נסב*) from Baalah westwards to the hill Seir (*שעיר*), and *crossed over* (*עבר*) to the shoulder (*כתף*) of the hill Jearim northwards (*מצפונה*) it is Chesalon, and *descended* (*ירד*) to Beth-shemesh and *crossed over* to Timnah."

#### JOSHUA XVIII.

Ver. 15. "And the south quarter from the end (*קצה*) of Kirjath-jearim; and the border went forth westwards, and went forth to the springs of the water of Nephtoah."

Ver. 16. "And the border *descended* to the end of the hill which is above the face (*על־פני*) of the Ge Ben Hinnom, which is by the Emek Rephaim northwards, and *went down* Ge-Hinnom to the shoulder of the Jebusi, and *descended* to En Rogel."

Few descriptions could be more carefully worded; the terms used for going up, down, or across, are all explicit, and the description is properly reversed as the border is described from east to west, or from west to east.

Without entering into the question of the identity of Gehinnom with one of the two valleys which claim the name, it is evident that the border ran south of Jebus, and ascended to the hill west of Gehinnom and north of the Emek Rephaim.

The position of the Emek Rephaim is, however, of importance, as it

was close to the border. The word Emek (עמק), equivalent to the Arabic *Ghamik*, or "deep," is used in the Bible to signify the great open valleys between mountain chains, and sometimes the plains bounded by mountains. Thus the broad valley of Elah is called Emek; the term cannot properly be applied to a gorge or ravine.

Josephus says that the Valley of Rephaim was a valley extending from Jerusalem to Bethlehem (Ant. vii. 12. 4), and the authors of the Onomasticon understood the name to apply to the hollow plateau which extends from south of Jerusalem to Mar Elias, and which is generally now called the Plain of Rephaim.

From various passages in the Old Testament the proximity of this Emek Rephaim to Bethlehem may also be inferred.

The Philistines were there encamped when the dangerous expedition of David's heroes to Bethlehem was undertaken (2 Sam. xxiii. 13; 1 Chron. xi. 15). In another passage the Philistines are said to have spread themselves in the Emek Rephaim, showing it to have been an expanse suitable as a camping-ground; and David's pursuit was by Geba to Gazer (2 Sam. v. 22), by which we may understand a flight by the main valley west of Bethlehem, above which stands *Jeb'a*, the ancient Gibeah of Judah.

The identification of Nephtoah with 'Ain 'Atân; the probable position of the Emek Rephaim; and the incidental notice of Rachel's sepulchre as being on the boundary, all therefore point to the watershed between Jerusalem and Bethlehem as forming the boundary between Judah and Benjamin.

The identification of Kirjath-jearim with *Kuriet el 'Anab* (as proposed by Dr. Robinson) will, however, not agree with such a boundary; but this rests solely on the evidence of early Christian writers, and the important part of the Hebrew title—viz., *Jearim*—is not found in the Arabic name.

The indications which we possess as to the position of Kirjath-jearim in the Bible are scanty. It was in the territory of Judah (Josh. xviii. 14), and therefore a distinct place from Kirjath of Benjamin, which may very probably have been *Kuriet el 'Anab*, or, as it is generally called, *Kurieh*. The place called Mahaneh Dan (מחנה דן), which was apparently near Zoreah and Eshtaol (*Sur'ah* and *Eshu'a*), was also "by" (ב) and "behind" (אחרי) Kirjath-jearim (Judg. xviii. 12). This place, judging from the general use of the word (compare, for instance, the plain called *Mukhnah*, near Shechem), must have been a broad flat expanse suitable for a camp, such as is found in the open valley of Sorek south of Zoreah. We are thus induced to look for Kirjath-jearim not far from these towns of Dan, and probably it should be sought in the hills, for the name Baalah sometimes applied to the site indicates a lofty position, and the ark while at Kirjath-jearim is said to have been in "the hill" (Gibeah, 2 Sam. vi. 3).

Beth-shemesh, whence the ark was taken to Kirjath-jearim, was south

of Zoreah. We might naturally expect Kirjath-jearim to be not far from Beth-shemesh, even without the testimony of Josephus, but fortunately that authority distinctly states (Ant. vi. 1. 4) that Kirjath-jearim was "a city in the neighbourhood of Beth-shemesh."

In a former paper I have noticed the discovery by the survey party in 1874 of a ruin near Beit 'Atab named 'Erma. This word preserves the principal letters of *Arim*, the later form of the ancient *Iarim*, which means "thickets," and forms the important part of the name—Kirjath-jearim, "the village of thickets." The surrounding hills are more thickly clothed, even at the present day, with dense copse than is any part of the district in which the town can be sought. The ruin is situated on the southern brink of the great valley which broadens into the valley of Sorek, and it is about four miles east of the site of Beth-shemesh ('Ain Shemes), thus agreeing with the words of Josephus. The probable site of the Mahaneh Dan is north-west of the ruin, and Zoreah and Eshtaol are on the opposite side of the flat valley, which may be supposed to have formed the "Camp of Dan." There is no difficulty in drawing the boundary from the Pools of Solomon to this new site for Kirjath-jearim. The watershed of the long spur called *el 'Arkub* ("the ridge") would be followed all along westwards, and this ridge may perhaps be the Mount Ephron of the book of Joshua, though in such a case it has lost its name, in common with all the other natural features of Palestine mentioned in the Bible. It remains to inquire whether the line can be drawn west of the site of 'Erma in a satisfactory manner. The number of points described are more numerous because the line appears to have been artificial, twice crossing over some valley or stream.

West of Kirjath-jearim was Mount Seir, and of this, perhaps, the name is recognisable in *Khurbet S'airch* (a ruin), which is on the same block of hill, though too far south to have been actually on the boundary line.

From Mount Seir the border went to Mount Jearim, not to the top, but to the slope or shoulder of the mountain. This hill appears also to have been wooded, and was called Chesalon (מצינה היא כסלון). The border appears to have gone north, and crossed over a valley between Mount Seir and Mount Jearim.

We have a further indication in this part, for the towns of Zoreah and Eshtaol were so close to this boundary that they are in one passage (Josh. xv.) enumerated as towns of Judah, and in another (Josh. xix.) as towns of Dan. This accounts for the irregular course of the boundary, twice crossing over between Kirjath-jearim and Timnah, and having Beth-shemesh (a town of Judah only) south of the line.

From the Survey map (Sheet XVII.) this boundary can easily be traced. The line has to cross a deep valley between the hill on which 'Erma stands and the long ridge on which to the north is *Kesla*, the recognised site of Chesalon. It has again to recross the same valley to get to Timnah after passing Zoreah and Eshtaol on the south and



Beth-shemesh on the north. The border cannot, however, be drawn to the top of the mountain on which *Kesla* stands, but would run over the western slope or "shoulder," just as described in the Bible.

In connection with the line thus proposed, it is noticeable that *no cities of Judah are enumerated in the Hebrew Bible north of this line*. In the Septuagint, indeed, no less than six towns are enumerated which are identified with places lying in the territory which would have belonged to Benjamin according to the new boundary. These are Culon (*Kolonia*), Sores (*Saris*), Carem (*Ain Kârim*), Galem (*B. Jâla*), Bether (*Bittir*), and Manoch (*Mâlhal*). The interpolation of these names may, however, possibly belong to a later period, when the old boundaries were forgotten, and when it was noticed that this group of important places west of Jerusalem was unnoticed in the Old Testament.

Another important gain is, that *Lifta* being no longer supposed to represent Nephtoah, we are at liberty to identify it with Eleph (אֶלֶף) of Benjamin, mentioned in the lists next to Jerusalem (Josh. xviii.), and therefore very probably in about the actual position of Lifta.

If we could recover Perez—Uzzah, Chidon, or Nachon (2 Sam. vi., 1 Chron. xiii. 6), and Mount Ephron, the question might be further elucidated; but of these names I have not been able to find any trace.

CLAUDE R. CONDER, Lt. R.E.

## ZOAR.

MY attention has been called by Mr. Besant to the interesting report of Rev. Selah Merrill on the "Cities of the Plain" (*4th American Statement*). He supposes Tell Ektanu to be the site of Zoar, and marks it on his sketch map as two miles east of Tell er Rama, while, according to the map in the *3rd Statement*, Tell esh Shâghur is very nearly a mile and a half from the same spot.

I cannot quite reconcile the two maps, since the latter gives also an *intermediate* Tell, while Mr. Merrill says there are *exactly five* Tells in the plain of Shittim, without counting Nimrin—viz., Tell Kefrein, Tell er Rama, Tell el Hammam, Tell Ektanu, and Suweimeh. As he places the first and third of these about a mile to the north of the wady passing by Tell er Rama and Tell Ektanu (it also passes by Tell esh Shâghur), and marks Suweimeh some miles to the south-west of them, one would like some explanation as to the fate of Tell esh Shâghur.

It is strange that Professor Paine should recover the very name of Zoar in Tell esh Shâghur without commenting on it, and Mr. Merrill afterwards describe the Tells in the "plain" and yet pass by the Arabic title without notice. Tell esh Shâghur is evidently the "Segor" visited by Thietmar, A. D. 1217 (*Bibl. Diet.*, Zoar). This hill cannot, I now think, be that described by Canon Tristram, for Mr. Merrill writes: "Between Tell Ektanu and Tell el Hammam, and close to the foot of the mountains, there are some of the largest and finest dolmens that I have ever

seen. The slabs of unhewn stone which cover them are, in some cases, of immense size. I counted upwards of fifteen of these, and where they were nearly perfect, the roof or cover slanted on two sides, so far as this could be with the materials used; and it appeared to me quite evident that the dolmens were the original of the sarcophagi, with which the country now abounds."

In speaking of Tell Ektann, he states that "on it are some of the oldest ruins that I have yet seen in the country;" and that "the name, indeed, has no meaning in Arabic. . . . It appears to be the Hebrew word 'Kātān,' which means *little*, or *the little one*."

"Luwāyeh" may without hesitation be taken to represent Luhith, since M. Ganneau recovered the name "Zōneleth" in the Arabic form, "Zehwele."

On further consideration I am disposed to think that Mr. Finn did not ascend Wady Hesbān, but one just north of it; yet until the district has been accurately mapped, certainty is difficult. Both wadies, however, may abound in honeysuckle.

A true identification ought to bear being thoroughly sifted; so also should the objections raised in any instance. Seven points in formidable array are marshalled (*Quarterly Statement*, 1878, p. 28) *in favour* of the mediæval opinion that Jeroboam's golden calves were set up near Shechem, and *against* the usual view that one was at the northern Dan and the other at Bethel, in Benjamin. Not one, however, of the seven will stand scrutiny.

Similarly, in his valuable report, the American explorer raises an unsound objection to identifying Hazon-Tamar (Gen. xiv. 7) with Engedi. He observes that if *the cities of the plain* are put at the northern end of the Dead Sea, Chedorlaomer's campaign is no longer a geographical puzzle, yet he adds, "But the wonder still remains how he could pass by Abraham's door, and fight battles, and not attract his attention. I strongly suspect that the name Hazon-Tamar has migrated from the eastern to the western shore, and that Chedorlaomer had nothing to do with the western shore . . . . but returned by a route on the east"—or "if Hazon-Tamar means *palm forests* . . . . the messengers who came to Jehoshaphat may have said simply, "The great multitude . . . are at the palm-groves which are at Engedi" (2 Chron. xx. 2). The Bible narrative requires neither supposition, since it incidentally states all we want. Abram must have heard of the coming invasion, and therefore was "confederate" with Aner, Eshcol, and Mamre, and had 318 men "trained" (? drilled) so as to meet the emergency. Happily for the four kings, Hebron did not lie within the sphere of their operations, and the patriarch had no interest in this eastern question, as between them and the five cities. But when, in an unlucky hour, they seized Lot and his goods, and one escaped and told Abram "that his *brother* was taken captive," then the tie of consanguinity, which throws light on many obscurities in the Bible, aroused the avenger of blood to start in deadly pursuit with characteristic promptitude.

Mr. Merrill seems inclined to think that the five cities of the plain were situated on Tells, and that the five Tells already named exactly suit the position required. As, however, "Lot beheld all the plain of Jordan . . . until thou comest unto Zoar," *i.e.*, as far as Zoar, which was therefore the limit of the "plain," *i.e.*, of the Ciccar, it seems to me that Suweimeh, several miles farther south, could not be one of the five cities. We must accordingly examine the "plain" for another probable site, and extend our search, if necessary, at least as far as "the oasis of Wady Shaib or Nimrin" ("the waters of Nimrin," Isa. xv. 6), "which really belongs to the Shittim plain," in order to take in some other Tell to complete the required five. From Wady Shaib northwards to the Jabbok, near Tell Damia, the plain is "desolate and barren, owing to the fact that there are no fountains or streams flowing down upon it from the hills" (*Quarterly Statement*, 1876, p. 177).

It formerly seemed to me that the Damieh fords represented the name and general position of Admah, one of the five cities of the plain, but the interposition of this large barren tract renders this impossible. The plain, or Ciccar, which Lot beheld was "well watered *everywhere*," and must therefore have been limited on the north by this "real desert" region.

In finding Zoar we had the help of many indications, and we know for certain that Sodom was near it.

Towards fixing the precise position of the three remaining cities, all we have to guide us is that (1) they were *in the* "plain," *i.e.*, the Shittim oasis from Wady Shaib to Wady Hesbân, or to the Dead Sea; and (2) possibly, the *order* in which they are named, "Sodom and Gomorrah, and Admah and Zeboim, even unto Lasha" (? Laish). Zoar does not appear in the first list (Gen. x. 19).

This second point might lead us to conjecture that as Sodom was to the south, Zeboim, the last named, must have been the most northern city in the plain. Is there any Tell in this part bearing a name at all like Zeboim?

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## ZEBOIM.

ABOUT seven miles north-west from Tell esh Shâghur is a hill marked on Van de Velde's map as Tell esh Sha'ib. There seem to be good reasons for regarding this as Zeboim.

As the Z of Zoar has become "Sh" in Shâghur, we should expect the same change in Zeboim, and so we have above *Shâ'ib*.

Zeboim (Auth. V.) seems to stand for two different Hebrew words, one meaning "hyænas" (Neh. xi. 34, and valley of Zeboim, 1 Sam. xiii. 18); the other "gazelles" (in Genesis Zeboim), from the Hebrew Tzebi (whence Tabitha), a gazelle. I consider, therefore, the essential part of the word Zeboim is preserved in Sha'ib. Thus as to position and name the identification seems to be sound.

But further there is a special reason why a city in this region should be called *Zeboim* or *gazelles*.

David fleeing from Jerusalem must have crossed the Jordan, near Jericho on his way to Mahanaim. Abner with his men retreating from Gibcon would, we may assert, have crossed about the same spot. (2 Sam. ii. 29.) "They walked through the plain (*arabah*), and passed over Jordan, and went through *all Bithron*, and came to Mahanaim." Wherever the last place may have been, there can be little doubt that the road to it passed near Tell esh Sha'ib, and (as at the present day) led up Wady Sha'ib. This part, then, of the country would seem to be described as *Bithron*.

In Song of Sol. ii. 17 we read: "Be thou like a roe (*i.e.*, gazelle) or a young hart upon the mountains of *Bether*." As *Bether* and *Bithron* are so much alike, and have been taken to be the same, why should one hesitate to consider "the mountains of *Bether* to be the district "*all Bithron*" through which Abner went, or, at any rate, the mountains above it, if *Bithron* was entirely in the plain? That the mountains of *Bether* were in Gilead seems next to certain from Song of Sol. viii. 14, "Be thou like to a roe (gazelle) or to a young hart upon the mountains of *spices*," or of the *balsam bushes*, producing the *balm* for which Gilead was renowned.

Thus, as in western Palestine, the Ayal (hart) gave its name to the valley and city of Aijalon, so in the territory of Gad the Tzebi, or fleetly bounding (1 Chron. xii. 8, roes) gazelle, may have preserved its memory in Wady Sha'ib, and Tell esh Sha'ib, which I would thus recognise as *Zeboim*, on account of its name, general position, and proximity to the gushing streams from *Nimrin* (Isa. xv. 6), doubtless the favourite resort of the gazelle's natural enemy, the *nimr*, or leopard.

As, however, the *Z* (*ʾZade*) in *Zeboim* becomes *T* in the Aramaic *Tabitha*, and the Arabic for gazelle is *Dhebi* (Lieut. Conder, *Quarterly Statement*, 1876, p. 153), it might seem that *Sha'ib* after all can have nothing to do with *Zeboim*, and that the proposed identification fails on philological grounds. Yet the Hebrew *Tzur* becomes in Greek *Tyre* and in Arabic *Sur*. Here is variety in pronunciation. In Greek it cannot be determined whether  $\sigma$  or  $\delta$  was more strongly marked in pronouncing  $\zeta$ , while in the LXX. *Zeboim* is rendered  $\Sigma\beta\omega\epsilon\iota\mu$ . There are several instances (*e.g.*, *Zarephath*, *Zemaraim*, *Zorah*) in which the Hebrew  $\צ$  (*Tsade*) is represented now by *S*; but I am not aware of any case except *Zeboim* in which it becomes *Dh*. *Sha'ib* would seem to be the natural form of the word if no meaning were attached to it, or even if it were slightly altered to have a meaning, just as *Ramah* has been changed into *Er Ram* (the tank); for possibly *Sha'ib* may signify "brooks" (*Quarterly Statement*, 1872, p. 140. *Yaskub fi Sh'naib* = "it pours into the brooks").

It may be mentioned that Mr. Merrill says that an older name for Tell Ke'rein is Tell esh Sharab ("Tell of drinking," or the place where good water is abundant). This is somewhat similar to *Sha'ib*, and so of course to *Zeboim*. On his map Tell *Sha'ib* seems to be called Tell *Churba*.

It is curious that east of Acre is a valley marked on Van de Velde's as Wady *Shagghir* or *Shā'ab*, and a district in Galilee is called Esh Shāghur.

Ayal (the hart) is mentioned in Psa. xlii. 1, which is allowed to have been composed on the eastern side of the Jordan, and why not, I would ask, by David, while he lay at Mahanaim? If this city be identified with Mahueh, it is a remarkable coincidence that close to it is a village named el-Mesar (Van de Velde) or Mezer (Finn's "Byeways," p. 67), recalling "the hill (really *mountain*) *Mizar*," while not far off a fine view is obtained of Mount *Hermon*, and probably of the *Jordan* valley, answering to the words, "the land of Jordan and of the Hermonites" (Psa. xlii. 6).  
W. F. BIRCH.

#### AI.

TRULY Ai is like a will-o'-the-wisp. It has been seen at Et-Tel, Haiyan, Kh. Haiy, and Rummen; yet still it eludes unanimous identification.

On the new map Et Tel is marked E.S.E., and Michmash, near Kh. Haiy, a little S. of S.E. from Beitin (Bethel). Thus the expression, "Ai, on the *east* side of Bethel" (Josh. vii. 2), does not exclude any of the above-named sites. Michmash was *eastward* from Beth-aven (1 Sam. xiii. 5 = to the *east* of Bethaven.—Sp. Comm.), which again, apparently, was "on the *east* side of Bethel" (Josh. vii. 2). The words "east side" fail, therefore, to help us in choosing between the four places already specified, while, if Deir Diwan be Bethaven (as first proposed by Mr. Finn), then *eastward* in 1 Sam. xiii. means something very little east of due south.

In Josh. vii., viii., and Neh. vii. 32, Bethel is so closely connected with Ai, that it seems to me that Aija (Neh. xi. 31) and Avim (Josh. xviii. 23) must be allowed to be Ai, which I regard as also being Aiath (Isa. x. 28).

The cliff Rimmon (Judg. xx. 45) appears to me to be identical with the Rimmon (Auth. V. translated "pomegranate") of 1 Sam. xiv. 2; and the boundary of Benjamin I take to have been drawn south of Rummon, which in this case cannot have been the site of Ai, though it is visible from Geba.

As the height of Almit is 2,089 feet, of Hizmeh 2,020 feet, and of Geba 2,226 feet, the first of these must be visible from the last, as the intermediate distance is about two miles. Thus all the places named in Isa. x. 28-32 (as supposed to be identified on p. 58, *Quarterly Statement*, 1877, and p. 133, 1878) have been *ascertained* to be visible from Geba, except three—viz., Gallim, which has not been tested, Ramah, which I still hope will prove to be visible, as Almit and Laish have done (*Quarterly Statement*, 1877, p. 205), and lastly Ai (or Aiath), which is visible if it be Et Tel or Kh. Haiy, or Rummon, and probably so if it be Haiyan.

Ai must have had a good supply of water close at hand, as was the case at Jericho, Bethel, Gibeon, &c. To help us, then, in identifying its site, we have (1) a spring, (2) an open valley (*emel*), (3) another valley (*gai*), not to speak of ruins or a position commanding the road from Jericho. Surely we may hope that the new map will solve the difficulty.

“ZION, THE CITY OF DAVID.”

IN the last *Statement* (p. 35) Mrs. Finn writes: “In the outbreak of 1834 the Fellahheen actually got possession of Jerusalem for a while. They entered by the sewer, from the south-east, and thus got (after some little difficulty in enlarging a passage for exit) into the Armenian quarter.”

It has been noted as a remarkable coincidence that Jerusalem has thus twice been entered by a hostile force in identically the same way—viz., *through a subterranean passage*—on the first occasion by Joab, through the Gutter (or Tzimmor), on the last through the sewer as described above.

Historically it would be interesting to get a conviction against Araunah for treachery. The evidence may be thus summed up:—

1. Some one must have betrayed Jebus.
2. He would without doubt be liberally rewarded for his services, in addition to the preservation of his household.
3. It is certain that no other quarter would be given, for David was provoked (2 Sam. v. 8), and was not mild at such times (1 Sam. xxv. 13, &c.). The matter also fell into the hands of Joab, who, if less impetuous, was not less thorough in his work (1 Kings xi. 16).
4. Araunah is found in possession of exceedingly valuable land, in an advantageous position connecting him with the city, and requiring an explanation why an alien should be allowed to own it.
5. Josephus says “he was a wealthy man among the Jebusites, but was not slain by David in the siege of Jerusalem because of the good-will he bore to the Hebrews, and a particular benignity and affection which he had to the king himself” (*Whiston*).

I do not think that any jury of honest or dishonest Jebusites would hesitate to identify the traitor who would be spared and enriched, with the very man who bore good-will to the Jews and was very intimate with David, and who sold him for 600 shekels of gold (more than Omri paid for the hill of Samaria) the dry rock of Moriah, doubtless foreseen by one speculator at the capture of Jebus as certain afterwards to fetch a fabulous price for building purposes. Therefore, verdict “Guilty.”

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ERRATA.—1878, p. 133, line 17. After “above” read “though Michmash was . . . between them” (line 18).

P. 182, line 11. After “east” read or south-east.

P. 185, line 36. For “eastern” read western.

P. 186, line 25. For “Aere” read Acra.

P. 187 (5). For “or at any rate,” &c., read unless this be one just below the fountain, in the Nachal.

It is remarkable that Jerome mentions the valley of Hinnom, but never the Tyropeon.

W. F. BIRCH.

## ON THE SITE OF EMMAUS.

LIEUTENANT CONDER has in his Book (I. p. 14) given his adhesion to the old view revived by Dr. Robinson that the Emmaus of Luke xxiv. is Nicopolis, the modern 'Amwās. He does so apparently on the strength of the testimony of the Sinaitic MS., which in Luke xxiv. 13 reads 160 stadia. But the reading of that MS. is not sufficient to set aside other MS. authority, and still less to overbear the difficulties its adoption would create. (1) The weight of authorities is so decidedly against the Sinaitic—supported as it is only by MSS. I. K. and N.—that even Tischendorf does not accept it, partial as he naturally was to that MS. with the discovery of which his name will be always associated. Moreover the testimony of the Sinaitic lies specially open to suspicion on such a point. It has been thought by many scholars not improbable that it is one of the MSS. of the New Testament prepared by Eusebius at the command of Constantine. Its peculiar arrangement of four columns on the page is one that Eusebius says characterised some of those he had prepared; while its correspondence in doubtful passages with the readings approved by him is very notable. That Eusebius of Cesarea knew Nicopolis as Emmaus of the Maccabees is certain; as also that he knew it to be about 160 stadia from Jerusalem, and that he believed it to be the Emmaus of Luke xxiv. May he not be the author of this correction (?) on the Sinaitic, to bring it into agreement with the distance of that Emmaus from Jerusalem? Can the Sinaitic be regarded with certainty as an independent witness, and not just the Onomasticon over again?

(2) The distance of Nicopolis—160 stadia—from Jerusalem is quite incompatible with Luke's narrative. It implies a journey of 40 miles in one day, the second half after the evening meal! Such an objection would have had no weight with Eusebius. The *deus ex machina* of a miracle would have rid him of it had it been suggested. It is expressly stated that our Lord and the disciples had reached Emmaus (ver. 28, 29).

(3) The exact language of Luke in describing the place is equally opposed to the view that he intended Nicopolis. Twice in his narrative he calls it "a village;" though his use of "city" and "village" by no means indicates oversight of the distinction (viii. 1; xiii. 22). Moreover the phrase "*a village called Emmaus*" is one not likely to be used in speaking of a fortress so famous in Jewish and Roman history as Emmaus Nicopolis. In Mark xvi. 12, which is of undoubted value, whoever the author, the destination of the two disciples is described in the same style—"they went into the country" (εἰς ἀγρόν), which would scarcely have been used had they been going to a well-known city.

(4) The force of this consideration is intensified when we look to the Maccabees and Josephus. In 1 Macc. iii. 40, ix. 50, we have simply "Emmaus," without any description. And so throughout Josephus (*e.g.* Antiq. xvii. 10. 7, 9; Bell. Jud. v. 1. 6; 2. 3; 13. 1) Nicopolis is simply "Emmaus." Frequently, moreover, he calls it "a city" (πολις)

(Antiq. xii. 7. 3; xiv. 11. 2; Bell. Jud. iii. 3. 5). But when he speaks of Emmaus by the shore of the Sea of Galilee, near the "City" of Tiberias, he describes it (Antiq. xviii. 2. 3) as "*a village named Emmaus.*" Again, in describing that Emmaus where a colony of 800 of the disbanded soldiery was settled (Bell. Jud. vii. 6. 6), he calls it "*a place (χωριον) called Emmaus, distant from Jerusalem 60 (or according to another reading 30) stadia.*" He spells the name slightly differently, as 'Ammaous. Whether the reading in this last-cited passage be 60 or 30 stadia, Josephus could not mean the city of Emmaus "in the plain." It seems utterly inconceivable in the light of such usage why Luke should have spoken of Emmaus as he has done, if he meant the famous city. It has been said it might be but a village since its destruction by Varus. Possibly, but that would not affect the pre-eminence its history had given it, and which led Josephus, and doubtless every one else, still to speak of it as simply "Emmaus." If the Evangelist had meant that Emmaus, he would have made his intention clear by simply, as Josephus does, calling it by its familiar name.

(5) The reading, 60 stadia, is supported not only by the weight of New Test. MS. authority, but by the MS. evidence for the same reading in Josephus (Bell. Jud. vii. 6. 6). The consent of these independent witnesses to the placing of an Emmaus at that distance from Jerusalem will settle the point to most minds. It may be added that a distance of 160 stadia would be no localisation at all, seeing that the *direction* from Jerusalem is not given. Let any one plant a circle of 40 miles diameter on his map of the land and judge the value of such a description of the situation of a village! A site must be sought on the circle formed by a radius of 7 or 8 miles from Jerusalem.

Of the claimants to represent the Emmaus of Luke xxiv. this will dispose of two—'Amwas, which is twenty miles from Jerusalem; and *Kalonieh*, which is too near, though it might suit the 30 stadia of some MSS. of Josephus. The arguments for it are not of much force. It is not proved that though a colony was settled here it was *the* colony of Josephus (B. J. vii. 6. 6). Four sites still remain at which it has been proposed to locate Emmaus.

(1) Kuriet el Enab (Smith's Dict. Geog., and Thomson's Land and Book). The only argument is that this place is at the required distance from Jerusalem; that it is a suitable scene is a matter of opinion or of sentiment. The Greek tradition in its favour is of doubtful value. Its present name is the ancient one; being probably the Kirjath of Josh. xviii. 28. It is not likely that it was also known as Emmaus. If it had been, Luke or Josephus would have surely distinguished it by the use of that distinctive name.

(2) Etam, which is thus put by Lightfoot, and which we leave, with him, to the reader's judgment:—"Cum observamus ut Chammath, חמטה, vel *Thermæ Tiberiadis*, vulgo reddatur Graece Ἀμμαοῦς, cumque observamus etiam *Emmatanta* nostram, aquis celebribus quoque nobilem, non recognoscere non possumus *Aquas Nephtoar*, vel *Fontem Etam*, unde



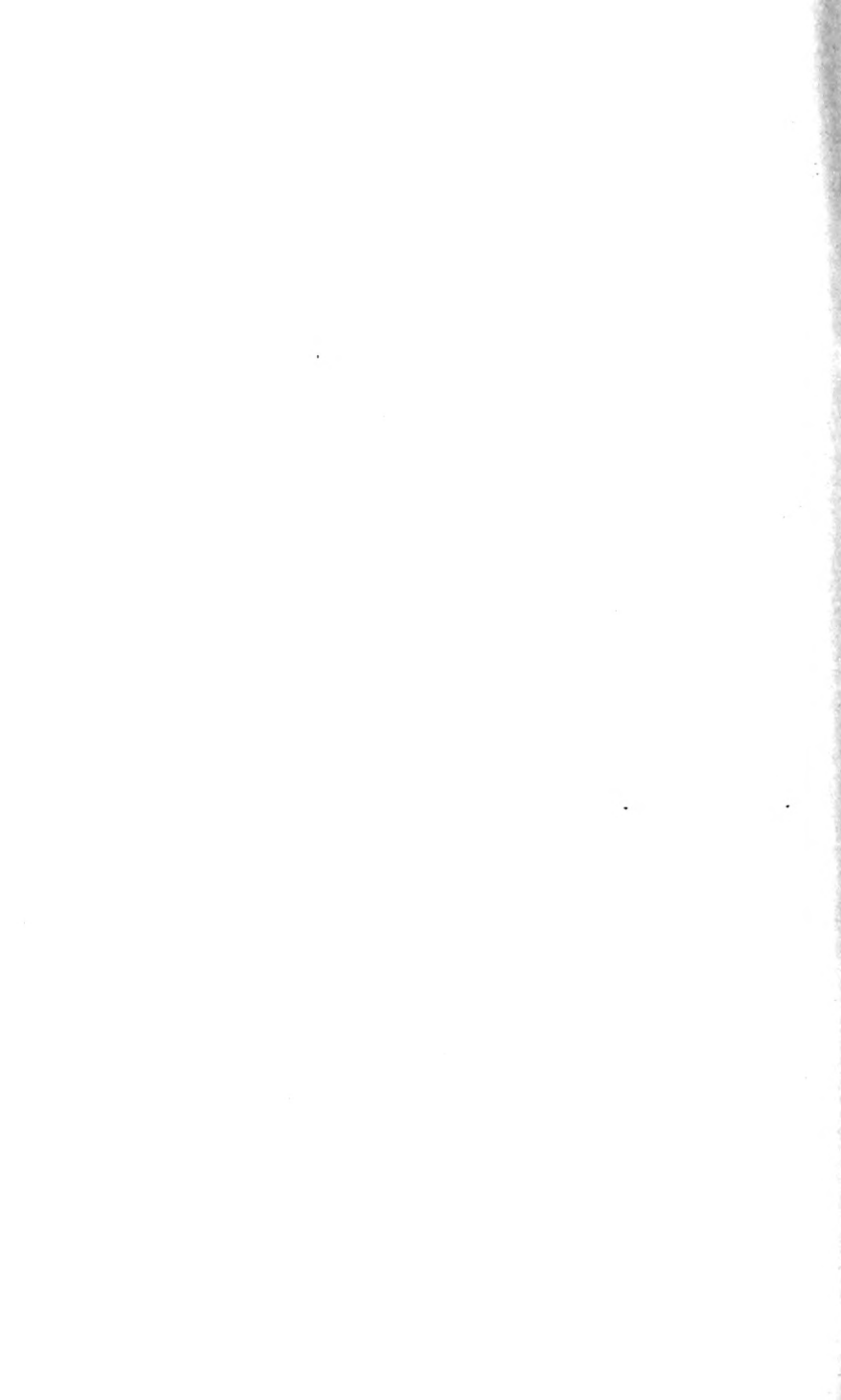
deductae per tubos sunt aquae ad Templum: qui quidem erat ab Hierosolymis ab eodem cardine coeli, quo et *Emmaus* nostra. Et formari potest Ἐμμαους nostra ab אממאθ *Ammath*, *Cavali aquarum*, aequae ac altera Ἀμμαους, ab חממת *chammath*, *Thermis*. Sed iudicet lector." (*Light-foot Chorographica Pauca*, Lucae Praemissa, Cap iv. § iii.)

(3) *El-Kubeibeh*, which is at the required distance to the north-west of Jerusalem; the exact measurement being  $62\frac{1}{2}$  stadia. It has the doubtful evidence of Crusaders' tradition. It has been said they found the name of Emmaus applied to it by the native population as early as the eleventh century. The claims of Kubeibeh have been set forth at length by Dr. H. Zschokke, of the Austrian Pilgrim House at Jerusalem (*Das Neutestamentliche Emmaus beleuchtet*, Schaffhausen, 1865). It is supported by several resident authorities there, as Herr C. Schiek and others. The weak part of the evidence in its support is the date at which the name Emmaus first appears there, and the authority for its appearance even then. On the other hand, it may be said that, though apparently an ancient site, the present name is not (like Kuriat) an ancient one, and no native tradition conflicts with the Crusaders' testimony.

(4) *Khämäsa*, also at the required distance, but to the south-west of Jerusalem. Its claims are set forth by Lieutenant Conder (*Quarterly Statement*, 1876, p. 172), who, however, has now cast off his foundling. The chief argument for it is its name, which may be derived from the ancient "Hammath." On this we are unable to judge. If scholars agree on the origin of the name it would be a weighty argument, and would probably secure for this site general acceptance. Possibly the spring which still exists, and which gave its name to the ruins, "ruin of the fountain of the church," was once a thermal spring. The absence of a warm spring in a country so liable to volcanic changes could scarcely be pressed against any of the claimants, though Emmaus Tiberias still deserves the name.

The choice among present claimants seems to lie between the two last *El-Kubeibeh*, as every one who has visited it will admit, befits the scene of such a story, and certainly the Crusaders were not often as fortunate in the suitability of the sites they identified with Bible places. From Lieutenant Conder's account *Khämäsa* seems quite as suitable, and has the advantage in the transmitted native testimony which its name affords. We still incline to it; though amidst so much uncertainty, the only thing we feel certain about is, that the place was not *Nicopolis*. There is perhaps something befitting the narrative and the manner of all the Lord's appearances during the forty days, in this veil cast over the scene of it. Possibly we would not be gainers if it could be localised.

A. HENDERSON.



THE

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NOTE.—The Price of the "Quarterly Statement" is Half-a-Crown.  
 Sent free to Subscribers.

Since the printing of the *Notes and News*, the following changes have been made in the General Committee:—The Bishop of Peterborough has withdrawn; the Bishop of Durham and the Rev. H. Hall-Houghton have joined.



THE  
PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

THE following prospectus has been prepared by the Executive Committee. It has been issued to the members of the General Committee first, and is now presented to the whole body of subscribers:—

“The Committee have now in their hands, completed and arranged for publication, the whole of the maps, memoirs, drawings, and special studies connected with their survey of Western Palestine. Her Majesty’s Government have kindly allowed the twenty-six sheets of the Society’s great map to be photo-lithographed by the Ordnance Survey Department, Southampton, under the immediate control of Colonel Cooke, R.E., C.B. The greatest accuracy has therefore been secured.

“The memoirs, drawings, and special studies are the work of Colonels Wilson and Warren, Captain Anderson, Lieutenants Conder and Kitchener, Professor Palmer, Mr. Glaisber, and other investigators.

“It is proposed to issue these results, so long expected by Biblical and historical students, without delay. The first issue will be a large paper edition in quarto; the number of copies strictly limited to 250; each copy to be numbered and signed by the Chairman of the Executive Committee, in the order in which the names of subscribers are received. The first volume, with corresponding maps, may be expected about the end of the present year.

“The general editors will be—

“Lieut.-Colonel Wilson, R.E., C.B.

“Captain Anderson, R.E., C.M.G.

“The number of volumes, including those of drawings and plans, will be at least six, and probably seven.

“The price of this edition will be 12 guineas, payable at the option of the subscriber, either in advance, or as the volumes and sheets are issued.

“No part of the memoirs, none of the drawings, and no sheets of the map, will be issued to the general public until the whole work is in the hands of subscribers to this large paper edition, and the work will not be issued afterwards in a *cheaper* form.

“The following particulars can be given:—

“I. THE GREAT MAP.

“The Great Map consists of twenty-six sheets, each 22 inches by 18 inches, and covers the whole of the country between a line drawn eastward from the mouth of the Litany on the north, and one drawn from Gaza to the middle of

the Dead Sea on the south. Its eastern boundary is the Jordan. The map is on a scale of 1 inch to a mile: it is thus large enough to show every detail of the country—every ruin, every village, ancient or modern; the aqueducts, plantations, Roman roads, tells, tombs, synagogues, temples, castles, and forts, Crusading and Saracenic; wadies, fountains, springs, and wells. It is not only the largest map of Palestine yet produced, but *it is the only map of the country drawn, after a scientific survey, by trained officers.* Its accuracy has been attested by official experts. It covers the greater part of the country which is the scene of Biblical history; and though the general features of the land are known, having been described by numerous travellers, the details are now for the first time laid down.

‘Henceforth it will be possible for a student to follow the history contained in the Bible by a true map of the country.

‘The villages are coloured in red, and the coast-lines in blue. The altitudes of the hills are given in figures. An index map, showing the place of the separate sheets, will also be supplied.

#### “II. THE MEMOIRS.

‘Every sheet of the Map is accompanied by its own memoirs, compiled by the officers of the Survey from their own note-books, observations, and journals.

‘These, for convenience’ sake, have been drawn up separately for each sheet, and the information contained in them has been divided in the following manner:

‘1. *Topography.* This section gives details as to all springs, streams, valleys, hills, position of villages, and other natural features, with special descriptions of interesting localities.

‘2. *Archæology.* Under this head will be found an account of every ruin, tomb, building, or monument in the sheet, with such illustrative plans and sketches as may be thought necessary.

‘3. *Name lists.* The total number of names obtained during the course of the Survey is over 10,000. A native scribe accompanied the party, and took down as many names as could be obtained from the peasants on the spot. These were then transliterated by Lieutenant Conder, and a translation has been since made, showing the meaning of every name. These lists are under revision by Professor E. H. Palmer, of Cambridge.

‘4. *Proposed Biblical and other identifications.* As a first result of the Survey as many Biblical identifications have been proposed as had hitherto been made by all previous travellers put together.

‘5. *Ethnology.* Under this heading will be grouped together all the legends, traditions, notes on manners and customs of the people, &c., collected during the Survey.

‘6. *Geology.* This section will include all the geological notes made during the work, and, if possible, a paper on the geology of the country as a whole.

‘To illustrate the second Section will be published, bound or in portfolio, all the drawings and special plans of buildings, scenery, &c., made by the Survey party.

‘In addition to the memoirs, and forming part of the whole work, it is proposed to issue special papers on various subjects connected with the work, such as the method of conducting the Survey, the history of the Survey, the diagram of triangulation, the geography of Palestine as a whole, the archæology, ethnology,



geology, and climate. Some of the valuable papers which have appeared in the *Quarterly Statement* will be reprinted in this section of the work.

“A form of subscription is enclosed, which may be filled up and sent to Mr. Walter Besant, Secretary, who will return by post the number of each subscriber on the list.

“*May, 1879.*

“W. EBOR, *President.*

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The following is the list of subscribers to the Special Edition up to the present date (June 25th):—

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35. Mr. George Grove.
36. The Duke of Devonshire.
37. Mr. D. Macdonald.
38. Mr William Tipping.
39. Professor Hayter Lewis.
40. Rev. John W. Dulles.

It should be understood that there will be *no cheaper edition* of the *Survey* published. After this special edition is subscribed and issued, arrangements will be made for enabling the public to purchase any part or parts separately, such as the map, the plans, the memoirs, the Arabic lists, or the special papers. But this will be the cheapest way of procuring the whole work.

As regards the smaller map, that will be considered a separate production. The outline is now completely engraved, and considerable progress has been made in the hill-shading.

The whole of the American work has been placed by the Committee of the American Association for the Exploration of Palestine in our hands. It consists of thirteen sheets, and embodies the results of a reconnaissance survey east of the Jordan. Arrangements have been made for the reproduction of this map in the same manner as the English work, and through the same department of Her Majesty's Government. The memoirs to accompany the sheets will be forwarded in the course of the year. The publication of map and memoirs will follow that of our own work.

The appointment of Colonel Wilson as Consul-General of Asia Minor will not oblige him to resign his office as editor of the *Survey*. Mr. Grove has, however, found it necessary to resign his share in the work, and the Committee have invited Captain Anderson to take his place. Captain Anderson is now Commissioner for the Boundary of Servia, but is expected to return in the course of the summer.

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The Annual Meeting of the General Committee was held at the office of the Society on Tuesday, June 24th, at 3 p.m., under the presidency of Lord Talbot de Malahide. The Report of the Executive Committee, and the Resolutions which were passed, will be published in the *Quarterly Statement* for October.

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The curious and interesting discovery recently made in the Wady Suweinit by the Rev. H. D. Rawnsley, the report of which is published on page 177, is an illustration of the value of the *Survey*. Its history is as follows:—The Rev. W. F. Birch, Rector of St. Saviour's, Manchester, was led to believe that the "Rock Rimmon" might be found in the Wady Suweinit, and that the 600 Benjamites who abode *in* the rock must have found shelter in some great cave with a spring adjacent. He communicated with the Secretary, and asked that search might be made in the map and memoirs. A cave named Mugharet el Jai was found upon the map, but not described in the memoirs as possessing special interest. Mr. Birch then suggested that Dr. Chaplin, of Jerusalem, should be called to undertake a special examination of the valley. The result is the paper we are enabled to publish.

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Dr. Chaplin, in forwarding the report, writes as follows:—

"At the last moment I was prevented from joining an excursion to Wady Suweinit, and the honour of recovering the cave and spring has fallen to the Rev. Hardwicke D. Rawnsley, of Ambleside. His observations appear to me of great interest, and Mr. Birch has done good service by drawing attention to the subject. The name of the cave, 'Jai,' or 'Jailah,' is given by Robinson (vol. ii. 116). It is identical with that of the cave on Mr. Bergheim's property at Abu Shushah, and may mean a 'place of coming together'—a place where sheep or goats or fugitives may assemble. There can hardly now be a doubt as to the position of the 'holes' (*khorim*) out of which the Hebrews were thought by their enemies to be coming. Whilst holding the northern side of the gorge, the Philistines had evidently not ventured to explore its depths, judging that the strongholds there were already occupied, and not caring to expose themselves to missiles from above, where the Israelitish camp was pitched in full view. 'The pomegranate which was in Migron' (1 Sam. xiv. 2) stood in all probability by the spring where now the kharoob is so conspicuous, and although in Canon Tristran's notes the pomegranate is usually a shrub rather than a tree, it attains considerable dimensions when well watered and in a favourable situation. In some of the courtyards of Jerusalem there are pomegranate trees probably twenty feet high.

"The possible identity of the Rock of the Pomegranate, where the remnant of the Benjamites found a refuge, with this pomegranate, under which Saul's headquarters were fixed, was suggested long ago, being mentioned in the edition of Gesenius's Hebrew Lexicon printed in 1834, and the more the suggestion is

examined, the more probable it appears. In 1 Sam. xiv. 2, 'the pomegranate which was in the precipice (*miyron*)' distinguishes the precise spot where the Hebrew king was stationed. In Judges xx. 45-47 it is the rock (or precipice) to which the pomegranate had given a name."

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Colonel Wilson has placed in the hands of the Committee a paper on the Masonry of the Haram, in which he considers all the facts and discoveries which have been made in the subject, not only by himself in his own survey of the city, but those made by Colonel Warren, M. Clermont-Ganneau, Lieut. Conder, and others. The paper will be published in the October number of the *Quarterly Statement*.

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We are indebted to the Zeitschrift of the German Association for the Exploration of Palestine for the two papers on Capernaum and the Birthplace of Nahum. The former will be found to contain a brief summary of the arguments for and against the various sites proposed. The latter opens out a subject extremely obscure. The paper on Modern Researches in Palestine was read by the Rev. Selah Merrill to the American Geographical Society.

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A crowded meeting has been held in Sydney, under the presidency of the Bishop, for the purpose of creating an interest in the Local Association in aid of the Palestine Exploration Fund. The meeting resulted in thirty or forty names being given in to the secretary on the spot.

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The income of the Fund from all sources, from March 11th to June 12th, 1879, was £643 11s. 10d. The expenditure was as follows:—Reduction of debt, £222 15s. 7d.; liabilities on *Tent Work*, £151 14s. 4d.; rent, parcels, postage, salaries, and offices, £154 16s. 2d. All the "unpaid accounts" which have figured so formidably in the annual balance sheets are now paid off.

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It is suggested to subscribers that the safest and the most convenient manner of paying a subscription is by means of a bank. Many subscribers have adopted this method, recommended in the *Quarterly Statement* of January last. Among other advantages, this method removes the danger of loss or miscarriage, and saves the Society's office the labour and expense of acknowledgment by official receipt and letter.

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Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise to occasional omissions.

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It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The Survey, as stated above, will be actually completed when it is entirely published, and not before. But its completion does not mean the completion of the work of the Society, as reference to the original

prospectus will show. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

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Several cases have been at various times discovered of postage stamps being lost on their way to the office. The only way to avoid such loss, unless subscriptions are paid through the bank, is to send money by P.O.O. or by cheque, *in every case payable to the order of Walter Besant, Esq., and crossed to Coutts and Co., or the Union Bank, Charing Cross Branch.*

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The ninth thousand of "Our Work in Palestine" is now ready (price 3s. 6d.), and may be ordered of booksellers. This book carries the work down to the commencement of the Survey, but does not embrace M. Ganneau's discoveries nor the results of the Survey itself.

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The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

Archdeaconry of Hereford: Rev. J. S. Stooke-Vaughan, Wellington Heath Vicarage, Ledbury.

City and neighbourhood of Manchester: Rev. W. F. Birch, St. Saviour's Rectory.

Lancashire: Rev. John Bone, St. Thomas's Vicarage, Lancaster.

London: Rev. Henry Geary, 16, Somerset Street, Portman Square.

Norwich: Rev. W. F. Creeny.

Suffolk: Rev. F. C. Long, Stow-upland, Stowmarket.

Peterborough: Rev. A. J. Foster, Farnlish Rectory, Wellingborough.

Worcester: Rev. F. W. Holland, Evesham (Member of General and Executive Committee, and one of the Hon. Secretaries to the Fund).

Diocese of Ripon: Rev. T. C. Henley, Kirkby Malham Vicarage.

North Wales: Rev. John Jones, Treborth, Bangor.

Yorkshire, Durham, and the North: Rev. James King, St. Mary's Vicarage, Berwick. Mr. King has recently returned from the Holy Land; communications for lectures, &c., can be sent to the Office at Charing Cross.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that they leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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Attention is called to the statement already advertised, that subscribers to the Fund are privileged by the publishers to receive the "Recovery of Jerusalem," "Tent Work in Palestine," the "Literary Remains of the late Mr. C. F. Tyrwhitt Drake," and the "Underground Jerusalem" of Captain Warren, at reduced rates. But letters asking for them must be sent to the office at 11 and 12, Charing Cross only.

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Cases for binding the *Quarterly Statement* are now ready, and can be had on application to Messrs. R. Bentley and Son, 8, New Burlington Street. They are in green or brown cloth, with the stamp of the Society, uniform in appearance with "Our Work in Palestine," and are sold at the price of eighteenpence.

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Lieut. Kitchener's Guinea Book of Biblical Photographs can be bought at Mr. Stanford's establishment, 55, Charing Cross. It contains twelve views, with a short account of each. They are mounted on tinted boards, and handsomely bound.

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### MEETING IN SYDNEY.

THE following is a report taken from the *Sydney Morning Herald* of a meeting held on April 1st in that city. The immediate result was the accession of some thirty or forty new subscribers to the Society:—

"A meeting of those interested in the exploration of Palestine, and its results, was held April 1st in the drawing-room of the Young Men's Christian Institution, Pitt Street. About forty ladies and gentlemen attended, and the Bishop of Sydney occupied the chair. The proceedings were commenced by prayer, offered by the Rev. Mr. Burdett.

"The Bishop said that when he was asked by Dr. Steel to preside at the meeting his recollections of the visit he had recently paid to Syria and Palestine made him very desirous to assist in any way the Palestine Exploration Fund, and he at once consented. Of the work for which the Fund was instituted he only knew that portion carried on at Jerusalem, where deeply interesting results had already been obtained. The excavations there were confined principally to the neighbourhood of the Haram Area. When approaching Jerusalem from the north, which is the best mode of coming in view of the Holy City, travellers are struck with the vast number of buildings on the site of the temple destroyed by Titus. Again, on another space, surrounded by a lofty wall, stands the palace of the Patriarch of the Greek Church, and indeed the whole area

once occupied by the army of Titus is now the property of the Czar. The Russians have the fee-simple of the north-east side, commanding the City of Jerusalem, and their property resembles nothing so much as an extensive barrack, with a strong fort at either end. This may be one probable destiny of the structure. Formerly none but Turkish subjects could obtain the fee-simple of land in or around the Holy City, but since the Russians have succeeded in doing so, bodies of Germans have settled themselves in the neighbourhood of Jerusalem, erecting for themselves, in many instances, handsome dwellings. A Jewish population is also to be found in the same locality, for Sir Moses Montefiore induced his countrymen to establish a series of building societies, and now 500 dwellings outside the walls are occupied by Jews who formerly were shut up in the city. Looking, too, from the north, as you approach Jerusalem, the eye is delighted by the sight of the beautiful Mosque of Omar, whose exquisite dome far surpasses all others, except that of St. Sophia, at Constantinople. The wall surrounding the territory of the mosque forms on one side the wall of the city, and in the centre of the area (which is about nine acres), covered by a magnificent building, is the rock—twenty feet across and five feet above the floor of the building—the rock which forms the apex of Mount Moriah. Spectators feel, in looking at it, certain that they are at the place where Abraham would have offered up his son, where Araunah the Jebusite was threshing when David saw the angel standing near, and would have purchased from Araunah his oxen and implements, to sacrifice to the Lord, Araunah gave them to him as one king would give to another. There, too, Solomon built a temple, and there the altar of burnt sacrifice was erected. All the excavations made by Captain Warren went to prove that this was the identical spot where these transactions occurred, and afforded additional and remarkable evidence of the truth of Holy Writ. The very stones of Jerusalem cry out the truth of the sacred writings. From the south-east side of this enclosure one looks into a valley of enormous depth, a depth declared by Josephus to render one dizzy to contemplate. The fourteen sieges sustained by Jerusalem did much to fill up that valley, but still there is a declivity of 140 feet. Captain Warren sunk shafts along the line of the wall, and at a further depth of 97 feet found the original level of the valley. Excavating along the line of wall, he saw how the lower courses of stone were sunk into the bed rock, and there, too, he discovered water flowing in a well-defined stream. The Jews who heard of and saw this were glad, for they cherish the tradition that when water is for the third time found flowing at the foundations of the Holy City (as had been the case twice before Captain Warren's discovery) the Messiah is at hand. Proof was afforded them that the stones used for the foundations of the Temple were those which Hiram the Phœnician sent ready dressed to Solomon, by the facts that no chips or *débris* were found near the wall, and that Mr. Emmanuel Deutsch, of the British Museum, had at once declared certain signs on them to be Phœnician characters. The speaker, conducted over

the works by Mr. Bernstein, formed at once the conviction that he was traversing the site of the Temple. Of this portion of Palestine Exploration he could speak personally, and knowing how urgently necessary private subscriptions for carrying on the work were, he could recommend them to support the Fund. Other objects of the exploration expedition were the restoration of the names of many ancient places, and the identification of the tribal boundaries, &c., described in the Book of Joshua.

“The Rev. Dr. Steel said that he had promised Mr. Fry to do what he could to advance the interests of the Fund, and in support of that promise the meeting had been called. In this course he was encouraged by the return from Palestine of their chairman. As long ago as 1865 the work had been commenced, and now it was time for the people of Sydney, at the ends of the earth, so to speak, to assist in it. The survey of the whole of Western Palestine, over 6,000 square miles, had been completed on the scale of an inch to the mile by officers and skilled men of the Royal Engineers. The whole of this survey had been performed with remarkable accuracy, and with such economy that it cost only a penny an acre. The map resulting from this labour is probably published, and will be found the most correct one extant of the Holy Land. It seemed remarkable that Christians should so long have neglected to bring science to their aid in exploring Palestine, for scientific exploration had so far gone to prove the historic, geologic, and topographic accuracy of the Holy Scriptures. The expedition had been carried out with great labour by a succession of brave officers, such as Captains Wilson, Anderson, and Warren, Lieutenants Conder and Kitchener, and men such as the late Mr. Tyrwhitt-Drake. They had suffered and toiled to secure accuracy, and had gained their end. The Rev. Mr. Holland and Professor Palmer, the latter of whom spoke fluently the colloquial Arabic, worked to the south of the Dead Sea, and surveyed the Sinaitic peninsula; while the Rev. Dr. Tristram explored the land of Moab. Thus the survey of Western Palestine had been accomplished, and that of Eastern Palestine was entrusted to a party of Americans. The littoral districts of the Sea of Galilee afforded a rich field for geologic inquiry, and altogether, in a short time, a book might be brought out, giving them a full account of the country. Valuable assistance in the compilation of this was given by the papyri and monuments of Egypt, examined by permission of Mariette Bey and others under the Khedive, which gave evidence of the existence of many places in Palestine, in accordance with the descriptions given by the book of Joshua. For instance, a papyrus gives an account of the travel of an Egyptian officer through Palestine, in the reign of that Jabin, King of Canaan, who oppressed the children of Israel. His chariot-pole broke, and he had to get it repaired by Philistine smiths, as the Israelites were unable to do the work. Again Mariette Bey discovered in the temple of Carnac a drawing of a line of captives, bearing on their breasts the names of the towns whence they were taken. There were 119 names, and

in 'Tent Work in Palestine' Lieutenant Conder states his own recovery of twenty-nine of these places, or rather their sites, and Mariette Bey's identification of forty-two. More than 9,000 names had been fixed, and would appear in the English map, a map which should be aided by Australian gold. The *Quarterly Statement* of the work of the Fund would be supplied to all contributors of £1 1s., and it was to be hoped that such contributors would be numerous.

"The Rev. G. Woolnough also addressed the meeting, pointing out how admirable a commentary upon the Scriptures, and how complete a directory to Palestine the map would form. The literature of Egypt and Assyria, at least such remains of it as could now be procured, was deeply interesting, and throws light on a great many points at present obscure.

"The Chairman then invited those present to become subscribers to the work, and set the example himself of doing so. He announced that further subscriptions would be received by Dr. Steel, or by the secretary of the Young Men's Christian Association.

"This closed the business of the meeting, and the Bishop having pronounced the benediction, the meeting terminated."

## THE ROCK OF THE POMEGRANATE.

JERUSALEM, *Monday, April 28th.*

"I HAVE the pleasure to report to the Committee of the Palestine Exploration Fund that I have been able to examine carefully a curious spring of water called Ain Suweinit and a large cave of refuge known to the shepherds as Mugharet el Jai, possibly Grass Cave (Jawa), in Wady Suweinit, both on the *south*, or Benjamin side of the ravine, the former 450 feet below the Ras el Krein (Migron?), or eastern end of the Plain of Jeba, and about fifteen minutes' descent from the said spot; the latter 200 feet lower down the cliff, and twenty minutes or half an hour's clamber from the spring.

Dr. Chaplin is in reality the author of the search, and was only prevented by illness from accompanying me last week in quest of this spring, and to him any thanks are due for this communication. I have visited the spring and cavern twice; on the former occasion I was unable, owing to accident, to do more than find them, but on my return to Jerusalem Dr. Chaplin begged me to communicate with you, and feeling that without measurement such communication might be of less use to you, and that much more might be gathered from the inhabitants of Jeba about this cave, I spent a second day in measurement, &c. On this second occasion Mr. Salami, the Consul's secretary, accompanied me, and gave most valuable assistance in interrogating the natives of Jeba and in taking down the names of the hills, ravines, caves, &c., in Arabic from their lips. Since then he has most kindly inquired into the roots of some of these, and has furnished me with the



interpretation of the meanings of most of them that most approve themselves to his mind. I enclose these names as written by him in Arabic; if they prove of importance he will, on your returning the enclosure to him, gladly write them out more legibly and fully in ink.

Both fountain and cave are well known to all the inhabitants of Hizmeh and Jeba, but owing to superstitious fear no shepherd, as far as I could learn, has ever penetrated beyond the main entrance of the cave Mugharet el Jay, or Jai. Our guide on both occasions was an old shepherd, Mhesen Hassan, and he told us that he had been shepherd all his years, and as a boy used the cave for an "ossub" (a sheep wintering-place), but had not entered the main passage.

The tradition in the village of Jeba, we learnt from the villagers assembled, is (1) That the Christians used it a long while ago, when God sent an evil wind to destroy them. (2) That it has been used time out of mind for refuge by the neighbouring villagers when prosecuted by the government. (3) That it extends from Wady Suweinit to Jerusalem.

As to the size of the cave, the current tradition in Jeba is that it will hold 600 men, a coincidence in number with the Bible account of the Benjamite refugees in the rock Rimmon (Judges xx. 47). One man asserted vehemently that it was large enough to contain 6,000, but the number 6 seemed invariable with them. The shepherds asserted that the main entrance cave held 16 flocks of 100 sheep in each. This number I obtained on separate testimony from three or four Jeba shepherds.

As to the time during which the cave is tenanted now, it appears that each winter the shepherds use it as an "ossub" for their sheep, remaining in it from fifteen to sixty days, according to the weather; that it becomes so hot owing to want of ventilation, that when fine sunny weather comes they are driven from the cave by heat. But it appeared afterwards that want of fuel in abundance and within easy reach is also the cause of their not making too long a stay in the cavern.

In old days, if one is to trust the derivation of the name Suweinit, from the abundance of Sunt, or Thorn, or Acacia bushes, this latter hindrance to a long stay in the cave would not exist; the more so that of all the woods used for fuel in this country, the Sunt, when grown to size, is considered best by the peasantry. (A story was told me of a man who lit a single branch of Sunt (Acacia), cooked his food for three successive days by it, left the cave in which he was staying for a week, and on coming back found the little log still burning.) But, my informant said, this is only the case if the Sunt bush is grown to a good big size. These big-sized Acacia bushes do not now exist in the upper part of Wady Suweinit. We may argue, perhaps, therefrom that the wooded growth of the valley is not the same as it was in Saul's time. If this is so, we shall not be surprised to find no remains of any Pomegranate or Rumman trees, such, for instance, as the one under which Saul was sitting in the uttermost part of Gibeah (1 Sam. xiv. 2).

The first question that naturally arises as to the possibility of water-

supply for the shepherds or tenants of the cave El Jai is answered by the custom of to-day. The shepherds who use the cave as a wintering-place (ossub) take their flocks to the spring Ain Suweinit, on the cliff ledge to the west, or towards Jeba, but if necessary go down the valley to Ain Farah and Fowar, one hour and a half down east—both on the southern or Benjamin side; or from two other springs, Ain er R'aiân and Ain esh Sherâr, also down towards the east, but on the northern or Philistine side of the ravine.

The next question we asked was, the amount of water obtainable per day from the spring Ain Suweinit. The shepherd said that twenty goat-skins would empty it, but that if so emptied it would be full in half a day again. This is a smallish supply, but we may remember that time and want of care must have much choked the basin, and that possibly in old time a great deal more would be obtainable from it. One quotes the Selah Spring, near Solomon's Pools, as an instance of this choking up of a spring, and consequent diminution of supply. It appears, too, that just at the point where, after passing over the Plain of Jeba, we descend into the ravine to visit Ain Suweinit and its one large Karoob-tree, there is a large cistern by a well-known fig-tree at Khurbet et Tineh, which would be within easy reach of the cave Mugharet el Jai. This is filled by the early rains, and remains full till the end of harvest time, when the farming men finish the supply as they work at the harvest-fields near.

As to the approach to the spring and cave, the former is easily reached along a good goat-path from the big "ossub," or shepherd's shelter, Khurbet el Hai (the place of the camping-ground), so called, they say, from the Bedouin use of the cliff near.

This Khurbet el Hai is on the brow of the declivity, at the easternmost end of Jeba Plain, and from this Khurbet el Hai, which is capable of affording shelter to 100 sheep, is obtained the best view of the spring and Karoob-tree of the Suweinit.

The spring could, if necessary, be clambered down to from above, but, placed as it is on the slight plateau half-way up the hill-side, above a sheer cliff with scarp below, an approach from the valley to it would be impossible. As to the latter, the cave Mugharet el Jai, it is reached with comparative ease from the wady bed by following a goat-path, and for the rest is well placed as a cave of refuge; for, while communication can be kept up between it and the spring Ain Suweinit by scrambling along the rock scarp below the line of cliff on which the spring is situate, till within 100 yards of the spring, and then ascending to the plateau of the Ain Suweinit and Karoob-tree, the said communication could be most easily barred from the direction of Jeba or west again, while ascent up the cliff under which the cave is, is possible by a climb close to the cave's mouth. Any descent without rope or ladder to it would be extremely hazardous.

One other feature about the cave's position may be remarked—its absolute secrecy. It is so placed in a corner of the cliff, and so protected

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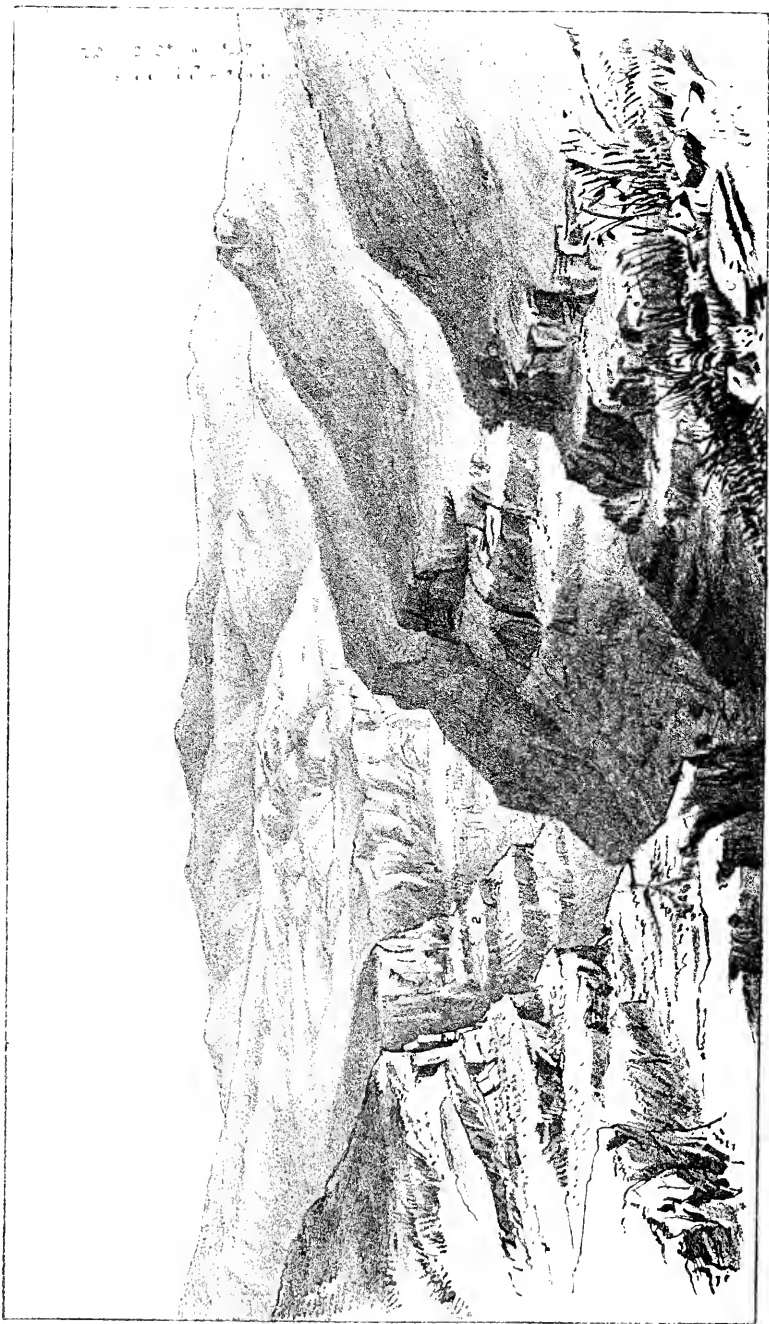
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VIEW FROM KALAT EL HAI IN WADY SUWEINIT  
1. Spring under the dark Carob Tree to which the arrow points    2. Kurunt el Falkain opposite the cave Miugharet el Jai

by outstanding ledges, that until within ten yards of it you could not tell its existence as one approaches from the westward or Jeba end, while again the adjacent cliff to the eastward, curving out towards the north, would hide it to any comers up the valley from the east.

#### DESCRIPTION OF SPRING AND CAVE IN WADY SUWEINIT.

Leaving Jeba, we cross the fallows of the long eastward-going plain that slopes all the way at a slight angle from north to south; on our left the deep Suweinit or Vale of Michmash, on our right hand the green open valley of Hizmeh, called as we proceed eastwards Wady er Râdadeh.

Approaching the declivity from which we obtain our first view of the Suweinit gorge, we find this Wady er Râdadeh, and that part of the plain we are crossing called El Kharjeh, or the going out. That is perhaps the place from which in old times the men of Jeba have gone out towards Jordan, or in later days have made their exodus as fugitives to the cave of El Jai in time of trouble.

Arrived quite at the brow of the steep descent to the ravine, we find a large shepherd shelter-place, or "ossuh," known as Khurbet el Hai, or Haiyeh, and from the front of it we can take in at a glance the position of Ain Suweinit and the cave in question.

The eye at once catches two trees, neither of them such pomegranates as Saul once sat under, but both of them remarkable enough to be called *The Tree*. The first is close by on the hill spur to the right, a fig-tree, some ruins, and a cistern above spoken of, and gives its name to the mountain spur.

The second is a dark-coloured Karoob-tree, half a mile away, perched on the brow of the precipitous band of cliff that rises from its scarp half-way up the southernmost side of the wady. This seemingly inaccessible tree stands close to Ain Suweinit, and is nurtured, no doubt, by its waters.

Taking the southernmost side of the wady, we find it is divided, at far as eye can see, into four main divisions or rounded spurs. The first of these—that is, the nearest to us—is Khurbet et Tineh (the Fig-tree ruin); the second is nameless; the third, El Kuba; the fourth, El Mukaarat. By a movement of a few yards to the left we discover a fifth, Ras el Fowar (the head of Farah), that part of the wady near the Furrâr Spring.

All along the wady-side, two-thirds from wady bottom, stands, as if built by hand of man for use of fortress, a slant scarp with fortress wall above it from thirty to forty feet high. There is a plateau or brow upon this grey, steep, running line of fortress rock, and thence to the sky line rugged, rounded masses of rock and vegetation, in some places easily accessible, in other places unclimbable.

Above this rock and scarp is hill number two. The nameless spur grows the Karoob-tree, and the spring is close beside it. Beyond the fourth spur, hid entirely from view by the outstanding spur, at a lower

level, the foot of the fortress cliff, lies the cave Mughâret el Hai. On the other side—*i.e.*, the northern side—of the wady from where we stand is the Kharjeh. At the Khurbet el Hai we only seem to be able to distinguish a long unbroken line of cliff, till just opposite El Mukaarat there is seen to be a deep recess in the mountain block, and east of it is a curious leaning buttress, best described as a cone cut in two from apex to base, and laid on to the mountain side. This deep recess is called Wady Habibeh, and the descent from the cliff top to the wady bed is easy enough down it. The curious projection of half-cone buttress that seems to fill the valley with its grey rounded mass, is known as Kournet el Falkain = the “horn or corner of the two divisions,” and the cliffs beyond to the east have the name of Jebel Oushaish, or the hill of the little nest.

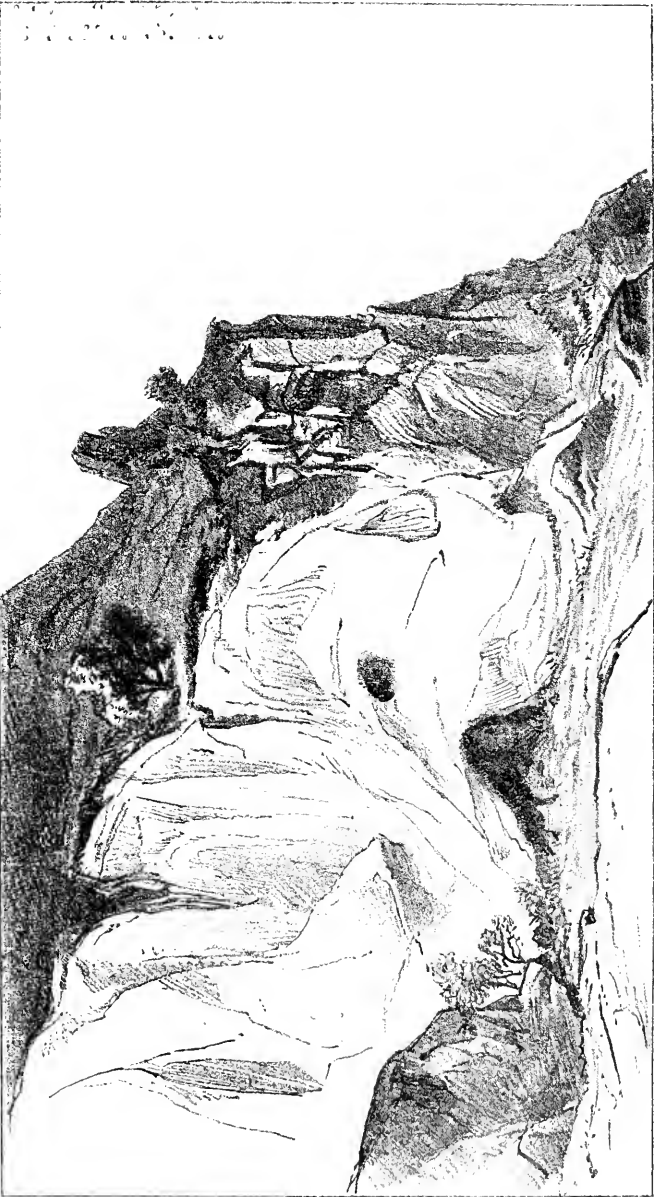
It is exactly opposite the quaint-featured Khurbet el Falkain that the cave of refuge for the Benjamites, the Mugharet el Jai, is placed on the southern side; and hence the need of describing the Khurbet el Falkain at length. But the apparently single mountain mass on the north or Philistine side of the wady, between us and the deep-recessed Wady Havileh, is in reality, as we saw afterwards from near the Ain Suweinit, broken up into three masses, the cliff mass nearest us being called El Marjameh, the next Jebel el Hûty, and the third Jebel el W'ar.

Marjameh, or the hill of the stony place, with its hint of warlike times and pass defence, is separated from El Honteh by a steep recessed wady or mountain gully known as Wady Rahab, leading up to Khurbet Rahab (“The Monk’s Plot”). Here we have a hint of the use of certain caverns that dot this northern line of cliff in mediæval days.

But it is noteworthy that this mountain gully, with its cave Hosn or Houson (“Cave of Defence”), is entirely hid from view by a tooth of rock that, like a tower on a bracket, hangs in mid air at the angle of the rock cliff. The next hill’s name to the east of Jebel Hûty is known as Jebel Arak el W'ar. Deep caverns high up on the cliff sides have given their names to both of these hills. But the deep mountain gully dividing El Hûty from El W'ar is perhaps of most interest to any who attempt to localise the scene of Jonathan’s exploit, and his climb on hands and knees against the men of Michmash.

This mountain gully is called Shehab el Hûty. A curious natural stairway of rock is hid from all view to men at the eastward by an equally curious natural balustrade. A whole regiment might ascend to the Philistine heights unseen up this Shehab el Hûty. One has described this particularly because its position is exactly opposite that of the Ain Suweinit; and if we may believe, as we are told, that the Philistines had come out to the passage of Michmash (1 Sam. xiii. 23), we can seem to see this Shehab el Hûty accurately described enough in the following chapter (1 Sam. xiv.), and can recognise a possible locality for the pomegranate on Migron (1 Sam. xiv. 2) in the place of the present Karoob-tree that is such a landmark, or spring-mark, in the uttermost of Gileah—Jeba.

1920



ENTRANCE TO CAVE 'MUGHARET EL JAI' IN WADY SUWEINIT



The caverns on this northern side of the Wady Suweinit are many, the principal being Es Shenaar, El Hisir, or Hosn, Arak el War, and Arak Khadaish, the latter beyond Kurnet el Fakair, and being exactly described by its name the Rock of the Scratch.

From our point of view of the wady, we descended along ledges of rock, a good safe path even for mules if need be, by yellow furze, and variegated-leaved thistles, till we reached the main ledge or brow along the top of the cliff of naked rock that is the feature of this southern side of the valley. Keeping along this for about ten minutes, we reached the Karoob-tree and the huge blocks of limestone that seem to guard it on every side with their seven massy blocks (the one east of the tree was 30 feet 18 inches in diameter).

The spring close by was so hidden by huge masses of the fallen limestone that, but for the shepherd, we should have missed it. Ascending between these rock boulders immediately behind the largest of the masses near lay a little stone cup, about 14 inches by 8 inches. Behind this a small triangular opening, beneath overhanging masses of confusedly-piled stone, gave admittance to the spring, which lay at the bottom of a steep rock-hewn and stone-built passage, 12 feet 6 inches from the entrance. Down this, feet first, we slid, and found every stone the whole way polished as smooth and as white as marble. Thousands of feet during a space of hundreds of years alone could have done this. It seemed on examination that the fountain head had been built over in this way: the passage from above scooped out down to the water at this angle, then walled rudely, and two large masses had it seemed been made to fall so as to prop each other up overhead, while light was admitted by a side opening carefully protected by stones above, but a little to the west of the roofing immediately over the spring.

The basin of the spring had evidently been hewn out of the living rock. The water was fresh and good, but water-leeches lay in heaps in the dark corners.

No writing, no marks of any kind, were found at or near the spring, and the noticeable features were the apparent concealment of the fountain by the huge natural screens of fallen rock masses, and the evidence of enormous use that the smooth polished stones of the spring entrance seemed to give. As for the Karoob-tree, its roots were level with the waters, and its luxuriant foliage and heavy crop of beans told a tale of roots that reached to cool ground and sucked moisture in the driest of weather.

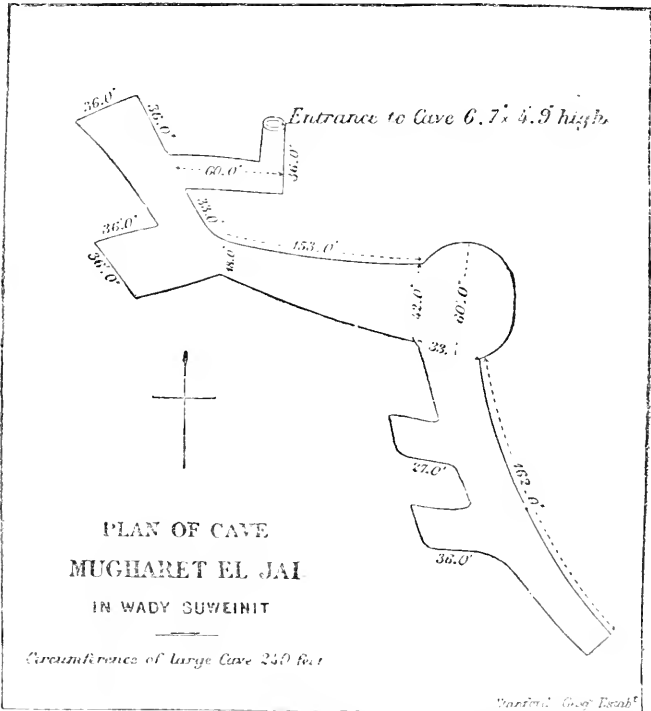
Leaving the spring, we proceeded on eastwards, round the next two rounded bluffs, El Kuba' and El Mukaaret, to the cavern of Mugharet el Jay. The way was easy for the first fifteen minutes, but we then had to descend the cliff ledge and creep along cautiously on the bare rock scarp. The guide took his shoes off, for it was so slippery that one of the party was forced to turn back from giddiness.

But in fifteen minutes we had gained better footing and had rounded

the corner of the bluff El Mugharet. A vulture flew from her nest five yards above our head, showing the loneliness of the spot.

But though one cave, built up artificially at its mouth, with an artificially-hewn doorway beneath, stared at us halfway up the cliff that faced us as we turned the corner of the cliff, the Cave El Jai was not visible.

The guide beckoned us on past a projecting shoulder of rock, and crawling up the scarp and turning our faces due west, we saw a



little low triangular opening in the far corner, with a smaller aperture, a smoke hole or window, above.

Entering it over an inclined plane of slippery rock, marked by the feet of last winter's goats, we found ourselves in a spacious cavern, whose chief feature was the honeycombed structure of the walls, the overhanging mass of rock that made a pillar, as it seemed, for the roof in the far south-western side.

The far-reaching gallery that ran up hill beyond due west, the side gallery going away to the north, and the oily blackness of the smoke-grimed rock. The floor was deep with dust of ashes of the fires of many generations of refugees or shepherds. Our guides shook

in their shoes as they were pushed along with the torches. The roof, some thirty feet high, shone glossy black as we measured this entrance cave. Then we passed along the west gallery westward, ascending as we went. A gallery, wide and high in proportion, turned sharp to our left—that is to the north—and descending as rapidly, passed along a parallel passage back towards the east. At its extremity a lesser passage, hewn, it seemed, in the rock, gave notice of our nearness to the northern outside walls of the cliff, for the wind well-nigh blew our torches out. This was perhaps for ventilation sake. Retracing our steps, and finding no marks of man but the oily blackness of smoke and dust of ashes at our feet, we entered a lesser gallery towards the north-west at top of the hill, thence retraced our steps to the main entrance cavern. All this way had been spacious enough for the living of men, but no galleries that with its double entrance. Soon after meeting in one beyond the antechamber, if I may so call it, that opened south of the main entrance hall, was not lofty enough to admit of standing room, and this we had crawl up.

Returning we crawled up two short passes to the west of this antechamber, examined a small cave and recess perched on the water-scooped rock near entrance to this vestibule, and so back into the large cavern and daylight.

Our feeling about the cave was that it was not so capable of stowing away men as the so-called Cave of Adullam at Khureitun, but that on emergency more than 600 men could hide here if need be; 300, perhaps, find ample lodging.

This made me anxious to examine the cavern called El Kuba' or El Kârat, that was perched inaccessibly without help of rope or ladders in the cliff eighty yards away to the east, and within easy speaking distance of the Mugharet el Jai, or Jay. The shepherd could only say of it that it belonged to the Christians, and was large, but he added that no man had ever entered it, so his testimony was a little worthless.

A natural or artificial ledge had at one time given admittance from above to this cavern, and the rough-hewn doorway, reminding one of a rock tomb below the stone-filled entrance, told of former occupation.

Looking for the cavern's mouth we had a fine view of the Kurun el Falkair opposite, with its Wady el Habibeh (ravine of the loved ones), the dark low cave of Arak el W'ar, the cavern at the head of Kurun el Falkain, and the cave under the ledge farther east of Jebel Oshaish, know as the Scratch, *Khuaiish*. We scrambled up the cliff close by with help of a band from above, and so along easily back to the Ain el Suwcinit, in less time than we had taken to come. Such are the facts as to this cavern.

I beg to enclose the notes of the names written down in Arabic by my kind friend Mr. Salami, the Consul's secretary. There is only one note that should be added. The two adjacent cliffs to this cavern, El Kuba' and El Mukaaret, seem to point, from all one can understand, to (1) Detention of an enemy in distress (Kuba'). (2) To (α) a place

known as the Place of Caves, the Hill of Holes (1 Sam. xiv. 11). ( $\beta$ ) To a place whence loud crying out was made, El Mukaaret. There is a collateral meaning to this last to be found in the name of the valley from Geba to this head of the ravine. Wady er Radâdeh, one is informed, means the Valley of the Wailer or Crier in Return; and some traditional hint may perhaps be here preserved of the Benjamites and the cry of peace mentioned in Judges xxi. 13.

Lastly, one also hears that the word Sanâtu means to stop. If this be so, and Wady Sunt, or Suweinit, be derivable from a word meaning detention, this added to the cliff's name, El Kuba', with its kindred signification, may perhaps allude to the detention either of Saul and his 600, or of the Benjamites and their 600 men, in the neighbourhood of, if not really inside of, the cavern Mugharet el Jai.

Please make what use you can of these hastily written notes *en voyage*, and accord me the favour of taking care of both notes, plan, and sketches, if neither serve you or the end that, in common with you, I have at heart.

Yours truly,

H. B. RAWNSLEY.

Wady er Rumaman	= Vale of Pomegranates.
El Kharjeh	= The going out.
Khurbet et Tineh	= The Ruin of the Fig Tree.
Khallet el Hai	= The Place of the Camping Ground.
El Krein	= The Little Horn.
Wady er Rumman	= The Valley of the Pomegranate.
Wady er Radâdeh	= The Vale of the Return (but see next page in Lieut. Conder's notes).

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#### NOTE BY LIEUT. CONDER, R.E.

This cavern is shown on the Survey map. The view of the Valley of Michmash (Tent Work, vol. ii.) includes the cliff of *el Hosn*, described in the present paper, on the north side of the valley.

A few remarks may be added as to the Arabic names collected, which appear to be all descriptive. Many of them occur only in the Survey lists, and from want of space, and in order not to confuse the clearness of the plate (which is full of detail), are omitted from the map.

*Fârrâr* is a word commonly used of a spring head where the water "bubbles up."

'*Ain er R'aiân* = "shepherds' spring."

'*Ain esh Sherâr* = "dry spring."

*El Kharjeh* = "the outer place"—a common term.

*W. er Radâdeh* = "winding valley." This is a common term occurring several times on the Survey.

*Khûrbet el Haiyeh* = "ruin of the snake."

*Kub'a*, apparently the Hebrew *Kōba*, "a helmet," from the form of the hill.

*Fārah* is the Hebrew Parah, a town of Benjamin.

'*Arāk el W'ar* = "cliff of rough rock."

*Shehab* (vulgar for *Sh'ab*) *el Hūty*, "the walled hill spur."

The Survey party ascended this gully in 1873 after descending from the plain east of Teb'a.

*Suweinit* diminutive of *Sunt* = the little acacia.

*Esh Shinār* = the partridge.

*El Hisir*, probably *el Hosr*, "the pebbles."

*El Hosn* = "the fortress."

C. R. C.

### OBSERVATIONS ON THE ABOVE.

By Rev. W. F. BIRCH.

The precision of the Hebrew language in the use of different words again helps us in this inquiry. "Rock" in the A.V. represents (at least) two words in the original, *Tzur* and *Sela*.

The latter always means a precipitous rock—*i.e.*, a cliff. Therefore the Rock (*Sela*) of Rimmon (as also Etam) was a cliff. Where, then, was it situated?

On the tribe of Benjamin being at last defeated in the third battle at Gibeah, the light brigade, according to Josephus, cut their way through the enemy, and so anticipated Balaclava—

" Archers to right of them,  
Slingers to left of them,  
Spearmen in front of them,  
Charged the six hundred,"

"and fled into the wilderness unto the rock Rimmon, and abode in the rock Rimmon four months" (Judges xx. 47).

A village, three miles east of Bethel, called Remmoon (apparently considered as Rimmon by Eusebius), has, by virtue of its name, had greatness thrust upon itself, in its site being taken to be the veritable rock Rimmon; but though it may be described as "a white chalky height" (S. and P.), or "a rocky Tell" (Bibl. Res.), on no side does it present a cliff (*sela*). This want is a fatal defect in the above identification, so that minor difficulties need not be considered—*e.g.*, the probability of Remmoon being not in Benjamin, but in Ephraim, the scarcity of caves to shelter the refugees, the water supply, &c. Rimmon means the "pomegranate tree." In 1 Sam. xiv. 2 it is stated that "Saul tarried in the uttermost part of Gibeah under a (lit. *the*) pomegranate tree (Rimmon) which is in Migron" (*i.e.*, the precipices). This position on the southern side of Wady Suweinit (the passage of Michmash), about a mile east of Jeba, suits very well the local indications in Judges xx.—*e.g.*, (43)

"they trode them down\* with ease over against Gibeah *towards the sun-rising.*"

Gesenius takes Rimmon in Judges xx. and 1 Sam. xiv. to mark the *same* place; while so striking are the points of agreement between "the *cliff* of the pomegranate tree" and "the pomegranate tree that was among the precipices" that there hardly seems room for any other opinion.

That the six hundred survivors at first, and afterwards Saul and "about six hundred men" found refuge among the *same* southern cliffs of the passage of Michmash, and that, therefore, *here* was the great natural fastness of the tribe of Benjamin, would be finally established beyond question, if there could also be found *here* first *proper accommodation*, and next *sufficient water for 600 men for four months*, since Saul and his followers might have managed with a poor supply of both for a few days at the most.

A small but valuable book, "Byeways in Palestine," seems to provide the desired link. In 1852 Mr. Consul Finn was at Remmoon, inquiring for a large cavern that might have contained the 600 Benjamites, but he only found a few of inconsiderable size. Afterwards he passed through Mukhmas and crossed Wady Suweinit, and observes (p. 297), "at a short distance down the valley there are remarkable precipices on each side, which must be the Bozez and Seneh, renowned for the bold adventure of Jonathan and his armour-bearer, and near these projections are some large old Karoob-trees." Next he comes to Geba (Jeba'), and adds: "The guide told us of a *vast cavern* in the Wady Suweinit capable of holding many hundred men, near to the above-mentioned haroob trees, and therefore just the suitable refuge for the Israelites (1 Sam. xiv. 11), besides the Bozez and Seneh; and he told us that halfway down the precipice there is a *course of water* running towards the Ghor."

The value of this information lies in its being (apparently) the spontaneous statement of a person who thought that one who cared to look for a *large cave* at Remmoon, would like to see one wherever he could, and so far the existence of shelter and water in the required spot, besides being desirable, becomes also *probable*.

A most interesting report in this *Quarterly Statement* from the Rev. H. B. Rawnsley (on a curious *spring and cavern* marked Mugharet el Jai in the new map, and mentioned by Dr. Robinson as being *large*), both proves that Mr. Finn's informant spoke the sober truth, and, in my opinion, fixes the required position the famous "rock of Rimmon," the *deuicr resort* of the tribe of Benjamin.

An old error, however, is not easily uprooted; accordingly, at risk of being tedious, the claims of Remmoon shall be fully considered, and if false (I hope) annihilated. What, then, are its claims to be the "Rock of Rimmon?"

\* In passing it may be observed that the marginal reading for "with ease" is "from *Menuchah*," probably = Manahath (?) near Jeba (1 Chron. viii. 6; compare 1 Chron. ii. 52, marg.).

(1) Its name and (?) mention in the Onomasticon. (*a*) "Remmon in tribu Symeonis vel Judæ: hodieque est vicus nomine Remmon, juxta Eliam contra aquilonem in quinto decimo ejus milliario." (*b*) "Remmon, petra Remmon in tribu Symeonis, sive Zabulon."

(2) Lieut. Conder says, "At Rümmon there are many caves sufficient for any number of Benjamites."

(3) Its elevated position. "Rummon lies high, on a rocky Tell." (Later Bibl. Res. 290).

(4) There is a spring of water in its neighbourhood.

(5) It is within the limits of Benjamin, as *commonly* drawn.

(6) It is in or on the borders of the wilderness.

Against the above site, and in favour of the position east of Jeba, it may be observed (1) that there was a Rimmon in the rival, or true position, according to 1 Sam. xiv. 2. "The pomegranate-tree (Rimmon) in the precipice." The Onomasticon in (*a*) has not in view the *Rock* of Rimmon, but the *city* Rimmon (Josh. xv. 32, xix. 7); and in (*b*) makes a ludicrous conjecture because "Rimmon" occurs in Josh. xix. 7 and 1 Chron. vi. 77. The name Rimmon in the right position has also just been recovered in "Wady er Rumman."

(2) Is well met by the counter-cave reputed to hold *six hundred men*.

(4, 5, 6) Even if proved for Remmoon, hold good equally well for the position directly east of Geba.

(3) This is the *rock* on which the claims of Remmoon must go to pieces. Give the word rock (*sela*) its proper weight—*i.e.*, call it *cliff*—and it must crush this pretender. Remmoon does not stand on a *cliff*, and so could not give the Benjamites the security they sought and found in the mountain fastness in Wady Sûaineet.

That *Sela* means a cliff—*i.e.*, a rock more or less *perpendicular*—is clear from Biblical usage: 2 Chron. xxv. 12; Jer. li. 25; Amos vi. 12; 1 Sam. xxiii. 13 (*Sela-ha-macheloth*. See "Tent Work"). Accordingly the Rock (*sela*) Etam, though near Bethlehem, cannot be the Frank Mountain, which is the "Rock" (*Tzur*), 1 Chron. xi. 15, near the traditional and true cave of Adullam.

Happily, Benjamin had brains besides pluck, and so refused Remmoon and chose *Sela* Rimmon; otherwise it had never given a Saul to be the best and tallest king in Israel, and the "last and least of the apostles" in the Church.

So minutely accurate is the Bible, that it is hardly surprising that Mr. Rawnsley's report recovers 'the pillar-rock' in Wady Suweinit, which, though ignored in the A.V., is mentioned in the Hebrew; see 1 Sam. xiv. 5. "The one rock (Hebr. tooth) was a *pillar* on the north, over against Michmash" (Sp. Comment.).

This *pillar* is referred to as "a tooth of rock that, like a tower on a bracket, hangs in mid-air at the angle of the rock cliff."

W. F. BIRCH.

## THE NAMELESS CITY.

1 Sam. ix., x.

WHEN Saul was without bread there was a whole shoulder already reserved for him; when he had resolved to give his servant's last sixpence (=  $\frac{1}{4}$  shekel nearly) to Samuel, the seer was waiting to anoint him king. Similarly when expectation was at its lowest, the expenditure of a little more research meets with a great reward.

It is proposed (1) to find the name and precise position of the *nameless* city where Saul met Samuel, with the "parlour" in which the honoured traveller did justice to the prophet's hospitality, very different from the gloomy spectre that tasted fatted calf in the witch's hut at Endor; and (2) to untie, if possible, the Gordian knot in Biblical topography, caused by the identification of this city with the home of Elkanah "of Ramathaim-zophim of Mount Ephraim."

As novel conclusions are more exciting than close arguments the case shall be stated first and proved afterwards.

The *nameless* city was Ramah, as Josephus correctly assumes, and was variously called Ramath-lehi (Judg. xv. 17) and Ramathaim-zophim.

It was one of the cities of Mount Ephron (for which the better known Mount *Ephraim* seems to have been substituted in 1 Sam. i. 1), and was situated on an eminence about south-west of Solomon's Pools, designated the "Bakoosh (? = Maktesh) Hill" in "Finn's Byeways." A short mile further on in the same direction the ground rises to another conspicuous summit called Dahar-es-Salâhh (Finn's B. = the beautiful mountain) or Ras Sherifeh (the noble promontory), 3,260 feet above the sea ("Tent Work" i. 279).

Here on the highest spot of elevation from which there is a magnificent panorama "twenty miles round" stood "the high place," and in one of the adjoining stone enclosures Samuel's "parlour" might doubtless have been seen any day down to the ill-fated 24th of October, 1874, when (infandum!) these memorable ruins were converted into "Salami's Cairn" (*id.* 280).

In front (*i.e.*, on the north or north-east side) of Ramah the ground slopes to a spring called Ain Kasees (the priest's spring), while farther down is another more copious fountain near the head of the pools, formerly very celebrated as En-hakkore (the well of him that called, Judg. xv. 19).

Standing on this ascent to the city we have (and see?) near us an ancient sepulchre (*vide* F. B. for sketch); probably in such a one, possibly in *this* very one, Samuel was buried by all Israel.

Not far from this spot, "at the end of the city," the prophet must have stood when on the first day of the month, at early dawn, he anointed Saul king, and foretold to the shy and reticent young man the various events of his homeward journey.

Let us stand just behind the seer while he points out the scene of each future incident to the astonished king.



(1) "Thou shalt find two men by Rachel's sepulchre." We see the spot marked out by the present "Rachel's sepulchre" near Bethlehem.

(2) "Thou shalt come to the plain (lit., oak) of Tabor." There is the place somewhere between Jebel Deir Abu Tor and the hill to the left, possibly the "House of the (T)erebinthi."—*Jos. Wars.* v. 12. 2.

(3) "Thou shalt come to the hill of God." "They came to the hill." We see it distinctly. It is the place of the Upper City of Jerusalem (Gabbatha, *John* xix. 13).

(4) "When thou art come to the city." We can make out perhaps just a house or two, but the greater part lies hidden in the Valley of Hinnom, behind (3).

(5) "He came to the high place." It is the Mount of Olives, "where David (*Sp. Comm.*, men) worshipped God."—2 *Sam.* xv. 32.

Thus "the high place" brings Saul close to his destination—viz., his father's house at Zelah, on one of the eastern ridges of the Mount of Olives.

(1), (2), (3) are certainly visible from Ramah. See chapter on the Bakoosh cottage. (5) is visible from "the parlour," and will prove to be so (I believe) also from Ramah. Perhaps some one at Jerusalem will more exactly describe the view.

W. F. BIRCH.

## CAPERNAUM.

By PROFESSOR SCHAFF, of New York. (Translated from the Transactions of the German Society for the Exploration of Palestine.)

THE position of Capernaum is still a disputed question. Opinions are almost equally divided between Khan Minyeh and Tell Hum. Quaresmius (1639), Robinson (1838), MacGregor (1869), Porter (1875), Sepp (1876), Lieutenant Kitchener and Selah Merrill (1877), sought for it at Khan Minyeh, at the northern end of the Plain of Gennesareth, near Ain et-Tin and close to the shore of the Sea of Galilee. Pococke (1738), Burekhardt (1822), Ritter, John Wilson (1847), W. M. Thomson (1859), Hepworth Dixon (1864), Renan (1864), Captain Wilson (1871), Stanley (1871), Furrer (1871), and Socin, in Baedeker's "Syria and Palestine," place it at Tell Hum, a ruined town which lies three English miles to the north of Khan Minyeh, and nearly at equal distances between that town and where the Jordan flows into the Sea of Galilee. A third hypothesis, which suppose the site of the town to be near the Round Spring (Ain el-Mudawer) at the southern end of the Plain of Gennesareth (el-Ghuweir) has been abandoned by its chief advocate, Canon Tristram. The English Society for the Exploration of Palestine proposes to dispatch a special expedition to Galilee, in order, if possible, to settle definitely the sites of the towns of Capernaum, Bethsaida, and Chorazin. On a late journey through the Promised Land I had myself decided in favour of Tell Hum, but will gladly await the further information that will soon be afforded by excavations at that place.

The following points must be taken into particular consideration in this controversy:—

I. The *Biblical* argument. Capernaum (*i.e.*, “the village of Nahum,” not “the place of consolation,” as Origen and Jerome make it) was the most guilty of the three cities of Galilee over which Jesus pronounced the “woe” which was afterwards literally fulfilled (Matthew xi. 20-24). It is not mentioned in the Old Testament, but is frequently alluded to in the Gospels. It was the place where Jesus generally lived during the time of His public labours amongst the people after He was obliged to leave Nazareth. It was therefore called His “own city” (Matthew ix. 1; compare iv. 13). It was the home of Peter and of his mother-in-law (Luke iv. 38), and probably also of Matthew, who was taken away from the receipt of custom there and called to be an apostle (Matthew ix. 9). The village was large enough to be called a “city.” It had a flourishing trade, a custom-house (Matthew ix. 9-11), and also a synagogue, which the noble heathen captain had built for the Jews (Luke vii. 1-10).

As regards the site of the town, we only know certainly from the Gospel account that it was situated on the north-western shore of the sea, close to the sea, and in the borders of Zabulon and Nephtholim (Matthew iv. 13). The defenders of the Khan Minyeh theory confidently assert that the site of Capernaum was in the Plain of Gennesareth, which extends about three miles from Mejdal (the ancient Magdala) to the rocky hill at Khan Minyeh, while Tell Hum lies farther to the north. But this is nowhere distinctly affirmed, it is only a conclusion drawn from the circumstance that after the miracle of the loaves and fishes, which was performed not far from the north-eastern shore of the sea, Jesus landed in Gennesareth, according to the synoptical account. (Matthew xiv. 34, Mark vi. 53), and at Capernaum, according to the more exact account given by John (John vi. 17, xxiv. 59). These two accounts are certainly most easily reconciled with each other by adopting the conclusion that Capernaum was situated in the Plain. But, on the other hand, we find that the people of Capernaum reached the opposite shore, where the miracle was afterwards worked, more quickly on foot than Jesus and His disciples by ship (Mark vi. 33). This is much more comprehensible when Tell Hum is regarded as the point of departure instead of Khan Minyeh, which is more than an hour’s walk further off. The different accounts given in the gospels may perhaps be brought into agreement with each other by the hypothesis that on the morning after the miracle Jesus landed first in Gennesareth (as Matthew and Mark inform us), and went on to Capernaum either by land or water, and that when there He proceeded to the synagogue, where He explained the spiritual meaning of the miracle of the loaves and fishes (John vi. 59). Mark’s account shows that Jesus passed through many villages on His way to Capernaum (Mark vi. 56).

II. We turn next to Josephus, who was thoroughly well acquainted with the district, and who has given an enthusiastic description of its beauty and fruitfulness at that time. He only twice mentions Capernaum

by name, but he does it in such a way as to bear decided witness in favour of Tell Hum. He relates in his *Life*, § 72, that when he was badly hurt by a fall from his horse at the mouth of the Jordan, he was first taken to the village of Kejharnome, and then on the same night to Taricheæ. Now it is clearly the most natural thing to suppose that, being much weakened by his injuries, he should have rested at the nearest village, Tell Hum, before he proceeded on his journey. In his "History of the Wars of the Jews" (iii., 10. 8), he mentions an abundant spring, Kaphernaum, which watered the Plain of Gennesareth, and which contained the coracinus, a fish that was found in the Nile. It is probably the 'Ain et-Tabigah, between Khan Minyeh and Tell Hum. This spring quite corresponds with the description given by the Jewish historian, and is surrounded by the ruins of an aqueduct which led the water along the sea shore to the northern end of the Plain; it is now used to water horses (compare "The Recovery of Jerusalem," p. 271, and Canon Tristram, "Bible Places," p. 264). Dr. Robinson endeavoured to show that the 'Ain et-Tin, near Khan Minyeh, was the spring mentioned by Josephus; but that spring does not possess the above-mentioned fish, and is too small, and lies too low, for purposes of irrigation. The 'Ain Mudawer has certainly plenty of water, and is full of fish, but it lies in too southerly a direction, and too far inland.

III. The *Jewish* and *Arabic* traditions are in favour of Tell Hum, where they also place the graves of the Prophet Nahum and of Rabbi Tanehum. Compare Thomson's "The Land and the Book," i., p. 546, and Furrer's article on Capernaum in Schenkel's *Bibellexicon*, iii., p. 495.

IV. *Christian* tradition, which has been very active in localising Biblical occurrences, leaves us in the lurch in this instance, and gives no decisive opinion.

V. The *geographical* argument is overwhelmingly in favour of Khan Minyeh, which lies near the sea, and is a very suitable place to have a custom-house, and to be an emporium of trade on the present high road to Damascus. But traces are also to be found at Tell Hum and Kerâzeh of a high road of the same kind.

VI. The *archæological* argument taken from the name and the ruins is decidedly for Tell Hum. The name is manifestly identical with that of Capernaum. "Kefr," or "Kafr," means village, and "Tell" is a sort of hill or heap of ruins. A ruined Kefr becomes a Tell. "Hum" may be an abbreviation of Nahum. The ruins of Tell Hum are so considerable that they must be those of a large village or town. They are lying in chaotic confusion, and extend over half an English mile in length and a quarter of a mile in breadth. Amongst the ruins, which have been carefully examined by Colonel Wilson, and which he has described in "The Recovery of Jerusalem," p. 268, are the columns and walls of the "white synagogue" that—if Tell Hum is Capernaum—was built for the Jews by the heathen captain, and in which Jesus often taught. In Khan Minyeh, on the contrary, no considerable mass of ruins has been discovered. Dr. Robinson supposes that the remains of

the town may have been sent to Tiberias by sea, and have been used up there for building purposes. But it is no easy matter to transport the ruins of a large town, and in addition to that those of a synagogue, to say nothing of the fact that Tiberias was already built (A.D. 20) while Capernaum was in a flourishing state.\*

If Tell Hum was not Capernaum it must have been Chorazin. But Chorazin is to be sought at Kerāzeh, where considerable ruins are to be found, as well as a synagogue of black basalt, and houses in good preservation. The name is evidently the same.

The position of the two other Galilean towns, Bethsaida and Chorazin, over which Jesus pronounced His "woe" (Matt. ix. 20-24), depends to a certain extent, but not entirely, on that given to ancient Capernaum. As for Bethsaida (Fish-house), the birthplace of Peter, Andrew, James, and John, it is generally known as the Galilean Bethsaida, in contradistinction to Bethsaida Julias, in Gaulonitis, and is then sought either in 'Ain et-Tabigah or in Khan Minyeh. But it is extremely improbable that two towns in such close proximity to each other should have had the same name. We therefore hold with Dr. Thomson ("The Land and the Book") that there was only *one* Bethsaida, which was situated near the place where the Jordan flows into the Sea of Galilee, and that, like many other towns, it was divided in two by the river.

The eastern part of the town, which was improved by Philip the Tetrarch, and where he died, was called Bethsaida Julias, to distinguish it from the village on the western bank of the river, and also in honour of Julia, the daughter of Augustus. This was done by the Tetrarch almost at the same time as his brother, the younger Herod, built the town of Tiberias, and called it after the Emperor Tiberius. There is no difficulty in deciding the position of this eastern Bethsaida, of which there are still some ruins in existence. It was always western or Galilean Bethsaida that was mentioned in the Gospels (John i. 44; xii. 21;

\* It is interesting to compare the conclusion at which this author arrived during his travels in Palestine in 1877 with the report given by Lieutenant Kitchener, who visited and mapped out this district on behalf of the Palestine Exploration Fund. He also identifies the spring Kapharnaüm with the 'Ain et-Tabigah, although he did not find any coracinus in it; but he says that the water was too muddy, and too much overgrown with reeds, for it to have been possible to see fish which, like the coracinus, always remain at the bottom of the water. The site of Capernaum he places at Khurbet Minyeh, a locality which he separates from Khan Minyeh, and reports that a great extent of ruins may be found there under the present surface of the ground, of which one can as yet only distinguish a few bits of wall. Kitchener makes the distance of the 'Ain et-Tabigah from Khurbet Minyeh three-quarters of an English mile, and from Tell Hum 1 $\frac{3}{4}$  English miles; moreover, as the water of the spring was led in the opposite direction to that of Tell Hum in old times, the spring could scarcely have received its name of Kapharnaüm (Josephus) from a village situated at the latter place. See *Quarterly Statement*, July, 1877, p. 122 f. This continued difference of opinion awakens all the greater desire for a thorough investigation of the subject, and this is what the English Society now proposes to undertake.—Ed.

Mark vi. 45; viii. 22; Luke ix. 10). Eastern Bethsaida was such an essentially heathen place that it had as little to do with the Gospels as the town of Tiberias.

Thus, until further research has been made, we may look for Chorazin in Kerāzeh, for Bethsaida on the Jordan opposite Bethsaida Julias, and for Capernaum in Tell Hum.

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OBSERVATIONS ON THE ABOVE BY LIEUT. KITCHENER, R.E.

Some remarks appear to me to be necessary on Professor Schaff's summary of the existing evidence on the position of Capernaum.

In I. point Professor Schaff states that it would be simpler for travellers on foot to proceed with greater rapidity than a boat on the lake starting from Tell Hum rather than from Khan Minia, as the distances are proportional. Whether they both started from either place I cannot follow the Professor in his argument.

II. By following the very graphically described fight between Scilla and Josephus on the map, and working out the different movements of the troops, it appears certain that the position of the battle was between Tell Hum and the mouth of the Jordan. Tell Hum was therefore the Julias that Josephus was defending. It appears only natural that when wounded he should be carried to the first village in rear of the headquarters, which would be at Khurbet Minia. I am therefore of opinion that Josephus's testimony is decidedly in favour of Kh. Minia.

It being allowed that Ain Tabighah is the spring of Capernaum mentioned by Josephus, it cannot be too strongly pointed out that the water was undoubtedly carried to Kh. Minia directly in the opposite direction to Tell Hum.

III. Though I inquired diligently for the tomb of the Prophet Nahum around the lake, I could not find any Arabic or Jewish traditions locating that sanctuary at Tell Hum, or anywhere else near the lake.

Doubtless some Jews in Tiberias would say if asked, that the tomb was at Tell Hum, as they would say anything else.

V. I would suggest an addition to this point in the Professor's arguments: "But leading by a very circuitous route, and passing over a very difficult country."

As far as I could discover, this road led from Khurbet Minia to Tell Hum, thence to Kerazeh—in other words, from Capernaum to Bethsaida, and thence to Chorazin. As Wildbad describes the journey, no doubt there was a road from Chorazin to the great Damascus road, but I found no traces of it, and it would pass over some very difficult country covered with loose blocks of basalt.

VI. The synagogue explored by Colonel Wilson, C.B., is evidently similar in date to others in the country, such as those at Kerazeh, Irbid, and elsewhere. I have attempted in a paper (*Quarterly Statement*, 1877, p. 123) to prove the date of these synagogues, and that they

could not have been erected by the heathen captain. Besides, a soldier was not likely to be able to build such a magnificent and costly structure. There seems little or no proof that Capernaum was a large town, as stated, or other than a village built of mud, with a custom-house and a guard-house for soldiers, the remains of which still exist on the summit overhanging the site now called Khurbet Aureimeh. I am of opinion that the synagogue given by the centurion was probably only a rather larger mud building than the rest. The fact that Capernaum is so rarely mentioned seems to prove that it was a small place, easily liable to disappear.

If it be allowed, as Professor Schaff states, that there was only one Bethsaida, near the mouth of the Jordan, it seems only possible to place it on the important ruins of Tell Hum. There are no ruins at the mouth of the Jordan. Tell Hum is only two miles from the mouth. We know that it was an important place, with magnificent buildings, just such as we find the remains of at Tell Hum.

Thus, in my opinion, we may look for Chorazin at Kerazeh, for Bethsaida and Bethsaida Julias at Tell Hum, and for Capernaum at Khurbet Minia.

H. H. KITCHENER, Lieut. R.E.

## WHERE IS THE BIRTHPLACE OF THE PROPHET NAHUM TO BE SOUGHT ?

By Dr. G. NESTLE, of Tübingen. (Translated from the Transactions of the German Society for the Exploration of Palestine.)

STARTING from the general and well-grounded belief that the designation "Nahum the Elkoshite" is derived from the name of the prophet's birthplace, and neither from that of his family nor of his father, three different theories respecting the position of this locality have been promulgated. The latest of these, which was almost unanimously accepted last century, and which is now as unanimously discarded, held that it was to be found at Alkush, a village situated not far from Mosul, in Assyria, where the grave of the prophet is still shown. The second theory rests on the authority of S. Jerome, who is known to have spent the last years of his life, from 385 to 420, in a monastery near Bethlehem. He informs us that "Helkesci" was one of the Galilean towns still in existence in his day, and describes it as "small, and scarcely showing by means of ruins any traces of ancient buildings, but yet they were known to the Jews, and were pointed out to me by my guide" (Prol. Comment. ad Nahum). Unfortunately Jerome does not describe the position of the place more particularly; it is now generally identified with the present el-Kauzeh (the "el-Kauzah" of Van de Velde's map, 33 deg. 8 min.—35 deg. 21 min.) between Rāmeḥ and Bint-Jebel. The third theory is found in a work ascribed to Epiphanius, who was born

in Palestine, near Eleutheropolis, became superior of a monastery in that district, and was finally made bishop of Constantia, in Cyprus; but that he was really the author of the work in question is generally denied. The title of the book is "De Vitis Prophetarum." It gives many somewhat mythical details current at the time regarding the life and death of certain prophets. The part about Nahum begins thus: "He came from Elkesei beyond Jordan towards Begabar, and was of the tribe of Simeon." Begabar is very little known, and is confounded by the later Fathers, and in the *Martyrologium Romanum*, with the "Bethabara beyond Jordan" which is mentioned in the New Testament.

This theory has hitherto met with little acceptance, especially as the usually received text is subject to the charge of this contradiction, that, not taking any other into account, it makes out that Nahum's birthplace was to be found in the land east of the Jordan, and yet holds that he was of the tribe of Simeon, although the territory of that tribe lay in the extreme south-west of the country, close to the Philistine and Egyptian borders. Now, in 1855, Tischendorf published two recensions of two much older copies of this work, which date from about the tenth century, and belong to the Paris MSS., and which differ very essentially from the usually received version that rests on later MSS. In one of these, the first sentence that interests us is as follows:—"Nahum, son of the Elkesaios, was of Jesbe, of the tribe of Simeon." In the other we find: "Nahum was of Elkesem, beyond Betabarem, of the tribe of Simeon." Both authorities consequently agree in knowing nothing of any transjordanic position of the place in question; but both of them have themselves a corrupted text. In this respect the Syrian MSS. afford us welcome assistance. The Syrian bishop, Paul of Tella, who, in 617 and 618, translated the Greek Old Testament into Syrian in Alexandria found in the Greek MS. which he principally used for his translation, all those biographical notices at the end of the books of the minor prophets, which we now read in the *de vitis prophetarum* ascribed to Epiphanius, and has rendered them with literal fidelity. This is what is found at the end of Nahum. "Nahum was of Elkōsh, beyond Bēt-Gabrē, of the tribe of Simeon." The Begabar of the Greeks and Bēt-Gabrē of the Syrian text is nothing else than the well-known Betogabra=Beit-Jibrin=Eleutheropolis. It is acknowledged that we owe to Robinson the discovery of the site of this once celebrated town, and also that its identity with Betogabra and Eleutheropolis has been determined on strict topographical grounds. It is now a question how we are to understand where to fix the locality by the expression "beyond Bēt-Gabrē," and further, whether any place near Eleutheropolis can be identified with Elkesei or Elkōsh. In the first place, the spot of ground described as being "beyond," depends on the geographical and also on the individual standpoint of the author. As far as that is concerned, we have as yet been working in the dark, for nothing certain is known either of the dwelling-place of the author

or of himself; nevertheless I beg to call attention to the circumstance that a ruined village named Kessijeh is marked on Van de Velde's map, near Betogabra, and somewhat to the south-west of it; but whether one can find a trace of Elkesei (by the omission of the Arabian article) in this name appears very questionable to me. But however that, may be, the object of this paper is attained if it prevents the tradition attributed to Epiphanius being rejected without further inquiry. The statement is so decided, and is not contradicted by anything in the book of Nahum, that it must have rested on some old foundation. Even if it is of no real historical value, it is yet of much consequence to the history of Biblical tradition, and beyond tradition we cannot in many cases advance.

Let me be allowed, in conclusion, to add a double reason for taking this into consideration. If the Arabians now call the old Betogabra indiscriminately Bêt-Jibrîn and Jebeil, and give "House of Gabriel" as the signification of the latter, this is only a case of popular etymology; the original meaning of the name is not merely "perhaps," as Robinson supposes ii., p. 620, note 2, but it undoubtedly is "House of Men;" this is proved by the Syrian form of the name. The small link in the chain of historical proof which Robinson missed in 1838, was discovered a few years later by Rödiger in a Syrian author. I can now produce a much more ancient and decisive piece of evidence in favour of the identity of Betogabra and Eleutheropolis from another Syrian book, namely, the "Doctrine of Addai," which was published by Philips in 1876, and which dates from the third century of the Christian era. In the first page of this book the town is mentioned "that is called Eleutheropolis, and Bêt-Gubrin in the Aramaic tongue."

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## MODERN RESEARCHES IN PALESTINE.

By Rev. SELAH MERRILL, D.D. (Abridged from the Bulletin of the American Geographical Society.)

### BRIDGES OVER THE JORDAN.

BETWEEN Lake Tiberias and the Dead Sea there is at present but one bridge over the Jordan, and that is *Jisr Mejamieh*, about six miles south of the Sea of Galilee. Just below this lake are the ruins of a once fine Roman bridge of ten arches, which was, no doubt, on the main route from Tiberias and Tarichæa to Gadara and the eastern cities and plains. On the Menadbireh, or ancient Hieromax, or Yarmuk (for the stream is known by all these names), which is the first tributary of the Jordan on the east below the Lake of Tiberias, there is a bridge of five arches, situated only a few miles from the point where the two rivers unite. The next and only other bridge of which there is at present any trace is one, now in ruins, at the Damieh ford, which was on the high road from Nablûs or ancient Shechem to Gilead and the East. This bridge



was originally Roman work, but there are evidences of extensive repairs by the Moslems or Crusaders. On the east side the bank is quite low, and the wide flat at that point is often overflowed; hence it was necessary to build a causeway across the low ground, which was done at great expense. I traced 450 feet of this causeway or eastern approach to the bridge, which was supported on arches, nine of which remain. The original length of this causeway was probably one hundred or more feet greater than that indicated by the figures which I have just given. The foundations of the abutments at the eastern end are still perfect. The bridge itself over the river must have been not far from one hundred feet in length. Formerly there were ruined piers in the stream, and my Arab guides said they used to swim to them; but they have been washed down by floods and are no longer visible. The foundations on the western side have likewise disappeared.

Roman civilisation demanded the convenience and luxury of substantial roads and bridges; and when some civilised power again gets control of Syria and the Holy Land, we may expect that these conveniences for travel and commerce will be restored.

At the present time, at Damieh, and also at Jericho, there are ferry-boats, run by strong ropes, which are stretched across the river. Once in the Bible, when David returned from Mahanaim, a ferry-boat is mentioned for carrying across the household and goods of the king (2 Sam. xix. 19).

#### WATER SUPPLY AND IRRIGATION.

The exploration which I conducted was the first that has ever been made of the entire valley on the east side of the river between the Lake of Tiberias and the Dead Sea. The general width of this half of the valley is from three to four miles, while in the Succoth region and on the Shittim plain it is from six to eight miles. The northern part of this valley, including all the portion between the Lake of Tiberias and the Jabbok, is not a desert, as has been supposed; for no less than a dozen streams, besides two respectable rivers—the Jabbok and the Hieromax or Manadhireh—flow down upon it from the hills, and most of them are living, *i.e.*, they flow all summer. The Hieromax is nearly as large as the Jordan itself where this leaves the lake. In February and March this portion of the valley resembles New England in the month of June. The soil is then burdened with its own productions. By the last of May the weeds, thistles, and wild mustard have become so rank that they are as high as a man's shoulders on horseback, and it is almost impossible to drive a horse through them. This portion of the valley is, perhaps, thirty-five miles in length.

South of the Jabbok or Zerka, for about twenty miles, or as far down as Wady Nimrin, the soil is quite barren, except during the winter months, because there are no fountains or streams among the hills to send down water upon the plain. It may be necessary to state that the barrenness of the soil in this portion of the valley is only apparent,

since it is naturally fertile, and, if it could be irrigated, would become as fruitful as a garden.

From Wady Nimrin to the Dead Sea, a distance of about fifteen miles, lies the great Shittim plain, watered by three copious streams, which make it a rich and beautiful oasis. The Bible, in speaking of the eastern half of the Jordan plain, divides it according to the natural oases, which doubtless existed then as they do at present, namely, Beth-haran, Beth-Nimrah, Succoth, and Zaphon. The Talmud, in its physical divisions of that portion of Perea, follows the same order as the Bible (Josh. xiii. 27). Beth-haran was the south and middle portion of the Shittim plain; Beth-Nimrah was the northern portion; Succoth was the region just north of the Jabbok; while Zaphon, meaning the north, ran up to the Sea of Galilee. (The Talmud, however, appears to identify Zaphon with the oasis about Wady Rajib, where the city Amathus stood, which is now represented by Tel Ammata).

I have made a careful examination of the Jordan valley on the east side of the river, throughout its whole extent, with special reference to its being irrigated from the Jordan itself, and I am convinced that the project is a very feasible one. Every square mile not now irrigated could be watered from the Jordan, and the expense for dams and canals would be small compared with the large amount of valuable land that would thus be made productive. If we reckon the valley at seventy miles in length, and three miles in average width, we should have one hundred and ten square miles of land as fertile as any prairie, and which, at twenty-five bushels per acre, would produce between three millions and four millions of bushels of wheat. In this calculation it will be observed that I make no estimate for the valley on the west side of the river.

Here is a vast valley, and the means for making it one of the most fertile and productive on the globe, lying side by side, waiting for the skill of man to bring them into conjunction.

It is an interesting fact that while in the valley itself there are almost no ruins, there are a good many in the foot-hills; and these are situated in every case on the watercourses which I have mentioned, in such a way that while they had a good head of water in the fountain or stream behind them, they had spread out before them the fertile plain with its marvellously winding river, beyond which the hills of Western Palestine rose in grandeur. I have visited thirteen such ruins, and some of them I judge to have been places of wealth and importance.

If it should be objected that this valley, on account of the malaria and terrible heat, could not be inhabited, these ruins can be pointed to as evidence of its former condition of populousness and prosperity. Besides these ruins in the foot-hills, there are others on some of the tels or mounds in the Jordan valley, particularly those on the Shittim plain.

It should also be mentioned that certain tribes of Arabs live in the valley nearly or quite all the year round. People born there can live there well enough.

## HOT SULPHUR SPRINGS.

One of the interesting facts connected with the Jordan valley is that of the *Hot Sulphur Springs*, which exist at various points. Those at Tiberias are best known, perhaps, because they were very famous as a healthful resort in antiquity, and are still frequented by multitudes from all parts in search of health or pleasure. South of the Lake of Tiberias, and about one hour above the point where the Hieromax leaves the hills, are the hot springs of Gadara. Between this and the Jabbok I succeeded in bringing to light two groups of hot springs not previously known—at least they are not mentioned by Ritter or Robinson, or even in the recent scientific work of Lartet. One of these is just north of the site of ancient Pella, on Wady Hammat Abu Dhaleb, and the other is at the mouth of Wady Zerka. At Tel el Hammam, on the Shittim plain, there is another, and east of the Dead Sea, on the Zerka Main, is the famous group to which the Greeks gave the name of *Callirrhoe*.

There is good reason for supposing that the springs at Tel el Hammam, on the Shittim plain, are those which Herod the Great visited during his last illness.

The springs at Tiberias and Callirrhoe are the hottest, while those at Callirrhoe and Gadara send forth the greatest volume of water. I was most interested in those at Gadara. There are four of them in one group, and a few miles up the valley is another, almost equal in size to the four just mentioned combined. The temperature of these springs is respectively, 115°, 103°, 92°, 83°, and 112°. That one which has 103° temperature is the largest of the group of four, being sixty or more yards in length by thirty in width, and the average depth of the water is six feet. In it is a small floating island, covered with canes and reeds. I swam in this spring as many as fifty strokes in a straight line, and a more delightful bathing-place I never saw. That one which has 115° temperature I found was a little hotter than I could endure, although the Arabs who frequent the place prefer it.

As these springs are considered healthful, some suitable for one and others for other complaints, the ground about them is by common consent regarded as neutral, and friends and foes meet here in peace. If the water flowing from the three hottest of the four springs forming the group just referred to were united, I estimate it would form a stream twenty feet in width and eighteen inches in depth, with a rapid current.

There are extensive ruins about these springs, including a beautiful theatre. After the destruction of Jerusalem, the Jews had a flourishing school at Gadara, and the rabbis used to visit these springs and walk for recreation along the bank of the river. If El Hamma, as this place is now called, could be rebuilt, it would become not only one of the most attractive resorts in Syria, but one of the most interesting in the whole world. At present it seems a pity that these delightful and

healing waters should flow on for ever without being enjoyed by those who would both appreciate and be benefited by them.

In connection with the hot spring which I discovered near Pella, at Wady Hammat Abu Dhableh I found also a fine natural bridge spanning the deep ravine just above the spring. It is from twenty to thirty feet wide, eighty to one hundred feet high, about two hundred feet long, and its single great arch is twenty-five or thirty feet in height at the highest point. The Wady runs from east to west, the banks are very steep, and the bridge forms a striking object when looked at from below.

#### ARTIFICIAL TELS OR MOUNDS.

I wish also to call attention to the *tels* or mounds which exist in the Jordan valley, because, as some of them are wholly or in part artificial, they carry us back to the Canaanite, or to the pre-Canaanite period, and may help us in solving the problem of the site of the "cities of the plain" that were destroyed.

These mounds appear in groups. There are some interesting ones around Lake Merom, on the Upper Jordan. Again, in the Succoth region, just north of the Jabbok, there is a second group. And, finally, on the Shittim plain there is a third cluster, which deserves our careful study.

Independent of any historical evidence on this point, I think my researches have established the fact that, with regard to the Jordan valley, the flat land was never occupied by cities and towns of importance, but that these were situated either in the foot-hills or upon natural or artificial mounds in the plain. In connection with the lowlands, cities are several times mentioned in the Bible as occupying *tels*; while in the valleys of the Tigris and the Euphrates, a city presupposed a mound on which it was built. There is a statement in Numbers xiii. 29, which shows that the Canaanites lay along the Jordan Valley, and their occupation of it may have extended back into the remotest times. A decisive proof that these *tels* were the sites of cities or towns is the fact that several of those in the Lake Merom and the Jabbok groups have ancient ruins upon them; and further, all the mounds, without exception, on the Shittim plain, are covered with ruins, and at least three of these we are able to identify with places which existed in the time of Joshua. Hence it follows, that if we are to look for the site of ancient cities, no matter how ancient, in the Jordan valley, we must first of all examine the *tels*.

One of these *tels* in the Succoth group bears the name of Der-'Alla; and Neubaner, in his "Geography of the Talmud," states that Succoth was called Ter'allah. These words are identical, with the exception of the two initial letters, *t* and *d*, which often interchange. My opinion is, that we have here a clue to the identification of the Succoth which is connected with the history of Jacob. From certain indications, I suspect that cuttings into this mound would reveal ancient remains, which, even

if they did not consist of numerous objects of gold and silver, such as have rewarded Dr. Schliemann's excavations, might, nevertheless, be extremely important in elucidating the history and antiquities of this valley. Somewhere in this immediate region were the brass founderies of King Solomon, where the metal work for the temple was cast; and as the same physical conditions exist now that existed in Solomon's time, it is not improbable that future researches and excavations may enable us to point out the exact locality where that work was done.

It may be well to notice the fact that, at certain points along the valley, there are slight elevations, which may be called *littoral mounds*. They are, however, not remarkable in any way, and have no importance to deserve our notice. This fact is referred to because a certain critic of my work, who withholds his name, has stated that all the mounds in the valley were "*mere littoral mounds*." With all due respect, I must say that this critic writes without any adequate knowledge of the facts, and that the mounds of which I am speaking are beyond dispute wholly or in part artificial. My chief reasons for this opinion are—1st. That in a few cases, where they have been cut into, ruins, walls, pottery, and bricks have been found. 2nd. Columns, capitals, and fine squared stones project from the ground, suggesting the existence of buildings there in ancient times. 3rd. Supporting walls exist in a few cases, formed of several tiers of great boulders or blocks of unhewn stone, which are four or five feet thick, eight and ten, and even twelve feet long, and six feet wide; and in two or more cases, where the walls formed angles, there were foundations apparently for towers.

#### THE SHITTIM PLAIN.

But I wish to direct especial attention to the Shittim plain, which is about fifteen miles in extreme length by seven or eight in width. With it I include now the oasis of Nimrin, which is at the north end of this plain. Here is situated Tel Nimrin, covered with ruins, which corresponds to the Bethennabris of Josephus (War., 4, 7, 4), and likewise to the Beth Nimrah of the time of Joshua.

For the sake of convenience, I will consider the section south of the Nimrin oasis as the Shittim plain proper. It is watered by two fine streams, which pour down from the mountains in Wady Kefrein and Wady Hasban.

In some respects this plain, as thus defined, is one of the most interesting portions of the Holy Land. Among the memorable historical events connected with it may be noticed the sin of the Hebrews with the Midianites, and the terrible retribution visited upon those idolaters; also the completion of the law, and the farewell of Moses; the sending forth of the spies to Jericho, and the final preparations before crossing the Jordan.

We find here five remarkable tels, namely: 1. Tel Kefrein, which corresponds to the Abila of Josephus, and to Abel Shittim of Joshua's time. 2. South of this is situated Tel er Rama, which corresponds to

the Beth Ramtha of Josephus, and to the Beth Haram (or Haran) of Joshua. Herod Antipas rebuilt or fortified this place, as it belonged to Perea, which was a part of his territory, and, in honour of Julia, the wife of Augustus, gave it the new name of Julias, or Livias, for it bears in history both these names. There is sufficient ground, I think, for supposing that here the notorious feast was held when John the Baptist was beheaded. This point is one of the localities where I am particularly anxious to make excavations. 3. Following still south an irregular line from Tel Kefrein, and Tel er Rama, we have a place called Suweimeh, which, from its position near the Dead Sea, also from its distance from the other places as indicated in the Talmud, Eusebius, or Josephus, and from the signification of the name, I think should be identified with the Bezimoth of Josephus, and with the Beth Jeshimoth of Joshua. When the Hebrews came down from the mountains of Moab, they pitched from Beth Jeshimoth on the south, to Abel Shittim on the north, and their tents must have covered the whole plain. At the time of Josephus, Abila and Livias, and perhaps also Bezimoth, enjoyed the rank of cities. Between this irregular line already referred to as running north and south, and the Jordan, I crossed the plain in several directions, but found no ruins of any kind, nor any mounds of any importance. But between Tel Kefrein and Tel er Rama on the west, and the mountains on the east, there are two important tels which remain to be noticed. These are Tel el Hammam in the north, where there are extensive ruins and a hot spring; and Tel Ektanu in the south, about two miles from the other, on which are some of the oldest ruins that I have yet seen in the country. As to Tel el Hammam, I have been unable thus far to find any clue to its ancient name.

Of Tel Ektanu I shall speak further, when considering the site of Zoar.

Let me ask you to bear in mind the fact that what I have called, for convenience, the Shittim plain proper, *i.e.*, the southern and main portion of the whole plain, has upon it a group of five tels or mounds, situated only a few miles from each other, all of which have ruins upon them, and three of which we can identify with cities which existed in the time of Joshua. I think we have a right to suppose—indeed, the historical notices are conclusive on this point—that these cities did not spring up in Joshua's time, but that they existed upon these sites from the earliest occupation of the valley.

In making any suggestions in regard to

#### THE SITE OF ZOAR,

about which there have been various theories, it will be necessary to notice the account of the view which Lot had when he stood with Abraham on a hill near Bethel and looked down the Jordan valley towards the Dead Sea (Gen. xiii. 10). As the tenth verse of the thirteenth chapter of Genesis is rendered in our English Bible, the sense is not

very clear; but it will become so when we read, as we should, all the middle portion of the verse as a parenthesis, as follows:—

“And Lot lifted up his eyes and beheld all the plain of Jordan (that it was well watered everywhere, before the Lord destroyed Sodom and Gomorrah, even as the garden of the Lord like the land of Egypt), until thou comest to Zoar.”

The last clause qualifies the first. Lot saw all the plain of Jordan as far as Zoar, or until you come to Zoar. Zoar was both the limit of the plain and the limit of his vision in that direction, as far as the land was concerned. How much of the Dead Sea he saw is not stated; but no human vision, unless miraculously aided, could reach to the southern end and distinguish anything; while from the point where he stood the greenness and beauty of the great Shittim plain are distinctly seen. I make this remark because it has been advocated by some writers that the Zoar of Moses and Lot's time was at the south end of the Dead Sea. Such persons suppose it to be implied in the passage just quoted, that Zoar, *thus situated*, could be seen from the point where Abraham and Lot stood. But I think it is to do violence to the language and to the facts of the case to attempt to make the phrase “all the plain of the Jordan” include the salt marsh at the southern end of the Dead Sea, which is fifty miles from that river, and has nothing to do with it. Indeed, the region there belongs to another water system altogether—entirely distinct from that at the northern end of the sea, with which the Jordan is connected (compare the significant phrase found in Josh. xv. 5, “unto the end of Jordan”).

The plain which Lot saw as being “well watered everywhere” would continue so unless such great geological changes followed or accompanied the destruction of Sodom and Gomorrah as to cut off the water supply from the neighbouring mountains, which is nowhere stated or even hinted at, nor are there in the region itself any geological evidences of such a change or convulsion.

If Lot saw the plain of Jordan as far as Zoar, and observed that it was well watered everywhere, the inevitable conclusion is that the place must have been at the north end of the Dead Sea. This is an important point gained. It is a fact which cannot be ignored, and which must be considered in any discussion of the question of the site of ancient Zoar.

The same fact is brought out in the account given in the thirty-fourth chapter of Deuteronomy of the view which Moses had of the promised land, including the Jordan plain. The statements in this passage are clear and the order of events is systematic. Moses, we will suppose, was standing on the summit called “Siaghah,” near to Mount Nebo, or one of the Nebo group of hills. He first looked north and saw Gilead and Naphtali; then, turning to the west, he saw Ephraim, Manasseh, and all the land of Judah; he next turned to the south; and he finishes by looking down upon “the plain of the valley of Jericho unto Zoar;” and this plain and valley, at whatever point Zoar was situated, were at his very feet.

One, standing where he stood, cannot fail to realise the force of the Hebrew words of the third verse of the chapter just referred to, namely, *ciccar*, which includes the plain on both sides of the river; and *bikath* (valley), which signifies a great cleft between mountains. The mountains appear here as if they had been spread apart, and the plain been sunk far down between them.

If Zoar is to be located at the southern end of the Dead Sea, this passage in Deuteronomy becomes confused, and the words "the plain of the valley of Jericho unto Zoar" have no intelligible meaning. Hence the view of Moses, like the view of Lot, appears to bear directly upon the question of the site of Zoar. And it is so evident that it hardly needs to be stated, that any hints bearing on the true site of this city help us also in attempting to locate the sites of what are called the "cities of the plain."

I will now give a summary of the main facts bearing upon this question:

1. A tradition has existed in past ages that the cities of the plain were submerged. Indeed, I have seen, in ancient maps, Sodom, Gomorrah, Admah, and Zeboim represented, at convenient distances from each other, at the very bottom of the Dead Sea. For instance, Thomas Fuller's quaint book, "A Pisgah Sight of Palestine," A.D. 1650, has a map which places them in this manner; and represents them as enveloped in flames, notwithstanding the fact that they are 1,300 feet deep in water. But for this tradition there is no warrant in the Bible; and, besides, it is established beyond dispute by geological researches that the surface of the Dead Sea was never *less in extent* than it is at present. During past geological periods it has gradually contracted to its present limits. I have myself traced an old shore-line distant about two miles from the present one. It is evident, beyond question, that the sites of these cities are not to be looked for at the bottom of the sea.

2. The supposition that the shallow water south of the peninsula, or el Lisan, covers these sites has, for the same reasons, no foundation, and is to be abandoned in like manner. Dr. Robinson advocated this theory; but I am sure he would have been the first to reject it had the geological facts been known to him which modern researches have brought to light.
3. There is no warrant in the Bible for supposing that the *sites* of these cities were destroyed when the cities themselves were, or that they were obliterated, or that the region about them became desolate in consequence of their destruction. Indeed there is a passage in Deuteronomy (xxxii. 32) where "the vine of Sodom and the fields of Gomorrah" are spoken of in such a way as to indicate that this was far from being a barren region.

4. If the region where these stood was once fertile, it must always have remained so, unless, as I have before stated, some great geological change cut off the water supply from the neighbouring hills.

5. The region at the southern end of the Dead Sea is a salt marsh and desert, with only a narrow belt of inhabitable land skirting its



eastern border at the foot of the mountains. It is not now and never has been a suitable place for cities.

6. On the other hand, at the north end of the Dead Sea, there is a large and fertile plain, which has been occupied by flourishing cities ever since the days of Moses and Joshua at least, if not from a period much more remote.

7. In speaking of the *tel system* of the Jordan valley, I have shown that the ancient inhabitants built their cities upon natural or artificial mounds, and not down upon the flat lands of the plain itself; and I have stated the fact that such *tels* or mounds, covered with ruins, exist at the north end of the Dead Sea, while there are none at the southern end.

8. As we can identify some of these *tels* with places which existed in Josephus' time, and still farther back with cities which existed in the time of Joshua, it is not unreasonable to suppose that these *tels* were occupied by cities in the time of Lot and Chedorlaomer. If we have historical evidence that these mounds were eligible sites for cities for a period of fifteen centuries before the time of Christ, and during that period were occupied for that purpose, we may be justified in supposing that they were thus occupied from the earliest advent of man in that part of the country.

9. With regard to the account of the view of the Jordan valley which Lot had or of that which Moses had, in both of which Zoar is mentioned, any justifiable rules of interpretation compel us to look for the site of Zoar, which was one of the doomed cities, at the north end of the Dead Sea.

10. Only five sites are required, namely—Sodom, Gomorrah, Admah, Zeboim, and Zoar; and on the Shittim plain we have exactly five sites—Tel Kefrein or Abel Shittim, Tel er Rama or Beth Haram, Suweimeh or Beth Jeshimoth, Tel el Hammam and Tel Ektanu

11. What are termed the "cities of the plain" appear to have formed a group in rather close proximity to each other, because cities that are many miles apart cannot be said to be destroyed by one and the same conflagration. Hence, if we find their sites at all, we should expect them to be quite close together; and this is precisely the case with the five sites to which I have just referred.

12. It is important to remember that Zoar formed one of the group that were to be destroyed. It was near the others and in the same plain with them, but nearer the mountain than any of the rest. As Lot, who had no time to flee to the mountains, wished to make this city his temporary refuge, it was spared on his account.

13. In the account of the catastrophe, all the time allowed to Lot to flee from Sodom to the "little city," which was his temporary refuge, was from dawn to sunrise. The fatal objection to all the hitherto proposed sites of the "little city" is that they are several times too far from the scene of the disaster, whether the cities that were destroyed are placed at the south or at the north end of the Dead Sea. Zoar, consequently,

must form one of a group of cities, as I have said, and this fact must be borne prominently in mind in any attempted identification of its site.

These thirteen facts, now stated, seem to be fair and reasonable. They are forced upon us by an examination of the Hebrew record of the event, in connection with careful researches upon the ground itself; and they all appear to have a legitimate and important bearing upon the question which we are trying to solve.

But is it possible for us to come to any more definite conclusion as to the site of ancient Zoar? I think we are able to decide with strong probability, if not with absolute certainty.

In the group of mounds which exist on the Shittim plain I have referred to one called "Tel Ektanu." This is in some respects the most remarkable one of all this cluster of ancient sites. In the first place, the ruins upon it appear to be of a very great age. Again, its position deserves notice, since it is nearer the mountains of Moab than any of the others; and although it cannot be reckoned as one of the foot-hills, it is so situated as to command an extensive view of the whole plain around and below it. I learned the name from some of the most intelligent of the Arabs who belong in that region—questioning different persons on different occasions, that there might be no mistake about it. They could, however, give no account of the origin and meaning of the name, except to say that it was very old. They said, also, that the ruins upon this *tel* were the most ancient of any that were known to them.

The name itself has no meaning in Arabic, and we are compelled to look elsewhere for its origin and signification. It appears to be the Hebrew word "Katan," which means *little* or *the little one*. Zoar has the same meaning, and the two words are synonymous. This signification is appropriate for this *tel*, as compared with the others. It is a well-known fact that the Phœnicians had, in ancient times, one or more cities named "Katana" or "Katane."

If the cities that were destroyed were at the north end of the Dead Sea, this Tel Ektanu would be exactly in the direction which Lot would take, if his intention was to hasten to the neighbouring hills, or towards them, for safety; and its distance from the rest of the mounds corresponds well with the time allowed the fugitive—namely, from dawn to sunrise.

The fact that one Hebrew word has been substituted for another identical with it in meaning, *i.e.*—*Katan* for *Zoar*, ought not to be urged as an objection to identifying Tel Ektanu with the site of the "little city" to which Lot fled, provided all the other circumstances of the case point to it as the real one. Besides, it is much easier to understand how this substitution could have taken place than it is to understand how the name "Bela," by which this place was known in Chedorlaomer's time, could have given way to Zoar.

The anonymous critic already referred to thinks he has overthrown this whole attempt to identify *Ektanu* with the Hebrew word *Katan* by

asserting that "these words resemble each other only in their English transcription—the *t* of Katan being the Hebrew *teth*, and the *t* of Ektanu being the Arabic *ta*—two letters," he continues, "*which never interchange.*" To which I reply that we have the Hebrew word *Katal* written with a *teth*; while the same or a corresponding word in Arabic, *Katala*, is written with a *ta*—precisely the change which this critic says can never occur. If this person had examined any standard Hebrew grammar or lexicon, he would have seen that the change which he asserts is impossible is recognised by the authorities as existing and occurring in certain cases (see Gesenius, Fürst, Böttcher, Ewald, and others).

To sum up, I would say that, in my judgment, they are not merely accidental circumstances: 1. That this *tel* should be one of a group of five, the exact number required by the Scripture narrative, and all of them ancient sites. 2. That it should be in the same plain, but nearer the mountains of Moab. 3. That the direction and distance should correspond minutely with the requirements of the Biblical account. 4. That the ruins upon it should be some of the oldest in the country. 5. And that the name it bears should have no meaning in Arabic, but be apparently the Hebrew word signifying "the little one," which is the precise meaning of the name of the place to which Lot fled.

After a thorough examination of the region itself, and a careful consideration of all the facts bearing upon the question, I think there are unanswerable arguments in favour of the opinion that the "cities of the plain" were situated at the north end of the Dead Sea, and upon the mounds whose names I have given, and that Tel Ektanu is identical with the site of ancient Zoar.

It is a matter of great interest to know that some of the apparent difficulties connected with the Bible have been solved or dissipated by the researches that have been made in the Holy Land. One of these is with regard to the vast number of inhabitants which the country is said to have possessed, and the great fertility which it is alleged the country formerly enjoyed. And in the time that remains to us this evening, I propose to invite your attention to a *general summary of the evidence for the fertility and populousness of this region east of the Jordan in ancient times.*

I. Let us glance first at the *people* who have occupied this region. 1. For some centuries previous to the Moslem conquest, in A.D. 635, the population was largely Christian, industrious and peaceful, with churches and schools, enjoying the benefits of education and religion. 2. Before them were the Romans, who filled the land with temples and public works, which they adorned with the highest art. 3. Before the Romans were the Nabatheans, who are described as united and peaceable, enterprising, and considerably advanced in culture and wealth. When a Greek army was sent by Antigonos, the successor of Alexander, three centuries before the birth of Christ, against Petra, their capital, they were routed and slaughtered by these little-

known people of the desert. This was the first introduction the Greeks had to these inhabitants of the desert; and the Assyrian records which have recently been brought to light show that six or seven centuries before Christ, the Nabatheans were a powerful kingdom, and able to offer a formidable resistance to the disciplined armies from the Euphrates. 4. As we cannot give accurate details of the period intervening between the Nabatheans and the Hebrews, it will be sufficient for our present purpose to mention the Israelitish occupation, when the desert bounded their country on the south and east, the Jordan on the west, and Mount Hermon on the north. The children of Israel—*i.e.*, the two and a half tribes that occupied that region—were possessed of wealth, and could at one time command over forty thousand valiant men of war. 5. Before the Hebrew invasion under Moses and Joshua the land was occupied by the Amorites, under the leadership of the famous Kings Sihon and Og. 6. And history reaches yet further back, even to a race of giants who had flourished and grown old upon this soil, and whom the Elamite King Chedorlaomer once subdued, at least six centuries before the time of Moses. I have found in at least half a dozen places east of the Jordan some remarkable Cyclopean remains, which I have good reason for supposing date from the people called “the giants,” or the people that had flourished and grown old here before the advent of the Hebrews. If we except the twelve centuries that have elapsed since the Moslem conquest, this region has always been inhabited by people who were distinguished by enterprise and strength, or by intelligence and wealth.

II. Again, we learn from the cuneiform records that the provinces east of the Jordan and the Dead Sea were invaded by the Assyrian armies as many as six or more times previous to the year 600 B.C.—a fact which shows that these lands, with their cities and people, were regarded by those Romans of Asia as enviable objects of conquest. It is noticeable that these stone pages of history mention that the conquerors took back with them from this region immense spoil—silver and gold and camels and costly articles, that had been captured or paid as tribute or ransom to the victorious king.

III. One of the most striking and convincing proofs of the populousness and the prosperity of this region in ancient times are the ruins which literally dot its surface from the Jordan and the Gilead hills east and south to the very border of the desert. Whoever has passed through this East-Jordan land is surprised at the number and magnificence of these ruined towns. Amman and Gerash, Kunawat and Bozrah, vie with Palmyra and Baalbek in the splendour and beauty of their ruins. At Gerash two streets ran through the city, crossing each other at right angles—one of them over a mile in length, and both of them were lined on either side with columns. Three hundred columns still stand upright amid these ruins—a mere remnant of the forest of columns that once adorned this city, which does not now boast of a single inhabitant! We speak of the “multitude of ruins;” of the surface of

the country being "dotted with ruined towns;" let us look closely at the evidence and see for ourselves that these general statements are not exaggerations. The accurate Wetzstein, a former Prussian consul at Damascus, whose book is a standard work upon the Hauran, counted, from the castle at Bozrah, on the plain about that city, as many as thirty ruined towns. Dr. J. L. Porter, who by his researches and writings has rendered very important service to Biblical geography, stood once upon the castle at Salehad—the Saleha of the Old Testament—and counted not less than thirty ruined towns and villages from that commanding spot. From the ruins of Melah es Sarra, some hours east of Salehad, the Rev. W. Wright, formerly a missionary in Damascus, counted as many as fourteen ruined towns within sight from where he stood—*i.e.*, in the south-east direction toward the desert. At 'Are an intelligent Druse, from whose house-top I overlooked the surrounding country, pointed out to me upwards of forty ruined cities and towns, most of which he called by name. Clustering about Kunawat, the Kenath of the Old Testament, there are the ruins of a dozen or more important places, some or all of which, in ancient times, were doubtless dependant upon the chief or central city; so that the group strikingly illustrates the Hebrew phrase, "Kenath with her daughter towns." The places already referred to are either south or in the most southern part of the Lejah, the Argob of the Old Testament; while the northern part of the Lejah, and the eastern and the surrounding plain, is likewise covered with ruins. Consul Wetzstein is authority for the statement that this eastern section of the Lejah and the slopes of the Hauran mountains contain at least 300 ruined cities and towns. It should be mentioned that a town of ordinary size contains 600, 800, or 1,000 houses. In the ancient Gaulanitis, lying between the Lejah and the Lake of Tiberias, Dr. Porter has stated that he had a list of 127 towns and villages, all of which were deserted with the exception of eleven. Among these random data no reference has been made to the cities, towns, and villages in the Gilead hills, in the Jaazer region, directly north of Heshibon, or in Moab, where they are numbered by scores and hundreds. I think that, taking the country from north to south and from east to west—go where you will and in whatever direction—you will come upon an important ruin in every half-hour of travel. I do not know where else on the face of the earth there is anything to equal or even to compare with the ruin-dotted surface of this East-Jordan land. Among these ruins I have myself visited and examined upwards of *sixty ruined churches*. I have examined and measured eleven of the *thirteen theatres* which there exist, including one vast *Naumachia*, or place where mock sea fights were held. The smallest of these would seat 3,000 people; and the largest, at Amman—the *Rab-bath Ammon* of the Bible—which I measured a few months ago, would actually seat 10,000 people. Of these theatres the one at Kunawat, the two at Gerash, the one at Bozrah, one of those at Amman, and one of

those at Gadara, could easily be repaired and made ready for use again, at an expense of only a few thousand dollars. Three theatres at Gadara, two and a naumachia at Gerash, and two at Amman—how could the citizens of these places have needed so many costly structures of this kind? At the warm springs of Gadara, three miles from the city, there was a beautiful theatre, for the accommodation of those who frequented this famous pleasure-resort of antiquity. It is possible that the smallest of these theatres may have been roofed over, but generally they were open to the sky, unless covered by awnings. In some cases they were so built as to command a fine view of the surrounding country. That one in the western part of the city of Gadara, is especially worthy of notice on this account. The view is not only extensive but beautiful and magnificent. The spectators from their seats, while enjoying the play, could overlook the finest portion of Palestine. Five great fortresses were in sight; the whole country, from white-capped Hermon in the north far down towards Jericho in the south, filled with flourishing cities and towns, was before them in the distance; and sunk below them to a vast depth was the Jordan valley, with the river winding through it; while almost at their very feet was spread out the charming Sea of Galilee, covered at that time with vessels, and surrounded with cultivation and life. And as this is but a specimen of the marvellous views which may be obtained from many of the mountain summits of the Holy Land, I sometimes feel that I can forgive its ancient inhabitants for choosing these hill-tops as sacred places. Yet it should be remembered that the grooves, the attractive scenery—all that was beautiful and enchanting in such localities as these, could not save the people from the grossest idolatry and the most lascivious rites.

IV. I have mentioned that I visited as many as *sixty ruined churches*. But I visited only a portion of those that still exist; and how many existed in former times it is now impossible to tell. Among these were cathedrals; and several of the larger edifices must have been erected at great expense, since they are spacious, splendid structures, and adorned with the highest art. And to give a hint of the extent of Christian influence in this region during the early centuries following the birth of Christ, I will mention that at one time Bozrah had seventeen bishops subject to its archbishop, and Damascus, Scythopolis or Bethshean, and Petra, had respectively twelve, seventeen, and twenty-three bishops subject to their archbishops. The ecclesiastical provinces of Damascus and Scythopolis included some territory not embraced in the East-Jordan district which we are especially considering; but with this small reduction the bishoprics that remain are numerous, and the churches were no doubt reckoned not by scores but by hundreds.

V. A fifth fact illustrative of the condition of this country in former times is that of the Roman roads. According to my own estimate, which I have made with considerable care, there were east of the Jordan, between Petra on the south and Damascus on the north, not less than 500 miles of road, touching all the important cities in that region and

leading to the seaboard. These roads were built upon honour. The engineers were skillful, and the workmanship was substantial and enduring. Some of their bridges still remain, together with perfect sections of their roads here and there—surprising monuments of the character of the Roman people. Hills were cut down, streams were bridged, a solid road-bed made of gravel, sand, and cement; on this bed a pavement of squared stones was laid; the line of the road, wherever the country would admit of it, was as straight as an arrow; the width of the roadway was pretty uniformly twelve feet; each side was lined with curbing-stone; and at proper intervals there were stations for watchmen and overseers, and others for relays of horses. On these roads they travelled one hundred, and sometimes two hundred miles in twenty-four hours; and at certain points I have found the ruts which were worn in the pavement by the chariot wheels. Whenever in “the wilderness beyond Jordan,” I find a section of a Roman road that is well preserved, I always stop to admire the substantial workmanship which it displays, and especially to reflect upon the character of that government and people—that state of civilisation which demanded such convenient but costly means of intercourse. What a contrast in this respect between the Romans and the Turks! *Those* a people who made the land a paradise; *these* a people who turned the paradise into a desert.

VI. A sixth fact which must be considered in judging of this country in former times is that of the *inscriptions*. Perhaps 2,000 Latin, Greek, Nabathean, and Palmyrene inscriptions have been collected here, which furnish a multitude of details with regard to the government, religion, arts, and social life of the different races and peoples that once flourished on these now deserted and desolate plains.

VII. A seventh fact bearing on this subject is the evidence which the existing remains afford of the complete system of *irrigation* which the ancient inhabitants perfected and employed. Details with regard to the numerous wells, cisterns, aqueducts, and vast reservoirs which were provided, cannot now be given; but we will simply refer to the valley of the Jabbok as an illustration. This valley is perhaps seventy miles long, and half a mile to two miles in width; and in ancient times every acre of it was reached by irrigating canals. Only the best portions of it are now under cultivation. The present owners of the soil never dig any canals; but whenever they wish to plant a certain piece of ground, they clear out and repair an old one. The Arabs say they did not make these canals, and that their fathers did not make them; but they have existed here from the oldest time. Some of these I have traced for five or six miles along the side of the hills or mountains, and the skill displayed in their construction—leading them under ledges and around bold, rocky headlands—shows that their builders had more means and intelligence than any people that have been settled here since the Moslem conquest. These could have been built by the Romans; but as this valley was settled

and cultivated in the Hebrew times, it is more probable that they date originally from that remote period.

With regard to the populousness of the country east of the Jordan in ancient times, I think the evidence is cumulative and overwhelming. In every age previous to the Moslem conquest in A.D. 635—running clear back to the time of the giants—this land has been thickly inhabited, generally by intelligent and wealthy people. Churches, theatres, palaces, temples, castles, baths, porticos, splendid roads, a multitude of inscriptions, remains of a perfect system of irrigation, historical notices of cathedrals, bishops, and a wide-spread Christian influence, notices of conquests and vast spoils falling into the hands of the victors, authentic notices of many successive and powerful races that have flourished here, and the surface of the whole country dotted with ruined towns, cities, and villages, are convincing proofs that the statements found in the Old Testament respecting the numbers of their armies and people may be accepted, so far as the capacities of the soil for supporting such a population are concerned, as the literal truth.

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NOTE.—The Price of the "Quarterly Statement" is Half-a-Crown.  
 Sent free to Subscribers.

THE  
PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

THE work of the last quarter has been chiefly occupied with the Special Edition of the "Survey of Western Palestine." We are happy to be able to announce that the subscription has been entirely covered. The reception of the prospectus was from the first extremely satisfactory. It was sent, to begin with, to the members of the General Committee, with results which appeared in the last *Quarterly Statement*; next it was issued with the July number to the general body of subscribers, and shortly afterwards the circular was sent to a few leading libraries. It has not been found necessary to advertise the edition in any way, or to appeal to the general public. Some of the local honorary secretaries were good enough to draw up lists of names to whom the circular might be sent, but the rapid application for copies made the use of these lists unnecessary. Further on will be found a complete list of the subscribers, in their order.

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It may happen that some whose names are in the list may be disposed to cede their copies. To meet such cases names are still received and will be placed on the list of the two hundred and fifty, should vacancies occur, in order of priority of application.

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A paragraph in the July *Quarterly Statement* explained that there would be no cheaper edition of the Survey. Arrangements, it was said, would be made to enable the public to purchase any portion or portions of the work separately, such as the maps, the plans, the Arabic lists, or the special papers. Some misunderstanding seems to have been caused by this announcement. The Committee, it should be further explained, have no intention whatever of disregarding the manifest rights of subscribers to have the maps at a lower rate than the general public. The reduced price cannot yet be announced because it has not been found possible as yet to arrive at the exact cost of the maps to the Committee.

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An idea may be formed, however, of what the maps will cost subscribers by reckoning the actual cost of the large map at eightpence a sheet, and of the small map at six or seven shillings, to which the cost of carriage must be added. Probably the price of the large map to subscribers will be two guineas, carriage paid.

The memoirs are being printed as rapidly as possible. Colonel Wilson, the editor in chief, has the proofs sent to him in Asia Minor, which necessarily causes a delay of five or six weeks for each volume. But this is unavoidable. Major Anderson, his colleague, has now returned from Servia, and is prepared to take up the work. The introduction, which forms a general history of the Society from its foundation, will be furnished by the Chairman of the Executive Committee, the scientific account of the methods of the Survey by the officer who carried out the greatest part of the work—Lieutenant Conder. Professor Hayter Lewis has undertaken the revision of the architectural illustrations.

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Colonel Wilson's paper on the Masonry of the Haram, promised for this number, stands over for January, to allow of the illustrations, which could not be got ready in time for the October number.

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We are indebted to the Zeitschrift of the German Association for the Exploration of Palestine for the interesting papers by Professors Goldziher and Sepp, and Herr Schick, which are printed in this number.

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The income of the Fund from all sources, from June 12th to September 17th, 1879, was £508 15s. 8d. The expenditure was as follows:—Liabilities on *Tent Work*, £107 9s.; rent, parcels, postage, salaries, and offices, £145 5s. 8d.; printers, £204 10s. All the "unpaid accounts" which have figured so formidably in the annual balance-sheets are now paid off.

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It is suggested to subscribers that the safest and the most convenient manner of paying a subscription is by means of a bank. Many subscribers have adopted this method, recommended in the *Quarterly Statement* of January last. Among other advantages, this method removes the danger of loss or miscarriage, and saves the Society's office the labour and expense of acknowledgment by official receipt and letter.

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Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise to occasional omissions.

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It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The Survey, as stated above, will be actually completed when it is entirely published, and not before. But its completion does not mean the completion of the work of the Society, as reference to the original prospectus will show. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

Several cases have been at various times discovered of postage stamps being lost on their way to the office. The only way to avoid such loss, unless subscriptions are paid through the bank, is to send money by P.O.O. or by cheque, *in every case payable to the order of Walter Besant, Esq., and crossed to Coutts and Co., or the Union Bank, Charing Cross Branch.*

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The ninth thousand of "Our Work in Palestine" is now ready (price 3s. 6d.), and may be ordered of booksellers. This book carries the work down to the commencement of the Survey, but does not embrace M. Ganneau's discoveries nor the results of the Survey itself.

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The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

Archdeaconry of Hereford : Rev. J. S. Stooke-Vaughan, Wellington Heath Vicarage, Ledbury.

City and neighbourhood of Manchester : Rev. W. F. Birch, St. Saviour's Rectory.

Lancashire : Rev. John Bone, St. Thomas's Vicarage, Lancaster.

London : Rev. Henry Geary, 16, Somerset Street, Portman Square.

Norwich : Rev. W. F. Creeny.

Suffolk : Rev. F. C. Long, Stow-upland, Stowmarket.

Peterborough : Rev. A. J. Foster, Farndish Rectory, Wellingborough.

Worcester : Rev. F. W. Holland, Evesham (Member of General and Executive Committee, and one of the Hon. Secretaries to the Fund).

Diocese of Ripon : Rev. T. C. Henley, Kirkby Mallham Vicarage.

North Wales : Rev. John Jones, Pwllheli, North Wales.

Yorkshire, Durham, and the North : Rev. James King, St. Mary's Vicarage, Berwick. Mr. King has recently returned from the Holy Land ; communications for lectures, &c., can be sent to the Office at Charing Cross.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that they leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

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The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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Attention is called to the statement already advertised, that subscribers to the Fund are privileged by the publishers to receive the "Recovery of Jeru-

salem," "Tent Work in Palestine," the "Literary Remains of the late Mr. C. F. Tyrwhitt Drake," and the "Underground Jerusalem" of Colonel Warren, at reduced rates. But letters asking for them must be sent to the office at 11 and 12, Charing Cross only.

Cases for binding the *Quarterly Statement* are now ready, and can be had on application to Messrs. R. Bentley and Son, 8, New Burlington Street. They are in green or brown cloth, with the stamp of the Society, uniform in appearance with "Our Work in Palestine," and are sold at the price of eighteenpence.

Lieut. Kitchener's Guinea Book of Biblical Photographs can be bought at Mr. Stanford's establishment, 55, Charing Cross. It contains twelve views, with a short account of each. They are mounted on tinted boards, and handsomely bound.

## THE SURVEY OF WESTERN PALESTINE.

SPECIAL EDITION.

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## MEETING OF GENERAL COMMITTEE.

MEETING of General Committee of June 24, 1879.

Chairman, Lord Talbot de Malahide.

Letters were read expressing inability to attend from Sir Moses Montefiore, Messrs. Grove, Harper, Martin, and Morrison.

The Minutes of the last General Meeting were read and confirmed.

The Secretary then read the Report of the Executive Committee, which was as follows :—

MY LORDS AND GENTLEMEN,—On resigning the trust committed to them on June 11th, 1878, your Committee render an account of their administration during the last twelve months.

1. On their first sitting, Mr. W. Hepworth Dixon was re-elected Chairman for the ensuing year.

2. The number of meetings held during the year has been nineteen, without counting many meetings of sub-committees.

3. The memoirs and plans belonging to the sheets of the map executed by Lieut. Kitchener were completed by that officer in September, 1878. He handed over to the Committee on the 10th day of that month the whole Survey of Western Palestine, consisting of (1) a complete survey,



1-inch scale, of rather more than 6,000 square miles, prepared for publication with hill-shading by the Ordnance Survey Department. (2) Twenty-six volumes of memoirs—namely, twenty by Lieut. Conder, and six by Lieut. Kitchener, comprising the notes made by the Survey party while at work. (3) A reduced map prepared by Lieut. Kitchener in accordance with the instructions of the Committee, with corrected photographs, to enable the printer to proceed. (4) A number of photographs taken by Lieut. Kitchener. (5) A number of special plans drawn by Lieuts. Conder and Kitchener. The Committee, by a special resolution, expressed their sense of the ability with which Lieut. Kitchener had brought the Survey to a successful termination. It was gratifying to hear that he had been selected by her Majesty's Government for an important work of the same kind in the Island of Cyprus.

4. The Committee have great satisfaction in announcing that, by authority of her Majesty's Government, the map of Western Palestine has been photo-zincographed by the Ordnance Survey Department, and is now so far advanced that it might, if necessary, be published without further delay. The map is kept back only for the memoirs, which are necessary to explain it.

5. The Committee have been in correspondence with the Rev. Dr. Hitchcock, of New York, President of the American Association for the Exploration of Palestine. The correspondence has resulted in the arrival of the materials resulting from the American Survey, which have been placed in the hands of this Committee for publication. They consist of (1) thirteen sheets of the country lying east of Jordan. (2) Name lists. (3) Memoirs which are now being completed by the Rev. Selah Merrill, of New York. These sheets will also be photo-zincographed, under authority of her Majesty's Government, by the Ordnance Survey Department. They are now in the hands of Col. Cooke, R.E., the director, for that purpose.

6. The Committee proceeded immediately after their appointment to consider the preparation and reduction of the smaller map. They asked for estimates from the principal map-makers and geographical engravers of the country, and finally came to an agreement with Mr. Stanford, in whose hands they placed the twenty-six sheets reduced by photography, and the hill-shading. The agreement was signed on the 13th day of December, 1878. The outline is now engraved, and considerable progress has been made with the hill-shading, which is necessarily a long and costly work. It will probably be a year before this map is ready. It will be issued in six sheets. It is hoped that we may add the American work on the same reduced scale.

7. With regard to the publication of the memoirs, plans, &c., the Committee have given the subject very careful consideration. In the first place, Col. Wilson, one of the General Editors, examined and reported on the materials placed in his hands.

On the receipt of this Report, the Committee empowered him to get certain imperfect portions completed; to make arrangements with

Professor Palmer for the examination of the Arabic name lists; and with Lieut. Conder for the execution of any new work which might be required.

The Committee then instructed their Secretary to prepare a report on the cost of printing and publishing. Such an estimate is necessarily rough, but it affords some guide to the responsibilities incurred in this great publication. It was found that about £4,000 would be required for the undertaking, counting the engraving of the small map. The Committee thereupon invited a few of the leading publishers in London to associate themselves with the Society in the risk of publication. It was found, however, impossible to make the arrangements proposed, and the Committee have now decided on issuing the large map, with all its memoirs, plans, &c., first, in a subscription edition limited to 250 members, every copy to be numbered and signed by the Chairman, at the price of 12 guineas. The price to the general public after these copies have been taken up will be considerably higher.

The proposals have as yet been sent to the General Committee only. They will be published in the next number of the *Quarterly Statement*. There seems to be little doubt that the whole edition will be taken up. No time will then be lost in the printing.

As regards the small map, the Committee have undertaken the whole risk out of the regular subscriptions, and have passed a resolution to place on deposit account a certain sum of money as soon as possible to meet the outlay.

During the year, Mr. George Grove sent in his resignation as one of the editors, and his part in the work has been undertaken by Major Anderson.

Though Col. Wilson has been appointed Consul-General in Asia Minor, he will continue to give his advice and supervision of the proof sheets.

8. Your Committee have great pleasure in recording the success of "Tent Work in Palestine," a book which they announced in their last Report as just ready. It speedily ran through the first edition of 1,500 copies, and a second edition of 500 copies followed, which is rapidly going off.

9. Last year the Committee recommended that an expedition should be sent to Galilee. Subscriptions were invited for this special purpose, and a deposit account was opened. The amount subscribed up to date is £186 5s. The mission will be sent out to Galilee as soon as the necessary funds are raised.

10. The Committee have to regret the loss by death during the past year of General Cameron, R.E., the Director-General of the Ordnance Survey; Col. Home, R.E., C.M.G., of the Intelligence Department; and Herr Petermann, the German geographer.

11. The Committee have received during the year, from all sources, the sum of £3,219 3s. 1d., of which £891 1s. 1d. was received on account of their new book, "Tent Work in Palestine." The expenditure during the same time has been as follows:—

Printers and old liabilities .. .. .	{	£446 16 10
		471 0 0
		<hr/>
		£918 16 10
“Tent Work” .. .. .		839 2 2
Exploration .. .. .		270 5 10
Rent, Salaries, Advertising, Postage, and all Office Expenses .. .. .		790 12 9

The liabilities, which at the beginning of the year 1878 were nearly £900, have been all paid off. The Society, almost for the first time since its foundation, is now out of debt. There is also a balance in the bank this day of £522 17s. 11d.

The income of the Society during the year has been almost entirely due to annual subscriptions, showing that the interest taken in the work is permanent. As in the case of other societies, the receipts have been influenced by the great depression of the times, but the income of the Society has been affected chiefly by the paucity of large donations.

12. Your Committee have to recommend, as the special business of this day, the registration of the Society as a limited liability Company.

The position of the Society at present is as follows. It has no constitution and is governed by no rules.

An Executive Committee was appointed in 1866, under the name of a sub-committee, with full powers of management. It has been the practice since then for this Executive Committee to resign their office at an annual meeting of the General Committee, and at the same time to report on their action during the past twelve months. The General Committee have then, after accepting and approving their Report, proceeded to elect an Executive Committee for the ensuing year. Of the original members present on the formation of the Society, May 12th, 1865, four, viz., Mr. Hepworth Dixon (now Chairman), Mr. Grove, Mr. Morrison, and Mr. Vaux, have remained continuously on the Executive Committee to the present day.

During the fourteen years of its existence the Society has become possessed of very valuable property, consisting of a large collection of antiquities, photographs, the copyright in three books, a great quantity of plans and drawings, and—the most valuable possession of all—the memoirs, map, plans, and drawings of the Survey of Western Palestine.

The Committee are advised by their solicitors that they have no power of defending this property, and that should their books or maps be pirated they cannot even sue the pirate. Under these circumstances it seemed advisable, before proceeding with fresh publications, to consider what steps should be taken to remedy this defenceless position. A sub-committee, consisting of Mr. Hepworth Dixon, Mr. Glaiser, and Mr. Morrison, was therefore appointed. This sub-committee reported on Feb. 18, 1879, as follows:—

1. We are of opinion that, considering the large amount of property now belonging to the Committee, consisting of collections, drawings,

plans, maps, memoirs, books, photographs, copyrights, &c., it is desirable to take steps for the protection of the property.

2. We are also of opinion that of the three methods proposed to us by which this end may be obtained, viz., by Royal Charter, by private Trusteeship, or by Registration, the last offers the simplest and most convenient means of attaining that object.

3. We are of opinion that at the next meeting of the General Committee part of the business shall be to consider a recommendation to register the Society.

4. We are of opinion that the original members forming the Society should be taken from the Executive Committee, and as many as are willing to sign from the General Committee, to the number of seven or more, that being the number required by law, but in order to cover contingencies, at least ten should be registered at first, and that number kept up.

5. We are of opinion that perpetual succession should be secured by providing that all future elections of members to the General Committee should be, as at present, made by co-optation, and that such future members of the Committee should necessarily be members of the proposed Society.

This Report having been received and adopted, the same sub-committee was elected again to draw up the Memorandum and Articles of Association.

The Memorandum and Articles of Association have been accordingly drawn up, submitted to counsel, and are now printed and in your hands.

The Resolutions which will be submitted to you, notice of which has been sent to every member of the General Committee, are necessary before the papers can be submitted to the Board of Trade.

Lastly, the Committee have to acknowledge the receipt of donations and subscriptions of £5 and over from Lord Lawrence, Mr. C. F. Fellowes, Mr. J. P. Bacon, Miss Baxter, Mr. Watson, Mr. Hall Dare, the Bishop of Durham, the Marquis of Bute, Mr. Braithwaite, Mr. J. E. Wilson, Mr. Few, Mr. McArthur, Mr. Samuel Morley, Col. Haig, Mr. Atkinson, Mr. Reiss, Mr. G. Burns, Mr. H. M. Ormerod, Mr. W. D. Fane, Mr. Govett, Mr. H. S. Officer, Mr. C. E. Barlow, the Provincial Grand Lodge of Freemasons, the Sunday School Union, Anon., per Rev. F. H. Murray, Rev. J. T. and Mrs. Brown, Mr. A. W. Jones, G. M. E., Mr. G. M. Hicks, Rev. F. S. Wigram, Mr. A. H. Heywood, Mr. Hugh Mason, Mr. W. H. Gamlen, Mr. G. W. Digby, Rev. J. Lyon, Rev. W. H. Walford, G. C., the Bishop of Exeter, Miss S. A. Borrer, Mr. John Noble, Rev. H. Hall Houghton, Mr. John MacGregor, Mr. E. G. Gibson, Miss Wakefield, Rev. J. T. Houghton, Mr. Charles Morrison, Mr. Hastings, N. Middleton.

W. HEPPORTH DIXON,

*Chairman Executive Committee.*

The Report was unanimously adopted.

Mr. Hepporth Dixon then proposed that the four resolutions, copies of which had been sent to the members of the General Committee, be passed. In proposing the motion he explained the circumstances which

had led to the steps proposed. The motion was seconded by the Bishop of Jerusalem, and was carried unanimously.

The Resolutions were as follows:—

(1) “That considering the large property of the Fund now in the hands or under the control of the Committee, consisting of maps, copyrights of books, and other publications, collections, drawings, sketches, and photographs, &c, and the present unsatisfactory position of the Committee should any infringement of the copyright take place, which would destroy the value of their property, it is desirable to take steps with a view to its protection.”

(2) “That the best method appears to be the registration of the Society, with Limited Liability, under the Joint Stock Companies’ Acts of 1862 and 1867, as a Company, but without the addition of the word ‘Limited’ after the name of the Company, if the necessary licence can be obtained from the Board of Trade.”

(3) “That the draft memorandum and articles of association, copies of which have been distributed among the members of the General Committee, and which have now been read, be adopted for the purpose of the registration of the Company, and that steps be at once taken to procure the licence of the Board of Trade.”

(4) “That the Executive Committee for the year 1879-1880 be empowered to take such further steps as may be necessary for the establishment of the Society as a Limited Liability Company under the Acts of 1862 and 1867.”

Mr. Glaisher then proposed, and Mr. Holland seconded, that the General Committee should be increased by the addition of the following gentlemen, should they accept the invitation, viz.:—

Bishop of DURHAM.

Rev. J. HALL HOUGHTON.

Colonel COOKE, R.E.

Mr. GEORGE BURNS.

Lieut. H. H. KITCHENER, R.E.

The proposition was carried unanimously.

It was proposed by the Bishop of Jerusalem, seconded by Mr. Vaux, and carried unanimously, that the Executive Committee be re-elected with the exception of Mr. Harper, whose resignation was accepted with regret, and with the addition of Professor Hayter Lewis and Lieutenant Kitchener.

It was proposed by Mr. Hepworth Dixon, and seconded by Mr. Eaton, that the honorary officers be re-elected. This was carried unanimously.

It was proposed by Mr. Hepworth Dixon, and seconded by Mr. Lewis, that the thanks of the meeting be passed to the Chairman. This was carried unanimously.

The Committee then adjourned.

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At a meeting of Executive Committee, held immediately afterwards, Mr. Hepworth Dixon was re-elected Chairman for the ensuing year.

## NOTES ON THE TOPOGRAPHY OF THE SEA OF GALILEE.

In the controversies on the sites of Capernaum and Bethsaida, every crumb of information will be considered of interest, and it is important to clear up every point liable to misconception. The following notes may therefore be of value.

*Capernaum.*—It is now generally admitted, I believe, that Christian tradition from the fourth century downwards points to Tell Hûm. Col. Wilson was the first clearly to array this evidence. As regards the testimony of Josephus, however, the advocates of Tell Hûm consider that the “Fountain of Capharnaum” was the ‘Ain Tâbghah, and that it “fertilised the plains of Gennesareth” by an aqueduct.

I would suggest that as Josephus does not mention this aqueduct, it is of importance to prove that the existing aqueduct is of antiquity sufficient to satisfy the condition of its existence in his days.

The level of the aqueduct is 52 feet above the Sea of Galilee, and the water is dammed up to this level by an octagonal enclosing wall round the spring. The spring wall is of small masonry, apparently modern, and said to have been constructed by ‘Aly, son of Dhahr el ‘Amr, in the last century.

The masonry of the aqueduct has not been described. If of the Herodian age, the masonry should be large and the mortar hard and white (as at Cæsarea). Small masonry and hard red, or soft white, mortar are marks of Arab work, as is also the working of the stone with a toothed chisel, which was apparently not used in Roman work.

The Tâbghah spring is brackish and unfit for the Coracinus. That fish cannot find access from the lake because of the 50 feet dam, and the adherents of this site seem thus placed in a dilemma. Without a dam the water cannot be conducted to Gennesaret. With a dam (as Col. Wilson remarks) the water becomes unfit for the Coracinus.

It is often said that Capernaum was in the borders of Zebulon and Naphtali, but any student who will consider the line of that border as traced in Joshua xix. will find that it ran west of the plateau called El Ahma, which extends above the Sea of Galilee as far west as Tabor. The following sites within the territory of Naphtali lay far west of the Sea of Galilee:—

Bitzaanaim	..	..	..	..	..	<i>Bessâm.</i>
Adami	..	..	..	..	..	<i>Admah.</i>
Nekeb (Siadatha)	..	..	..	..	..	<i>Seiyadah.</i>
Jabneel (Kefr Yama)	..	..	..	..	..	<i>Yemna.</i>
Hukkok	..	..	..	..	..	<i>Yukâk.</i>
Adamah	..	..	..	..	..	<i>Ed Dâmâh.</i>
Ramah	..	..	..	..	..	<i>Râmeh.</i>

The position of these sites makes it impossible to extend the border of Zebulon as far east as Capernaum, and the meaning of the passage in

the Gospel (Matt. iv. 13) appears to be that Nazareth was in the territory of Zebulun, and Capernaum in that of Naphtali.

Professor Schaff states that Jewish tradition connects Capernaum with Tell Hâm. The only Jewish tradition with which I am acquainted connects Caphar Nahum with the city of the Minai, and thus with Minieh. (See "Tent Work," vol. ii., p. 183.)

It seems to be assumed that the Nahum in question must be the prophet, but in that case the city would be named Elkosh. The Jewish tradition makes Capernaum to be named after a Rabbi named Nahum the Old, mentioned in the Talmud (Beracoth vii. 48).

As to the tomb of Rabbi Tanhum, Jewish tradition appears to place it at Mejdél, which favours the Minieh site, as it is mentioned with that of Nahum (Sichus ha Tzadikim, seventeenth century).

Before entering into the question of the ancient name of Tell Hâm, it seems to me that we require to know whether the site existed in the time of Christ or of Josephus. The style of the synagogue so closely resembles that of the synagogues known to have been built by Rabbi Simcon Bar Jochai in the second century A.D.—a time when the Jews are well known to have flourished in Galilee, the Sanhedrin having its seat at Tiberias—that we may perhaps be justified in considering Tell Hâm, which is not on a site naturally fitted for a city, as having sprung into existence after the first century A.D.

But even if it be older, it does not follow that it must of necessity be mentioned in the New Testament or by Josephus. Josephus does not mention Chorazin, and the Gospels do not speak of the important city of Taricheæ.

*Bethsaida.*—Professor Schaff proposes a Galilean Bethsaida just west of Jordan, but this seems to be unsatisfactory. It will not meet the old objection of Reland that the Galilean Bethsaida must have been in the neighbourhood of Gennesareth ("Palestina Illustrata," s.v., vol. ii.), and if it is placed so far east a single site—Bethsaida Julias—would be sufficient. The Galilean Bethsaida is supposed to be necessary to the explanation of Mark vi. 45, 53, compared with John vi. 17, but the difficulty is not met by Professor Schaff's proposal, as will be seen on consulting the passages cited. The true explanation, as I hope to show in a forthcoming work, seems to be found in tracing the site of the miracle of feeding the 5,000 at the south end of the lake, opposite Bethsaida Julias. By such an explanation we are able to unravel the tangled topography without supposing a second Galilean Bethsaida—not noticed by any author of antiquity—to have existed within a few miles of Julias.

Lieut. Kitchener proposes to place Julias at Tell Hâm. Against such a theory may be quoted the absolute statement of Pliny that this town was on the east side of the lake, and the description of Josephus that Jordan passed Julias before entering the Sea of Galilee (Wars iii. 10. 7). Neither of these descriptions could be applied to Tell Hâm.

The whole difficulty respecting Bethsaida is caused by its being

mentioned in Luke ix. 10, and it is most remarkable that the Sinaitic MS. omits the name in this passage.

I may perhaps be permitted to remark that the difficulty as to Bethsaida is greater than would be supposed by any one first attacking the question. It has been carefully considered by Reland, Grove, and other authorities, and cannot be settled out of hand (as the Crusaders settled it in placing it at Khürbet Minieh), without reference to the arguments and authorities cited by such scholarly critics as those named above.

C. R. C.

### RIMMON.

THE suggestion that Mughâret el Jâi was a cave inhabited by the remnant of the Benjamites is based on the identification of Rimmon with the Pomegranate-tree under which Saul pitched his tent. The latter identity was first suggested by Gesenius, and is strongly advocated by Mr. Birch, whose zeal and originality in the study of such subjects must excite the admiration of all interested in Biblical topography.

The place of refuge of the Benjamites has always been previously fixed at the present village Rammûn, and the following points seem to be worthy of consideration.

1. There is no necessary connection between Sel'a Rimmon ("rock Rimmon," Judg. xx. 47, xxi. 13) and Ha Rimmon Asher bi Migron, "the pomegranate which is by Migron" (1 Sam. xiv. 2). The latter might be very suitably fixed at "a tree in Ramah" (1 Sam. xxii. 6), which, like the pomegranate in question, was the place of Saul's encampment and in the district of Gibeah.

2. There is no mention either in the Bible or by Josephus of any cave as being the hiding-place of the Benjamites. The English translation, "in the Rock Rimmon," is misleading, as the Hebrew particles are *At* "at" (Judges xx. 47), and *Bi*, "by" (Judges xxi. 13). The existence of a cave in Wâdy Suweinit named Mughâret el Jai has therefore no direct bearing on the question.

3. The site of Rammûn is within the border of Benjamin, since it is south of the latitude of Bethel, whence that border ran "southward" to Archi ('Ain 'Arik), after crossing westwards from the "shoulder north of Jericho," which seems evidently to be the great Wâdy el 'Aujèh, beside which Naarath, the border town of Benjamin and Ephraim, apparently stood (Josh. xviii. 12, 13). The site is also within the Midbar, or desert of Bethaven.

4. The Rock Rimmon was apparently not far from Shiloh (Judges xxi. 12), which is an argument in favour of the northern site.

5. As regards the meaning of the word *Sel'a*, which is still in use among the Fellahin of Palestine, I may remark that it is not generally applied to crags or precipices, which are called *Shukf* or 'Arâk, but in



the neighbourhood of the village of Rammùn there are cliffs sufficiently high to be called Shukf (especially that now called Shukf Dâûd). According to Gesenius the root *Se'a* means "elevated," but not necessarily precipitous.

6. Migron was apparently farther north than Wâdy Suweinit, and near Ai (Isaiah x. 28).

7. Josephus places the site of Saul's camp at a place called Aroura (Ant. vi. 12. 4), and it is remarkable that he translates the expression "under the tree" (1 Sam. xxxi. 13), in another passage, by the same word Aroura (Ant. vi. 14. 8). He probably follows a Targum rendering of the Hebrew *Ashal*. There is a village 'Arûra north of Bethel, but this could scarcely have been in the district of Gibeah.

C. R. C.

### THE NAMELESS CITY.

[See *Quarterly Statement*, July, 1879, page 130.]

THE position of the city—called Ramah by Josephus—where Saul and Samuel first met (1 Sam. ix. 6; Ant. vi. 4, 1) is a *crux interpretum*, and one of the most difficult questions of the Old Testament topography. I have enumerated in a former paper the arguments in favour of a position near Soba, where Robinson endeavoured to fix Ramathaim Zophim, the main objection to which is the mention of Rachel's tomb on the line of Saul's return journey.

There are two indications which seem to point to the identity of the nameless city with Bethlehem. First, the fact that it was in the "land of Zuph," by which we may perhaps understand the country of Zuph, Samuel's ancestor, to be intended, who was an Ephrathite, or inhabitant of Bethlehem (1 Sam. i. 1). Second, the connection between Ramah and Bethlehem implied in the New Testament (Matt. ii. 18). The term Ramah, or "hill," would apply to the situation of Bethlehem on a well-defined spur.

It seems to me that we should be cautious in introducing any element of pure conjecture into such a question. Ramah was a common name for towns in Palestine, and Ramath Lehi was apparently on the border between Judah and Philistia, below the rock Êtam (Beit 'Atâb), and thus not near Bethlehem.

Dr. Robinson was equally unsuccessful in attempting to identify the city with Ramah on Mount Ephraim, and the attempt to identify several Ramahs on one site resembles that of Jerome to combine various Gibeahs and different Rimmons, which has caused endless confusion.

Mr. Birch supports a view which has often been put forward before, that the "hill of God" (Gibeah ha Elohim) to which Saul returned from the land of Zuph was Jerusalem. The objection to such a view appears to be that Jerusalem was at that time held by the Jebusites, whereas the "hill of God" was a garrison of the Philistines. Geba of Benjamin

standing in Saul's native district, Gibeah is more probably the place intended, for we know that it remained a garrison of the Philistines until one year after the accession of Saul (1 Sam. xiii. 3).

The name Gibeah is nowhere connected with Jerusalem. Gabbatha, or "the pavement," which Mr. Birch connects with it, is derived from a different root, without any guttural, and applies to the Court of Antonia.

Mr. Birch further remarks, "the high place of Samuel might doubtless have been seen any day down to the ill-fated 24th October, 1874, when (*infandum!*) these memorable ruins were converted into Salami's Cairn.

The cairn in question (now known as Rujm el Kabtân) was built of scattered stones. It stands in a modern ruined hamlet, with a Kubbeh of Neby Daniâl, which I visited at least three times before the cairn was built, and examined carefully without finding any traces of antiquity.

C. R. C.

## THE TOMB OF DAVID.

JEREMIAH bought his cousin's field at Anathoth, though the Chaldeans were besieging Jerusalem. Will any one buy the ground overlying David's Tomb (the plot is not large) while the Turks are in the Holy City? Few would care to dispute the right of redemption with one patriarch on our Committee.

It would be money well spent to buy the field of "—," which is before Jerusalem, "the field, and the cave which is therein, and all the trees that are in the field, that are in all the borders round about" (Gen. xxiii. 17); "to gather out the stones thereof; to plant it with the choicest vine and fig trees, so that even Rehoboam could recognise the sepulchre of his fathers.

Who is to "step in and rob our Society of the fruits of our long toils in the past" (*Quarterly Statement*, Report, 1869, p. 49) through discovering the actual tomb of David by means of excavations judiciously made on reliable *data* obtained by the Fund?

Owing to Moslem jealousy, the Fund *may not* dig in the Haram Area, so as to settle the debatable points about the Temple; owing to the great expense, it *cannot* dig among the buildings of the city, so as to recover *the second wall*, which may fatally affect the claims of the Holy Sepulchre; but it *may* and *can* (if funds are forthcoming) dig on the south side of Jerusalem, on Ophel (so called), in search of David's Tomb.

Nine years ago Mr. Grove said, "I think that at present the object we should have in view and keep steadily before us is Jerusalem—the exploration of Jerusalem itself. . . . We do not intend to let the exploration of Jerusalem slip or go to the wall at all."

The survey is secured. Not so the spoils of Jerusalem. Why not

combine with the Galilee Expedition a few excavations at the Holy City? It is stated in the Report of the Executive Committee, 1869, "that it would be interesting to endeavour to test the value of the conjecture, that somewhere in the face of the Kedron Valley, buried deep in the *débris*, is to be found the tomb of David, of Solomon, and the tombs of the kings of Judah." This attempt will be unnecessary if we can only fill up *correctly* the lacuna " — " above.

We hope to show that the *true* position of the sepulchre of David may be fixed within very moderate limits. Our plan will hurt no religious susceptibilities, for the belief of Jews, Moslems, and Christians has consecrated the "Cœnaculum" in the upper city as the tomb of David. From it we will hold aloof. Full success would, however, cause a wholesale *smash* of theories, since the tomb has been placed with varying confidence in at least *nine* different localities, and *only one* can be *true*. These are

1. The traditional site above named.
2. Towards the north-east of the Haram Area, or under the Sakhra (Mr. Fergusson).
3. Under the south-west corner of Haram Area (Mr. Thrupp).
4. On Olivet (Mr. Lewin).
5. At the Tomb of the Kings north of Jerusalem (M. De Sauley).
6. South-east corner of Mount Zion (so called) near Silwan, *Quarterly Statement*, 1874, p. 98 (M. Ganneau).
7. At the royal quarries, 1875, p. 103 (Colonel Warren).
8. *Higher up the Tyropœon Valley than the present Pool of Siloam* (Colonel Wilson; letter, April, 1877).
9. On the end of Ophel, near Siloam (*Quarterly Statement*, 1877, p. 201).

Of these we may reject (5) as utterly untenable and possibly already withdrawn, and (9) as without real support, since I rested it on the *erroneous* though generally accepted tradition that the present Pool of Siloam represents the Pool of Siloah (*Quarterly Statement*, 1878, 187). See Note on "The pool that was made."

As *Zion* or the *city of David* was on the hill south of the temple (*id.*, 182), and David was buried "in the city of David," which would seem to mean, if not *within the city*, yet certainly on the hill on which the city of David was situated, we have at once to reject 1, 4, 5, 6, and 7 as out of the question; the course of the wall in Nehemiah iii. renders (2) impossible; while the fact that at (3) the tomb would be covered over in Herod's time by the south-west corner of the Royal Portico must lead us to reject this position; (8) alone is left, and we elect to win with it, proposing to narrow its wide situation by means of Nehemiah iii. and of the discoveries of Colonel Wilson and Colonel Warren.

The Note above referred to leads us to place the *Pool of Siloah* somewhere in the Tyropœon, north of the present Pool of Siloam (*Quarterly Statement*, 1878, 187, and as pools are usually in hollows, we do not hesitate to *assume* that it was *in the bed* of the ravine). The fountain

gate would probably be near to it, for (1) the Pool of Siloah was by the king's garden; and (2) we read of the "gate between the two walls which was by the king's garden" (Jer. lii. 7). It is hardly rash then to say that the fountain gate was certainly *this* gate, and probably also the gate in Jer. xix. 2, "The Valley of Hinnom which is by the entry of the *Harsith* (Vulg. Pottery, A.V. East) *gate*."

In Neh. iii. 15 we read, Shallum repaired "the wall of the Pool of Siloah by the king's garden and unto the stairs the city of David;" in xii. 37, "At the fountain gate, which was over against them, they went up by the stairs of the city of David, at the *going up* of the wall."

The meaning apparently is this: The gate was in the valley; the wall made a sort of dam across the valley (with the pool a little to the north of it), and then was carried east up the step side of the Ophel (or Zion) ridge, while the steps went up (alongside), of course, again to the north of it.

We are next forced to make the wall turn south to the Pool of Siloam (= "pool that was made"), passing at some point "*over against*" the sepulchres of David, by which expression, for consistency's sake, we must concede that the sepulchres were on the *left* hand—i.e., *within* the wall.

Now the great question is, "At what point did the wall cross the valley?" Having settled this, we could find *the pool, the ascending wall, the stairs, and the wall going south* "*over against*" the sepulchres.

Colonel Warren's exhaustive excavations on the east, at the Virgin's Fountain, enabled us last year (*Quarterly Statement*, 184) to follow Joab through the gutter into the stronghold of Zion; if only there had been funds sufficient for him to make those on the west equally exhaustive, the question before us would be answered, and we could at once follow Ezra the scribe up the stairs of the city of David.

Apparently the valley might have been crossed at any one of three different points.

1. The line of the present wall is antecedently the most probable. The rock here is sixty feet below the present surface (Jer. Rec., 131). If excavation should show that the foundations were deep, *a bed of concrete* just north of the wall would, I believe, show *the Pool of Siloah*.

2. Somewhere south of the *old* part of the aqueduct under Robinson's Arch (Jer. Rec., 106). This aqueduct seems (to me) to have been made by Hezekiah to carry water into *the Pool of Siloah*, and, if followed, ought to lead to it.

3. Near the end of the 600 foot passage in the bed of the Tyropœon (Jer. Rec., 131).

In favour of this point one might ask, "What would be the use of continuing the passage much beyond the city wall?"

It seems hard to judge between the three. Happily Colonel Warren found a scarp (Jer. Rec., 297) on the Ophel hill (just south of where the present city wall turns north), facing *west*, twelve or fourteen feet high,

which he traced for fifteen feet to north-west and south-east. This he thought might have been cut to give additional height to a wall running from the rocky knoll on Ophel towards the Haram Area. This *clue* seems worth following. If the scarp ends at the present city wall, it seems highly probable that (1) is right. If (2) be right, the scarp should lead north to the crossing wall. If (3) be right, the scarp traced south, or other indications of a wall, should at last bring us to a crossing wall, and lead onward to Siloam, passing the sepulchres of David on the left hand. If the scarp has had nothing to do with the *wall*, I can only conjecture that it must have been cut to make the face of a *tomb*, and *any tomb here ought to be royal*.

Next, for Colonel Wilson's evidence. He says (Ordnance Survey) that at Jerusalem there is a great bed of *soft rock*, called *malaki*, forty feet thick, while the layer above it is *hard rock* (*missæ*). He was of opinion that David's tomb was in the "great *malaki* bed," since all the tombs at Jerusalem are so except those at the Church of the Holy Sepulchre, and those high up on Olivet. It seems that it is usual to find the *soft rock* cut away, and the *hard rock* left to form a roof. Here is *another clue*. We must *first* look for the tomb of David in the great *malaki* stratum, and it will be beyond measure astonishing if it is ever discovered elsewhere. This thick bed of soft rock is found in the quarries at the Damascus gate (Ord. Sur.), and again in the Haram Area, where, south of the dome of the rock, there are cisterns cut in it forty feet deep. It seems to dip to south-south-east at about  $10^\circ$ . Colonel Wilson had not time to make a geological map, so that it is not possible to show exactly on a plan how the *malaki* bed lies on the Ophel hill. This, however, could easily be ascertained on the spot. A tomb is marked on the Ordnance Map a little south-west of the Virgin's Fountain, so that it probably reaches to that point. If the Ophel hill slopes more rapidly than the *malaki* bed, then the layer of soft rock ought to crop up on the original surface in the form of the letter V. It would seem, however, that, with a dip of  $10^\circ$  south-south-east, it ought to *bury itself*, and yet it appears on the hill south of the Pool of Siloam (Work in Pal., 22). I have no doubt, therefore, that it *really comes out* on the Ophel hill like a V (see diagram). The part within the dotted lines denotes the *malaki*, as it would appear if the rock were cleared of soil, &c. The entrance to the sepulchre, of course, must be in the *west* limb of the V, so as to be *over against*, i.e., *opposite to*, the wall, going south to the Pool of Siloam. The superficial breadth of the *malaki*, lying as before stated, on a hill falling to the west 1 in 4, ought to be less than 160 feet.

At some point the crossing wall ascends to the east, cutting the *malaki* (say) in the line A B C D.

Again, as the *missæ* will cease to overlie the *malaki* at some point, called G, if we draw a line parallel to A D, viz., E F H G, cutting the *malaki* in F and G, then we may confidently assert that *the entrance to the sepulchre of David* is within the figure B F G D.

Further, this area may possibly be divided by the line of wall running

to the south from A C (the crossing wall), and cutting E G in H, so that the area to be searched is further reduced to C H G D.

From Isa. xxii. 16, "graveth a habitation (*i.e.*, tomb) for himself in a rock" (*i.e.*, *selu* = in a cliff), and from the general construction of Jewish tombs, the entrance (which Colonel Wilson thinks may possibly have been a perpendicular shaft) I firmly believe must have been cut in a vertical scarped face of rock. The spot may probably now be encumbered with the ruins of Herod's white (marble) monument (Jos. Ant., xvi. 7. 1), which apparently fell down in the time of Hadrian (Dio. Cass. lxxix. 15).

It may be added that if the malaki does not crop up south of the Haram Area, this theory is *worthless*. If it does not reach as far as the tomb" (Ordinance Map), I shall be surprised. That it was within the city wall seems required by the "over against" (Neh. iii. 16), though "the gate between the two walls by the king's garden" (Jer. lli. 7), and vii. 32 and viii. 1, might seem to be in favour of a position outside the ancient wall.

Surely, with such promising *clues*, we ought to try to recover the sepulchre where David's dust "rests in hope"—the magnificent catacombs where Solomon "lies in his glory"—the *loculus* (bed) of Asa, "filled with divers kinds of spices;" in short, the one intact monument of the Kings of Judah.

Surely, with such *check lines* to guide us, we ought to be able on a correct plan to fix the entrance within wonderfully narrow limits.

Surely, an officer of the R.E., of the "W." calibre, could, without literally "turning every stone," nevertheless discover the entrance (if it be there) at a moderate expenditure of time, labour, and money.

Surely those who are interested in the full illustration of the Bible, especially such as have offered funds to reopen Jacob's Well and to explore Rachel's Sepulchre, would not be backward to provide the means for trying to bring to light the sepulchres of the Kings of Judah, if the Executive Committee considered that there were sound reasons for anticipating complete success.

W. F. BIRCH.

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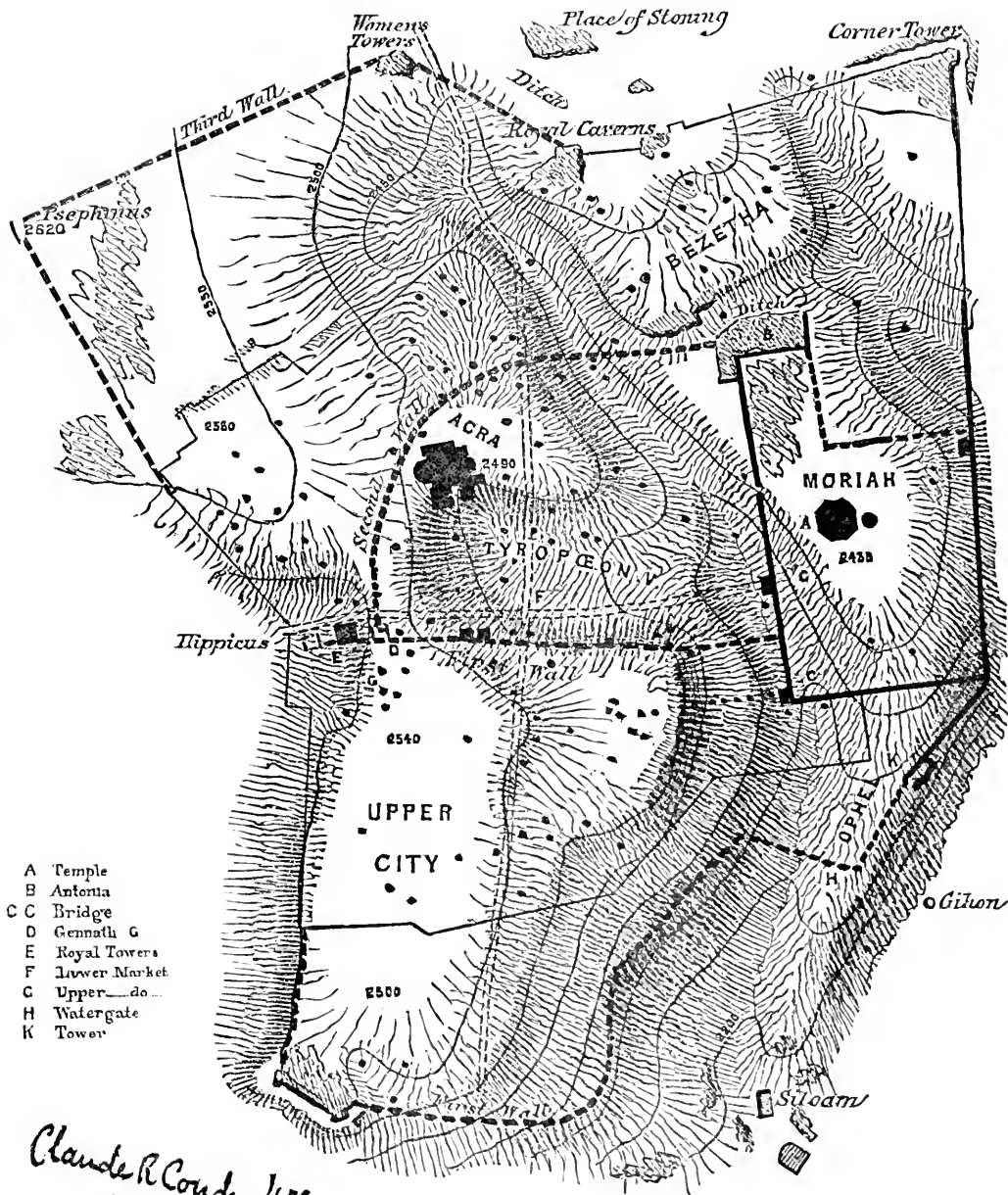
### NEHEMIAH'S WALL AND DAVID'S TOMB.

IF the Bible is the handbook for Palestine, Nehemiah is the guide for Jerusalem. How far does he enable us to make a *correct* reconstruction of the ancient city?

As experience has shown that in topographical matters *general consent* is occasionally wrong, it is necessary to show reason for the following obvious premises.

The description in Nehemiah iii. mentions *in strictly consecutive order* certain points along a *single line* of outer defences, and beginning near the north-east, goes round by north to west and south and east, ending at the starting-point.





N.B. The dots  $\odot$  show points where the rock has been measured







(1) That the *line* was *single* is obvious, since the one object was to fortify Jerusalem as quickly as possible.

(2) That the places occur in *consecutive order* is obvious from xii. 31-39, where, starting from an intermediate point, one party passes certain points in the same order as in iii., the other, going the opposite way, certain points in exactly the reverse order.

(3) That "the description begins near the north-east," &c., is *certain*. Robinson says this course is obvious. Mr. Fergusson abandons an earlier view in favour of it; at least, so far as the "fountain gate."

Above all, it is the only theory which can possibly fit in with the approximately known positions of "the tower of Hananeel, the valley gate, the fountain gate, the city of David," and "the horse gate."

As it is stated that "the *breaches* began to be stopped," it is also obvious that the wall was not thrown down along its whole length.

#### THE COURSE OF THE WALL. (Neh. iii.)

1. *The sheep gate* was evidently in the outer wall on the north side of the temple, close to "Moriah" in the annexed plan. The identity of name requires us to place in this part "the Pool of Bethesda by the sheep market (or gate)," so that it could not possibly have been the Virgin's Fountain, south of the temple, as suggested by Robinson, &c. Passing the tower of Meah, we come to

*The tower of Hananeel*, apparently on the ridge running south from "Bezetha," but projecting somewhat northward towards B, so as (1) to form the *most northern point* of the city, since in Zech. xiv. 10, "from the tower of Hananeel unto the king's vineyards" = from north to south, and (2) probably to protect immediately to the west.

3. *The fish gate* (probably in the valley running south from the Damascus gate), a very weak point where the Chaldeans entered (Zeph. i. 10).

As the importation of fish (xiii. 16) through this gate might have given rise to the name, it has often been placed on the west side, towards the sea, through inattention to the fact that the old way to Joppa would be by the north road, and near Gibeon.

6. *The old gate*.—Here (I believe) the north wall turned south, making the corner; so that this is identical with the *corner gate*, not expressly named in Nehemiah.

It is desirable to place this gate well to the west, perhaps as far as "Acra," since Zech. xiv. 10, "from Benjamin's gate unto the place of the first gate, unto the corner gate" = from east to west. For the same reason the *Benjamin gate* must have faced east at the north-east corner, or been close to it, and so could not well be the *sheep gate*. If it is meant above that the *corner gate* was the *first gate*, then the *first* (in point of time) gate = the *old gate*.

Distant at least 400 cubits (2 Ki. xiv. 13) from this last gate was the *gate of Ephraim*, which could not be the *gate of Benjamin* (as often supposed), since that was "by the house of the Lord" (Jer. xxi. 2); pro-

bably it was near (7) "the throne of the governor," since the place for administering justice was at the gate.

13. *The valley gate.* As it had its name from the Valley of Hinnom (*Quarterly Statement*, 1878, p. 180), which here lies on the north side of the "upper city," this gate must be placed either (1) in the valley (marked "Tyropœon") facing west, or (2) on the brow of the "upper city" facing north; in any case a little east of E. Its resemblance to the Gennath Gate (*id.* 180) of Josephus is in favour of (2). The order of places in 2 Chron. xxvi. 9 inclines to (1): "Uzziah built towers in Jerusalem at the *corner gate*, and at the *valley gate*, and at the *turning of the wall*." The last expression means apparently a *re-entering angle*, which I can only suitably place at the junction of the wall from the corner gate, with the wall on the north brow already named.

The wall next ran due south at least for 1,000 cubits to

14. *The dung gate*, near south-west corner of the "Upper City." Here apparently was "the place called Bethso" (= dung-place), Jos. W., v. 4. 2.

15. Hence to *the fountain gate* the wall did not need repairing; obviously for the reason that, as no one would ever think of attacking Jerusalem on this south side, it would have been labour lost to overthrow its fortifications. So Nehemiah (ii. 13, 14) observed the walls broken down *as far as "the dung gate."*

Thus with little trouble ("facilis descensus Averni") we have got down to the fountain gate in the valley of the son of Hinnom, but to return from Tophet (Jer. xix. 6, 14) by the stairs that go down from the city of David, until we know the *precise* position of *the fountain gate*, is quite a different thing.—"Hoc opus, hic labor est."

Two years ago, on the assumption that the present Pool of Siloam really represented (as is usually supposed) the Pool of Siloah (iii. 15), I gave reasons (which seemed to me conclusive) for fixing the sepulchre of David close to it, at the south extremity of the Ophel ridge (so called).

That the *assumption* was *unsound* and the *conclusion worthless*, appeared *probable* when it was pointed out (*Quarterly Statement*, 1878, 179) that the Tyropœon was the Valley of Hinnom, and the ridge named the true site of the city of David (as all along required by Neh. iii. 15; xii. 37). Instead of *probable* it now seems to me *perfectly certain* for reasons given in *Quarterly Statement, id.*, 188, that neither of the two Pools of Siloam represents *the Pool of Siloah*, and that while the upper one (*Quarterly Statement*, 1877, 204; 1878, 188) represents "the pool that *was made*" (iii. 16), "*the Pool of Siloah*" (iii. 15) was *higher up* the Valley of Hinnom, with "the fountain gate" and "stairs of the city of David" of course close to it (*Quarterly Statement*, 1877, 200, 203). See "Note on the Two Pools."

Omitting these three points for the present, it is clear from Neh. xii. 37 that the wall having crossed the valley of Hinnom *ascended* the Ophel ridge near "the stairs." Then (obviously bending to the

south) it passed "*over against* the sepulchres of David," and went on to "the pool that was made," *i.e.*, the present Pool of Siloam. This sweep to the south seems improbable, until we consider (1) that the object was to rebuild the wall of Jerusalem (ii. 17), and not simply to make a fortification; and (2) that the wall here, like that from the dung gate, probably needed but few repairs. After turning north, the wall was continued apparently on the line of Manasseh's *outer wall* "without the city of David on the west side of 'Gihon' in the valley" (nachal) 2 Chron. xxxiii. 14 (*Quarterly Statement*, 1878, 182).

That this later wall was the one repaired by Nehemiah seems to be the true explanation of the strange fact that the wall now rebuilt, instead of embracing as part of itself such points as "the armoury" (iii. 19); "the turning of the wall and the tower," &c. (25); "the water gate and tower" (26); "the great tower" (27) only passes "*over against*," *i.e.*, "opposite to" them. This expression "*over against*" is used *ten times* in Nehemiah iii.; *eight or nine times* it obviously and necessarily refers to objects *within* the wall. One seems forced therefore to admit that in the remaining cases or case (iii. 15) it has the same reference, and therefore "*over against the sepulchres of David*" means that they were *within* the wall (*see below*).

26. As the "gutter" (*Quarterly Statement*, 1878, 184) may have been made when the stronghold of Zion was constructed, *the water gate* need not have been near the Virgin's Fountain, as stated in *Quarterly Statement*, 1877, 202.

27. Here we seem to join *the wall of Ophel* (? = the swelling) near K, which word seems to denote that part of the hill where the narrow ridge (of Zion) *swells out* to the east as we approach the Haram Area.

28. *The horse gate* probably was near the south-east corner of the latter (Jer. xxxi. 40, *corner*).

29-31. The wall may have gone north *exactly* on the present line. The *massive wall*, however, mentioned in Jerus. Rec., pp. 156-7, offers a suitable course, bending west to *the sheep gate*, to complete the circuit.

31. *The place of the Nethinims* (Νηθιναιωτικόν) is perhaps referred to in 1 Macc. xii. 37. "The wall toward the *brook* on the east side was fallen down, and they repaired that which was called Caphenatha" (? corrupted from Cephar Annathinim = village of the Nethinims). *The gate Miphkad* (*i.e.*, of the appointed place) was evidently on the east of the temple, and near it "the bullock of the sin-offering was burnt in *the appointed place* (Miphkad) of the house, without the sanctuary" (Ez. xliiii. 21).

W. F. BIRCH.

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#### NOTE ON THE TWO POOLS.

A. *The Virgin's Fountain* is certainly *Solomon's Pool* (Jos. W., v. 4. 2), and so may well be *the King's pool* (Neh. ii. 14). As the *valley* here is *narrow*, it is not strange that Nehemiah could not go up on his beast

through the ruins, by *the brook* (Nachal), since at this point the fields of the Kedron cease and *the brook* begins (Jer. xxxi. 40). It is unsatisfactory for the same pool to be called by two names in Neh. ii., iii., so we must consider that the Virgin's Fountain—*i.e.*, *the King's pool*—was *not the pool that was made*.

B. The channel to the present Pool of Siloam must have been undertaken by Hezekiah; but Shiloah is mentioned earlier. Therefore *the waters of Shiloah* (Isa. viii. 6) did not mean the waters at "Siloam." As the fountain flowing from the city of David would better represent the royal line of David than would water from an aqueduct or pool elsewhere in Jerusalem, it would seem that *the Virgin's Fountain* must have been intended by *Shiloah*.

C. Adonijah feasted at Enrogel (the Virgin's Fountain)=Gihon, in the valley (Nachal, 2 Chron. xxxiii. 14), so that Solomon must have been anointed at *some other Gihon* (=stream or spring), obviously in a higher position, and so mentioned in 2 Chron. xxxii. 30. "The same Hezekiah also stopped the upper watercourse of Gihon" (=rather "*the springhead of the upper Gihon*") "and brought it down to the *west side* of the city of David."

This passage seems (to me) not to allude to the channel from the Virgin's fount, but rather to that under Robinson's arch, conveying water to (1) some pool in the Valley of Hinnom (*i.e.*, Tyropœon), *due west* of Zion, and not to (2) the Pool of Siloam (so called) *hardly west at all*.

To (1) and not to (2) I would also refer the following passages:—

(a) "Hezekiah made a *pool* and a conduit, and brought water *into* the city" (2 Kings xx. 20).

(b) "Hezekiah fortified his city and brought in *water*" (Thrupp reads Γώγ for Γώγ=upper Gihon) "into the *midst* thereof: he digged the hard rock with iron and made wells for waters" (Eccles. xlvi. 17).

Now we have to place in the Tyropœon Valley both *the Pool of Siloah* and *the pool that was made* (Neh. iii. 15, 16), since it was not the King's pool (see A). The two Pools of Siloam (so called) cannot be the two wanted, since it would have been labour lost (for Hezekiah apparently) to have made the upper one if the lower already existed. We have therefore to seek for a pool higher up the Tyropœon, and we seem to have one above in (1, a, b). Was this then (x) *the Pool of Siloah* or (y) *the pool that was made*? As the wall ran from (x) *to*, and not *to near or opposite to* (y), we conclude that (1) above was the Pool of Siloah, and (2) the pool that was made, since the wall could run *to* (2) from (1), but not from (2) to (1), situated in the *deep bed* of the Tyropœon.

The Mishna says, "Now *Siloam* was in the *midst* of the city," and Lightfoot that Shiloah and Siloah are not the same. (*Quarterly Statement*, 1878, 188.) Isa. xxii. 9, 11, and "the two walls" (2 Kings xxv. 4), also bear on this question, but *the point* of them is not to me satisfactorily clear.

W. F. B.

## THE SACRED CUBIT—TEST CASES.

WE shall never arrive at any definite determination of the value of the sacred cubit, and of its equivalent value expressed in English inches, until some standard case be taken as a test case, wherein the actual length in cubits is given by contemporaneous writers of things which can now be measured in English equivalents. And, in order that it may be rendered the more useful in our researches in relation to Temple measurements generally, the test case should be confined to the Area of the Haram, the undisputed site of the ancient Temples of Solomon and Herod.

## I. THE TEST CASE—ROBINSON'S ARCH.

This case has the decided advantage of being the first thing identified in the Haram Area as one of the landmarks of the Temple Area at the time when Titus destroyed the Temple and its surroundings. Dr. Robinson suggested that this abutment of the arch was a vestige of the bridge from which Titus addressed the Jewish leaders. Colonel Warren's excavations at this spot seem to prove that it was the abutment of a bridge of two arches, which did not cross the Tyropœon ravine, but merely formed a handsome extension of the middle or central roadway of the Royal Cloisters, and that these two arches were a magnificent termination of the central roadway. It was simply a handsome stairway extending to the middle of the Tyropœon ravine, on piers and arches, and permitted an exit from the Royal Cloisters to the suburbs below by means of steps and a stairway. I propose to use the distance of the north side of this arch and Royal Stairway in English feet and inches as a test of the distance of the north side of the middle or central roadway of the three Royal Cloisters, given in cubits.

Josephus gives the following description of these Cloisters:—

“It had the Royal Cloisters, with three walks, which reached in length from the east valley unto that on the west.

“This Cloister had pillars that stood in four rows . . . the fourth row was interwoven into the wall; and the thickness of each pillar was such that three men might, with their arms extended, fathom it round, and join their hands again.

“These four rows of pillars included three spaces for walking in the middle of this Cloister; two of which walks were made parallel to each other . . . the breadth of each of them was 30 feet (20 cubits), and the length a furlong; but the breadth of the middle part of the Cloister was one and a half of the other.”—*Antiq.* xv. 11. 5.

The pillars were equal to the span of three men, being exactly the same diameter as the two pillars, Boaz and Jachin, in the Porch of Solomon's Temple—namely, 4 cubits. Hence the entire width of the Royal Cloisters was  $4 + 20 + 4 + 30 + 4 + 20 + 4 = 86$  cubits. But our test case only includes two of these three Cloisters and two rows of pillars, with half the diameter of the third row of pillars; therefore, the distance of the northern side of the Middle Cloister from the outer edge

of the south wall would be  $4 + 20 + 4 + 30 + 2 = 60$  cubits. These 60 cubits should have exactly the same value in English feet and inches as the distance of the north side of the Royal Arch from the south-west angle of the Haram, whatever that equivalent value may be.

The typical values of a cubit, which has been selected for comparison, are those assumed by Prof. Piazzi Smyth, Colonel Warren, S. Beswick, and Lieut. Conder. And the estimated values of these 60 cubits will be as follows:—

	Inches.	Cubits.	Feet.
Smyth .....	25·00	× 60 =	125·00
Warren .....	21·00	× 60 =	105·00
Beswick .....	17·72	× 60 =	88·60
Conder.....	16·00	× 60 =	80·00

Now the actual distance of the north side of the Royal Bridge from the south-west angle of the Haram, as measured by Colonel Warren, is thus given by him:—

“The north end of Robinson’s Arch is 89 feet from the south-west angle.”—“Jerusalem Restored,” p. 117.

My estimate, as given above, is 88·60 feet, and the values of the Cloisters in detail will be found to be almost identical with admitted measurements. Take Capt. Warren’s estimate given in his latest work:—

“The diameter is 5 feet 9 inches for each pillar. The middle walk was 45 feet wide, and the side walks 30 feet each.”—“Underground,” &c., p. 71.

My values are:—

	Cubits.	Inches	Feet.
Diameter of pillar .....	4	× 17·72 =	5·91
South cloister .....	20	× 17·72 =	29·54
Middle cloister.....	30	× 17·72 =	44·30

The formula I have adopted for the actual value of a cubit is  $\sqrt{3} \cdot 14159 \times 10 = 17\cdot7245$  inches. And I regard  $\sqrt{3} \cdot 14159$  as the ancient standard or Canon of Proportion, and the foundation of every standard of length and capacity used by the ancients.

## II. ANCIENT LENGTH AND WIDTH OF EL ASKA.

An old Arabian MS. was published by the Oriental Translation Fund of Great Britain and Ireland, in 1836, and translated by the Rev. James Reynolds, B.A., under the title of “History of the Temple of Jerusalem,” and dating back to April, A.D. 1444. In this old Arabian MS. we have a description of the area covered by the Mosque El Aska at that date, of which the following is a translation:—

“Looking directly in *front* of the northern boundary wall, just above the gate called the Tyropæon Gate, and within the *wall* of the marble pavement, and thence estimating the length and breadth of the Mosque, the length will be 784 cubits, and the breadth 455 cubits” (p. 35).

It would appear from this old Arabian MS. that El Aska once extended,



in some shape or other, over the entire area now occupied by the pavement or platform of the Dome of the Rock, and perhaps this platform and mosque may have formed a part of what was then known under the general title El Aska. The discoveries of Colonel Warren prove that the northern side did once extend to the length of two tunnels, which run 8 feet beyond the vault No. 29, or 58 feet beyond the northern edge of the present platform of the Dome of the Rock. Let us, therefore, test the above values of length and width with what we find in the Haram to-day. And first, let us test the value of these 784 and 455 cubits by the four typical values of a cubit given in the previous case.

	Inches.	Cubits.	Feet.
Smyth .....	25·00	× 784	= 1633·3 length.
Warren .....	21·00	× 784	= 1372·0 „
Beswick .....	17·72	× 784	= 1158·0 „
Conder.....	16·00	× 784	= 1045·3 „
Smyth .....	25·00	× 455	= 948 width.
Warren .....	21·00	× 455	= 796 „
Beswick .....	17·72	× 455	= 672 „
Conder.....	16·00	× 455	= 607 „

The actual *width* of the area from the north-eastern angle of the platform to the western wall of the Haram is exactly 672 feet. And the actual length of the area from the northern end of the two tunnels of vault No. 29, at the northern end of the platform, to the southern wall of the Haram, is exactly 1,158 feet. The whole civilised world has long been accustomed to the approximate measurement of 1·5 feet to the cubit = 18 inches, and this value has received the almost universal approval of every standard writer on Biblical standard measures of length in every age and country. The actual and precise value, however, is 17·7245 inches, instead of 18 inches, which is sufficiently accurate for popular use and reference.

A very simple test is furnished by estimating the value of a digit, or finger-width. The Talmudic writers say that a cubit consisted of six palms or handbreadths=24 digits. Hence the following test values:—

	Inches.	Digits.	Digits per inch.
Smyth .....	25·00	÷ 24	= 0·96
Warren .....	21·00	÷ 24	= 1·13
Beswick .....	17·72	÷ 24	= 1·35
Conder.....	16·00	÷ 24	= 1·50

According to Professor Piazzzi Smyth's value of a cubit, the finger-width should be equal to 0·96 of a digit per inch, or 3·84 finger-widths = 4 inches. That would do very well for a giant, but not for ordinary mortals. In Colonel Warren's estimate, 4 digits would be equal to 3·54 inches, which is too great a width for the average hand across the fingers. And Lieut. Conder's estimate would only give 2·66 inches for the average width of the hand of 4 fingers, which is the average value of the width of a youth's hand across the fingers of the age of 8 to 10 years.

The value of 18 inches to the cubit (17·72 inches) would give an average of a little over 3 inches to the 4 finger-widths or handbreadth. And this value will be true in 99 cases out of a hundred amongst men who do not use the hand for heavy work.

Colonel Warren speaks of his discoveries in relation to this scarp at the northern edge of the platform as the "north wall of the Temple of Herod." And in another place he says, "I found there the old north scarp wall of the Temple courts, not far from the gate Tadi." I am of the same opinion, and regard this scarp as Solomonic and not Herodian. It was the site and boundary of the northern wall of the Temple courts both to Solomon and Herod. The distance of the northern end of the two tunnels of vault No. 29 is exactly 250 cubits = 369 feet from the central line of the Sakhrab, and is at the same distance from the Sakhrab as a central cave at the western wall of the Haram is from the centre of the Sakhrab, namely, 250 cubits=369 feet. It indicates the northern limits of the Temple Courts of Solomon, as much as the western wall does its western limit. And I am of the opinion that Captain Warren's discovery of this northern limit to the Temple Courts has never been as much appreciated as it really deserves.

S. BESWICK.

March, 1879.

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### THE SUPPOSED TOMB OF ST. LUKE AT EPHESUS.

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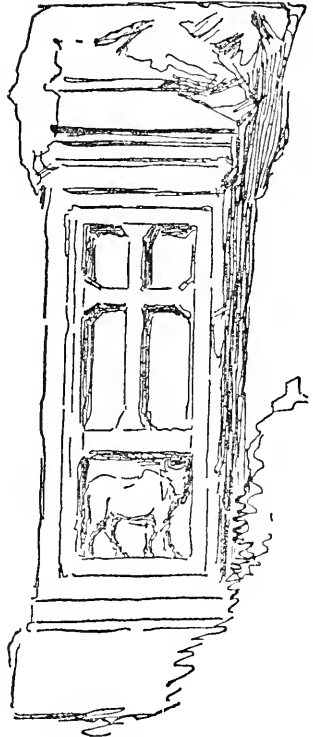
ON a recent visit to Ephesus, I made some rough sketches of what Mr. J. T. Wood, in his work on the discoveries he made at that place, describes as the probable tomb of St. Luke. Afterwards, on comparing my sketches with the illustrations at p. 58 in "Discoveries at Ephesus," as well as with the description there given, I found that at least one very important feature of the monument had been entirely omitted, and as this feature seems to bear on the original character of this ancient work, I submit a few notes on the subject, and a couple of sketches of the place by way of illustration. Mr. Wood's celebrity as the discoverer of the Temple of the great Diana is so great, and so well deserved, on account of his labours and their final result, that his name naturally carries with it great authority, and as the illustration which he gives of this monument may be copied and re-copied into other works, I may be excused for attempting to add some information on the subject.

The place is within, and near to the Magnesian Gate; and all that remains at present of it is little else than a mound; but an external wall of large slabs of marble is visible in some parts. This base was circular, and between each slab there has been a dwarf pilaster, a sketch of which is given, and on one of these still standing there is a panel with a Christian cross cut so as to stand out in relief; in a smaller panel beneath is the figure of a bull or ox, with a well-developed hump, similar to that of a Brahminic bull. The bull being the symbol of St. Luke, led Mr. Wood most naturally to the conclusion that the monument had had

some relation to the Evangelist, a conclusion which I think few will dissent from—the doubt will only be expressed as to this having been his tomb.

This sculptured pilaster seems to have marked an entrance which led into a small chapel, and the sketch-plan of it, which is here submitted, will make it evident that this did not belong to the original design of the structure. The irregular form of what we may suppose to have been a Christian shrine, bears no connection with the circular outline of the monument. The one may be described as an invasion and a conversion of the other.

The question arises as to the character of the remains. There is a small tunnel-like passage, into which I could enter, it seemed to me to be circular, and concentric with the outer wall of marble slabs; and from this we may fairly conclude that it belonged to the first intention of the building. As this passage was blocked up with fallen earth, I could only penetrate through a small portion of its length, but in that I found a cell, which, from its size, was evidently intended for a tomb. This cell extended outwards between the passage and the external wall, and although only one cell was visible, I came to the conclusion that there were others, and that originally the passage had gone round, completing the circle, and that sepulchral cells similar to the one still to be seen, had radiated from it along its whole extent. I find myself confirmed in this conclusion from Mr. Newton's description of the "Lion" tomb at Cnidus ("Travels and Discoveries in the Levant," vol. ii. p. 224). He thus describes it: "The lower part of the chamber

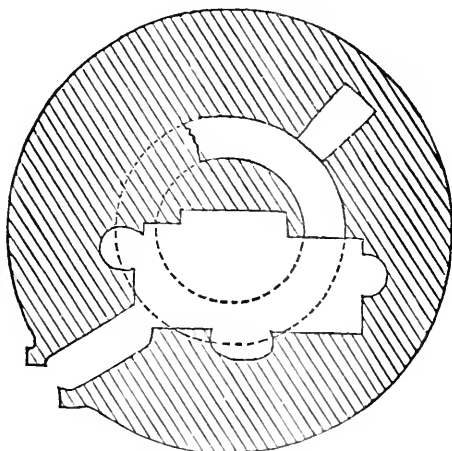


PILASTER, WITH CROSS AND BULL; EPHESUS.

is, as I have already stated, built of blocks, and is pierced with openings, which radiate like embrasures from the centre of the chamber to the outside of the basement. There can be no doubt but these passages were intended as receptacles for bodies. Such an arrangement of cells, or *θήκαι*, branching out from a principal chamber, may be seen in Hellenic tombs at Budrum, and at Pyli, in the island of Cos. I have never, however, before met with the circular arrangement adopted here." It will be noticed that there is a slight difference between the monument at Cnidus and the one at Ephesus—the first has a central chamber,

whereas in the other there is a passage from which the cells radiate. The circular form of such tombs, it would seem from Mr. Newton's account, are not common. He also explains that these tombs belonged "to the class called by the Greeks *Polyandrion*—such as were dedicated to the memory of those slain in battle for their country."

The only evidence which Mr. Wood quotes to give a colour of probability to the supposition of this being the tomb of St. Luke, is that of the Greek Archbishop of Smyrna, who found it stated in a historical work in his library, that St. Luke died at Ephesus. As the name of this author is not even given, and nothing is said as to his character for authenticity, the reference is all but worthless. Almost everything regarding the life of St. Luke, as well as his death, is obscure and uncertain. Anything reliable regarding the place where he died, or even his sepulchre, would be a valuable contribution to Biblical archæology.



SKETCH-PLAN OF POLYANDRION.

The value of the contradictory traditions which exist may be illustrated by this reference to the Greek Archbishop, who quoted a second historian, according to which, St. Luke had been hanged at Patras.

The position of this Hellenic tomb, situated in such a public place, so close on the thoroughfare leading to the Magnesian Gates, renders it, one would think, all but impossible that the few early Christians, at the probable period of St. Luke's death, would have been permitted to select what was perhaps a public monument for his sepulchre. The insertion of the chapel into the monument must have been of a later date. Although not the tomb of the Evangelist, yet it is to the student of Biblical as well as of Greek archæology, a monument of considerable interest, and we are indebted for it to the lucky accident, as Mr. Wood himself relates, of his foot striking upon a block of marble one evening as he was wearily walking home after his day's work, and which led him to excavate at the spot next day.

## JOURNEY INTO MOAB,

Made in April, 1877, in company with BARON VON MÜNCHHAUSEN, the  
Imperial Germanic Consul.

By C. SCHICK, Architect in Jerusalem.

*April 13th.*—The so-called Ghōr, a wide, low-lying plain through which the Jordan flows, has a gradual but imperceptible rise of 300 feet by barometrical measurement from the river to the foot of the eastern mountains. The winter torrents proceeding from the hills have ploughed beds for themselves through the plain; these beds are on an average 10 feet deep and are full of boulders. The fruitful country round Jericho, and other well-watered places, lie on the western side of the valley, while on the eastern ridge oasis-like stretches of land are to be found, but they are more limited in extent than those on the western side, and each is marked by an artificial hill lying from north to south, Nimrīn, Keferēin, Rameh; they correspond with the “acacia valley,” of the Old Testament (Numbers xxxiii. 49).

The tents were pitched at Rameh for the night. The old town was situated on a plateau between the Wady Hesban and one of the conduits for water that proceeded from it. The walls of the diminutive castle are built of blocks of stone of about 3 feet in length by 1 foot to  $1\frac{1}{2}$  feet wide and  $\frac{3}{4}$  of a foot thick. There are numerous vaults in the neighbourhood, which are now used by the Bedouins as granaries, and also a large cromlech which they regard as a holy place. The ground is covered to a considerable extent with fragments of hewn stones and with potsherds. About a quarter of an hour's walk towards the north of this, on a spur of the ridge of mountains, is another group of ruins called Kal'at er-Rameh, and a third, of which the name is unknown, lies towards the east, beyond the northern side of the narrow glen called Wady Hesban. The position of the place reminds one forcibly of Baniās at the source of the Jordan; it is healthy, the soil is rich, and it appears to have been a considerable settlement in days of yore. It may possibly have been the site of the Roman Livias, named Betramta by the Syrians, whereas the Old Testament calls it Beth-Haran (Numbers xxxii. 36) or Beth-aram (Joshua xiii. 27); not only does the distance given in the Onomasticon, five miles south of Beth-Nimro (now Nimrīn), confirm this hypothesis, but its present name even seems to show traces of the old one.

*April 14th.*—A steep ascent of 1,200 feet (or about 900 feet above the level of the Mediterranean) leads to a spur of the mountain, which may be regarded as the highest point of the east Jordanic range of mountains. Here, at the northern end of the Dead Sea, the compass showed that Jericho was nearly W. 10 N., Tell Rameh W. 26 N., Tell Keferēin N. 42 W.

A second height, about 1,950 feet above the level of the sea, is remarkable for ten or twelve pillars, apparently of a much later forma-

tion towards the top than at the base, some of them broken and standing on solid square pedestals.

From this point one can distinctly see Mount Neby, the Nebo of the Old Testament on the other side of the deep valley of "Wady 'Ayūn Musa," or "Spring of Moses." The road leading up to the summit passed by the first corn-fields, and here it was that we first met some natives east of the Jordan; they were Bedouin women, who were driving their asses laden with water, from the spring we have already mentioned, back to their tents, spinning wool as they went.

Another ascent, 2,680 feet above the level of the sea, brought us to the highest point, on which was a Bedouin encampment, and there we found ourselves on the edge of the extensive plateau. We had climbed the whole way from the Ghōr to this place through rocky gullies and over stony, red ochreish, and chalky ground impossible to cultivate. But from this point onwards not another rock and hardly a stone was visible; far and wide only good land was to be seen, with flat undulations and depressions, which formed the beginning of the Wady, but not until further down hill did they become real valleys.

The first place worthy of notice in this wide plain is the group of ruins called Akfair, in the midst of which stands a stone table, about 8 feet high and 10 feet broad, visible at a great distance.

After a journey of many hours' duration through this part of the plain we reached Ma'in (the ancient Baal Meon), a ruined town on its southern border, which is already well known from the descriptions of former travellers (De Sauley, 1863, and Tristram, 1872). It is situated on the top of one of the flat hills enclosing one of the flat valleys, and is visible at a great distance. The hill on which it is to be found is connected on its western side, by means of a saddle, with other hills, likewise possessing ruined houses and cisterns. The lowest storeys of these old houses are partially hewn out of the chalk rock that crops up here through the thin layer of soil. The greater number of the stone buildings and arches to be found in this place belong to the Roman period; one long red-coloured stone alone shows signs of ornamentation, and it was manifestly the upper step of a doorway. Besides this, the entrance to one of the vaults is noteworthy from the fact that the stone forming its threshold has three letters carved on it.

We fixed the points of the compass in this place; Hesban E. 5 S., el-'Al E. 25 S., Timed E. 50 S., Sarnatsch. Between these two last nothing could be determined with certainty. A number of Bedouin tents were pitched round the ruins, and on the following day we passed a gipsy encampment at a short distance from this place.

*April 15th.*—The undulations are more marked to the south of Ma'in, and at a further descent of about 550 feet they become valleys. After a short ascent from this point in a westerly direction, and towards the valley sloping upwards to Wady Zerka Ma'in, we again reached the plateau, at one point of which there are distinct traces of a Roman road skirting a dilapidated round tower. This road continues its course

towards the south through a gently undulating country, and passes by more remains of ancient buildings; it answers to the description, given by old authorities, of the principal highway running from Hesbon past Baal Meon and Dibon to Rabbath-Moab and Kerak. Pursuing the road along an old arch of a bridge over the dry bed of a brook we reached Libb, a smaller place than Ma'in, but which contains caverns hewn out of a hardish kind of rock, and now used by the Bedouins as stables and barns. We descended the valley towards the south-east; it became narrower and more precipitous the further we went, and towards midday we reached the encampment of the friendly Sheikh Laf', where the hospitality of the Bedouins necessitated our spending the night.

*April 16th.*—We went along the road which first skirts the top of the sloping sides of the valley towards the south and then winds along the ascent of the southern hill-side, at a place where the valley itself runs in a westerly direction. On arriving at the summit we again come upon traces of the Roman road near the ruin of a tower and cromlech. At a still higher point (2,150 feet above the sea) Wady Wali suddenly comes into view, stretching from east to west. It also possesses a tower and cromlech, from whence the descent of 500 feet is made by means of a steep zig-zag path. Here, in a broad part of the valley, and at the commencement of a smaller valley running south, is a hill about 150 feet high, but sufficiently precipitous, named Ras (head) el-Waly, from whose base a considerable spring proceeds, bearing the same name, and soon becoming a good-sized brook; it is full of fish and frogs, and is surrounded by oleander bushes. We made this our head-quarters for some days. Lower down the valley the brook is fed by other springs, and at a short distance further on there is a mill, that was not working at the time, because the mill stream had been put out of order by the winter floods, which had left traces of their overflow of from 70 to 80 paces wide, and from 10 feet to 12 feet deep.\* At this place, marked by the ruins of an ancient hamlet called 'Anman Getto (?), two valleys branch off, one of which running from the south is of a good size, and in it we find distinct traces of the old road to Dibon, while in the same direction the ruins of a bridge are to be found in the bed of the river. Between this point and the camp is a flat hill sloping to the east, west, and south; on its northern side alone there is a narrow path, defended by walls and a fosse, and covered with the ruins of an old village, which, however, showed no traces of Roman occupation. This place is called Skander (Iskander, Alexander). On the other side of the little valley, shut in on the east by this hill, and lying due north of the camp, are some scattered remains of houses, in the midst of which is a cromlech with a paved floor, and one large and several small hewn stones, some in an upright position and others lying on the ground. The largest of

\* Herr Schick's knowledge of mechanism enabled him to put the mill in temporary working order in a very short time, and it was hoped that the kindness he had shown the Bedouins might induce them to forward the real object of his journey, but this hope proved vain.

these is over 10 feet high, and is found on the southern side of the principal valley opposite the camp. It resembles in every respect the Wady Zerka Ma'in, which we shall describe later on, except that it shows no trace of any inscription.

As the journey here from our last encampment was a very short one, we took an hour's walk further up the valley in the afternoon, and found that we could again reach the plateau leading to Kubeibeh by means of a steep rocky path, ascending 600 feet, by following the southern branch of the valley called Wady Deeb and passing the ruin of Emku Nasrallah (Amka N. or Amku N.). One of the most considerable heap of ruins is situated on a precipitous peak to the north of the principal valley.

Half an hour's walk south of this place, on the other side of the valley, are a few ruined houses called Mak 'ad, and under these are about a dozen caves hewn out of the rock.

*April 20th.*—After having spent three days in making attempts at excavation, we continued our journey on the 20th of April. A long two hours' march from our last place of encampment along the eastern side of the valley Wady Abu Sidr, and following the course of the old road across the plateau, brought us to Diban, the ancient Dibon, which was so celebrated lately as Mesa's capital. It was built on two hills, the most northerly of which, although surrounded by deep valleys, was fortified by strong and in some places double walls, and in addition to these by a fosse hewn in the living rock, but uncompleted. This must have been the new town that was built after the Moabitish conquest under King Mesa, as is shown by the inscription. The southern quarter of the town was distinct from this, and was much less fortified. It may be called the more ancient Dibon of the tribe of Reuben. According to the statement of the Bedouins, who saw the stone before its removal from its original position, which statement is corroborated by the missionary Klein, Mesa's stone was found within a large cromlech; but strangely enough neither Klein nor Tristram mention this cromlech, although the Bedouins still honour it as the supposed tomb of a neby (prophet), and therefore regard it as a safe repository for anything of value. Close to this, on the south of the high town, are the ruins of a castellated building, within which is a white stone tablet with a few crosses and a rosette carved upon it. It serves as the cover of a grave, and the skeleton beneath is perceptible through the crevices. Another stone of black basalt struck us immediately on our arrival in the valley to the north-east of the town by the strangeness of its form, as it also did our predecessor Tristram, who held it to be a mill-stone.

The road to 'Ara'ir runs in an easterly direction over a high plain; the height on which the ruins are situated has only a slight elevation above this plateau; but on the southern side it has an unusually steep and rocky descent towards the narrow glen Wady Mojib (the ancient Arnon), whose watercourse down below is only perceptible by the green stripe of brushwood along its banks. This magnificent view, contrasting



splendidly with the high plateau, embraces, besides the principal valley, a second one stretching out towards the east, of almost equal size, and several smaller glens branching out from it.

The ancient town Aroer was of moderate size, and regularly built; there are distinct remains of a perfectly square wall built of large blocks of unhewn freestone, each of which was about 500 feet long; and 20 feet from it is a still higher inner wall; the highest central point is marked by some ruined buildings. Outside the walls, towards the north-east, are the remains of considerable suburbs; on the highest point, east by north, an upright stone is placed.

Half an hour's distance further south we come upon the much less important remains of Lejun, only remarkable for some stones with indecipherable hieroglyphics. We found several ancient cisterns amongst the ruins; they were perfectly dry, as the Bedouins have never given themselves the trouble of restoring the ruined conduits. Rather than do this, they let their women, whenever the encampment is pitched in this place, carry what water they require up the steep rocky path from the valley below.

On our return to Wady Wali we visited the ruins of Karjet-'Alejan, which, surrounded by a wall, are situated on a promontory jutting out between several flat Wadys; owing to the crumbly nature of the stone there are but few subterranean caverns to be found there.

After spending another day in exploring the Wady Wali, where the Arabs who accompanied us had remained encamped, all further excursions and explorations were brought to an abrupt close by the arrival of a messenger sent by the consul, who brought us news of the outbreak of the Russo-Turkish war. We were therefore obliged to return to Jerusalem by the shortest route, this time taking a westerly direction.

*April 22nd.*—The road ran under the rocky, narrow, and sometimes perpendicular cliffs overhanging the valley of Wady Zerka-Ma'in, and descended the same until it turned due west, at which place the sinuous course of the brook begins. High above this spot we came upon another upright stone, 10 feet high, with signs resembling letters carved upon it. The road now became more level, with cultivated fields on either side, until we reached the most north-west border of the plateau. Another descent brought us to the spring 'Ain Suweineh and here, among heaps of stones rich in iron ore, we pitched our tents for the night.

*April 23rd.*—We continued our route through the so-called Ghōr-Seisebān, that sandy, unfruitful part of the plain lying near the Jordan, till we reached the ferry. Half an hour further on we passed the ruins of Suweineh (Beth-Jesimoth of the Old Testament), on the bank of a rapid stream; and an hour further we came to another ruined city, the name of which was unknown to our Arabs. The chief features of the country east of the Jordan are the numerous cisterns and caverns hewn in the chalk rocks, and often used as habitations. The flat-topped hills are generally covered with earth of a foot deep; there we find caves of from five

to six feet in height, and burrowing far into the mountain. They are partly hewn in the hard chalk rock, which covers a strata of softer chalk. The entrance is partially built up, leaving only a small aperture. Most of these caves have so many chambers communicating with them that they deserve the name of labyrinths. The soft chalk formation is not very substantial, nor is it deep enough for the low dwellings. To gain the necessary height, one or two layers of a conglomerate of flint, much harder than the chalk, but still easily broken, had to be pierced. This conglomerate is usually from nine to sixteen inches thick, in consequence of which the caverns, including their floors, are irregular in form and level, as they are dependent on the formation and layers of rock. We find a marked difference when we compare these caves with those hewn in the chalk rock at Jerusalem, which are perfectly regular in form. We occasionally find blocks of chalk rock close to the walls, which the inhabitants evidently left there, not only on account of the hardness of the rock, but also because they were useful as tables and seats. There are no traces of inscriptions, excepting a single raised letter on one of the many potsherds lying in the niche of a cavern at Mak'ad, about five feet above the floor. The caves are generally used as cellars for storing the provisions belonging to the houses which are built over them. It is true some stand isolated, but still they may always be looked upon as signs of the former presence of ancient buildings, for very few are completely isolated in the rocky sides of the valley.

Stone monuments as well as caves are found in considerable numbers on this eastern bank of the Jordan, while none are to be seen on the western. They resemble the rude memorial stones of a like nature in the Keltic countries of Western Europe. The same typical names have been used by other travellers for these Oriental monuments, and for that reason they are also used by us.

I. Dolmens consist of twenty-three or more perpendicular blocks of stone connected on the top by a horizontal slab; these are only found on the ascent from the valley of the Jordan to the plateau—not on the plateau itself, but on both roads leading to it.

II. Cromlechs are circles of stones of from twelve to fifteen feet in circumference, surrounding a paved floor, and all possessing a low entrance on their western side. To this day they are considered sacred by the natives, and on that account are called Nebi.

III. Menhirs are huge isolated columns of stone, are less frequently met with than the preceding, and, like them, are given on the map. The principal ones we saw were at Akfair, an hour south-west of Ma'ūr and west of Wali, and at Arāēr.

Only about one-tenth part of the plateau is used for agricultural purposes; it is totally devoid of stones and trees; indeed, we only met with two specimens of these out of the well-watered valleys.

## MOHAMMEDAN TRADITIONS RESPECTING JOSHUA'S PLACE OF SEPULCHRE.

By IGN. GOLDZIEHER, Budapesth.

AN article in the London *Athenæum* (1877, page 601) identifying the burial-place of Joshua Timnath-serah (Joshua xxiv. 30) or Timnath-heres (Judges ii. 9) with "Kefr Harit," and also a paper by Professor Socin in the Zeitschrift of the German Palestine Exploration Society, have induced me to add a few remarks on those places which Mohammedan tradition point out as Joshua's burial-place. In my book, "Myths of the Hebrews," pages 336-40 (English translation, pages 279-82), I have spoken more at length of the activity of Muhammedan tradition in determining the locale of the sepulchres of prophets, patriarchs, and saints, utterly regardless of dates; indeed, popular traditions affirm the grave of one and the same person to be in different localities. We could easily become acquainted with the circumstantial and singularly copious traditions on this subject, if we could only gain access to some of the Arabian writings relating to the pilgrimages made to Muhammedan graves. Take for example the "Book of the Pilgrimages to Graves"—that of 'Ali ibn Abi, Bekr el-Harawî, and that of the Ibn el-Hawranî, which, however, are only referred to for bibliographical purposes. At the same time we have valuable sources of information in the extraordinary number of books of Arabian travels found in European libraries.

The most important among the manuscripts is that by 'Abd-el-Ghain ibn en-Nābulusî. After having written various short accounts of his travels, this work appeared as the result of a journey undertaken by him more than half a century ago, for the special purpose of making pilgrimages, from Damascus to Mecca, in the course of which he travelled through Syria, Palestine, Egypt, and Arabia. Alfred von Kremer (A.D. 1850-51) and Gustav Flügel (A.D. 1862, vol. xvi.) have made valuable analyses of this work.

I shall extract from the work of Ibn en-Nābulusî, a book which contains full accounts of the traditions relating to these graves, such facts as treat of the burial-places of Joshua, son of Nun.

One of the fifty-one places bearing the name of Minyeh is the Minyeh near Tripolis in Syria. "We entered the large village, well supplied with water, and surrounded by gardens. This village is divided in two; one part lies low, the other is on the brow of the hill. The whole place is the property of the Egyptian Sūfi, owing to a bequest made by Kajit Bej. We here inquired where the grave of the prophet Jüscha' was, and were informed that we should find it in the upper part of the village. We climbed thither, found the door open, and then saw the guardians who have charge of the grave. These people came to meet us, and invited us to take up our abode in a castle standing close to the burial-place, the windows of which command a view of the gardens. We then entered a cavern on the ridge of the hill, which contains the grave of Jüscha'. We lighted our lamps and candles, and judged the grave to

be about ten yards long by two yards high. It is quite empty inside, but is surrounded by loopholes. On the grave there is a stone spout, by means of which Allah supplies the village with water in times of drought. We noticed this inscription carved on the grave-stone: "This is the grave of the poor servant Scheikh Jüscha', restored by Sultan el-Muktafi es-Salihi in Tarabulus in the year 684." The inscription astonished us. We asked each other how it was possible that this grave should be known as the burial-place of the prophet Jüscha', when the inscription is so worded as to make it appear to be only a Weli of the pious Sheiks? We saw in the book of the pilgrimages of the Harawî that this author is in doubt respecting the grave of Jüscha'. He mentioned it as being in the following places:—Ma'arra, in the district of Hamat, and 'Awarta, on the road between Jerusalem and Nabalus" (compare Jaküt Georgi., W.B., vol. iii., p. 745, in which 'Awarta is mentioned as the burial place of Joshua, Ezra, and seventy more prophets). "Mudschir ed Din el-Hanbatî relates in his 'History of Jerusalem' according to a popular idea of the taking of Jericho (which is pretty true to the biblical account) that Jüscha' died, and was buried at Kebr Harit, near Nabalus. . . . Another opinion exists that Jüscha' was buried in the village es-Salt in the Belka; his grave in that place is looked upon with great respect and reverence. It is twelve yards long, and enjoys great celebrity throughout the district. But I have never seen it stated in any book that Jüscha' was buried in Minyeh; it is simply an oral tradition, and Allah alone knows if it is true. Still it is quite possible that this tradition may be correct; it has arisen at least from the respect and reverence in which the grave is held, from its size, and from other circumstances of a like nature. As regards the inscription, however, it was perhaps composed by an ignorant man, who did not know what epithets to use in describing a prophet of God, for he was aware of no other grave of a real prophet, except that of Muhammed, in holy Medina." Then comes a poem written by the author in honour of the grave of Joshua in el-Minyeh, and at the end of it is the following story: . . . "Now it happened that we visited the grave towards sunset, so we prayed to God to stay the course of the sun once more, as He had done at the request of Joshua, for whose sake He had performed this miracle, because we had still a long way to go before reaching distant Tarabulus. And Allah granted our prayer."

The identification of Timne with Minyeh was caused by the resemblance the two names bear each other in sound (mana is the root of both words). In Jaküt, vol. iv. p. 707, a church in the Jewish quarter of Majjafarikin is mentioned, where a bottle, containing a few drops of Joshua's blood, is preserved as a miraculous antidote against leprosy.

In conclusion, let me take into consideration some of the Jewish opinions given in Rabbi Jechiel Minsk's book, called "Söder Nad-Döröt." Kebr Harit is there mentioned as being the place where both Joshua and his father, Nun, were buried. The graves are marked by two fine trees. However, this author also gives another opinion, according to

which the sepulchre of Joshua is to be sought in 'Awarta. As we have shown above, this view is also held by the Mohammedans. In a book of travels in Judea, by R. J. Kitzingen (Jerusalem, 1844), in which all the Jewish traditions about the tombs in the Holy Land are exhaustively treated. Joshua's grave is also given in the same work as being in Kefr Harit, and the following remarks are added to this statement:—"Joshua's grave at Kefr Harit is situated on a high hill. No trace of building is to be found there, except four walls. It is said that there is a cave underneath, in which the grave is contained. Many attempts have been made to erect a building there, but it always fell down again, and so at last the attempt was given up. We went through a short passage which led to the grave of his father, Nun, and found it marked by a large and handsome monument. We entered the little mosque, which the Mohammedans have built in front of this grave. We were told that Caleb, the son of Jephunneh, was buried there." Rabbi J. Schwarz also mentions Kefr Harit as the burial-place of Joshua.

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## THE STONE HAT-TOIM ON THE ECCE-HOMO ARCH.

By PROFESSOR J. N. SEPP.

THE treatise of Herr von Alten in the first volume of the German Society's Transactions, "The Antonia and its Environs," quietly settles to the author's satisfaction the hypothesis that still exists in the legends of the cloister and amongst pilgrims, to the effect that the castle in the north-west corner of the Temple was at one time used as a prætorium. "The police, whose duty it was to see that peace was preserved in the court of the Temple during the tumultuous times of the Feast of the Passover, were stationed in the Antonia;" thus the worthy author expresses himself. I, on the other hand, believe that I proved long ago that Herod's new palace, situated on the south-west hill between the citadel and the garden of the Armenians, was the station of the Roman authorities. At the upper end of the market-place stood the tribunal, or public seat of judgment, which Pilate also ascended. It was made of stone and not of wood, therefore it was impossible to move it. This dais of the Forum was called in Syrian Gabbatha, and to this fact the mistakes of tradition are referable.

We find in the Babylonian Talmud Sanhedrin, fol. ii. 2. Tōsefta c. 2, and in the Jerusalem Talmud Sanhedrin, fol. xviii. 4: "The elders held their sitting on the furthest point of the Temple hill." On this terrace the dome is still to be found, with the legendary royal throne from which Solomon the Wise dispensed justice, on which Pilate sat in judgment, and where, according to a story in the Thousand and One Nights, Omar discharged a case. The Mutesellim told me many other things about it. All of this explains the miraculous legend told by Antoninus of Placentia, A.D. 570, that the Saviour had stood on the

square rock, on which the present Kubbet es-Sachra is built, during His trial, and that the marks of His feet are still to be seen there.

The hall of the Synedrium, whose semicircle extends into the Holy House, was called the mosaic hall, or Lithostroton; and the same name is given by Josephus (Bell. vi. 1. 8) as by Aristeeas before him, to the whole pavement of the Temple. Does not this recall John xix. 13, and does not the learning of later days lead to misapprehension? When Mudschir ed-Deed wrote of the "splendid pavement of rock," he meant the high terrace within the Haram esch-Scherif, on which the rocky dome stands, as though resting on the candlestick.

The younger Agrippa, in order to give the idle populace something to do, had the town of Jerusalem paved with marble flags. The Emperor Claudius expressed his approbation of this conduct. Strabo mentions as an extraordinary and praiseworthy fact that Smyrna was paved with stone in the days of Augustus.

Let us now consider the Ecce-hemo Arch in the so-called Via Dolorosa, both of which names, as well as the search for the pretorium in the Antonia, date from long after the crusades and owe their existence to the Franciscan order. From this place we enter the educational convent of the French Sisters of Zion, and become the sooner reconciled to their having settled down in this place, which was by no means that intended by the Gospels, because they confess, in the name they have taken, that they belong by rights to the Hill of Zion. Some beautiful stone flags are to be seen in the cellar of this large convent, and they are supposed to have been brought there from the Lithostroton of the New Testament. They are interesting to us as measuring the depth of the old street, and manifestly date from the time of King Agrippa the Second. Here, to the north of the Antonia, the ascent of the Bezetha hill begins, and there is no room for the Forum. The Arch of Triumph or Gate of Victory of Hadrian's time is to be found in this place; it holds the same position as the ancient Gate of Benjamin used to do in the second wall, while in the third, the modern "Stephen's Gate" has replaced the old door leading out upon the road to the Mount of Olives and Jericho.

But there was more than this to be seen. The kind sister drew our attention to a couple of stone cylinders of solid rock, which rise about half the height of a man above the pavement, and told us that during the excavation of the place, a Rabbi, or some other learned Jew who was passing by, had informed them that in olden times in Jerusalem addresses were delivered, proclamations made, and auctions conducted from the top of high stones such as these. The street by the old gate led to the square. After the building of the third town wall by Agrippa the First, the real market for small wares with its shops was situated on the side of Golgotha, as we read in Josephus, Bell. v. 8. 1: "After the taking of the first (outside) wall, Cæsar succeeded in gaining possession of the second also, and then advanced with a detachment of picked men into that part of the new town where the

wool market, smithies, and clothes markets were to be found; narrow streets close to the wall led to the cross."

I fortunately discovered in the Mischna Ta'anit, c. iii. 8, mention of the stone Hat-toim as being close by, on the Temple hill, with the notice: "All lost articles are proclaimed here." We find in the treatise Baba mesī'a, fol. 28, 2, and Ta'anit, fol. 19 and 23, that Hōnī ham-Me'aggēl, the drawer of circles, a celebrated worker of miracles, into whose hand God had given power over rain, followed the example of the prophet Elijah, who once placed himself within a circular trench and did not leave it until his prayer was answered, by praying for a great deal of rain in the time of drought, when Rabbi Simon ben Schetach sat on the throne of judgment. This was more than the Israelites wanted, and they complained that the dew of Hermon fell too heavily on Mount Zion. But the worker of miracles answered, "Look and see whether the stone hat-Tō'im has been softened by it."

This is the busiest part of the town, for here it is that the street leads up to the Antonia, and the people pass by on their way to the Temple. Eben hat-Tō'im means "stone of the wanderers," *i.e.*, the stone of those who wander about in search of what they have lost. Any articles that had been lost were here proclaimed, as also public announcements and notices. But two similar stones are before us; if these cylinders of rock were only in the market-place, what tales would they tell us! They also served the tribunes of the people as rostra. They were used as platforms near the Temple, from which the orators might influence the masses. From thence Simon, son of Giora, John of Giscala, and Eleazar, son of Juda of Gamala, the first theocratic revivalist, may have harangued the emotional populace and have aroused the fanaticism of those who had come up for the Feast of the Passover, until foreign intrusion grew too much for the natives to bear, and every agreement with the Romans became of no avail. It was by such harangues as these that the fire was kindled which reduced Jerusalem to ashes.

But another meaning is also attached to these proclamation stones: it was from these stones that slaves were publicly sold, and the book Sifra gives the scrupulous warning that Hebrew servants must not be offered for sale at these stones. As after the rebellion under Simon bar Coheba, which Hadrian's general, Titus Annius Rufus (the Jews called him Rufus the Tyrant), put down by force, stamping it out in the blood of the nation, the prisoners were sold into slavery from this stone, as 135,000 Jews were sold under the Terebinth in the holy place before Hebron at the rate of four men for a peck of barley. The so-called Ecce-homo Arch, near the stone Hat-tō'im, was probably a triumphal arch of Hadrian in his newly-built *Ælia Capitolina*. The side door to the south is unfortunately destroyed, while the northern side arch picturesquely embraces the altar in the stately convent of the Sisters of Zion.

## NEW DISCOVERIES IN THE NORTH OF JERUSALEM.

By C. SCHICK, Architect in Jerusalem.

IF we leave Jerusalem by its present North Gate, which is called by the Arabs Bab el-'Amud, "Gate of the Pillars," and by Europeans, the Gate of Damascus, and journey a short distance in a northerly direction, we shall come to a place where the road branches off into four different ways. One of these turns to the right, and the second to the left, running parallel with the town wall. The third goes straight on towards the north through a depression of the ground past the burial-place of the kings; it is the Sultani, or highway, leading to Nabulus and Damascus. The fourth road has a north-westerly direction. To the east of the third, or Nabulus, road, is a broad rocky hill, containing the old quarry and the so-called cave of Jeremiah, known to the Arabs el-Edhamejeh. Opposite this, and to the west of the Nabulus road, is another rocky hill, resembling the first, but on a smaller scale. At the western foot of this second hill the fourth road, which we mentioned before, runs towards the north-west. Travellers in Palestine have of late years bestowed particular and repeated attention on this hill, because it was believed to have been the site of Golgotha. Excavations were made there last year, and they have provoked a desire for further research.

This rocky hill rests upon an undulation of the ground, and is 190 metres in circumference. It is of circular shape, and has upright walls of rock on every side. These show traces of having been once quarried and of having had graves hewn in them. They are, however, only raised a few metres above the surrounding ground. The hill has been artificially flattened on the top, and is now overgrown with olive trees. On its western side alone a bit of the original rock rises in a sort of hump to the height of from three to four metres. It slopes gently down towards the west, but to the east it is very precipitous, and in this part an open cave is to be found in which the remains of old sepulchres may be recognised. The entrance to this cave is on its western side. In the summer of last year (1878) the owner of the cave determined to use it as a room or magazine. For this purpose he had a wall built in front of the cave, and then proceeded to lay out the lower ground to the east as a courtyard. When the trench to form the foundation of this wall was being dug, it was discovered that the ground was composed of rubbish containing many pieces of hewn and even of richly carved stone. The excavation was therefore made deeper than was necessary for the purpose for which it was begun. In doing this they came upon a perpendicular wall composed of small cubes of 0.10 metres. These cubes were not placed horizontally, as is usually the case, but diagonally; and thus they formed a pattern of which this is the first example I have met with. Curiously enough this wall was built in a curve, whose radius consisted of about 12 metres. When I first saw the wall I imagined it to be a winding stair leading to a sub-



terranean cave. But as no steps were to be seen at what was apparently its upper end, I came to the conclusion that it was the remains of an old circular wall inclosing a court, in which there had been some monument or building made of the carved stones which had been found before. I did my best to persuade the man to continue his excavations. At first my entreaties seemed to have some effect; but he soon discontinued the work. He did not dig deep enough to show the flooring, which probably was either made of flags or was a tessellated pavement. The owner of the ground pulled down the thin circular wall which had been excavated, and used the square stones composing it to pave the courtyard. The middle of this place is 256 metres distant from the Gate of Damascus.

I made two drawings of stones that were dug up in this place. The architecture, and perhaps the age of the building of which they formed a part, may, to a certain extent, be determined by the testimony they afford. In my opinion the stones belonged to an old church. Still it is possible that they may have formed part of the building of a Jewish synagogue, for the rosettes, as they are given in the drawings, are to be found on ancient Jewish sepulchres in the rock. The so-called water-drops are arranged like steps and stairs. The carvings on the few remaining pilasters resemble triglyphs. Of the other pieces of sculpture, one reminds me of an incomplete form of the egg and dart; probably, however, it stands for something quite different. The upper row might be taken for palm-leaves twisted into a spiral pattern. The stone is very good; the workmanship is somewhat rude, and is not always exact in detail.

I am inclined to regard these stones, and the piece of wall also, as belonging to the church of St. Stephen, which, according to overwhelming testimony, was situated to the north of Jerusalem. The Empress Eudoxia, wife of Theodosius, built "a temple outside the North Gate, and not quite a stadium from the city, in honour of Stephen the First, deacon and martyr; it was remarkable for its beauty and splendour; however, it was not until the 15th of January, 460, that the whole building was consecrated. The empress died four months before the consecration, and was buried in this temple." There was a cloister near the church. Both church and cloister were destroyed after the invasion of Chosroes I., or Omar. The Crusaders probably found nothing of the building but its memory and its ruins. In the later times of French rule another church was erected before the North Gate; it lay to the right of the road as one came from without towards Stephen's Gate and close to the town wall, while to the left (opposite St. Stephen's Church) was a large building called *l'asnerie*, which served as stables for the asses used in the cloister, and later on, after the Saracen victory, for the pilgrims. The foundation walls of this building, as well as a number of crypts, were discovered in the year 1875. Even then the idea was started, in consequence of this discovery, that the remains of St. Stephen's Church would be found under the rubbish on the western

side of the Nabulus road.\* In the same year (1875) a hole was dug for making a cistern in the ground to the west of this road, 112 metres nearer to the town, or in other words, 144 metres distant from the Gate of Damascus. The workmen came upon several sepulchres in this place, and in one of them was a large stone chest. Dr. Chaplin, whom I took there to see it, has described it in the *Quarterly Statement* of the English Palestine Exploration Fund. He was of opinion that the chest was intended as a protection for the wooden or leaden coffin placed inside. Its presence seemed to him to indicate the grave of some person of rank, perhaps of the Empress Eudoxia herself, and at the same time he pointed out that St. Stephen's Church must have been close to this spot.†

The discoveries which I have just described are calculated to prove the truth of these suppositions. But in order to arrive at a decisive conclusion on the subject, it must be seen whether the wall indeed formed a circle, and what the space within it really was—whether other objects worthy of interest are to be found amongst the rubbish, and whether there is an as yet undiscovered cave hidden underneath. Excavations on a large scale are necessary for this purpose. Perhaps the German Society for the Exploration of Palestine may find this a problem worthy of solution.

\* Compare Palestine Exploration Fund *Statement* for 1875, p. 190; 1876, p. 143 f.

† See Palestine Exploration Fund *Statement*, for 1876, p. 9.

PALESTINE  
EXPLORATION FUND.

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Patron—THE QUEEN.

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*Quarterly Statement*

FOR 1880.

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LONDON:  
SOCIETY'S OFFICE, 1, ADAM STREET, ADELPHI,  
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NOTE.—The Price of the “Quarterly Statement” is Half-a-Crown.  
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THE  
PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

Died, on Saturday, Dec. 26th, WILLIAM HEWORTH DIXON, Chairman of the Executive Committee of this Society. It is now too late to do more than record this loss to the cause of Palestine research. We hope to set forth his services to the Fund since its foundation in the April *Quarterly Statement*.

IT HAS BEEN RESOLVED to begin the Special Edition with the issue of the great Map. This is now completed, and finally corrected proofs are in the hands of the committee. It is expected that the sheets will be delivered in London in March. They will then be sent out to the subscribers as rapidly as possible. Each Map will be placed in a strong and handsome portfolio, with title page and index sheet. The portfolios will be delivered to subscribers carriage paid.

The first volume of the Memoirs will probably be ready about the same time. There has been unavoidable delay caused by sending the proofs to Asia Minor. Colonel Wilson has now, however, begun to return them; the illustrations are in the engraver's hands, and the work will now be forwarded as fast as possible. The plans, drawings, and sketches will be bound up with the Memoirs, instead of forming separate volumes as at first proposed. The first volume consists of the first six sheets, and includes, roughly, the whole of Galilee. Lieutenant Conder has contributed a paper to the volume on the topography of Galilee. The Memoirs of the fifth sheet are also written by him; the rest of the Memoirs in this volume are the work of Lieutenant Kitchener.

Should any subscriber to the Special Edition be willing to give up his copies to public libraries or private persons, he is invited to inform the Secretary. A list has been made of names which arrived too late, to whom such copies may be ceded.

IT HAS BEEN FURTHER RESOLVED that the great Map, in twenty-six sheets, shall be issued to the general body of the subscribers to the Fund in the summer, after the issue of the Special Edition is completed. The sheets will be coloured, placed in a strong portfolio, and forwarded carriage free, with index map, title page, and a small descriptive pamphlet, calling attention to the boundaries, principal features, ruins, &c., on each sheet. The price to subscribers will be two guineas, payable in advance to the secretary, to whom alone applications must be made. No trade discounts will be allowed on subscribers' copies.

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In the autumn the Map will be issued to the general public, to be obtained of all booksellers, at the price of three guineas, in portfolio, and with the pamphlet, &c., as in the form issued to subscribers.

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The Map of Eastern Palestine, executed by the American party, partly by reconnoissance, and partly by triangulation, will be issued at the same time as our own Map, in similar form—viz., in a portfolio, and with a descriptive pamphlet. It will consist of thirteen sheets. The price to subscribers will be one guinea; to the general public, a guinea and a half.

---

The first two sheets of the reduced Map are now ready; the American work will be incorporated with it, so that this Map will now represent the whole of Palestine. It will consist of nine sheets. The work is being pushed forward as rapidly as possible.

---

Dr. Chaplin writes from Jerusalem (Dec. 4, 1879):—"Some time ago the Tombs of the Kings were purchased by a French lady, and excavations of considerable interest have lately been carried on there. In the earth which filled a great portion of the rock hewn, sunken court in front of the entrance to the Tombs, have been found many capitals and other architectural remains, amongst them some stones, which show beyond question that they formed part of a pyramidal structure. There seems no reasonable doubt that these belong to the famous three pyramids of the monuments of Helena, and have been thrown down from above. A great marble statue, probably Roman, has been found a few minutes from the seashore, an hour and a half south of Gaza. It is a half figure, nose and right forearm broken off. I send you a tracing of a rough sketch received from a friend. In the Shephelah, an hour or more north of the Jaffa Road, a tomb has been brought to light. One of its stone doors has carving upon it in four panels, on two of which are representations of lions' heads, in two of bulls' heads. Probably the tomb is of Crusading origin. It has again been covered in. I had hoped to be able to visit it, as well as the statue below Gaza, but could not leave home. It is said that the statue is to be brought to Jaffa."

---

Colonel Wilson writes, as to his paper on the walls of the Haram enclosure, as follows:—

"The notes on the Haram wall were written two or three years ago as part of

## NOTES AND NEWS.

a revised edition of the notes to the Ordnance Survey of Jerusalem. I was obliged, from pressure of other work, to lay the notes on one side, and have never been able to continue them. I have offered the notes as a contribution to the *Quarterly Statement*, hoping that they may be found useful in future discussions respecting the character of the masonry of the Haram wall.

“The plan I adopted in the notes was to give, in the first place, a description of each section of the wall from the ‘Recovery of Jerusalem,’ the *Quarterly Statements*, and other sources, and then to add such remarks as occurred to me; the facts are thus separated from the comments.

“It was my intention to embody in the new edition of the Ordnance Survey Notes a description of the excavations made by Captain, now Lieut.-Colonel, Warren at Jerusalem. The nature of those excavations, and the difficulties which Colonel Warren encountered and successfully overcame, have never been sufficiently appreciated by the public. Though I cannot always agree with the conclusions which he has drawn from the results of the excavations, I am glad to take this opportunity of expressing my sense of the great value and importance of his work at Jerusalem.”

---

In order to publish Colonel Wilson's paper on the Haram masonry in full it has been found necessary to keep back several smaller papers, which will appear in the April *Quarterly Statement*. Among them is a reply by the Rev. W. F. Birch to the late criticisms on his recent papers.

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We have received Part II., vol. ii. of the “Transactions of the German Palestine Exploration Fund,” some portions of which we propose to reproduce in English form.

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The income of the Fund from all sources, from September 17th to December 12th, 1879, was £434 16s. 3d. The general expenditure on rent, parcels, postage, salaries, and office, has been £160. All the “unpaid accounts” which have figured so formidably in the annual balance-sheets are now paid off.

---

It is suggested to subscribers that the safest and the most convenient manner of paying a subscription is by means of the bank. Among other advantages, this method removes the danger of loss or miscarriage, and saves the Society's office the labour and expense of acknowledgment by official receipt and letter. Money should never be sent by stamps, and when remitted by post-office orders or cheques, these *should in all cases be payable to order of Walter Besant, Esq. and crossed to Coutts and Co.*

The name of the author of the paper on the Tomb of St. Luke, published in the *Quarterly Statement* of October, 1878, was omitted. It was written by Mr. William Simpson, F.R.G.S.

---

The publications of the Society now in print are :—

1. The Recovery of Jerusalem. Third Thousand. 16/- to Subscribers.
2. Our Work in Palestine. Ninth Thousand. 3/6.
3. Tent Work in Palestine. Second Thousand. 17/6 to Subscribers.

The second of these contains a popular account of the excavations in Jerusalem, with the reasons and aims of the work.

A few copies still remain of Lieutenant Kitchener's Guinea book of Biblical Photographs. It contains twelve views, with a short account of each. The views are mounted on tinted boards, and handsomely bound.

---

Cases for binding the *Quarterly Statement* can be obtained of the Society's publishers, Messrs. R. Bentley and Son, at eighteenpence each. They are in green or brown cloth with the stamp of the Society.

---

The following are at present Representatives and Lecturers of the Society, in addition to the local Hon. Secs. :—

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North Wales : Rev. John Jones, Pwllheli, North Wales.

Yorkshire, Durham, and the North : Rev. James King, St. Mary's Vicarage Berwick. Mr. King has recently returned from the Holy Land ; communications for lectures, &c., can be sent to the Office at Charing Cross.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Barutisland.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that they

leave such proposals to be discussed on their own merits, and that by publishing them in the *Quarterly Statement* the Committee do not sanction or adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

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The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise to occasional omissions.

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It has been asked whether, since the Survey is finished, the *Quarterly Statement* will be discontinued. The Survey, as stated above, will be actually completed when it is entirely published, and not before. But its completion does not mean the completion of the work of the Society, as reference to the original prospectus will show. And there is, more than ever, need of a periodical devoted to the special line of research which is the *raison d'être* of this *Quarterly Statement*. It will therefore be continued as long as the Society exists and there is work of the kind which it represents to be done and reported.

---

## DISCOVERY OF A STATUE NEAR GAZA.

THE following appeared in the *Pall Mall Gazette*, November 11th, 1879:—

“An interesting archaeological discovery is reported from Palestine. An Arab who was quarrying stone the other day at a place about four miles and a half from Gaza unearthed a marble figure supposed to be a colossal god of the Philistines. The dimensions of the figure are as follows: 3 feet from the top of its head to the end of its beard, 27 inches from ear to ear, 13½ inches from top of forehead to mouth, 54 inches from shoulder to shoulder, 81 inches from crown of head to waist, and 54 inches the circumference of the neck. The total height of the figure is 15 feet. The hair hangs in long ringlets down upon the shoulders, and the beard is long, indicating a man of venerable age. The right arm is broken in half, while the left arm is crossed over the breast to the right shoulder, where the hand is hidden by the drapery of a cloth covering the shoulders. There is no inscription on the figure or the pedestal, which is a huge block carved in one piece with the figure. The statue was found in a recumbent position, buried in the sand, on the top of a hill near the sea. It had evidently been removed from its original site, which is unknown. Its estimated weight is 12,000lb. The Pasha

of Jerusalem has ordered a guard to watch this relic of ancient art, and to prevent any injury to it by the fanatics of Gaza."

See also Dr. Chaplin's letter on the same subject in *Notes and News*.

Lieut. Conder communicates the following notes on this discovery:—

"Gaza is mentioned in the Talmud as a place where Jews might live in spite of the idolatry of its inhabitants. A place called *Yerid* ('market') or *Atuzah* ('meat market') existed outside the town, where an idol was worshipped (Abodah Zara i. 4, Jerusalem and Babylonian Talmuds).

Although Christianity was early introduced at Gaza (a Bishop Silvanus of Gaza is mentioned by Eusebius as early as 285 A.D.) idolatry kept its hold on the city as late as the fifth century. Porphyrius, the Bishop of Gaza, was authorised by the Empress Eudoxia to destroy the pagan temples and to erect a church in 406 A.D.

The temple outside the town was possibly the place called Bethelia mentioned by Sozomen (Hist. Eccl. lib. v. cap. 15) as a flourishing village near Gaza, having temples venerable both for age and beauty, especially a Pantheon standing on a hill like a citadel above the town. The village in question is no doubt the present *Beit Lahia*, standing on the sandhills  $1\frac{3}{4}$  miles north of Gaza, and the great statue now discovered may have belonged to the Pantheon at this place.

The principal deity worshipped at Gaza was Marnas, the Cretan Jupiter. Zeus was also worshipped, and in the fourth century Gaza is said to have had eight temples (Life of St. Porphyrius, Bishop of Gaza, Acta Sanctorum, vol. v. p. 655). The Sun, Venus, Apollo, Proserpine, Hecate, and Juno were among these deities. The Temple of Marnas was round, and was considered one of the most magnificent in the world: it had a double cloister, apparently resembling the Dome of the Rock at Jerusalem. The church which Eudoxia built on its site was, however, cruciform, with thirty columns. Jerome speaks of the Temple of Marnas as overthrown in his own time (Comm. on Isaiah xvii. 3), but the final destruction was not effected until the beginning of the fifth century.

In the Pascal Chronicle (at 379 A.D.) a place called Tetramphodos, or 'Cross roads,' is noticed at Gaza, where was a marble statue of Venus above an altar. This may be the same as the market noticed in the Talmud (see Reland, vol. ii. p. 793).

The God Marnas is identified by Lenormant with the Moabite Hobal, who was represented as an old man with a long beard, holding a red stone in his right hand, and sometimes the seven arrows of fate (Ezekiel xxi. 21) without points or feathers. Hobal is called the male Venus, the Arabs worshipping among the planets only Venus and Jupiter, the latter symbolised by a stone. Hobal and Marnas were both the Lords of Fate, and were prayed to for rain. They answered to the old Greek divinity Uranus, and 360 smaller statues, symbolising the degrees of the celestial circle, are said sometimes to have accompanied their images (see Lenormant's *Lettres Assyriologiques*, No. 5).

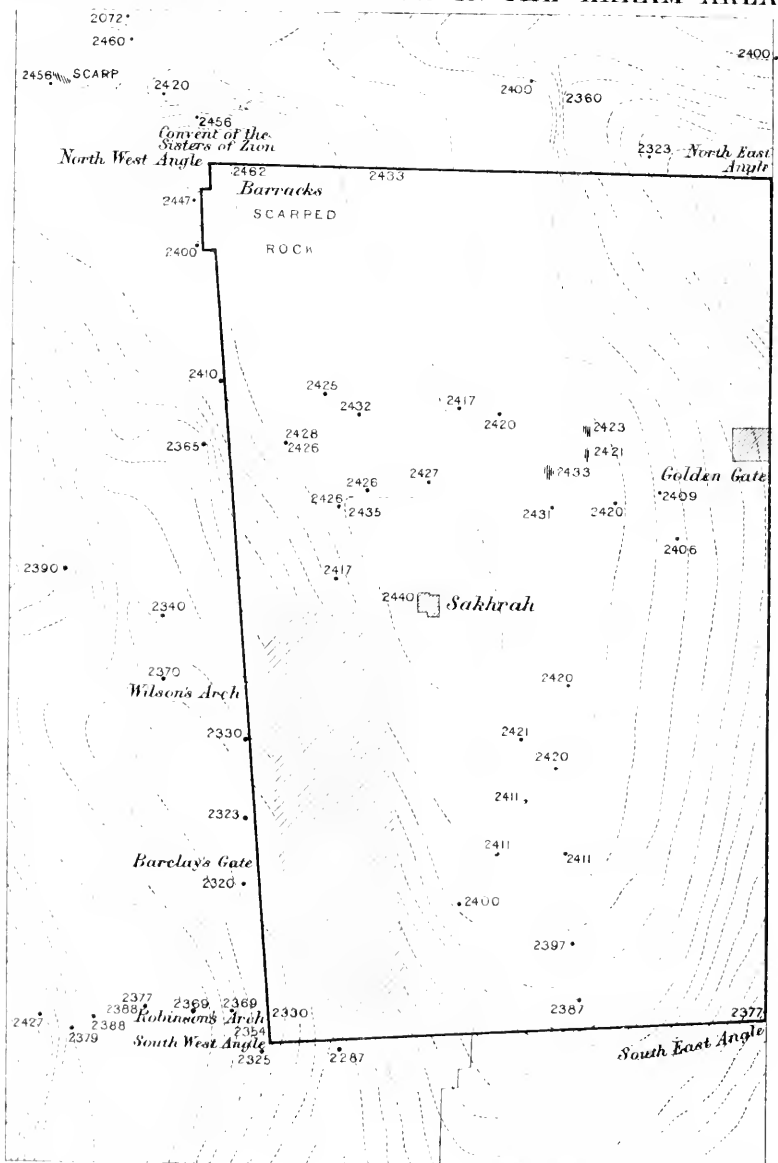


## Figure 1

Figure 1 shows the results of the regression analysis. The dependent variable is the log of the number of employees. The independent variables are the log of the number of employees in the previous period, the log of the number of employees in the previous period squared, and the log of the number of employees in the previous period cubed. The results show that the log of the number of employees in the previous period is a significant predictor of the log of the number of employees in the current period. The coefficient on the log of the number of employees in the previous period is 0.95, which is significantly different from zero. The coefficient on the log of the number of employees in the previous period squared is -0.02, which is also significantly different from zero. The coefficient on the log of the number of employees in the previous period cubed is 0.0001, which is not significantly different from zero. The adjusted R-squared is 0.92, indicating that the model explains 92% of the variance in the dependent variable.

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# PLAN OF THE ROCK LEVELS IN THE HARAM AREA



Stanfords Geog<sup>l</sup> Estab<sup>o</sup>

SCALE OF ENGLISH FEET  
0 500 1000

Note. In the part shaded no rock levels have yet been fixed.

It appears, therefore, that pagan worship survived at Gaza side by side with Christianity (supposing the bishops to have resided at their sees) as late as the fifth century A.D., and the resemblance between the description given of the new statue and the representation symbolic of Marnas, the god of Gaza, as an aged and long-bearded man, is so strong, that I would suggest to learned authorities that it is the statue which once stood in the principal temple of Gaza which has now been unearthed, perhaps after having been purposely buried at the time of the destruction of the temple by Porphyrius.

C. R. CONDER, Lieut. R.E.

16th November, 1879."

## THE MASONRY OF THE HARAM WALL.

By Colonel C. W. WILSON, R.E., C.B.

*From the S. W.  
angle to Bar-  
clay's Gate.*

THE ancient masonry at the south-west angle, and about fifty feet on either side of it, is the finest and best preserved in the wall, above ground, and has every appearance of being *in situ*. One of the corner stones, about 62 feet above the true foot of the wall, is 38 feet 9 inches long, nearly 4 feet thick, and 10 feet deep, and others are of scarcely less size. The bonding of the stones has been carefully attended to and the workmanship is admirable, but unfortunately the accumulation of rubbish and the bushes of cactus do not allow of its being seen to the same advantage as the south-east angle. The south-west angle is a right-angle.

Thirty-nine feet north of the corner is the fragment of an old arch, first brought to notice by Dr. Robinson, and now known by his name; portions of the three lower courses remain, and from the appearance and position of the stones they evidently formed part of the original wall; the upper stones have slightly slipped, and the surfaces of those taken from the soft *maluki* bed are so much weather-worn that the curve is almost lost. The arch is exactly 50 feet long, and the line of its springing is on a level, or nearly so, with the present surface of the ground; an offset of 1 foot 3 inches in the wall, which forms a sort of pier or buttress, is just visible.

From the arch northwards to Abu Sáúd's house, and within his house, where it can be seen, the wall is made up of a mixture of plain dressed stones and those having a marginal draft, but immediately beyond the latter, in a small yard to the south of the Wailing Place, the older masonry is again found in the shape of an enormous lintel, which covers a closed doorway known as "Barclay's Gate."

At the north end of Abu Sáúd's house, and partly over Barclay's Gate, is the Bab al Maghâribé, or Gate of the Western Africans, so called from its proximity to the mosque of

*Bab al Maghâribé.*

the same name. The sill of this gate is on a level with the Haram area, and the approach from the valley is by a steep ramp supported on arches, which bears no appearance of great age.

*Haram Wall.* Above the ancient masonry at the south-west angle are several courses of large stones, plain dressed without marginal drafts, similar to those in the south wall west of the Khâtûniyé, and in the west wall at the Wailing Place, but between the angle and Robinson's Arch they are replaced by courses of small stones, also plain dressed, of only half the height. The upper portion of the wall is here built of small stones with marginal drafts, and rough projecting faces, similar to those in a portion of the Citadel, with a proportion of plain dressed stones. Over Robinson's Arch there is a distinct change in the style of masonry, the stones with rough projecting faces cease abruptly, and the wall is almost entirely composed of thin courses of very small stones, plain dressed; north of the arch the larger stones without drafts again appear in the lower portions of the wall, and above them the masonry is of a mixed character. There is thus evidence of five periods of construction, which probably succeeded each other in the following order: the large stones with marginal drafts; the large stones plain dressed; the medium sized stones plain dressed; the small stones with marginal drafts and projecting faces; and the very small stones plain dressed, and mixed masonry.

Captain Warren was unable to excavate close to the Haram Wall at Robinson's Arch, but the lower portion of the masonry at that point was examined by a gallery driven into it from the west, and a shaft was sunk to a depth of about 46 feet at the south side of the south-west angle. It would appear that there are eighteen courses of drafted stones, from 3 feet 4 inches to 4 feet high, between the rock and the spring of the arch, giving a total height of about 62 feet 6 inches. The stones in the six lowest courses, below the level of a pavement described below, have their faces "rough picked," or "carelessly dressed," whilst those in the higher courses have their faces dressed like the stones in the Wailing Place; the drafts, beds, and joints being in either case of a similar character. The foundation stones were also seen at a point about 55 feet north of the arch, and in a passage a little south of the arch; and the upper masonry was traced almost as far north as Barclay's Gate, in a drain which runs along the Haram Wall, at a height of about 25 feet above the rock. The stones seen in the drain are said to be "similar to those above"—*i.e.*, like those at the Wailing Place. The pier or buttress alluded to above as projecting 1 foot 3 inches from the face of the wall, was probably formed by allowing the courses of stone to run up perpendicularly, or nearly so, from the rock, whilst each course in the wall itself is set back about one inch.\* This feature is wanting at Wilson's Arch. It seems

\* This view has been followed in the Section Plan 2; the offset appears to have escaped Captain Warren's notice.





quite clear that the wall from the south-west angle to Barclay's Gate is of one date, though the stones with rough picked faces die out at some intermediate point not yet known.\*

*Robinson's Arch and Pier.* The arch has already been stated to be 50 feet wide, and it probably had a span of 42 feet, the same as that of Wilson's Arch. Captain Warren gives the span as "a trifle over 41 feet 6 inches," but this appears to have been measured at the foot of the pier, and a slight batter in the wall would give the additional six inches. The pier† is 51 feet 6 inches long, and 12 feet 2 inches thick, and rests on the rock 42 feet below the springing of the arch. Three courses, from 3 feet 6 inches to 4 feet high, were found on the eastern side and two on the western, and the stones are of hard *missw*, dressed in a similar way to those at the Walling Place. The construction of the pier is peculiar; on the eastern side the two first courses, 7 feet 3 inches high, form five small piers, about 5 feet long, with intermediate spaces of about 6 feet, over which the stones of the third course lie like so many great lintels, one stone being 13 feet 9 inches long. In the inside of the pier there is a hollow space about 5 feet wide, left, apparently, with a view of economising material. The second course on the western side is set back several inches, whilst the courses on the eastern side are flush with each other. The rock beneath the pier on the east is cut away perpendicularly, and on the west there is a rock-hewn channel along which Captain Warren drove his gallery.

*Old Drain.* In a cistern, of no great age, built against the north end of the pier, an entrance was found to a drain which led directly to the Haram Wall and then branched north and south along it. The drain, which reaches nearly as far north as Barclay's Gate, is 165 feet long, 3 feet wide, and 2 feet high, and is built "of rubble with flagging on the top." The Haram Wall, as seen from the drain, "extends in one unbroken line" from the arch to Barclay's Gate. The drain is said to be a few feet above a

*Pavement.* pavement which stretches from the base of the pier of Robinson's Arch to the Haram Wall, and falls slightly to the east. The pavement is formed of slabs of very hard *missw*, of considerable size, with polished surfaces, and upon it rest just as they fell, in lines north and south, the voussoirs of Robinson's Arch, which are from the *malaki* bed. Captain Warren thinks the pavement is probably the same as that at the south-west angle, and that it extends to Barclay's Gate; this may be the case, but it was only seen at a few points. The pavement rests on a mass of *débris* and old masonry, about 20 feet deep, and beneath this is the rock, its surface cut smooth and horizontal. At a distance of 12 feet from the Haram Wall there is a

\* The questions connected with these stones are discussed below.

† In 1865 an excavation was made in search of this pier, and dropped directly down upon it, but there were no means available for following up the discovery.

*Rock-hewn Channel.* rock-hewn channel, 12 feet deep and 4 feet wide, covered by an arch which, opposite the centre of the pier, has been broken by two large stones, apparently the voussoirs of an old arch that have fallen from above. One of the stones is much decayed, the other is 7 feet long, 5 feet thick at the extrados, 4 feet 4 inches at the intrados, and 4 feet high; in the middle of one side there is a joggle hole. No search appears to have been made for other voussoirs. The channel lies on the right bank of the ravine, and its general direction is north and south, but it is not parallel to the Haram Wall. Proceeding southwards from the two voussoirs there is, at 24 feet, a square rock-hewn cistern, covered by a segmental arch, whence a passage runs east to the Haram Wall, which, having apparently been built at a later period, cuts it in two; a second passage to the west, 3 feet wide, is closed by a fallen stone, and a third leads southwards to a circular rock-hewn cistern, 16 feet in diameter and 14 feet 4 inches high, with a flat roof of rock from 2 feet to 3 feet thick, which is pierced in the centre by a man-hole passing down from the pavement. Three feet above the floor of the cistern a rock-hewn passage, 8 feet high, 3 feet 9 inches wide, and covered by a "slightly pointed semicircular arch," runs off to the south-east and passes close to the angle of the Haram Wall, where it leaves the rock and is replaced by a smaller channel of masonry, 3 feet wide, which falls rapidly towards the bed of the ravine. After about 40 feet the channel turns suddenly to the south, and is continued as "a modern-looking drain" for a further distance of 59 feet, when it becomes silted up. North of the voussoirs the channel, 3 feet 9 inches wide, and covered with a "skew pointed arch,"\* runs slightly away from the Haram Wall, and at 22 feet from the north end of the pier of Robinson's Arch, opens into a circular rock-hewn cistern, 12 feet 9 inches in diameter, and 14 feet high, which has its floor 3 feet below that of the channel. The roof is of rock, and is pierced by a man-hole leading down from the pavement.† This cistern is connected by a channel cut out of the rock, 4 feet wide and 14 feet long, with a similar one to the north-east, "of which only half is to be seen, as it is cut through by the foundations" of the Haram Wall. The channel now turns to the west, but almost immediately bending to the north again, it connects with a masonry passage,‡ 3 feet wide, 8 feet high, and covered by a semicircular arch, which extends northwards for 123 feet to a point nearly opposite Barclay's Gate, and

\* The arch is made up of five stones; the chord to the east is about 22 inches, to the west 33 inches.

† North of the cistern, and partially overlying it, are two rock-hewn rectangular chambers, 16 feet long, 6 feet wide, and covered by semicircular arches; in one there is a flight of steps cut in the rock, and here was found the base of a column, figured on page 107 "Recovery of Jerusalem."

‡ In Captain Warren's drawings several man-holes are shown to lead upwards from this passage to the pavement, but they are not mentioned in the text.



about 14 feet from the Haram Wall. Here the passage is replaced by a narrow channel, 18 inches wide and roofed with flat stones, which runs off from the Haram Wall, and at a distance of 160 feet is cut in two by the wall of a house.

Lamps, weights, jars, an iron bar, and a stone roller, similar to those still used in some parts of the country for rolling the flat roofs of houses, were found in the channel, but none of these give any indication of its age.

*Form of Valley.* The section of rock exposed by the excavations beneath Robinson's Arch does not represent the true bed of the ravine, which lies more to the east, beneath the Haram Wall and at a much lower level, from 25 feet to 30 feet. The direction of the wall is not parallel to the course of the ravine, but crosses it at some point unknown, possibly near Barclay's Gate, where the level of the rock is 4 feet 6 inches lower than beneath Robinson's Arch; this may explain the absence of stones with rough faces north of Barclay's Gate, as the wall being then on the left bank of the ravine, they would be fully exposed to view. The rock appears to have been cut away below the east face of the pier, but the level surface at the bottom is probably natural, the top of one of the limestone strata in which the channel has been cut.

*Deductions from Discoveries.* The following remarks are offered as a possible explanation of what was found in this locality. At a very early period the channel, with its circular cisterns, which acted as so many collectors to store surplus water, was cut in the rock; the numerous man-holes show conclusively that the channel, which follows the right bank of the ravine, and at Robinson's Arch is 20 feet to 25 feet above its bed, carried sweet water, but the source of supply is unknown; it was possibly within the city, higher up the ravine.\* At a much later period a covering arch was thrown over those parts of the channel left open to the air, and about the same time a viaduct was carried across the ravine at a low level, about that of the foot of the pier of Robinson's Arch, to facilitate communication between the low ground on the right bank and the eastern hill, up which there must have been a steep ascent. On Herod's reconstruction of the Temple the existing Haram Wall and Robinson's Arch were built, the hollows filled up with rubbish, and the pavement laid down on a level with the top of the highest course of stones with rough faces, which is also that of the rock beneath the pier. Before building the wall it would be necessary to remove the low-level viaduct, and in doing this two of the stones may have slipped and fallen on the covering arch of the channel. Captain Warren supposes† that rubbish

\* The conduit may perhaps be connected with the great works of Hezekiah, when he "stopped the upper watercourse of Gihon and brought it straight down to the west side of the City of David" (2 Chron. xxxii. 30).

† "Recovery of Jerusalem," p. 110.

had accumulated to the height of the pavement, 20 feet 6 inches, before the Haram Wall was built by Herod, but this view necessitates the fall of the lower arch at a very remote date, then the accumulation of rubbish not only immediately below Robinson's Arch, but right across the bed of the ravine, where it would be 40 feet to 45 feet deep, and lastly, if the Haram Wall be not a mere shell, the removal of most of this rubbish when the solid substructure of the Temple was built. It seems more probable that Herod's architect, who conceived the bold idea of carrying the massive masonry across the ravine, intended, as part of his scheme, to fill up void spaces on the right bank, and finish off with a pavement.\* If the approach to Barclay's Gate were by a ramp, as there seems some reason to believe, this ramp would form a natural termination for the stones with rough faces and the pavement on the north. The arrangement to the south is not quite so clear; the pavement went round the south-west angle, and at the side of the south wall it was 56 feet above the bed of the ravine, but whether the rubbish it covered was allowed to stand at its natural slope or was neatly finished off with a retaining wall is uncertain. Captain Warren's view that the non-existence of stones with rough faces north of Barclay's Gate points to two different periods of construction is hardly supported by the appearance of the masonry at a slightly higher level, which, as far as is yet known, is of exactly the same character from the south-west angle to Wilson's Arch. The fact that the voussoirs of Robinson's Arch lie directly on the pavement seems to show that the arch was destroyed during or immediately after the siege and capture of the City by Titus, and the rubbish probably began to accumulate at the same time. There is little to indicate the level of the rubbish at different periods, but it has been suggested† that during the Frank kingdom the level was that of the sill of Barclay's Gate.

The ground between the eastern and western hills was examined by a series of shafts sunk on a line drawn perpendicular to the Haram Wall from the centre of Robinson's Arch, and the following is a brief summary‡ of the results:—

*Shaft I.*, 72 feet from the wall, was used for the examination of the fallen voussoirs of Robinson's Arch, a gallery being driven to the west at about 8 feet above the rock.

*Shaft II.*, 82 feet from the wall. At a depth of 2 feet a small arch was found with sandstone *débris* beneath it; at 14 feet a passage or drain, and at 24 feet 6 inches the shaft was abandoned.

\* Josephus appears to allude to such a filling in when he says (B. J. v. 5. 1) that "they brought earth and filled up the valleys, as being desirous to make them on a level with the narrow streets of the city." The pavement may possibly be the work of Agrippa (see Josephus, *Antiq.* xx. 9. 7).

† "Recovery of Jerusalem," p. 110, 111.

‡ For fuller details see "Recovery of Jerusalem," p. 95, 99, and Captain Warren's Letters in the *Quarterly Statements* of the Palestine Exploration Fund.





*Shaft III.*, 92 feet from wall and 10 feet north of the general line of shafts; rock 40 feet 6 inches from the surface; passed through sandstone *débris*, and at 9 feet reached the mouth of a shaft 8 feet deep, opening into a vaulted cistern, 18 feet by 11 feet 6 inches, of modern construction. On breaking through the western side of the cistern the rock was found to be scarped for some feet north and south, and this may perhaps have been the position of the second pier of the viaduct, though no drafted stones or fallen voussoirs were found. From this cistern a staircase gallery was driven along the face of the rock to the pier of Robinson's Arch, the last 16 feet being in a curious cutting in the rock.

*Shaft IV.*, 132 feet from wall; rock 30 feet from surface.\* At 13 feet 6 inches the walls of a plastered chamber, which rest, at 21 feet 6 inches, on a wall running north and south, and this again rests, at 26 feet 10 inches, on a wall 15 feet thick, which runs east and west. The masonry of the last wall, though very ancient, has nothing in keeping with the Haram Wall. The rock beneath is scarped for four feet and then cut away as if for steps, possibly to receive the foundation stones of another pier.

*Shaft V.*, 182 feet from wall; rock 22 feet from surface. At 12 feet the *débris* of a stone building, perhaps a continuation of that found in Shafts 6 and 7; at 22 feet the mouth of a rock-hewn cistern, 10 feet square, with a flat ceiling.

*Shaft VI.*, 216 feet from wall; rock 32 feet from surface. At 12 feet the stones of a fallen arch, at 18 feet a limestone pavement, and beneath it *débris* of cut stone and the remains of a wall of well-dressed stone running north and south.

*Shaft VII.*, 250 feet from wall; rock 18 feet from surface. At no great depth piers 3 feet by 4 feet † were found, built of "well-dressed ashlar of soft sandstone," and resting on the rock. The piers are 12 feet 6 inches apart, and supported arches, now fallen, and their height is about 12 feet from the floor to the springing. The ground to the north was not examined, but other piers were found to the east, as shown in the Section 3. The flooring is of well-dressed limestone flagging, and was found to be much disturbed. In one of the piers is a small door leading to a cylindrical rock-hewn cistern.

*Shaft VIII.*, 285 feet from wall; rock 21 feet 6 inches from surface. The rubbish is described as being "common garden soil;" the shaft bared the slab covering the main drain of the city, which is 6 feet high, 3 feet wide, and cut out of the rock. The drain runs out by the Dung

\* There are certain discrepancies between the rock levels in the "Recovery of Jerusalem" and the Lithographs and Letters published by the Palestine Exploration Fund. That given in Capt. Warren's Progress Report, No. V., September 12th, 1867, has been adopted above and in the section.

† Letter I., August 22nd, 1867, to Palestine Exploration Fund. The "Recovery of Jerusalem" gives 2 feet by 3 feet.

Gate,\* where it is uncovered, and is probably that by which the *fellahin* entered the city during its occupation by the Egyptians under Ibrahim Pacha.

*Remarks on  
Results of  
Excavations.*

The rock features as disclosed by the excavations are shown on the Section 3. They present the appearance of gently shelving ground from the foot of the cliff on which the houses of the present Jews' quarter are built to the pier of Robinson's Arch. There are, however, two marked depressions, but how far these are natural or artificial is uncertain, the rock surface being much cut away in places. The sandstone piers, built of material which must have been brought from the Jordan Valley,† are rather puzzling. Captain Warren ‡ thinks that they formed part of the Xystus, but against this view may be urged the great height of the piers, 12 feet, and the traces of piers found, apparently, in Shafts II., III., and V., resting on from 10 feet to 30 feet of rubbish, and directly in the line of approach to Robinson's Arch. It is not known whether there are any piers to the north of the line of shafts, and until this question is settled it would perhaps be safer to look upon the remains as those of a bazaar or other building erected during the period of the Frank kingdom. The excavations unfortunately throw no light on the character of the roadway over Robinson's Arch. The brow of the cliff beneath the Jews' quarter being 26 feet higher than the level of the Haram, it is quite certain that there was never a continuous viaduct across the valley; but a broad flight of steps, carried on arches, from the valley would form a grand approach to the Royal Cloisters which ran along the south wall, and be a very probable arrangement. This may possibly be the fourth gate of Josephus which "led to the other city, where the road descended down into the valley by a great number of steps, and thence up again by the ascent."§ When it is remembered that the great pier of Robinson's Arch has only

\* The sewage, after passing the Dung Gate, is now used for manuring the gardens. Captain Warren supposes ("Recovery of Jerusalem," p. 95) that the sewer runs on "until it opens out on the side of the hill above the Kedron, only a few feet south of the Fountain of the Virgin;" but if this is the case now it could not have been so formerly, as the great central ravine intervenes. There seems every reason to believe that this was the main drain of that portion of the ancient city situate on the western hill, and its natural course would be to follow the right bank of the ravine to the bed of the valley, where the sewage was probably utilised in the king's gardens. The drain which opens out near the Fountain of the Virgin was possibly the main sewer of the eastern hill. Unfortunately there is no plan of it.

† The Jericho of Herod appears to have been built of this soft, friable sandstone, and it was also extensively used by the Crusaders in certain places. The old quarries in the Jordan Valley may still be seen.

‡ "Underground Jerusalem," p. 70.

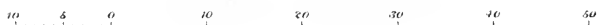
§ Antiq. xv. 11. 5.

THE UNIVERSITY OF CHICAGO

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BARCLAY'S GATE, MOSQUE OF AL BURAK  
AND CISTERN 19

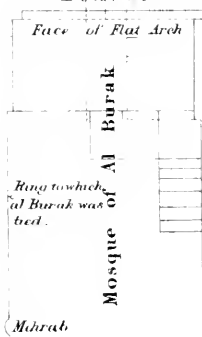
Scale  $\frac{1}{20}$  or 20 Feet - One Inch



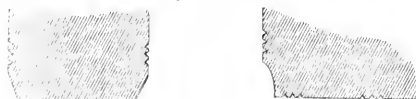
West Wall of Haram

Barclay's Gate

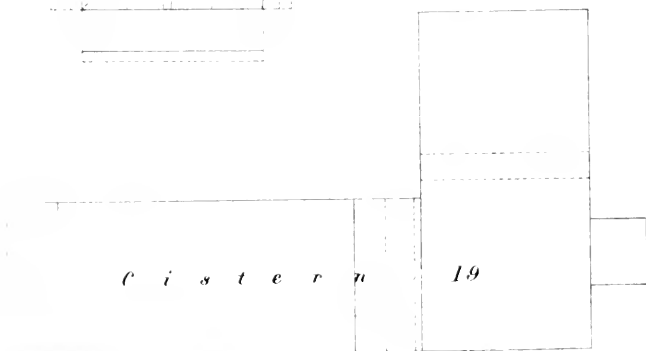
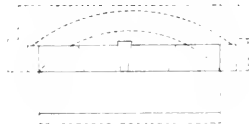
Lintel



Sections through crown of old Arch



Elevation of Flat Arch





two complete courses left, the disappearance of the remaining piers, which stood on higher ground, need not create surprise.\*

*Barclay's Gate.* The great lintel covering the closed entrance to the Haram, commonly known as "Barclay's Gate," † is visible in a small courtyard immediately south of the Wailing Place, and in one of the chambers which support the ramp leading to the Bâb al Maghâribé. The entire lintel cannot be seen, but it is 6 feet 10 inches high, and its measured length is 20 feet 1 inch. The total length must be about 24 feet 8 inches. The entrance is closed with coarse rubble, and above the lintel the Haram Wall is built with small stones plain dressed. Adjoining the lintel on the north there are four courses of large stones with marginal drafts, and at the Wailing Place two additional courses ‡ can be seen. Above the latter there are four courses of stones with plain dressed faces, and then the wall is finished off with small stones plain dressed. There are several holes in the wall, which seem to indicate the existence, at some period, of a row of vaulted chambers similar to those south of the Pool al Burak.

*Wailing Place.* The Wailing Place has always been considered part of the original retaining wall of the Temple enclosure, but the carelessness of the building and the frequent occurrence of coarse open joints makes it almost certain that the stones are not really *in situ*, and that this section of the wall is a reconstruction with old material. Many of the blocks are much worn by the weather owing to their softness or to their not having been set on their quarry beds. The material, too, is of very unequal quality; some is from the best *missæ* beds, as that used in the second course from the bottom, which is admirably finished and well preserved, but above and below this course there are many stones from the soft *malaki* beds and from the upper *missæ*, which contains a number of small nodules and disintegrates rapidly. The photograph, "Detail of Masonry at Wailing Place," shows the different kinds of stone used and some of the blocks set on edge.

\* The following are the principal levels:—

Brow of cliff under Jews' quarter	... ..	about 2,446·0 feet
General level of Haram area	... ..	„ 2,420·0 „
Spring of Robinson's Arch	... ..	„ 2,387·5 „
Level of ground at Robinson's Arch	... ..	„ [2,386·5 „
Level of rock at Robinson's Arch	... ..	„ 2,325·0 „

† From its discoverer, Dr. Barclay, an American missionary.

‡ The chiselled drafts are here from two to four inches broad and one quarter to three-eighths of an inch deep, and the faces of the stones are all finely worked. The Wailing Place is so well known that it has been found convenient to adopt its highly-finished masonry as a standard of comparison for other sections of the Haram Wall.

*Masonry below,  
the Surface of  
the Ground.*

The wall beneath the present surface of the ground was examined by a shaft which was sunk seven feet north of the jamb of Barclay's Gate. The bottom of the lintel proved to be 78 feet 6 inches above the rock, and this height is made up of twenty-two courses of stone, from 3 feet 3 inches to 3 feet 11 inches high. The bottom course is let into the rock, and each course is set back about half an inch as the wall rises. The stones are similar to, but in a much better state of preservation than, those of the Wailing Place, and with one exception the upper drafts are slightly broader than the lower. The sill of the gate is about 28 feet 9 inches below the bottom of the lintel. The exact height could not be ascertained, as the sill course was broken.

*The Rubbish.*

For about 23 feet the shaft passed through "hard earth mixed with large stones," and about nine inches below the sill course of the gate came upon the flat roof of the same drain which was met with above the pavement at Robinson's Arch: 2 feet 4 inches wide, and 5 feet 6 inches high. Below the drain there is a wall of heavy masonry, faced with well-dressed stones without drafts, which is perpendicular to, and abuts on, the Haram Wall. A gallery driven through the wall showed that it was a retaining wall six feet thick, apparently built of squared stones throughout, but with no southern face. The wall is not continued downwards to the rock, but rests on seven feet of rubbish. For the last thirty feet the shaft was sunk through "hard earth and broken cut stones, many of them 1 foot 6 inches by 3 inches by 2 inches," and the rock at the bottom, cut horizontally, appears to fall to the west.\*

*Approach to  
Barclay's Gate.*

It is just at this point that the position of the bed of the ravine becomes of some interest, but unfortunately the excavations do not throw much light on the subject, and it is uncertain whether the bed is to the east or to the west of the Haram Wall. The latter, however, seems most probable. The original approach to Barclay's Gate would appear to have been by a solid ramp across the ravine, but the information is not full enough to render this certain.

*Ancient Passage.*

The entire gate or entrance cannot be seen, but it was evidently about 18 feet 10 inches wide, and 28 feet 9 inches high, the sill being about 49 feet 9 inches above the rock. Immediately behind the closed entrance is the Mosque of Burak, which is reached by a flight of steps leading down to it from the western cloisters of the Haram area. This mosque marks the line of the passage which gave access to the Temple platform, and part of the original covering arch can be seen. The western portion of the chamber is covered by a solid segmental arch, of fine workmanship, with a simple moulding on its eastern face; the eastern portion by an elliptical arch built with smaller stones, but of greater height and

\* This is stated in a note on one of Captain Warren's original drawings.





span than the segmental one. The inner face of the lintel is almost concealed by a flat arch, apparently intended to take off the unpleasant effect which a massive stone would have on the eye at the end of a vaulted passage. The steps leading to the Haram area are comparatively modern, and a portion of the segmental arch has been cut away to form the upper ones. In the mosque is shown the ring to which Muhammed is said to have fastened his steed, Al Burak, on the occasion of his famous night journey. The entrance is called by some writers the "Gate of Muhammed," but this name was not known to the Sheikh of the Haram.

At the end of the mosque there is a space of about 11 feet filled in solidly with rubbish, and then the original passage is again found in Cistern No. 19, east of the Bâb al Maghâribé. The passage runs east, in continuation of the line of the Mosque of Burak, to a sort of vestibule, and then turns south at right-angles to its former course, and parallel to the Haram Wall. The passages are covered by segmental arches of similar construction to that noticed in the mosque, and with the same sort of moulding on their faces; the vestibule has a well-built domed roof, in the centre of which is a circular opening, originally intended to admit light, but now forming part of the shaft of the cistern; in the north wall of the vestibule there is a recess, which may possibly be the closed entrance to a passage. The stones of the dome and of the segmental arches are finely dressed and set without mortar. The springing line of the arches covering that portion of the passage running east and west is horizontal, but that of the arch covering the portion running north and south rises to the south at about 1 in 20. The sides of the cistern are thickly coated with cement, and the rubbish at the bottom has been levelled in steps or benches and then covered with cement.

A little to the south of the southern branch of the passage is Cistern No. 20, 40 feet wide, and 54 feet long, with a vaulted roof supported by piers. The walls are so thickly coated with cement that the character of the masonry cannot be seen; the piers and the greater portion of the vaulting are comparatively modern, but along the western side are the remains of an old covering arch of no great span. The west wall of the cistern is parallel to the Haram Wall, and in prolongation of the west wall of the passage, so that it evidently formed part of the approach to the Temple platform.\*

\* In 1864-5 the depth of water in these cisterns was so great that I was unable to visit them, but on my return to the city in 1866, being much impressed with the importance of examining the south-west corner of the Haram, I determined to descend both. At that time there were two feet of water in the cisterns, and the entrances being rather difficult, I could not induce any one to accompany me and assist in making the measurements. The horizontal measurements and the bearings of the several sections of the passage are sufficiently accurate, but the vertical distances were estimated, and are therefore liable to correction.

*Original Form  
of Passage.*

It would seem that originally the passage from Barelay's Gate, nearly 19 feet wide, ran in on a level for about 67 feet, when it entered a vestibule about 19 feet square; and that from the south side of this vestibule another passage of the same width, and rising at a slope of about 1 in 20, led off to the south at right-angles to the former one. It is uncertain whether the ascent to the south was by a ramp or by steps, and there is nothing to show how the passage was finished off. The latter may have continued in a straight line, and terminated in a well with a flight of steps, which would in this case have reached the surface near the Royal Cloisters, or it may have run into a large vaulted chamber whence there was an ascent eastward, by a flight of steps, to the Temple Court.\*

A few words on the peculiar form of the passage will not be out of place here. It is obvious that the architect must have had some reason for changing the direction to the south, as the most natural arrangement would have been a straight passage rising by a gentle slope to the level of the area, similar to that which runs up from the Double Gate in the south wall. The most probable cause of the change of direction would seem to be the presence on the east of the thick bed of *malaki*, in which the cisterns of the Haram are excavated. This *stratum* lies at about the level of the passage, and would form, as it does elsewhere, a steep escarpment of rock. It is also possible that the change was due to the existence of the original retaining wall of Solomon's Temple, which it was not thought necessary to remove when the area was enlarged by Herod.

*Vaults north of  
Wailing Place.*

In a small garden † immediately north of the Wailing Place the same style of masonry as that described on p. 18 is found, and it can be traced, at intervals, in the vaults beneath the Mahkama, or Court House, to the edge of the Pool "Al Burak," which extends northwards along the Haram Wall for a distance of about ninety feet. These vaults are reached from the garden by an arched opening in the south wall of the Mahkama. They have pointed ragwork arches, and the seats of the groins have, where necessary, been cut out of the Haram Wall. From

\* The following are the levels of the principal points :—

General level of Haram area	...	...	...	2,420·0 feet.
Bottom of lintel	...	...	...	2,398·5 "
Level of present surface of ground	...	...	...	2,393·0 "
Floor of passage (top of sill course)	...	...	(about)	2,369·7 "
Top of retaining wall	...	...	...	2,362·0 "
Bottom of retaining wall	...	...	...	2,327·6 "
Level of rock	...	...	...	2,320·0 "

† From this garden there is a good view of the south wall of the Mahkama, which is faced with drafted stones, and abuts on the Haram Wall with a straight joint. The masonry is interesting from its fine character and the illustration which it affords of the better class of mediæval work.







the second chamber a low doorway leads off to a series of vaults to the west, and a narrow opening in the north wall gives access to the Pool "Al Burak." The southern end of this pool is covered by a segmental arch of good masonry, on which the north wall of the Mahkama rests. The east skewback is cut out of the Haram Wall, and on the haunches of the north side of the arch are corbels, which may have supported a continuation of the "secret passage" described below (p. 24). Beyond is a trimmer arch, of inferior masonry, and then Wilson's Arch, which is semicircular, and has a span of 42 feet and a width of 43 feet. The remaining portion of the pool is covered by an arch of smaller span, which is apparently slightly pointed. The masonry in the latter case is inferior ragwork, and the east side of the arch rests on an abutment of rubble masonry five feet thick, which entirely conceals the large stones of the Haram Wall. At the north end of the pool a flight of steps leads up to a door closed with loose masonry, which was broken through in 1865 in an unsuccessful attempt to reach and examine the Haram Wall to the north. On passing through the doorway the workmen came upon a wall of solid, well-set masonry of comparatively modern date, into which they penetrated twelve inches. The noise made during the excavation had, however, alarmed the family of a Moslem effendi living in a house opposite the Mahkama, and as this gentleman stated that the workmen were breaking into the cistern which supplied his house with water, the work was stopped and the hole closed up.

*Masonry from  
the Wailing  
Place to  
Wilson's Arch.*

A considerable portion of the Haram Wall is exposed to view above the floor of the pool Al Burak, and beneath the floor it was examined by a shaft sunk immediately under the south end of Wilson's Arch.

There are twenty-one courses of drafted stones, from 2 feet 10 inches to 4 feet 1 inch high, which give the crown of the arch a height of 72 feet 9 inches above the rock, or of 75 feet 6 inches above the bed of the first course, which is set 2 feet 9 inches into the rock, and rests on hard *missæ*. The second course is set back six inches, and the others from 1 inch to 2½ inches. The fourteenth course has been cut away to a depth of 1 foot 6 inches, possibly to receive the skewback of an arch.

The face of the Haram Wall, where concealed by rubbish, between the Wailing Place and Wilson's Arch, was partially examined by a gallery driven to the south, from the shaft mentioned above, at a height of 27 feet above the rock, and by a shaft sunk to a depth of 17 feet at a point 18 feet south of the southern end of the Pool. In neither gallery nor shaft was any trace found of a break in the continuity of the wall, and it may be inferred that no such opening as that at Barclay's Gateway exists in this section of the wall.

The wall exposed in these excavations is evidently *in situ*, and the stones are "similar to, but in a much better state of preservation than,

those in the Wailing Place." Captain Warren thinks it "is probably one of the oldest portions of the sanctuary now existing." \*

*Wilson's Arch.* Wilson's Arch lies immediately in front of the gates as Salâm and as Silsilé, and the roadway passing over it is about 80 feet 6 inches above the rock. To the south is the Mahkama, a large building about 90 feet from north to south and 80 feet from east to west, separated from Wilson's Arch by the trimmer arch mentioned above (p. 21). The great arch, 42 feet span, is made up of twenty-three courses of stones of equal thickness, which cause an almost painful appearance of regularity. The stones, from 7 feet to 12 feet in length, are not as large as those in Robinson's Arch, but from their perfect state of preservation they form one of the most remarkable remains in Jerusalem.† Here, as at Robinson's Arch, the stones of the first three courses form part of the Haram Wall, and must be ascribed to the same date as the section of wall extending southwards to the Wailing Place. Captain Warren believes from the shape of the voussoirs that the arch is of a date "not earlier than the fifth or sixth century," but the form of the voussoirs alone seems hardly sufficient to determine the date.‡

The western pier was examined by a shaft 7 feet from the south end of the arch, and was found to consist of two walls, 10 feet and 4 feet thick, of different kinds of masonry, separated from each other by a space of 6 inches, so that the total thickness of the pier at this point is 14 feet 6 inches. It would appear that the pier is 4 feet wider at the northern end, but the exact amount of divergency is not certain, nor whether it occurs in the 10 feet or 4 feet wall. The former is built of dressed stone, the latter of rubble. The east face of the pier for 25 feet below the springing of the arch is built of large stones with plain

\* Captain Warren thinks the Greek or Roman foot was used in building the Haram Wall, "as the stones generally are in measure multiples of our English foot nearly."—Letter XVII., November 22, 1867, *Quarterly Statement*, Palestine Exploration Fund.

† At some distance from the ground on each side is a row of square holes left open when the centering was removed, and there is a hole in one of the voussoirs through which water was formerly drawn.

‡ The Pool of al Burak was discovered by Dr. Tobler, but he does not appear to have descended into the pool on the occasion of his first visit, or to have noticed the great causeway arch. The existence of the pool was sufficient evidence that there must be a covering arch, and one is shown by De Vogüé ("Temple de Jérusalem," Pl. I.), but the character of the arch and its importance were, I believe, unknown until my visit in 1864.

The arch is twice mentioned in "La Cité de Iherusalem": in ch. ii., "A main senestre sor le pont a un mostier de Saint Gille," and again in ch. xvi., "La rue a main senestre si va droit a une posterne, c'on apele la posterne de la tanerie, e va droit par desos le pont" (Descriptiones Terræ Sanctæ ex sæculo viii., ix., xii. et xv., by Titus Tobler). The last passage shows that the street from the Damascus Gate to the Dung Gate at that time passed under the arch.





chiselled faces similar to those above the drafted stones in the Wailing Place, and thence to the rock, a depth of 19 feet 3 inches, of large rough boulders in courses, the stones projecting here and there in such a manner as to lead to the belief that they were not intended to be seen above ground. There are seven courses of dressed stone from 3 feet to 4 feet 2 inches in height, and in the three lowest there is a recess, 6 feet wide, 9 feet 5 inches high, and 5 feet deep, somewhat similar to those in Robinson's Arch. Some grooves cut in the stone would seem to indicate the existence, at one period, of a gate. A partial examination of the west face of the pier was made in the causeway vaults, where it was found to be of common rubble masonry, and to have a recess 5 feet 6 inches wide and 2 feet 9 inches deep above and a little to the north of the recess in the eastern face. The excavations were unfortunately not carried far enough to determine the nature of that portion of the pier faced with rough boulders. It may be a solid mass of masonry 14 feet 6 inches thick, or be formed by two walls together making up that thickness, and it is uncertain whether the boulders are set in mortar or not. It is also possible that part of the pier, towards the north, may be built of dressed stone from the rock upwards.\*

*The Rubbish.*

The floor of the pool beneath the arch consists of a bed of concrete 3 feet 6 inches thick, formed of stones about 3 inches cube, set in a hard, dark cement made up with tow; below this there is black soil to a depth of 17 feet, and then a stratum large of stones, about 8 feet thick, "apparently the voussoirs and drafted stones of a fallen arch and wall," which dips eastward, at a slope of 1 in 14, from the pier to the Haram Wall. The drafted stones are said to be similar to those in the wall. The large stones rest upon black soil, which extends down to a thin bed of red mud and rough stones overlying the rock. At a distance of 23 feet from the south end of Wilson's Arch, and 27 feet above the rock, a wall of well-dressed stones, lying east and west, abuts on the Haram Wall, and immediately south of this is a fragment of pavement extending to a wall nearly under the south wall of the pool "Al-Burak," a distance of 11 feet. The peculiar angle at which the fallen arch stones lie seems to indicate that at the time they fell the ground was rough and unlevelled, but no data exist for comparing them with the voussoirs of Robinson's Arch or with the stones in the Haram Wall. The fragment of pavement may have been a continuation of that seen at Barelay's Gateway, but if so its entire disappearance towards the north is remarkable.

*Valley Bed*

The rock under the western pier is 7 feet 6 inches higher than under the Haram Wall, and the lowest point of the valley appears to be about 6 feet west of the latter. During the excavations the presence of water at the bottom of the shafts caused considerable inconvenience, and periodical obser-

\* The pier may perhaps be merely the end of the masonry of the old first wall.

vations, extending over two years, showed that there was always a gentle flow of water southwards down the valley, sometimes rising "3 feet or 4 feet above the rock" and then again subsiding. The water has the peculiar sewage flavour of Siloam, and the soil for 8 feet or 10 feet above the rock "is full of limestone crystals."

*Causeway Vaults.* The vaults alluded to above (p. 23) as lying to the west of those which lead to Wilson's Arch form part of the substructure of the Mahkama; they are arranged in two rows of three each, and their sides are nearly parallel to the Haram Wall; the arches are pointed, and on some of the stones in the wall modern Hebrew characters have been scratched. In January, 1868, Captain Warren broke through a closed opening in the second chamber of the northern row and made his important discovery of the Causeway Vaults, with semicircular and segmental arches, which form a continuation of Wilson's Arch.

The complicated nature of these vaults renders any accurate description of them somewhat difficult. There would appear to be two viaducts, making up a total width of 44 feet 6 inches, rather more than that of Wilson's Arch, 43 feet, but the continuity of the southern viaduct is almost immediately broken by a remarkable chamber, called by Captain Warren the "Masonic Hall," and west of this it is replaced by a long vaulted passage, the so-called "Secret Passage," and a series of small vaults with thick piers. The first chamber of the *northern viaduct* measures 21 feet from north to south, and 13 feet from east to west; the covering arch is semicircular, but it is not certain whether it springs from the 4-foot or 10-foot wall of the pier of Wilson's Arch. The next two chambers have been filled up with small passages having pointed arches, which were apparently connected with some system of water-supply, as draw-well openings were noticed overhead, and the buckets used have left marks on the sides. Traces of the original arches can, however, be seen above the later work. Beneath these three chambers are others of a similar character at a lower level, and in the first are two aqueducts which lead down through the floor to an aqueduct running north and south. The remaining chambers of the northern viaduct, five in number, measure each about 18 feet from north to south, and 14 feet from east to west, and they have piers of an average thickness of 7 feet 6 inches. The general direction of this viaduct is considerably removed from that of a line perpendicular to the Haram Wall, and bears away to the south. A somewhat similar series of vaults is said to lie to the north, but no examination of them has yet been made. The first chamber of the southern viaduct measures 23 feet 6 inches from north to south, and 22 feet from east to west, and immediately south of it is a continuation of the trimmer arch, observed above the pool Al-Burak, which covers the void between the north wall of the Mahkama and the Causeway. Beneath the chamber is another of similar character, in which is the recess mentioned as being in the west face of the pier of Wilson's Arch. Separated from this lower chamber by a pier 12 feet







thick, though not quite on the same level, is the "Masonic Hall," which is entered by a sloping passage from the third vault of the northern viaduct. The "Hall," at one time used as a cistern, was originally 23 feet from east to west, and 20 feet 4 inches from north to south, but 10 feet 4 inches has been added on the south, making a total length of 30 feet 8 inches. The south wall of the original structure is broken away, but the remaining walls are 4 feet thick, and apparently built without mortar. On the exterior of the building the stones have marginal drafts, and are similar to those in the Wailing Place, whilst in the interior the faces of the stones are plain dressed, and at each corner there are pilasters projecting about 2 inches. These pilasters have capitals, which are said to be very similar to one found at Arak el Emir by Mons. de Sauley, and a sketch of one of them is given in the "Recovery of Jerusalem," p. 89. At the south-east angle is a double entrance, with lintels, on which, as well as upon the jambs, there are traces of ornament. The covering arch of the chamber is semicircular, but not so old as the walls. The later portion, on the south, 10 feet 4 inches, corresponds to the space occupied by the trimmer arch on the east and the secret passage on the west; it is covered by a later arch than that to the north, "and to conceal this a column was raised in the centre under the break, and two pointed arches thrown over from the column to the sides, the span of each being about 10 feet." The column has since partly fallen, and much of the ribbed arch. Beyond the east wall a lot of rough masonry was found, and a shaft sunk in the centre of the chamber, after reaching the original paved floor, 15 feet 6 inches below the present level of the rubbish, passed through solid masonry of large rough stones to a further depth of 11 feet 6 inches without reaching the rock.

West of the "Masonic Hall" the southern viaduct is continued by a row of small chambers 14 feet 6 inches from north to south, and 11 feet from east to west, with piers about 12 feet thick, the arches opening on one side into the northern viaduct and on the other into the "Secret Passage." Beneath the first two chambers there is a vault at a lower level, lying east and west, in which there is a shaft running down 14 feet, and then an aqueduct leading towards the south-west angle of the pier of Wilson's Arch. The "Secret Passage" which makes up, with the small chambers, the width of the southern viaduct is 12 feet wide, and covered with a semicircular arch, the crown of which is about 7 feet below the level of the street above. At a distance of 205 feet\* from the Haram Wall there is a thin wall, and beyond it a drop of 6 feet into a continuation of the passage, which is terminated by a wall on the west. An opening, with a door to the south, leads into a vault now used as a

\* Captain Warren gives this distance as 220 feet in the "Recovery of Jerusalem," and as 230 feet in Letter XXIV. to the Palestine Exploration Fund; it should probably have been to the wall west of the drop, which is 221 feet from the Haram Wall. The distances given above are partly from measurement on the plan and partly from data supplied by Captain Warren.

donkey stable. A portion of the same passage was found in a cistern about 235 feet from the Haram Wall, its western end being 253 feet from the same point. From the cistern there is an opening to a vault south of the causeway and a little east of the prolongation of the street el Wad. The floor of this vault is on a level with the springing of the arch of the "Secret Passage," and from it a narrow shaft, 25 feet 6 inches deep, runs down to the crown of an arch covering a chamber lying east and west and 4 feet to the south of the "Secret Passage;" the crown of the arch is 36 feet 6 inches below the street level. The chamber is 14 feet 6 inches long, 8 feet broad at the western end, and 10 feet 6 inches at the eastern end, covered with plaster and roofed with a "straight-sided pointed arch." An excavation on the west showed no trace of a continuation, but on the east another chamber was found, 18 feet long, lying east and west, and being, like the first, wider at the east end than at the west; here there is no plaster, and the covering arch of 19 stones of nearly equal size is almost semicircular. The volute of an Ionic capital was found in this chamber. At the east end there is a 5-foot doorway with lintel and semicircular relieving arch, and beyond this a passage 2 feet 6 inches wide, "covered with blocks of stone laid horizontally," which is closed by *débris* at a distance of 10 feet 6 inches.\*

*Peculiarities in Construction of Causeway.* Owing to one of those unfortunate *contretemps* which so frequently interfere with the best arrangements of an explorer in the East, the plans and sections of the causeway vaults are not in all respects as satisfactory as they might be, and there is still some uncertainty as to the position the vaults occupy with reference to the street above, and as regards their relative position to each other.† On the plan (Plate 8), the street leading to the Haram, laid down with as much accuracy as the data will admit of, appears to lie irregularly over the "Secret Passage" and trimmer arch, though it would seem more natural to suppose that the two last lay throughout their course immediately beneath the street. At one point in the direction of the "Secret Passage" there is a decided elbow, and the passage itself, if prolonged, would run partly to the north of the trimmer arch in the "Masonic Hall." Some of the peculiarities which may be noticed are: the thickening of the pier of Wilson's Arch by the 4-foot wall; the uncertainty as to the nature of the original pier, and as to whether the splay northwards is in the 4-foot or the 10-foot wall; the position which the "Masonic Hall" occupies with reference to the general line of the viaduct, and the difference of character between the vaults east and those west of that chamber. It is also worthy of remark that the low level of the Hall would allow the "Secret Passage"

\* For details of doorway, &c., see "Recovery of Jerusalem," p. 93.

† The measurements were made under circumstances of considerable difficulty, and before they could be fully tested the entrance to the vaults was walled up by order of the Pacha.

to pass over it, and that the springing of the covering arch of the latter is at a higher level than that of the trimmer arch to the east.

The numerous reconstructions, extending over several hundred years, and the doubt as to the accuracy of the plans, render any conjecture as to the relative dates of the several portions of the causeway, and the purposes they were intended to serve, extremely hazardous; excavations alone can solve the many questions connected with the history of the vaults, and it is much to be regretted that circumstances did not allow of their being made in a place of so much interest and importance. Captain Warren fully recognised the necessity of excavating in the vaults of the causeway, and had commenced opening shafts, but on his return from Jericho, where he had been excavating in the mounds, he found the entrance blocked up with solid masonry, and orders from the Pacha that it was not to be reopened; the shafts within the vaults have never been closed, but it may be many years before any one is able to resume the excavations.

Captain Warren's  
Views. Captain Warren's opinion that Wilson's Arch is not older than the fifth or sixth century has already been alluded to, and it may be convenient to state here his views on the age of the causeway vaults, which he believes to be the result of at least four reconstructions. The vaults are said to be "apparently of similar age and construction"\* to Wilson's Arch, but Captain Warren considers the southern viaduct older than the northern, and that "if so, the original viaduct arch over the Pool al Burak was only 23 feet 6 inches wide; this must at some time or other have been broken down; then a restoration took place, the causeway was widened by a fresh set of arches to the north, and the void space over the Pool al Burak was spanned by the present Wilson's Arch, and made the width of the double causeway. It does not appear probable that these arches were ever exposed to view (except Wilson's Arch); they appear to have been used as secret chambers for stores and for water."† "The Masonic Hall has every appearance of being the oldest piece of masonry visible in Jerusalem with the exception of the Sanctuary walls, and perhaps as old as they."‡ The "Secret Passage" does not appear to be "of so ancient a date as the time of David or even of Herod."§ The vaults at a lower level are supposed to have been "the vestibule to a postern leading from the Upper City into the Tyropœon Valley."||

\* Letter XXIII., January 22nd, 1868, *Quarterly Statement*, Palestine Exploration Fund.

† "Recovery of Jerusalem," p. 85 *et seq.*

‡ P. 89.

§ "Recovery of Jerusalem," p. 91. This passage is alluded to by Mejred Din as existing in his time, and as running from the Citadel to the Gate of the Chain; the western entrance is probably that noticed in the ditch of the citadel.

|| "Recovery of Jerusalem," p. 94.

*Possible nature of Causeway.* If the natural features of the ground beneath the causeway were known it would perhaps be possible to form some opinion on the nature of the great viaduct, but at present the point at which the valleys running down from the Jaffa and Damascus Gates join each other is unknown, and it is uncertain how far the structure of the causeway may have been influenced by this feature. The following view is put forward as a suggestion. "Josephus states (B. J. v. 4. 2) that the first or old wall "began on the north at the tower called Hippicus, and extended as far as the Xystus, a place so called, and then joining to the council house ended at the west cloister of the Temple," and it is almost certain that this wall crossed the deep ravine running down from the Damascus Gate at Wilson's Arch. The old wall may have been either a massive wall forming in itself the defence of the city, as Captain Warren's excavation beneath the floor of the "Masonic Hall" would seem to indicate, or a great embankment with a wall on the top; at any rate, this first construction would give the line for all succeeding ones. When the second wall was built the causeway may have been pierced for convenience of communication towards Siloam, and the narrow opening spanned by a wooden bridge, such as that which was broken down by Aristobulus during Pompey's siege; during Herod's great reconstruction of the Temple the opening may have been widened, an arch 42 feet span thrown across it, and the causeway completed to form a grand approach from his palace to the Temple; the rough boulders of which the lower portion of the pier of Wilson's Arch is built might in this case be the end of the old wall which it was not thought necessary to face with dressed stone. Herod's Arch may have been retained by the Romans after the siege, as a means of communication between the Citadel and Temple area, and when it fell, or was broken down\* during some later troubles, it may have been rebuilt in its present form by Constantine or Justinian. The object and age of the "Masonic Hall" are most puzzling questions; the low level at which the chamber lies shows that it must have been built long before any such scheme as that of which Wilson's Arch forms part was thought of, and its position seems to indicate that it was in some way connected with the Temple, possibly a guardhouse erected during the stormy period of the Maccabees. Captain Warren's theory that the causeway was originally only 23 feet 6 inches wide appears to be based on the belief that the fallen voussoirs do not extend as far as the north end of Wilson's Arch; these voussoirs were only seen under the south end of the arch, and their existence or nonexistence to the north can only be ascertained by excavation. The narrow width of the southern viaduct west of the "Masonic Hall" would seem to indicate that there never was a causeway 23 feet 6 inches wide, and the position of the hall itself supports this view. A more natural suggestion would appear to be

\* Unfortunately we have no means of comparing the form and size of the fallen voussoirs beneath Wilson's Arch, and those of Robinson's Arch, which are undoubtedly Herodian.





that at the time of the Maccabees the top of the wall, no longer required as a principal line of defence, was on a level with the floor of the "Masonic Hall," and that there was then a wooden bridge of narrow span over the ravine, and an ascent to gain the level of the Temple area; and that Herod afterwards raised the causeway to the Temple level by vaults which have since undergone several modifications. The existence of the twin viaducts may be explained by the necessity of working the "Masonic Hall" into the general plan, and giving a southerly direction to the causeway. The age of the "Secret Passage" is doubtful; it was apparently constructed to allow soldiers to pass freely and unnoticed from the Citadel to the Temple, and there seems no reason why it should not be ascribed to Herod.\* The eastern end of the passage may still exist within the Haram enclosure. The chambers discovered by Captain Warren at a lower level may have formed portions of a similar passage of older date running along the south side of the first wall, or, as he suggests, have led to a postern opening on to the rocky slope of the valley.†

The excavations seem to show that at the south-west angle there are six courses of large stones, with marginal drafts and rough picked faces, which extend northwards to the vicinity of Barclay's Gate, where they are replaced by stones with similar marginal drafts, but having their faces finely dressed. Above these courses up to the present level of the ground, and in some places to three or four courses above it, the masonry is throughout of the same character, large stones with marginal drafts and finely-dressed faces. The courses run through without a break from Wilson's Arch to the south-west angle, and no difference has yet been noticed in the dressing or marginal drafts of the stones. The upper portion of the wall is of various dates and of minor interest. It has already been explained that if the approach to Barclay's Gate was by a solid ramp, such ramp would be a fitting termination to the courses of stone with rough picked faces.

The position of the bed of the ravine is not very clear. It is fairly well defined under Wilson's Arch, whence the rock falls 19 feet 9 inches to Barclay's Gate, but from this point to Robinson's Arch there is a rise of 5 feet, and at the south-west angle the bed of the ravine is 90 feet to the east. There seems no doubt that the wall stands partly on the right

\* Simon in attempting to escape, B. J. vii. 2. 1, may have passed from the Upper City to the Temple area by this passage, or the aqueduct which crosses Wilson's Arch.

† The following are the principal levels :—

General level of Haram area	...	...	...	2,420 0 feet.
Floor of Secret Passage	...	...	...	2,400 0 "
Spring of Wilson's Arch	...	...	...	2,391 5 "
Floor of Masonic Hall	...	...	...	2,371 5 "
Top of pier of rough boulders	...	...	...	2,366 5 "
Level of rock beneath Haram Wall	...	...	...	2,339 75 "

and partly on the left bank of the ravine, and the most probable supposition seems to be that it crosses the bed somewhere near Barclay's Gate.\*

The principal approach to the Haram area is by a street which passes over Wilson's Arch and enters the enclosure, on a level, through a handsome double gate. The southern gate is called the Báb as Silsilé (Gate of the Chain), the northern Báb as Salâm (Gate of Peace), and at the bottom of the left jamb of the latter there is a massive stone with marginal draft, the north end of which corresponds with the end of the great causeway arch beneath.†

From the Báb as Salâm to the Báb al Mathara (Gate of the Latrines) the Haram Wall is nowhere visible above ground, but about 26 feet south of the latter gate there is a remarkable cistern,‡ No. 30, which pierces the wall, and is apparently an ancient entrance to the enclosure. The passage is at right angles to the Haram Wall, and is 18 feet wide. It runs in for 84 feet from the face of the wall, is covered by a semicircular arch of well-dressed stones of some size set without mortar, and its floor is about 30 feet below the level of the area. The sides and bottom of the cistern are thickly coated with cement, and cannot be examined. The western end is closed by a modern wall of small coarse rubble, and there is here a flight of steps leading up to a small door. The passage is in some respects similar to that running in from Barclay's Gate, but it seems to be of more modern date, and it has no lintel, so that its external appearance would be that of an arched opening in the Haram Wall. Captain Warren was able to examine a cistern outside the wall in direct prolongation of No. 30, but not so wide.§ The cistern is 34 feet 6 inches

\* The following are the principal levels:—

Level of Haram area ... ..	2,420·0 feet.
Spring of Wilson's Arch ... ..	2,391·5 "
Sill of Barclay's Gate... ..	2,369·7 "
Spring of Robinson's Arch ... ..	2,387·5 "
Rock under Wilson's Arch ... ..	2,339·75 "
Rock under Barclay's Gate ... ..	2,320·0 "
Rock under Robinson's Arch ... ..	2,325·0 "
Bed of Ravine 90 feet east of S.W. angle ... ..	2,289·6 "

† Mejr ed Din states that the gate was built in A.H. 877 (1492-3 A.D.), and he calls the Báb as Salâm the Gate of Tranquillity (Sekiné).

‡ This passage was first discovered by myself in 1866, and I propose distinguishing it by the name of "Warren's Gate," as a small tribute to Captain Warren, R.E., whose excavations have thrown so much light on the topographical features of ancient Jerusalem.

§ The Haram Wall is exposed in a recess to the south. This cistern may be a portion of the pool, which is known to have existed at this place up to a comparatively recent period. At 22 feet from the bottom of the cistern the springing of a modern arch can be seen.







deep, but as the level of the ground is here 6 feet above that of the area only 28 feet of the Haram Wall is exposed. The stones are partially rendered with cement, but the character of the masonry, as far as it could be ascertained, was similar to that of the Wailing Place.\*

There is no way of ascertaining the height of the Haram Wall at this point, except by excavation. In the conduit of the Hannûm ash Shafâ Well, some 135 feet to the west, the rock is about 80 feet 6 inches below the level of the Haram area, but this seems lower than the level of the bed of the ravine, which is probably much nearer to the wall.† It will be noticed that there is no visible means of reaching the level of the area from the cistern. The most probable arrangement would be one somewhat similar to that at Barclay's Gate, for in this case the eastern end of the passage must almost abut on the rock. The level of the floor of the passage is unknown, and there is nothing to throw any light on the character of the original approach. Captain Warren identifies‡ this gate with that mentioned by Josephus, from which the road descended into the valley by a great number of steps, but it is quite possible that the approach may have been by a roadway supported by arches.

The *Bâb al Mathara* is comparatively modern, the road leading up to it ascends slightly, and the area is reached by three steps. This gate is called by Mejr ed Din the "Gate of the Bath," from its leading to the bath of the Haram.

A short distance north of the *Bâb al Mathara*, at the east end of the old Cotton Bazaar, is the *Bâb al Kattanîn* (Gate of the Cotton Merchants), a handsome Saracenic portal, said to have been repaired in 1336-7 A.D. A flight of steps leads up to the Haram area, which is 12 feet above the roadway of the Bazaar. The next gate northwards is the *Bâb al Hadîd* (Iron Gate), and beyond this is the *Bâb an Nâzîr* or *Nadhîr* (Gate of the Inspector), also known as the *Bâb Ali ad dîn al Bosri*, an old gate

\* The wall, free of plaster, could only be seen to a depth of 6 feet below the level of the Haram area.

† The lie of the rock here is very puzzling; at the ash Shafâ Well it is about 2,339·5 feet, the bottom of the conduit being about 2,334 feet, and at Wilson's Arch it is 2,337 feet (lowest point); this gives a fall of only 2 feet 6 inches from the well to the arch, and the ravine would hardly take such a sharp bend as this indicates. There seems every reason to believe that the ash Shafâ conduit is a continuation of that under Robinson's Arch, and the bend which it makes to the west may possibly mark the junction of the valley from the Jaffa Gate with the central ravine. The bed of this latter ravine must to all appearance lie to the east of the well, and in this case the ash Shafâ conduit possibly forms portion of a drift, or *Karîz*, driven into the rock at a very early date, and broken through at a later period. It is just the position in which a drift would be made to collect the water that finds its way down through the limestone beds of the hill upon which the Church of the Holy Sepulchre and the Russian Convent have been built.

‡ "Underground Jerusalem," p. 63.

repaired about 1203-4 A.D.\* Between the Báb al Mathara and the Báb an Názir the rubbish rises nearly to the level of the Haram area, and entirely conceals the face of the wall, except at one point north of the Báb al Hadid, where there are a few courses of stones with plain chiselled faces; † the ground is occupied by Moslem houses, built so closely together as to forbid excavation or exploration, and there are several tombs of Turkish effendis held in great reverence by the present generation. The depth of rubbish at the Báb al Kattanín is probably about 70 feet, and in sinking for the foundations of a house near the Báb al Hadid no rock or solid bottom was found at about 35 feet. The streets leading to the Báb al Hadid and Báb an Názir rise gently to the level of the Haram area.

*Báb an Názir  
to Báb al  
Ghawaním.*

Between the Báb an Názir and Báb as Sarai (Gate of the Seraglio) a modern doorway, 168 feet to the north, which, in 1864, led from the Pacha's residence to the Haram, the wall is nowhere visible, but beneath the latter gate a portion of the masonry is exposed to view in the aqueduct which runs southwards from the souterrain beneath the Convent of the Sisters of Zion. The wall is 8 feet thick, and the masonry is similar in character to that at the Wailing Place. One course is exposed to its full height, 4 feet 6½ inches, whilst two others are partially uncovered; the faces of the stones are well finished, and each course is set back from 3 inches to 4 inches; the marginal drafts at top and bottom are 7 inches wide, and at the sides 3 inches to 4 inches; ‡ they are sunk half an inch. From the south-west angle to the Báb an Nazir the Haram Wall runs in an unbroken straight line, but north of the latter point there must be an offset, as the face of the masonry described above, though parallel to the line of the wall, projects 8 feet or 9 feet beyond it; the exact position of the offset is not known, it may be about 88 feet north of the Báb an Nazir. The wall can be of no great height, as the rock rises to the surface in the adjoining portion of the Haram. Twenty-six feet north of the Báb as Sarai a fragment of the old wall of the Haram, § first noticed by Lieutenant Conder, R.E., is exposed in a

\* According to Mejr ed Din this is the gate to which Gabriel tied Burak, and it was formerly called the Gate of Mahomet.

† One or two of the stones have the marginal draft, but the style of the work is that of the middle portion of the Wailing Place Wall, and it is apparently of the same date. The large stones are backed with coarse rubble. A small cistern examined here proved to be built in the rubbish, and gave no results.

‡ Lieutenant Conder gives the height of the course as 4 feet 6 inches and 4 feet 7 inches; the upper and lower drafts as 6 inches, and the set back as "3 inches or 4 inches," and as "about 6 inches" (*Quarterly Statement*, Palestine Exploration Fund, 1873, p. 92, and 1877, p. 135). I have followed Dr. Chaplin's measurements.

§ This is the only place in which masonry apparently belonging to the original wall is visible above the present level of the Haram area. A sketch of it is given, *Quarterly Statement*, Palestine Exploration Fund, 1877, p. 136.

small chamber, which can be reached from the aqueduct by means of a short branch passage. The masonry below the level of the Haram area is similar to that beneath the Báb as Sarai, and, being in direct prolongation of it, is evidently a continuation of the same wall. The chief interest, however, lies in the fact that the wall above the level of the enclosure is apparently *in situ*, and has projecting buttresses similar to those in the Haram Wall at Hebron. The first or northern buttress is 1 foot 6 inches wide, and is partly of rock, partly of masonry. The second is 4 feet 9 inches wide, and at a distance of 8 feet 9 inches from the first, the intermediate space being occupied by a window, 4 feet wide, which looks into the Haram area, and is apparently ancient. The buttresses are built flush with the lower part of the wall, whilst the spaces between them are recessed 1 foot 6 inches by means of a plinth course. The stones have  $3\frac{1}{2}$  inches marginal drafts, and their faces are dressed smooth, but only two courses are visible above the plinth.\* The north wall of the small chamber is partly formed by a rock escarpment, which rises to the level 2,434 feet, or 3 feet above the adjacent surface of the Haram, and marks the termination of the masonry of the west wall.

*N. W. Angle.* From this chamber to the north-west angle, a distance of about 110 feet, and from the angle eastward along

the north side of the Haram for a distance of about 350 feet, the rock rises above the level of the enclosure, or rather the rock within the Haram has been cut away so as to leave escarpments from 3 feet to 23

*Báb al  
Ghawânimé.*

feet high, facing inwards, on the west and north. Above the scarp on the west are modern houses, and beneath them is the Báb al Ghawânimé, or Ghawâriné, which leads to the Daraj as Sarai, and also to the Tarik as Sarai al Kadîm (*Via Dolorosa*). The lower part of the gateway is cut out of the rock, and a flight of steps leads up to it from the Haram.†

At the north-west angle there is a minaret, built about 1207-S A.D., in which has been found a mutilated capital, representing the "Presentation of Christ," built into the wall a little above the level of the platform used by the *muezzin*. This fragment was possibly taken from the Chapel

\* The pilasters at Hebron are 3 feet 9 inches wide, project 11 inches, and are 6 feet 9 inches apart. Mr. Fergusson, in his restoration of Herod's Temple (frontispiece to "The Holy Sepulchre and the Temple at Jerusalem"), represents the outer walls of the cloisters as built with pilasters; so also M. De Vogüé in "Le Temple de Jérusalem," pl. xvi., but he places the pilasters at much wider intervals. Lieutenant Conder gives the level of the window-sill of the chamber as 2,429 feet, that is 2 feet below the Haram level at this point, or 10 feet above its level at the south-west angle; from this it seems probable that south of the offset in the wall near the Báb an Názir, the pilasters, if there were any, stood at a lower level.

† This gate is also called Báb al Dawidâr, "Gate of the Secretary." The name Báb al Ghawânimé possibly has reference to the Beni Ghânem; Báb al Ghawâriné to the inhabitants of the Ghôr, Jordan Valley. According to Mejr ed Din it was formerly called the "Gate of Abraham."

of the Presentation, which during the Latin kingdom was situated in the Dome of the Rock.\*

The escarpment, which forms part of the northern boundary of the Haram, rises to the level 2,462 feet and then falls eastward until, at a point 350 feet from the angle, it terminates in a scarp 14 feet high, which faces east. The level of the top of this scarp is 2,433 feet, that of the Haram being 2,419 feet; its continuation towards the north cannot be traced on account of the buildings above. About 110 feet from the north-west angle an irregular opening or ditch, about 9 feet wide, has been cut down through the rock to the level of the Haram; † it is now closed with rough masonry. Farther to the east there is a shallower cutting filled up with a better class of masonry, and there are several holes in the face of the rock, as if to receive beams or the haunches of arches; at the foot of the scarp are two rock-hewn cisterns. The strata exposed in section by the cutting at the north-west angle are the upper thin beds of *missa*, and they have a dip of 10 degrees towards the east. Above the escarpment are the Infantry Barracks, which occupy a commanding site, once separated from the higher ground on the north by a rock-hewn ditch, visible in the souterrains beneath the Convent of the Sisters of Zion, and also in a chamber entered from the Tarik Báb Sitti Maryam, where the scarp rises to a height of 8 feet above the street.

The souterrains, which lie a little to the north of the north-west angle, and are inclined at an angle of 21 degrees to the west wall of the Haram, were discovered during excavations made for the foundations of the Convent of the Sisters of Zion; they consist of two parallel tunnels or vaulted passages, separated from each other by a wall 5 feet 9 inches thick, and abutting at either end on a rock escarpment; ‡ they are reached from a narrow side street north of the Via Dolorosa by passing through the kitchen of the convent and then descending a flight of steps. Souterrain No. I. is 165 feet 2 inches long and 20 feet 1 inch wide; at the north end the rock escarpment is 39 feet high, and its summit level is 2,458 feet, whilst at the south end it is 57 feet high, and attains a level of 2,456 feet; § the floor has thus a fall of about 20 feet from north to south. The sides of the souterrain are not quite

\* Ganneau, "Revue Archéologique," Mai, 1877.

† It may be well to notice that this cutting is exactly the same distance from the north-west angle as the scarp in the little chamber outside the west wall.

‡ It has been suggested that these souterrains are only two of a series, but no others have yet been found.

§ The description of the souterrains and the ground at the north-west angle, and also the plan and section, Pl. 9, have been compiled from my own notes on Souterrain I.; Captain Warren's notes and plan of Souterrain II. and the Aqueduct; Lieutenant Conder's notes on a visit to the Souterrains and Aqueduct, and plans, sections, and notes kindly sent to me by Mr. Schick. At the time of my visit to Souterrain I. in 1865 there was much rubbish and sewage,







straight, and the work looks as if it had been built from both ends and had not met quite fair; the west side is partly formed by a rock escarpment from 13 feet to 24 feet high, the east side is pierced by four openings communicating with Souterrain II. The souterrain is divided into two unequal portions by a 5-foot wall, through which there is a low opening of modern construction; the north chamber communicates with the Convent by a flight of steps, and contains the so-called spring;\* the south chamber is covered by a well-built semicircular arch of plain chiselled stones, except in one place where the arch has been broken and repaired with a pointed arch.† At the north end of this latter chamber an old flight of steps leads up to a well-built doorway in the cross wall, which appears to have been part of the original structure, and beneath this is an arched opening apparently for the passage of water; at the south end a flight of steps, partly cut out of the rock, leads up to the street above, through a doorway and passage in the west wall, which are of the same date as the covering arch of the souterrain. From the south-west corner of the chamber a rock-hewn passage or aqueduct, about 4 feet wide, runs southward to the Haram Wall beneath the Báb as Sarai;‡ at about 10 feet from the entrance it bends to the west for 6 feet, and then resumes its southerly direction for about 40 feet to a dam 9 feet high, which is provided with a hole for regulating the flow of the water; about 150 feet beyond the dam a small passage§ leads due east, and gives access to the chamber in which Lieutenant Conder found

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and I was unable to examine the place thoroughly; the same causes prevented a complete examination by Captain Warren, who was, however, able to follow the aqueduct for a considerable distance and make a plan of Souterrain II. The souterrains and aqueduct were afterwards cleared out, and in this state were visited by Lieutenant Conder and Mr. Schick; there are unfortunately many discrepancies between Lieutenant Conder's notes and Mr. Schick's plans which I have not been able to reconcile; I have generally followed the latter as being more detailed, but there are several doubtful points, and the section on Pl. 9, as well as the rock levels given in the notes on the north-west angle, can only be considered as approximately accurate.

\* The water is impregnated with sewage and unsuitable for drinking purposes.

† A great many holes have been broken through the crown of the covering arch, and, as the rubbish accumulated above, rough shafts were carried up from them; they are now all closed and appear to have been so for some time, but they show that there must once have been a good supply of water here. Above the covering arch there are a number of large flat slabs which are probably the paving stones of the old street.

‡ This aqueduct was first explored by Captain Warren, R.E., in 1867, who was stopped by a masonry wall; in 1870 the rubbish was cleared away and the remaining portion of the aqueduct examined by Dr. Chaplin and Mr. Schick ("Recovery of Jerusalem," p. 199-201).

§ *Quarterly Statement*, Palestine Exploration Fund, 1873, p. 91-93, and 1877 p. 135-137.

the masonry described on page 33; and a few feet farther the aqueduct itself turns sharp to the east and meets the masonry of the Haram Wall under the Báb as Sarai (p. 35). The aqueduct, as far as the small passage, is entirely rock-hewn and covered with flat slabs laid across horizontally; it is at first about 40 feet high,\* but beyond the dam it slopes down to 22 feet, and eventually to 8 feet; south of the passage the lower portion only is of rock, the upper is of masonry, and the slabs are replaced by an arch of small stones. The bottom of the aqueduct is plastered throughout, and there is a small water channel;† in the east side two rude recesses have been cut back into the rock above the level of the water, and there are also weepers to facilitate the collection of water. In the small passage running east the north wall is rock; the south wall, except 2 feet at the bottom, masonry; the chamber lies at a higher level, and is reached through a hole in its floor. Lieutenant Conder describes the passage as leading “due east beside the south face of the great corner scarp;”‡ the face of the scarp appears to be about 20 feet high, and to mark the southern termination of the elevated mass of rock at the north-west angle of the Haram, but unfortunately the plans which have been received do not show whether it extends beyond the aqueduct to the west. The original direction of the aqueduct beyond the small passage is not very apparent; the channel was evidently cut through when the rock was scarped at this place, and there are some reasons for supposing that its floor was once at a higher level. The present abrupt termination of the aqueduct at the Haram wall seems to show that it was again cut through when the wall was built, but whether it ran down the crest of the hill or kept along its side is uncertain.§

Souterrain II. is 127 feet long and 24 feet to 26 feet wide. At its south end it is terminated by a continuation of the rock escarpment seen in Souterrain I. The north end is blocked up with masonry of late date, but as a prolongation of the northern rock escarpment in I. is said to have been found, the souterrain may have extended up to it at one time. At the north end the vault is 20 feet wide, but after 45 feet the span of the covering arch is 24 feet, and the springing slopes to the south at 1 in 6, the crown remaining horizontal. This continues for 36½ feet, and is succeeded by another arch, the crown of which is 4 feet 6 inches

\* Captain Warren gives the height as 30 feet, “Recovery,” p. 199, and as 36 feet above the sewage, p. 201; Lieutenant Conder as 20 feet, *Quarterly Statement*, Palestine Exploration Fund, 1873, p. 92. I have followed Mr. Schick’s section, which gives 40 feet.

† I have adopted 2,412 feet as the level of the floor of the aqueduct from Mr. Schick; Lieutenant Conder gives it as 2,409 feet, *Quarterly Statement*, Palestine Exploration Fund, 1877, p. 136.

‡ *Quarterly Statement*, Palestine Exploration Fund, 1877, p. 135.

§ There seems every reason to believe that the remaining portion of the Aqueduct is still in existence, and its discovery will throw considerable light on the topography of this portion of the city.

lower, and whose length is 46 feet. The two latter arches "appear to be very slightly pointed." \* The covering arch is said to spring from the rock throughout its length on the eastern side.†

An old aqueduct which brought water from the north enters the north chamber of Souterrain I. This aqueduct will be described more fully hereafter; at present it is only necessary to notice its high level, 2,462 feet,‡ compared with that, 2,412 feet, of the aqueduct south of the souterrain, and the fact that on entering the Tarík Báb az Zahíre it leaves the rock and is built of masonry, which would seem to indicate the presence of a scarp facing east at that point.

There is then to the north of the north-west angle a rock-hewn ditch 165 feet wide and from 26 feet to 33 feet deep, the floor of which over the area covered by the souterrains, 165 feet by 46 feet to 50 feet, has been sunk to a further depth of from 13 feet to 24 feet. This ditch is not parallel to the northern boundary of the Haram, but has been cut perpendicular to a line representing the general direction of the ridge, the reason apparently being that the quantity of rock to be excavated was less on this line than on any other. The sides of the ditch cannot be traced beyond the limits of the souterrains. The north side is probably connected towards the west with the remarkable rock escarpment, page 33, which runs parallel to the *Via Dolorosa*, and towards the east there are some indications of a scarp running north; the limits of the south end on the east and west are unknown. An old aqueduct enters the ditch on the north, and leaves it at a much lower level on the south. About 100 feet south of the ditch is the scarp which has already been described as forming the northern boundary of the Haram. There is thus between the ditch and the Haram a mass of rock, 100 feet thick, which, at its highest point, is 63 feet above the floor of the souterrains, and 23 feet above the level of the Haram area. The western termination of this mass of rock is unknown; the eastern is possibly the unexplored scarp running north and south at a distance of 350 feet from the north-west angle. The rock runs southward along the western boundary of the Haram for a distance of 110 feet, where it ends in a scarp about 20 feet high, the course of which towards the west has only been traced for a short distance.

Our knowledge of the ground at the north-west angle is at present so imperfect, and the data which have been collected are so uncertain, that any attempt at reconstruction or to define the nature and object of the various excavations would be premature. There is,

\* A plan of this souterrain is given on Litho. 26 of the Palestine Exploration Fund series.

† "Recovery," p. 202. M. Ganneau says that he has ascertained "by sight and touch the existence of the rock cut vertically along nearly the whole perimeter of the parallelogram"—that is, of the ground covered by the Souterrains I. and II. (*Quarterly Statement*, Palestine Exploration Fund, 1871, p. 106.)

‡ These levels can only be considered as approximate. They are taken from a sketch sent to me by Mr. Schick.

however, no doubt of the existence of a rock-hewn ditch, possibly that between Antonia and Bezetha, which runs generally in an east and west direction, and separates the mass of rock on which the barracks stand from the higher ground to the north. In excavating this ditch an old aqueduct bringing water from the north was cut through, and possibly a reservoir was then excavated in the bed of the ditch and vaulted to prevent evaporation, the aqueduct south of the ditch being deepened at the same time to allow the water to run off at a lower level. It seems also probable that the rock at the north-west angle was cut into its present form when the masonry with pilasters south of the Bab al Ghawánimé was built.\*

From the east end of the rock scarp beneath the North Wall to Barracks to the Birket Israil the wall is nowhere visible, as the ground rises to the level of the Haram and is covered with houses. In this space there are two gateways leading out by short streets to the Tarik Bab Sitti Maryam, the Bab al 'Atm and the Bab Hytta. The Bab al 'Atm † (Gate of Obscurity) is also called by Mejr ed Din the Bab al Dewatar, and the Bab Hytta (Gate of Pardon) is said by the same writer to derive its name from the command given by God to the Israelites to say "Pardon" as they entered it.

\* Captain Warren, "Recovery of Jerusalem," p. 196-8, is of opinion that the souterrains are the twin pools, identified by Eusebius and the Bordeaux Pilgrim with Bethesda. M. Ganneau, on the other hand, believes that they cover the pool "Strouthion" mentioned by Josephus (B. J. v. 11. 4) in his description of the attack on Antonia during the siege of Jerusalem by Titus. M. Ganneau's view is that the pool was transformed into a closed reservoir at the period of Ælia Capitolina, that the stone pavement above the souterrains, extending to the Ecce Homo Arch, is of contemporary date, and that the Ecce Homo Arch is probably a triumphal arch for the victory over Bar Cochebas (*Quarterly Statement*, Palestine Exploration Fund, 1871, p. 6).

The following are the principal levels in this section :—

Street, Tarik ash Sheikh Rihan	...	...	...	2,482	feet
Aqueduct north of the souterrains	...	...	...	2,462(?)	,,
Top of north scarp in souterrains	...	...	...	2,458	,,
Bottom of ,,	..	..	..	2,419	,,
Top of south scarp in ,,	..	..	..	2,456	,,
Bottom of ,,	..	..	..	2,399	,,
Scarp on west side of Souterrain I.	...	...	...	2,428(?)	,,
Floor of aqueduct south of souterrains	...	...	...	2,412	,,
Top of scarp under Barracks north side of Haram	...	...	...	2,462	,,
Bottom of scarp ,,	..	..	..	2,432	,,
East end of scarp ,,	..	..	..	2,433	,,
Level of Haram at east end	...	...	...	2,419	,,
South end of scarp on west side of Haram	...	...	...	2,434	,,
Level of Haram at south end	..	..	..	2,431	,,
Viâ Dolorosa over the souterrains	...	...	...	2,448	,,

† According to Mejr ed Din, Omar entered by this gate on the day of conquest.

*Birket Israil.* The Birket Israil is situated in a valley which takes its rise to the north of the city wall, and, passing between the ruin Al Mamûniyé and the Church of St. Anne, runs out into the Kedron Valley about 143 feet south of the north-east angle of the Haram. The valley at present is little more than a shallow depression, but Captain Warren's excavations have shown that in the lower portions of its course it assumes the character of a deep ravine, and that its bed lies no less than 139 feet or 140 feet beneath the surface of the Haram. It would appear then that the north-east corner of the Haram is made ground, and the south wall of the pool must consequently be almost entirely of masonry. The Birket Israil is about 360 feet long, 126 feet wide, and 80 feet deep, but its great size can hardly be appreciated on account of the rubbish, which rises to a height of 35 feet above the floor. The rock at the bottom of the pool is covered by a bed of very hard concrete, 1 foot  $4\frac{1}{2}$  inches thick, made of "alternate layers of small stones and mortar," and this is finished off with  $2\frac{1}{2}$  inches of a "very hard and compact" plaster of cement and broken pottery. The surface of the plaster is at the level 2,325 feet. The south wall of the pool, which is also the north wall of the Haram, differs but little from the walls of other pools at Jerusalem, and has nothing in common with the fine mural masonry of the Haram. It is built of medium-sized stones set with wide joints, which are packed with small angular stones to give the cement a better hold. The masonry is irregular, and apparently of no very great age.\* The north wall is of similar character, and here also there appears to be no rock. At the west end of the pool there are two parallel passages running westward along the Haram Wall, but unfortunately the vaults are cemented to the top of the arches, and the wall cannot be examined. The south passage, 134 feet long, is closed by a wall, the northern, at 118 feet, opens into a small modern passage running north and south which is now used as a sewer. The arches are slightly pointed, and their crowns are level with the top of the pool. The north passage has a concrete floor, which slopes towards the entrance, where there are four stone steps. The bottom step is nearly flush with the west wall of the pool, and beyond it is a landing 8 feet wide, and a series of irregular steps similar to those in Solomon's Pools at Urtas. Rock, falling to the east, was found 9 feet within the passage, at a depth of 40 feet below the crown of the arch, or at the level 2,365 feet, and it seems probable that the greater portion of the west end of the pool is rock. The east end of the pool is closed by a dam 45 feet thick, formed partly of rock †

\* Captain Warren examined the lower portion of the masonry and found it to be precisely similar to that above. It is possible that this masonry may only be a facing to the Haram Wall proper, though not probable. The removal of a few stones would settle the question.

† The level of the bed of the pool is 2,325 feet, or from 18 feet to 50 feet below the level of the rock outside the wall on the east.

and partly of masonry. The character of this masonry will be discussed below. It is sufficient to mention here that it appears to be of more than one date, and is in part a continuation of the east wall of the Haram. Near the south end of the pool an old overflow aqueduct passing through the masonry of the dam was discovered by Captain Warren. The passage runs east and west, and is 46 feet long, 3 feet 9 inches high, and 2 feet wide. The west end is closed by a perforated stone having three round holes each  $5\frac{1}{4}$  inches diameter,\* and under this there appears to have been a basin to collect water. At the east end the passage opens out through the Haram Wall. On the south side is a staircase, apparently cut out of the solid after the wall was built, which rises to the surface in great steps 4 feet high, and about 12 feet from the east end there is a light shaft leading up to a small opening in the Haram Wall. Some of the stones in the sides of the passage are as much as from 14 feet to 18 feet long, and from 3 feet 10 inches to 4 feet 6 inches high. The roof is stepped down 4 feet about 11 feet from the west end. In the floor of the passage there is a neatly-cut channel 5 inches square which passes out through the Haram Wall, but in the next course below "a great irregular hole has been knocked out of the wall" to allow the water to run off at a slightly lower level, and so supply an aqueduct, 9 inches wide and 2 feet high, which runs east from the Haram Wall. The workmen in breaking through the masonry left a cross on the wall of a Byzantine type. The passage, which is said to be similar to that at the Single Gate in the South Wall, was evidently built at the same time as the wall or dam, and, if the perforated stone be taken as the level of the overflow, the water at this period could not have stood at a higher level than 2,347 feet, that of the floor of the pool being 2,325 feet. This gives an original depth of 22 feet to the Birket Israil. During the Christian period it became necessary, for some reason, to break a hole through the wall to allow the water to run off through an aqueduct at a lower level, but at a much later date, if the aqueduct found outside the city wall near the north end of the pool may be taken as evidence, the water must have been at least 65 feet deep.†

A roadway passes over the dam at the east end of the pool and enters the Haram at the north-east angle by the Bab al Asbât (Gate of the Tribes).

\* A sketch of this stone is given in "Recovery of Jerusalem," p. 165.

† The principal levels are :—

Bed of pool	... ..	2,325 feet
Floor of overflow passage	... ..	2,345.5,
Level of perforated stone	... ..	2,347 ,,
Rock east of pool outside city wall	... ..	2,343 ,, to 2,375 feet
Rock at west end of pool	... ..	2,365 ,,
Haram area, near north-east angle	... ..	2,417 ,,
Roadway over dam	... ..	2,407 ,,

*N. E. Angle and East Wall to Golden Gate.* The nature of the north-east angle cannot well be discussed without an examination of city wall immediately to the north, and it will therefore be convenient to consider in this place the whole wall, from St. Stephen's Gate to the north-east angle of the Haram, and thence onwards to the Golden Gate.

*Above Ground.* From St. Stephen's Gate to the so-called "Castle of Antonia," at the north-east angle, the wall is built of small-sized stones having no marginal draft, and between this masonry and that of the north-east angle there is a straight joint. In the "Castle of Antonia," which measures about 87 feet along the wall from the north-east angle, there are five courses of large stones, with  $5\frac{1}{2}$ -inch marginal drafts, and above these, at the north end, there are portions of six other courses of similar character. The courses are from 3 feet to 4 feet high, and some of the blocks are of great size, one being 23 feet 8 inches long. The faces of the stones are better worked than nearer the south-east angle. The straight joint between this massive masonry and the city wall to the north shows that the two walls must have been built at different periods, but at the south end of the "Castle" there is no such break in the old masonry. The stones of the four lowest courses are properly bonded, and the marginal drafts are carried round the corner in such a way as to lead to the belief that the stones are *in situ*, though the joints are somewhat worn and irregular. The masonry of the upper portion of the "Castle" is of small stones, and bears traces of having been repaired more than once. Between the "Castle of Antonia" and the Golden Gate one, two, three, and occasionally four courses of large stones with marginal drafts and rough faces are visible; the lowest course projects about 1 foot 4 inches beyond the others, and seems never to have had the dressing of its face completed.\* At the building called Solomon's Throne, about 110 feet north of the Golden Gate, the wall bends slightly to the east.

A narrow strip of almost level ground, thickly covered with Moslem tombs, runs along the wall from St. Stephen's Gate to the Golden Gate, but beyond this the ground falls steeply to the Kedron, except to the east of the Birket Israil, where a projecting mamelon has been formed by the rubbish which for many years has been thrown out of St. Stephen's Gate.

The excavations made by Captain Warren with a view of examining the wall beneath the surface at the north-east angle are without a parallel in the history of excavation; the deepest shaft reached the rock at 125 feet from the surface, and in one shaft alone no less than 600 feet run of shaft and gallery were excavated.† At a small offset in the wall, 34 feet south of St. Stephen's Gate, a shaft was sunk to the rock, which was

*Beneath the Surface.*

\* Several of the stones in this part of the wall are fragments of old door jamb, and lintels; the upper masonry is of small stones.

† Full details of these excavations will be found in the "Recovery of Jerusalem," p. 159-188.

found 20 feet below the surface, at the level 2,390 feet. The wall is here built on a bed of concrete, 9 feet thick, which lies on the rock, and is composed of "stones about 6 inches cube and hard lime." A sloping gallery was next driven southwards along the wall from the top of the concrete for a distance of 44 feet 6 inches, when a shaft was sunk to the rock at the level 2,377 feet. There is no definite description of those portions of the wall seen in this shaft and gallery, but Captain Warren states that the wall is "of no very ancient date,"\* and that "there is no appearance of an older wall,"† than the present one, which is of later date than the "Castle of Antonia." At 19 feet from the shaft the gallery passed a 3-foot wall of rough masonry lying east and west, and to the south of it a pavement of rude *tesserae*, at the level 2,391 feet. At 38 feet the top of a barrel drain was crossed, and at 40 feet another wall. An examination of the drain led to the discovery of an aqueduct which apparently led from the Birket Israil at the level 2,390 feet. The aqueduct was followed for 39 feet. Its south side is built with large well-dressed stones, but it does not seem to be very old, and must have been built after the destruction of the old wall.

Another shaft was sunk at a point 97 feet due east of the north-east angle, and a gallery driven in from it towards the wall at the level 2,363 feet 3 inches. This gallery struck the wall at a point, P, 18 feet south of the angle, and was continued northwards along the wall for a distance of 75 feet. For 65 feet the stones in the wall are similar to those at the Wailing Place, but for the remaining 10 feet the stones are rough, with faces projecting from 6 inches to 10 inches, and well-cut marginal drafts.‡ No straight joint such as that visible above ground between the "Castle of Antonia" and the City Wall was noticed in the gallery. The wall runs on beyond the north-east angle without a break of any kind, and there is no projection. At a distance of 26 feet from the point P, an opening or slit 18 inches wide and 4 inches high was found, which proved to be a light shaft to the old overflow duct from the Birket Israil. At 64 feet there is a concrete floor ascending to the north. It may be observed that there is a distance of about 58 feet between the end of this gallery and that of the gallery from the shaft south of St. Stephen's Gate, and that the latter lies 14 feet above the former. This ground has never been explored, and it is therefore uncertain where, or in what manner, the change from the old to the modern masonry takes place.

At the point P, 18 feet south of the north-east angle, a shaft was sunk to the rock, level 2,327 feet 3 inches. For a height of 18 feet 1½ inches above the rock the wall is made up of six courses of stone with marginal drafts, and faces projecting in some instances as much as 25 inches; and above these seven courses of stones, like those in the Wailing Place, were

\* "Recovery of Jerusalem," p. 161.

† *Ibid.*, p. 170.

‡ The stones are said to be similar to those at the bottom of the Castle of Antonia.



examined. The shaft passed through layers of black earth and stone chippings. The rock at the bottom falls sharply to the south, and is cut into to receive the stones of the Haram Wall.

From the point P the gallery was also continued at the same level, 2,363 feet 3 inches, to the south corner of the "Castle," and here a shaft was sunk to the rock, which was found, at the level 2,293 feet 1 inch, to fall at a slope of 2 in 1 to the south. The fifteen lowest courses of the wall, making up a total height of 48 feet, are of stones with well-cut marginal drafts, and faces that project, on an average, 10 inches. Thus far each course is set back  $4\frac{1}{2}$  inches, but with the sixteenth course the development of the "Castle of Antonia" commences. This is effected by setting back the courses of the wall from 4 inches to 7 inches, whilst those of the "Castle" are set back only about  $1\frac{1}{4}$  inches. At the level of the gallery, 70 feet above the rock, the "Castle" projects nearly 2 feet beyond the wall, and a similar rate of development continued to the surface would give the existing projection of 7 feet. There is no straight joint between the "Castle" and the wall to the south. As far as the masonry was examined the stones were cut out to the required depth, 2 feet; but above this they are, no doubt, properly bonded, like the four courses visible above the surface. The stones which form the face of the "Castle," commencing with the seventeenth course above the rock, are similar to those at the Wailing Place, while those in the wall to the south have rough projecting faces, and this style of masonry probably continues to the Golden Gate. It may be remarked, however, that the faces of these stones "are quite unlike the roughly-faced stones at the south-west angle."\* On the third course from the rock, level 2,300 feet 9 inches, some red-painted characters were found. "The face of the stone was not dressed, but in the working of it a large piece had split off, leaving a smooth face, and on this the characters were painted. In one case the letter appeared to have been put on before the stone was laid, as the trickling from the paint was on the upper side."† In the eighth course one of the stones is patched up "with small stones and mortar, rendered on outside to look like stone."‡ The shaft passed chiefly through layers of earth and large stones, but at 52 feet 5 inches it came upon a small drain, and at 58 feet a layer of dry shingle. The gallery, level 2,363 feet 3 inches, was continued along the Haram Wall to a point 75 feet south of the "Castle of Antonia," where loose shingle prevented further progress. The masonry consists of stones with marginal drafts and rough projecting faces. At a point 63 feet south of the "Castle" a shaft was sunk to a depth of 60 feet 6 inches, and galleries were then driven north and south along the Haram Wall for 18 feet and 41 feet 6 inches respectively. From these galleries three shafts were sunk, to determine the form of the bed of the ravine. The

\* "Recovery of Jerusalem," p. 167.

† *Ibid.*, p. 183.

‡ *Ibid.*, p. 183, called fourteenth course.

result showed that the bottom of the ravine is 61 feet south of the "Castle," at the level 2,278 feet 3 inches, or 125 feet 9 inches below the surface of the ground outside the wall, and 138 feet 9 inches below the level of the Haram at the north-east angle. The rock rises about 11 feet in 43 feet to the south, and about 10 feet 6 inches in 16 feet to the north. The courses in the Haram Wall are from 2 feet 10 inches to 4 feet high, and the rock is everywhere cut away in steps to receive the lowest stones. The masonry is all of one style, the stones having well-cut marginal drafts and rough projecting faces. On one stone, at the level 2,326 feet, a mark was found, but "it is difficult to say whether it is natural or not." The shaft at first passed through black earth, but at the level 2,344 feet 6 inches it came upon a bed of broken cut stone with marginal drafts, 13 feet 6 inches thick, resting on 5 feet of earth and gravel in alternate beds. This was succeeded by 13 feet of loose shingle and stone chippings, and beds of black or red clay and small stones. At the level 2,310 feet is the small drain met with to the north, and below it are *tessere* supposed to be Roman. At the level 2,301 feet broken pieces of pottery were found.

Several shafts were sunk to the east of the wall between St. Stephen's Gate and the "Castle of Antonia," with a view of ascertaining the natural features of the ground. The results obtained will be readily appreciated by reference to the plan, which shows approximately the contours. The rubbish found in the shafts was of similar character to that already described; two or three feet of red earth resting on the rock, and then successive layers of black earth and shingle. At one point an aqueduct,\* apparently a continuation of that mentioned as running from the Birket Israil at the level 2,390 feet, was found, and a very massive wall of drafted stones lying north and south at a distance of 65 feet from the city wall. Towards the north the massive masonry gave place to well-dressed stones without drafts, and these again to a wall of small stones; southwards, after 19 feet, the wall turns to the west, and the stones here "have a curious cracked appearance as if they had been subjected to great heat." The stones in this wall differ in height and are not *in situ*.

*General remarks on the N. E. Angle.* It would appear, then, that the masonry of the Haram Wall from the "Castle of Antonia" to the Golden Gate has certain characteristics not found in any other section of the wall; that at the Throne of Solomon there is a slight bend in the wall, which may or may not exist in the lower and older masonry beneath the surface; that the "Castle of Antonia" is of the same date as the wall to the south, and at its base in the same straight line, but that from the manner in which it is built it projects 7 feet at the present surface level; that the stones forming the face of the "Castle" from the point at which it commences its develop-

\* "Recovery of Jerusalem," p. 178.

† *Ibid.*, p. 179.

ment, are similar in all respects to those at the Wailing Place ; that the north end of the "Castle," which is also the north-east angle of the Haram, is marked by no projection, the wall to the north being in line with the face of the "Castle;" that above the surface there is a straight joint between the old masonry of the "Castle" and the more modern masonry of the city wall to the north, whilst 44 feet below the surface the masonry of the "Castle" is carried on without a break for 57 feet, the stones for 47 feet being like those at the Wailing Place, and for 10 feet with projecting faces; that 114 feet 6 inches north of the "Castle" the city wall, of comparatively recent date, stands on a bed of concrete 10 feet thick, which rests upon the rock; and that 8 feet north of the "Castle" there is in the older masonry an overflow duct from the Birket Israil at the level 2,345 feet 6 inches, that of the bottom of the pool being 2,325 feet. Unfortunately the line of junction between the older and later masonry north of the "Castle of Antonia" was not examined, and it is still uncertain how the old wall was finished off in this direction. It seems on the whole not unlikely that, when the "Castle" was built, the present north wall of the Haram at the Birket Israil was the northern limit of the city, and that up to a certain height the masonry of the "Castle" was carried northwards to form a dam for the pool, then without the walls. At a later date, when the spur on which the Church of St. Anne stands was included in the city limits, the dam was raised to its present height, and the wall continued to the north. It is not easy to see why the builders of the east and north walls of the Haram should have carried the former across a deep ravine, and then almost immediately have turned westward and recrossed the same ravine to form the north wall. Possibly the rock scarp at the north-west angle was in existence at the time, and gave the direction of the north wall. The stone used at the north-east angle is "not so compact and hard as that used at the south-east angle, and the chisel-working is not so carefully done." The characters in red paint do not appear to have any significance.

The level of the rock beneath St. Stephen's Gate is 2,390 feet, and from this point it falls 112 feet in about 341 feet to the bed of the ravine (2,278 feet 3 inches); the rock then commences to rise, and at the Golden Gate, about 317 feet to the south, it has probably attained an altitude of 2,360 feet. The rock was everywhere found to be cut away or levelled to receive the stones of the lowest course of the wall.

The character of the rubbish throws no light on the history of the wall; from the fact, however, that the rubbish at St. Stephen's Gate, and for some distance to the south, is only 20 feet deep, it may be inferred that there has been no extensive destruction of buildings in this locality, and that the massive masonry of the Haram Wall never extended so far to the north.\*

\* The following are the principal levels:—

Surface of Haram at north-east angle	...	..	2,417 feet.
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It is also evident that in order to raise the surface of the Haram area at the north-east angle to its present level the ravine has been filled up to a height of more than 120 feet, either by the gradual accumulation of rubbish, or by a system of vaults similar to that at the south-east angle.

The piers of the Golden Gate are built of stones which have plain chiselled faces; the northern pier is not so well built as the southern, and stones taken from other buildings appear to have been used in its construction.\* The piers are flanked by buttresses of more modern date, which were built to sustain the mass of masonry placed above the gateway when it was turned into one of the flanking towers of the wall, and the entrance was probably closed at the same period; to obtain the necessary slope or batter the buttresses were pushed forward four inches, and to take away the unsightliness of the projection the inner edges were chamfered.

The ground in front of the Golden Gate is so fully occupied by tombs that no excavations are possible, but Captain Warren attempted to reach the wall by sinking a shaft 143 feet from the south end of the gate, in a line perpendicular to its front, and then driving a gallery westward. The shaft was sunk to a depth of 26 feet 6 inches through loam with shingle, stone packing, and dark brown loam, and the gallery was then commenced. At 125 feet from the Haram Wall the mouth of a tank or rock-hewn tomb was passed at the level 2,311 feet; at 108 feet 9 inches a rock scarp with a rough masonry wall at the top; † at 79 feet 7 inches a portion of the shaft of a column, 3 feet in diameter, erect in the *débris*, 3 feet above the rock; and at 50 feet 9 inches a massive wall running north and south which stopped further progress. ‡ The wall was traced 14 feet to the south without any break, but to the north it gradually turns to the west, apparently following the contour of the ground. The masonry is composed of "large quarry-dressed blocks of *missæ*," like those in the Haram Wall near the Golden Gate; the "roughly-dressed faces of the stones project about 6 inches beyond the marginal drafts, which are very rough." The stones appear to be in courses 2 feet 6 inches high, and the horizontal joints, about 12 inches wide, are packed with stones 6 inches cube, set in a curious cement said to be made of lime, oil, and the virgin red earth. The rubbish passed through in this excavation was of a most dangerous character, "loose

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Surface of ground outside Castle of Antonia	...	2,404	feet.
Rock at 34 feet south of St. Stephen's Gate	...	2,390	"
Bed of ravine 61 feet south of Castle of Antonia	...	2,278.25	"
Bed of Birket Israïl	... ..	2,325	"
Floor of overflow passage	... ..	2,345.5	"

\* Some of the stones have reveals cut in them.

† On the scarp, about 2 feet 10 inches from the bottom, is a hole cut for a rope, similar to those in "Solomon's Stables."

‡ The rock level under the massive wall is 2,336 feet.

boulders alternating with layers of shingle," and it was not found possible to continue the galleries to the north and south, or break through the wall, which was penetrated, however, to a depth of 5 feet 6 inches. Another shaft was sunk 100 feet east of the Golden Gate in search of a tower said to have been seen by a fellah, but after reaching a depth of 27 feet it had to be abandoned on account of the loose and dangerous character of the rubbish.

The excavations show that, at the Golden Gate, the Haram Wall probably extends between thirty and forty feet beneath the present surface, and it is a question whether it does not stand on the foundations of a tower built, like that at the north-east angle, to project in front of the line of the wall. There seem, too, some grounds for supposing\* that the massive wall reaches to the surface, and in this case there may have been at one time a terraced walk fifty feet broad in front of the Haram Wall.

*Golden Gate to  
S.E. Angle.* From the Golden Gate to the so-called postern, a distance of 51 feet, there are three courses of large stones with marginal drafts 3 inches to 6 inches wide, and extremely rough faces, projecting in many cases as much as 9 inches. Over the doorway of the postern there is a sort of lintel, but there are no regular jambs, and the whole has more the appearance of a hole broken through the masonry and afterwards roughly filled up than that of a postern in a city wall; still it probably marks the site of Mejr-ed-Din's Gate of Burak. To the south of this there is a curious stone, hollowed into the shape of a basin, which on three sides is perforated by a round hole, and attached to one at the back is a portion of an earthenware pipe, which was probably at one time connected with the water-supply system of the Haram, and supplied a fountain at this place. Southwards from the postern the stones all have plain chiselled faces, and portions of several broken marble columns have been built transversely into the wall with their ends left projecting several inches; but shortly after passing "Mahomet's Pillar" the lowest courses are again built of stones with rough projecting faces and marginal drafts similar to those between the Golden Gate and the postern, and these stones extend to a break in the wall 105 feet 6 inches from the south-east angle.

An excavation was commenced 300 feet south of the Golden Gate, east of the cemetery, but when within 60 feet of the Haram Wall the shingle became too loose to work in. From one of the shafts at the south-east angle Captain Warren drove a gallery northwards along the tenth course of the Haram Wall, and] at 108 feet from the angle he came upon a break in the wall corresponding to that above ground, and beyond this found an entire change in the masonry, the stones having marginal drafts and projecting faces similar to those already described as being visible above the surface. The gallery was continued

\* "Recovery of Jerusalem," p. 159.

northward for 25 feet, when the bed of the course was found to rise 4 inches, and at a further distance of 28 feet 3 inches, or 161 feet 3 inches from the angle, the rock was met with, at the level 2,312 feet, "rising to the north and cut out for the reception of the stones." All the stones, from the break in the wall to the rock, a distance of 53 feet 3 inches, had projecting faces and marginal drafts. Between the point where the rock was struck and the Golden Gate the wall has nowhere been seen beneath the surface of the ground.\*

*S. E. Angle,  
Masonry above  
Ground.*

At the south-east angle fourteen courses of stone, from 3 feet 6 inches to 6 feet 1 inch high, with marginal drafts, are exposed, giving a height of about 54 feet 2 inches above the surface. The stone in the seventh course from the ground, 6 feet 1 inch high, forms part of the "great course" which occurs at intervals in the south wall, and is the heaviest stone yet found in the Haram Wall. The bed of this course is on a level with the floor of the vaults known as "Solomon's Stables," which occupy the south-eastern corner of the enclosure. The courses as they rise are set back from  $\frac{1}{2}$  inch to  $\frac{3}{4}$  inch. Many of the stones in the wall, taken from the *malaki* beds, are much weather-worn, whilst others from the *missa* beds retain their sharpness and are beautifully finished. On some of the stones are projecting bosses or tenons, the object of which is not clear. Similar projections may be seen in the wall of the Haram at Hebron, and also in the masonry of "David's Tower." Above the drafted stones there is about 23 feet 4 inches of modern masonry sadly out of repair, and looking as if the least touch would bring it down. The wall is thus 77 feet 6 inches above the present surface of the ground.

About 74 feet northward of the south-east angle there is an offset in the east wall, formed by notching out the stones, which marks the north end of the corner tower, and, as the marginal draft appears on both tower and wall, it would appear that the stones are in the position in which they were originally placed by the builders. A few feet to the north of the offset there are two stones which form the springing of an arch, and extend over a length of 18 feet. These stones do not appear to be *in situ*, and there is nothing in their appearance to justify the belief that they formed part of the arch of a bridge over the Kedron Valley.† They probably come from the ruins of the corner tower, as they are somewhat similar to some large stones in the building known as the "Cradle of Jesus," which formed part of the covering arch of a chamber in the tower. Immediately above the arch stones there is a chamber in the thickness of the wall which seems to have been a window, but one

\* Captain Warren thinks that the old Temple wall of Solomon still exists in this section of the Haram Wall ("Recovery of Jerusalem," 153).

† Captain Warren searched for the pier of the supposed arch, but could find no trace of it a few feet above the rock. He believes that the "Red Heifer Bridge" commenced at a point 600 feet north of the south-east angle.

made at some period of reconstruction; both ends are now closed with masonry. At the north end of the arch stones, 105 feet 6 inches from the corner, there is a break in the wall, and then follows the roughly-finished masonry described above.\* On the south face of the south-east angle the fourteen courses of drafted stones break down rapidly, and the ground at the same time rises sharply, so that within 100 feet of the corner only one course can be seen. There is no offset in the masonry corresponding to that on the east face. The inner faces of the stones in the east wall, exposed in the vaults of "Solomon's Stables," are left rough as they came from the quarry. In the angle itself there is a mass of very coarse rubble masonry, large blocks of stone thrown irregularly together, and the interstices packed with small stones and mortar, to which the finer masonry of the south-east angle is the facing. The inner faces were possibly finished off in the same manner. Above the rubble masonry is the mosque containing the "Cradle of Jesus," and here there is the springing of a heavy arch, which is apparently of the same age as the drafted work outside, and possibly formed part of the covering arch of a chamber in the tower.

*Masonry beneath  
the Surface.*

The masonry of the south-east angle beneath the surface was examined by several shafts and galleries. There are 21 courses of drafted stones, making up a height of about 80 feet 5 inches, or of 79 feet 3 inches above the rock, the lowest course being let into the rock. The five lowest courses are "in the most excellent preservation, as perfect as if they had been cut yesterday."† They are very well dressed, and, with a few exceptions, "differ in nowise from the perfect specimens above ground. The marginal drafts and about two inches round the projecting surface have been picked over with an eight-toothed chisel, about eight teeth to the inch; within this a 'point,' or single-pointed chisel, has been used."‡ For twenty feet beneath the surface the stones on the south face are "comparatively small with those visible above, and similar in every way to those at the Jews' Wailing Place."§ On the east face the courses are set back, as they rise, from 3 inches to 6 inches,|| whilst, on the south face, they are only set back 1 inch. As the masonry of the south-east angle is somewhat peculiar, it will be necessary to examine each course uncovered more closely.

The *first* or *base* course is 3 feet 8 inches high; it is partially sunk in the rock at the angle, but proceeding northward it was found "to be let entirely into the rock until at about 41 feet it ceased, the rock rising

\* Page 47.

† "Recovery of Jerusalem," p. 139.

‡ *Ibid.*, p. 139.

§ Letter I., p. 9, *Quarterly Statement*, Palestine Exploration Fund, 1867.

|| The set-off is said to be 3 inches to 4 inches in "Recovery of Jerusalem," p. 149, and to be 6 inches in Letter VIII., p. 21, *Quarterly Statement*, Palestine Exploration Fund, 1867.

abruptly, and the second course being let into it." \* There are drafts on the upper margins of the stones; the course rests on very hard rock, *missæ*, but the upper portion through which it is sunk is very soft and much decayed. The *second* course is 4 feet 3½ inches high; the first stone, 10 feet 6 inches long, has a 1-inch draft at top and an ordinary one at bottom; it is "very roughly dressed within the drafts." The second stone has an 8½-inch draft at top and 1½-inch at bottom, and is well dressed; the third stone has no draft at top, and a 16¾-inch draft at bottom; † the fourth stone has a 12-inch draft at top; the lower draft was not seen; the remaining stones have ordinary drafts of from 3 inches to 4 inches. The *third* course is 4 feet 2½ inches high, and is set back 4½ inches; the first stone has no draft at top, and a 4½-inch draft at bottom; the upper drafts of the remaining stones were not seen; the lower drafts are all 4½ inches; the second stone is "cut in a very superior style." The *fourth* course is 3 feet 7½ inches high, and is set back 2½ inches; the first stone has a shallow 9-inch draft at top, but except for this is "like the stones above ground;" the remaining stones have 9-inch drafts at top; the lower drafts were not seen. The *fifth* course is 3 feet 8 inches high, ‡ and is set back 4 inches; the first stone is "similar in every respect to the best specimens of stones found at the south-east angle above the surface;" the third and eighth stones are very roughly dressed within the drafts; § the face of the eleventh stone "projects about ½ inch too much, and has been worked down over about half its surface." At 76 feet from the angle the rock crops up abruptly. The *sixth* course || is 3 feet 6 inches high; the first stone is 20 feet long from east to west, and its western end is let into the rock, which cuts its upper edge at 18 feet west of the angle. The *seventh* course is 4 feet high. One stone in the south face was exposed in the shaft sunk to the west of the Ophel wall; it had a 6-inch draft at top and bottom, and "the centre bulged out and was not dressed." ¶ The *tenth* course, 3 feet 8 inches high, was found to consist of drafted stones similar to those at the surface, but at a point 64 feet 3 inches from the south-east angle, "the height of the course increased to 4 feet 2½ inches by being let down into the course below; this continues up to 108 feet from the south-east angle, where there appears to be a break in the wall; that is to say, the course in continuation is only 3 feet 3½ inches in

\* "Recovery of Jerusalem," p. 147.

† "Recovery of Jerusalem," p. 148. This draft is said to be 13 inches ("Recovery," p. 144).

‡ "Recovery of Jerusalem," p. 138. At p. 333 it is given as 4 feet 2½ inches.

§ Captain Warren remarks on these rough stones that they do not appear "to form any pattern on the wall, and one is almost led to suppose that the builders were unable to find suitable dressed stones for breaking joint, and had to take those that were unfinished" ("Recovery of Jerusalem," p. 143).

|| The south face only of this course was seen.

¶ This projection is said to be 9 inches on one of the lithographs of the Palestine Exploration Fund.



height, and its bed is 1 foot 10 inches above the course we had been running along; there appears to be a straight joint here through three courses, but of this we could not be certain." \* Captain Warren states that at the break in the wall "a strong gush of wind issued during the east wind, but not during the west." This shows conclusively that the break runs up the wall to that noticed above the surface at a point 105 feet 6 inches from the corner. † Beyond the straight joint the stones have projecting faces. No trace was seen in the tenth course of the offset which marks the north face of the corner tower.

*General remarks* The angle of the corner stone of the base course, as measured by Captain Warren, is 92 degrees 35 minutes, and of the corner stone at the surface, 92 degrees 5 minutes; the general direction of the east wall, with reference to the south wall, as determined by the survey, is 92 degrees 50 minutes, or nearly 3 degrees beyond a right-angle. The wall at the south-east angle would appear to be made up of twenty-one courses of drafted stones beneath the surface, and fourteen above, giving a height of 134 feet 7 inches drafted work, and this, with the more recent masonry above, makes a total height of 157 feet 11 inches, or of 156 feet 9 inches above the rock. There are a few points connected with the masonry to which attention may be drawn. The very unequal width of the marginal drafts, and the occasional presence of stones with rough faces in the five lower courses, would seem to indicate a reconstruction, for Captain Warren's explanation of the latter feature can hardly be accepted; in the tenth course there has almost certainly been a reconstruction at the point 64 feet 3 inches from the south-east angle, where there is a change in the height of the course. An examination of the tenth course, the top of which is at the level 2,315 feet, also showed that the offset of the corner tower, which forms such a marked feature above the surface of the ground, is not continued to a depth of 40 feet beneath it. The straight joint 108 feet from the south-east angle, which appears to run a long way up the wall, and marks a distinct change in the style of the masonry, is exactly the same distance from the corner towards the north as the east face of the "Great Passage" beneath the Single Gate, which is built with drafted stones, is towards the west, and it is a question whether these two points may not possibly indicate the limits of the original structure, a corner tower unconnected with the walls. ‡

\* "Recovery of Jerusalem," p. 150.

† If, as there is some reason for supposing, there was once a tower at the south-east angle unconnected with the wall, the difference between the two dimensions, 105 feet 6 inches and 108 feet, would correspond exactly to the batter of the northern and southern faces, 1 foot 3 inches for each face.

‡ The Haram Wall was not seen above or below the Great Passage, so that the existence of a straight joint in the masonry at that point is at present a matter of speculation.

*The Rubbish.*

The rubbish at the south-east angle consists "of stone chippings, alternating with layers of fat earth, and in some places rough stones about a foot wide;"\* immediately above the rock there is a layer of fat mould abounding in fragments of pottery, which "slopes to the east at an angle of about one in four;"† this mould "does not lie close up against the Haram Wall, but is at top, about 12 inches from it, and gradually closes in to it; between it and the wall is a wedge of stone chippings; it is quite evident that when the wall was built, this 10 feet of mould and pottery was in existence, that it was cut through, and the soft rock also, for the purpose of laying the stones on a solid foundation."‡ The layers of stone chippings above the mould slope to the east at about one in three, but at one point "they slope in towards the Haram Wall, instead of away from it;"§ the chippings at the base of the wall "are in many cases rounded and unlike what would result from stone dressing, having more the appearance of the backing used in the walls at the present day in Palestine;"|| a black substance somewhat like charred wood was found amongst them. Four feet below the surface the "Ophel Wall" was found; it abuts against the south face of the south-east angle with a straight joint and extends down to, and rests upon, a "hard layer of clay" which overlies the rock; west of the Ophel Wall there is a 4-foot wall of hard *misse*, which runs parallel to the Haram Wall, and at a distance of 15 feet from it. In driving a gallery from a shaft 20 feet south-east of the south-east angle, Captain Warren passed through "two rough masonry walls, running respectively north and south and east and west."¶ Between the south-east angle and the Kedron, all attempts to reach the rock by shafts or galleries from the surface were unsuccessful, owing to the quantity of "dry loose shingle lying at an angle of 30 degrees," which, "when it got a start, ran like water;" the shingle, stone chippings without a particle of earth, was, in character, almost a fluid.

*The Rock.*

The rock at the south-east angle is very soft and much decayed, but apparently *misse*; it rises 18 feet 4 inches in 76 feet to the north, and about 21 feet in 18 feet to the west; on the east it is nearly level for 8 feet or 10 feet, and then falls away at a slope of about one in nine to the Kedron.\*\*

\* "Recovery of Jerusalem," p. 137.

† *Ibid.*, p. 142.

‡ *Ibid.*, p. 141.

§ *Ibid.*, p. 139.

|| *Ibid.*, p. 144.

¶ *Ibid.*, p. 138.

\*\* The true bed of the Kedron is 65 feet west of the apparent one, and 38½ feet below it. The rock rises gently to the west for 60 feet, then more abruptly at an angle of about 30°. From the south-east angle of the Haram Wall to the true bed of the Kedron, 240 feet due east, the rock has a total fall of 106 feet. There is no perennial stream in the Kedron, but after heavy rain water flows along its bed. In driving his gallery up the western bank, Captain Warren found several walls, apparently built to support terraces.

Four feet north of the angle the rock near the wall is cut away "in the form of a semicircle or horseshoe, 2 feet wide and about 2 feet 8 inches deep."

*The Characters.* The characters found by Captain Warren on the lower courses of the east wall at the south-east angle are either cut into or painted on the stones. The incised characters are cut to a depth of  $\frac{3}{8}$  inch; the painted characters, some of which are 5 inches high, were probably put on with a brush; they are in red paint, apparently vermilion, and easily rubbed off with awetted finger. There are also "a few red splashes here and there, as if the paint had dropped from the brush." \* The characters are irregularly distributed over the stones; in the second course the second and third stones from the corner have characters; in the third course the first stone has one character, the second none, the third, fourth, and fifth "a few faint red paint marks," the sixth an incised character; in the fourth course no marks were seen; in the fifth course nearly every stone, except the first, has one or more characters, and in seven instances there is a character at the left-hand top corner of the stone; the first, or corner stone of this course, has two characters on its south face. No characters were seen in the tenth course.

These *graphiti* were examined by the late Mr. Emanuel Deutsch, and the conclusions which he came to were as follows:—I. "The signs cut or painted were on the stones when they were first laid in their present places. II. They do not represent any inscription. III. They are Phœnician. I consider them to be partly letters, partly numerals, and partly special masons' or quarry signs. Some of them were recognisable at once as well-known Phœnician characters; others hitherto unknown in Phœnician epigraphy I had the rare satisfaction of being able to identify on absolutely undoubted Phœnician structures in Syria." Mr. Deutsch adds that he thinks "all attempts to determine the exact meaning of each and all of these technical signs would, at least at this stage, be premature." †

*The Pottery.* The pottery obtained by Captain Warren during the excavations at the south-east angle consists of: (a) a small jar found in a hole cut out of the rock, "standing upright, as though it had been purposely placed there;" † (b) fragments, amongst which there was a "long rusty iron nail," from the bed of clay or rich mould, 10 feet thick, which overlies the soft rock; and (c) fragments from a layer of broken pottery about 2 inches thick which rests on the mould. (a) It has been suggested that the small jar was placed in the hole when the wall was built, and that it might therefore give some indication of the age of the masonry at the

\* "Recovery of Jerusalem," p. 139.

† *Quarterly Statement of Palestine Exploration Fund*, No. 2, 1869, p. 35.

‡ "Recovery of Jerusalem," p. 141. The hole is 1 foot wide, 1 foot deep, and situated 3 feet east of the south-east angle.

angle. Dr. Birch, probably the highest living authority on such matters, states that it is just possible that the vase, which resembles Egyptian ware in shape, might be as old as the fourth or fifth century B.C.\* Mr. Greville Chester observes that the vase "is of pale red ware, and of a common Græco-Phœnician type." † (b) Amongst the fragments from the mould are several broken lamps "of red or brownish ware," with one, two, or three lips," which "seem adapted for the burning of fat rather than oil." Lamps of the same design have been found in Cyprus and Malta, and Mr. A. W. Franks considers them "to be of late date—not earlier than the second century before the Christian era." ‡ (c) From the layer of broken pottery six vase handles were brought home, each of which "bears impressed upon it a more or less well-defined figure, resembling in some degree a bird, but believed to represent a winged Sun or Disc, probably the emblem of the Sun God, and possibly of royal power." § There are Phœnician characters, similar in shape to those of the Moabite stone, on each handle, above and below the wings, and in two instances they have been read by Dr. Birch as follows:—

LeMeLeK	ZePHa	..	..	To or of King Zepha.
LeK	SHaT	.	..	King Shat.

M. Ganneau, on the other hand, transcribes the inscriptions as—

MoLoCHZaPH  
LoCHSHaT

and believes them to be the names of men composed partly, like Hannibal, of the name of a god, Moloch. In this case it might possibly be the potter's name. Another handle found in the same place bears as a potter's mark "a cross within a semicircular mark." Captain Warren supposes "the jars to have been broken only a very short time after the building of the wall," and says "it is obvious that these characters are likely, in a great measure, to throw light upon the age of the Sanctuary wall at this point." ¶ The use of these characters, however, does not afford any positive evidence as to age, for, as in the inscriptions on coins, they may have been retained on potters' stamps and as masons' marks for many years after the Christian era. There is thus at the foot of the wall at the south-east angle masonry of a peculiar character, not apparently of the best building period, the stones of which bear painted or incised masons' marks and Phœnician letters. In a hole in the rock in front of the wall a jar was found, which may be as old as the fourth or fifth century B.C. Above the jar was a bed of mould abounding in fragments of lamps, not earlier in date than the second century B.C.;

\* *Quarterly Statement*, Palestine Exploration Fund, 1877, p. 75. Dr. Birch describes the jar as being of "rather rude shape and coarse terra-cotta."

† "Recovery of Jerusalem," p. 476.

‡ *Ibid.*, p. 475-6.

§ *Ibid.*, p. 473.

¶ *Ibid.*, p. 152.

and resting on the mould a layer of broken pottery, from which jar-handles with Phœnician inscriptions were obtained. If the date assigned to the jar be any indication of the age of the wall, the construction of the south-east angle may be due to Nehemiah, and perhaps a reconstruction of the "tower that lieth out."

*S.E. angle to the Triple Gate.* The fourteen courses of drafted stones visible at the south-east angle break down rapidly towards the west, and near the Single Gate, about 105 feet from the corner,\* only one course can be seen. Above this there are three courses of large stones plain dressed, and then several courses of small stones similarly dressed. The masonry of the upper portion of the wall is of no great age.

*The Single Gate.* The *Single Gate* is a closed entrance with pointed arch of comparatively modern construction, which formerly led to the vaults called "Solomon's Stables." Its sill is about 3 feet 9 inches below the level of the floor of the vaults. Between the Single and Triple Gates only one course of drafted stones is visible, and the masonry above it is similar to that already described. The chief feature

*The Great Course.* of this section of the wall is the "Great Course," a name which Captain Warren has given to a course of drafted stones from 5 feet 10 inches to 6 feet 1 inch high, that extends continuously for a distance of 70 feet west of the south-east angle, and can be traced thence, at intervals, to the Triple Gate.† Its bed is on a level with the sill of the Triple Gate and the floor of Solomon's Stables. The bed of the course is a straight line, but falls away towards the east, so that it is about 2 feet 6 inches lower at the south-east angle than at the Triple Gate. "On account of the peculiar nature of the ground" this arrangement would be required, according to Captain Warren, "to avoid offending the eye."

The masonry at the south-east angle has been described above (p. 51). About 77 feet from the corner the wall was examined for several feet below the surface,‡ but there appears to be no record of the measurements made. At a distance of about 108 feet from the south-east angle, and

*The Great Passage.* immediately beneath the Single Gate, is the "Great Passage," discovered by Captain Warren in 1867. This passage, 69 feet long, 3 feet wide, and "probably from 12 feet to 18 feet high," is perpendicular to the south wall of the Haram and lies under one of the aisles of Solomon's Stables. Its floor appears to be about 30 feet below that of the vaults, and about 11 feet above the rock. The masonry contains stones of large size, and

\* This is exactly the same distance from the south-east angle as the straight joint in the east wall.

† There is only one stone *in situ* between the Single and Triple Gates.

‡ Letter XXI., Jan. 1st, 1868, *Quarterly Statement*, Palestine Exploration Fund.

nearly all have marginal drafts and are "beautifully worked, but some of them are only hammer-dressed." The passage is covered by large stones, in many instances having marginal drafts, which are laid flat on the side walls. At a distance of 69 feet\* from the entrance, however, these roof-stones disappear. There are two entrances, one above the other, separated by the thickness of a course of stone, and 7 feet from them are "indications of there having been a metal gate." The inner end of the passage is closed with broken stones and rubbish, and appears to have been "filled up before the piers of the stables were built."† On the east side a small passage was opened out to a depth of 6 feet 6 inches, when a shaft, filled with rubbish, was found leading upwards. This was cleared for 9 feet and then abandoned on account of excitement in the city. At the bottom of the upper course on each side of the wall are "the remains of a small aqueduct jutting out from the wall, made of dark cement."

The object and nature of this passage are exceedingly obscure. Captain Warren, in the "Recovery of Jerusalem,"‡ states that he has no clue to its use; but in a more recent work—"Underground Jerusalem"—he identifies it with the passage which carried off the blood from the altar.§ It has already been pointed out that the east side of the passage may possibly be the west face of a corner tower unconnected with the city walls; and the fact that the side walls and roof contain many stones with marginal drafts, beautifully worked, intermixed with others hammer-dressed, seems to point to a period of reconstruction. It can hardly be supposed that drafted stones dressed with so much care would be placed in a dark passage, 3 feet wide, where no one could see them, and it is a question whether the "Great Passage" does not owe its origin to a modification, at some period, of the original form of the South Wall. The question would at once be set at rest by an examination of the wall below the opening, where a straight joint must exist if the corner tower were ever a detached building. Unfortunately Captain Warren was unable to examine the wall either above or below the

\* The distance is given as 69 feet, "Recovery of Jerusalem," p. 133.

† Captain Warren's address at annual meeting of the Palestine Exploration Fund, June 11th, 1868. Captain Warren says in Letter XVII., November 22nd, 1867, "It is evident that the passage has been filled up intentionally, and as there are some very large stones jammed together at the end, I don't see how we are to get through them."

‡ Page 134.

§ Page 71. It would seem much more natural to identify one of the rock-hewn passages under the Triple Gate with the blood passage, which would hardly have been built of masonry, and discharged its contents down the face of the great retaining wall at a height of 11 feet from the ground. Captain Warren, however, informs me that there was a drain leading from the Great Passage, which had become damaged. This drain must have been of much later date than the passage itself.

opening,\* and the positions of the stones in the passage which have marginal drafts cannot be indicated on the plan.

A shaft was sunk 37 feet south of the Single Gate, but it had soon to be closed on account of the dangerous nature of the rubbish, and a second shaft commenced 14 feet south of the gate. This shaft, after passing through 20 feet of rough stones and rubbish, and 10 feet of firm soil having a dark-brown colour, reached the rock at 34 feet 6 inches from the surface. A gallery to the Haram Wall, at a height of 11 feet above the rock, struck the entrance to the Great Passage.

The rock was not seen between the south-east angle and the Triple Gate, but beneath the Single Gate it is probably about one foot higher than the level at the bottom of the shaft mentioned above;† this would give a rise of 60 feet in 105 feet from the south-east angle to the Single Gate, and of 41 feet in 180 feet from the Single to the Triple Gate.

*The Triple Gate.* The Triple Gate consists of three openings in the wall, now closed with small masonry, which formerly gave access to three vaulted passages running north, and perpendicular to the Haram Wall. The gates are each 13 feet wide and covered by semicircular arches; the piers are 6 feet wide, and the stones of piers and arches have plain dressed faces. Behind the semicircular arches, which are 4 feet 8 inches deep, the openings widen, and are spanned by elliptical arches which have a rise of 3 feet 11 inches, and are 8 feet deep; these again are succeeded by segmental arches, each of which has a different span. The piers or jambs of the gate as seen from the inside appear to have been built with old material; in those of the west opening the lowest courses have portions of engaged columns built into them. They have no bases, and that on the west, which seems to have been cut out of an older wall, is let into the rock about 6 or 8 inches. The Haram Wall forming the jamb of the eastern opening is entirely composed of small stones with plain dressed faces, and the jamb of the western opening is of similar character, with the exception of the lowest stone, which forms part of the "Great Course," and has a sort of architrave moulding, apparently worked when the gateway was built. On the face of this stone some Hebrew characters can be traced. Immediately above the arches is a a plinth course, and above this the wall is of mixed character, containing small stones dressed plain, and others with marginal drafts and rough projecting faces.

It seems doubtful whether the Triple Gate is as old as the date generally ascribed to it, the reign of Justinian, but on this point some

\* Captain Warren, "Recovery," p. 332, gives the heights of three courses of stone below the passage. These courses, however, were not seen, and the rock-level is estimated from the results at a shaft 14 feet south of the Single Gate.

† Captain Warren gives the level of the rock as 2,361 feet, "Recovery of Jerusalem," p. 333. This is evidently an error, as, making allowance for a slight rise from the bottom of the shaft to the foot of the wall, it cannot be more than 2,337 feet, which I have adopted.

light may hereafter be thrown by a closer examination of the mode in which the stones are dressed than has yet been made. The gateway appears to have been built after the removal of a portion of the "Great Course," and to be of the same age as the arches over the recesses in the western wall of the passage, which are cut out of the solid masonry of an older building. It may be noted that the openings are only 13 feet wide, whilst those of the Double Gate, Barclay's Gate, and Warren's Gate, are from 18 to 19 feet wide. The only traces of an older gateway on this spot are the portions of engaged columns built in at several places in the vaults and the lintel forming part of one of the piers in "Solomon's Stables."

*Passages under the Triple Gate.* In front of the Triple Gate are some large flat slabs of stone, which perhaps formed part of a flight of steps leading up to it, and beneath them are two interesting rock-hewn passages, first brought to notice by Mons. de Sauley, and afterwards more fully explored by Captain Warren.\* The western passage forks a few feet south of the Haram Wall; the west branch, 3 feet 6 inches wide, has a channel sunk in its floor, as if it had been used as a drain or water channel;† the east branch is 4 feet 6 inches wide, and rises very rapidly about 16 feet in 52 feet. There are the remains of a doorway near the point of junction, which would seem to indicate that it was a secret passage. The eastern passage is entirely rock-hewn beneath and on the northern side of the Haram Wall, but to the south it is roofed with flat stones laid horizontally or at an angle; on the left-hand side going towards Siloam there is a small cistern, and a little beyond the passage winds about, apparently following the foundations of some old building, the stones of which are well dressed, but have no marginal drafts. This portion is either of later date or has been cut through in sinking for the foundations of the building; the masonry rests on the rock, and the end is closed with rubbish. These passages communicate with Cistern No. X. at different levels, as well as with the passage from the Triple Gate, and with a passage running northward which seems to be similar in character to a rock-hewn passage a little to the west of Cistern No. VII., and may possibly be a continuation of it. The passages are cut out of the *malaki* bed, and their floors are about 19 feet 4 inches below the level of the surface in front of the Triple Gate.

*The Triple Gate to the Double Gate.* West of the Triple Gate there are two courses of stones with marginal drafts visible above ground, and one of these, the "Great Course," extends almost to the Double Gate; the stones are finely finished, with

\* The above description is partly from my own notes, made during a visit to the place in 1865, and partly from Captain Warren's account.

† A similar arrangement was noticed by Mr. Eaton at Khureitun, and by Captain Warren in the aqueduct near David's tomb.



plain picked faces, and they have a  $3\frac{1}{4}$ -inch draft chiselled round their margins. Above the "Great Course," near the Triple Gate, the stones are small, with plain dressed faces, but as the Double Gate is approached the courses increase in height. These two styles of masonry correspond with those previously described as overlying, in successive zones, the drafted work between the south-west angle and Robinson's Arch, and they apparently indicate two building periods. The upper portion of the wall is of small stones, some plain dressed, others with marginal drafts and rough projecting faces.

At a point about 120 feet west of the Triple Gate three courses of stone were bared,\* but the shaft was not carried to the rock. The stones are similar to those at the Wailing Place. The rock was seen in a cistern about 190 feet west of the Triple Gate at a depth of 23 feet from the surface, so that the original form of the ground can be laid down approximately.†

*The Double Gate.* The Double Gate consists of two entrances, now closed, which formerly opened into a vestibule, whence there was an ascent to the Haram area by a vaulted passage perpendicular to the line of the wall. The buildings of the Khatuniyeh almost conceal the gate; part, however, 5 feet 8 inches of the eastern entrance, is exposed, and the pier which separates the two gates can be partially examined in the Khatuniyeh vaults, which can be entered from the vestibule. The total width of the Double Gate is 42 feet, that of the pier 6 feet, so that each entrance is 18 feet wide, corresponding in this respect very nearly with "Barclay's" and "Warren's" gates in the west wall. The two openings are covered by lintels, the inner ends of which rest on the pier; above the lintels are relieving arches, and over these a cornice; each lintel is further supported by two columns, with capitals and blocks of stone above to make up the required height. The masonry of the pier is in all respects similar to that of the Wailing Place, but the stones are much weather-worn; the lintels have broad marginal drafts and finely dressed faces; the wall, however, on which the outer ends of the lintels rest, is of a different character, the stones being plain dressed without drafts, and on the eastern side the jamb is roughly built. The appearance of the masonry on either side of the gateway is such as to lead to the belief that in its present state the Double Gate is a reconstruction with old

\* In Letter I., August 22nd, 1867, *Quarterly Statement*, P.E.F., the wall is said to have been bared for 16 feet; there is no drawing, but in the table of courses, "Recovery of Jerusalem," p. 332, three courses are given, making a height of 11 feet.

† The rock levels obtained from cisterns are not very satisfactory; they show that the rock cannot be lower, but it may rise nearer to the surface than the point seen in the cistern.

material. Immediately under the lintels are two ornamented arches, which form no part of the wall, but are simply fastened on to it with metal cramps; it is a clumsy piece of work, and now almost falling; the style of ornament is similar to that at the Golden Gate. Adjoining the eastern relieving arch is the Antonine inscription, built into the wall upside down; most of the letters still retain their sharpness, and can be read from the photograph with the aid of a magnifying-glass.\* Captain Warren estimates the level of the rock at 30 feet below the sill of the gateway, and there must therefore have been an ascent by a ramp or steps.

The wall immediately west of the "Double Gate," exposed to view in the vaults of the Khatuniyeh, shows a mixture of stones with marginal drafts and large stones with plain dressed faces; but from thence

*The Double Gate to the S. W. Angle.* to a point about 90 feet from the south-west angle the latter only are found; the remaining portion of the wall is of drafted stones, similar to those in the Wailing Place, four courses being visible at the south-west angle. The plain dressed stones are irregularly jointed on to those with marginal drafts; the courses vary in height, and the stones are not well laid, the joints having "a wavy appearance," and acting as weepers. The upper portion of the wall, in which are the windows of the building al Baka'at al Ba'idha, is built of small stones with marginal drafts and rough projecting faces, intermixed with stones having plain dressed faces.

The masonry beneath the surface was examined by four shafts sunk by the side of the Haram Wall. In Shaft No. I., 213 feet from the south-west angle, the rock was met with at 54 feet 10½ inches below the present level of the ground; this height was found to be made up of fifteen courses of stone, from 3 feet 4½ inches to 4 feet in height. The stones in the first six courses above the rock have marginal drafts and rough projecting faces like those described below in Shaft II.; those of the next two courses have marginal drafts and roughly-dressed faces, whilst those of the remaining seven courses are similar to the stones in the Wailing Place, though much weather-worn. A rough wall abutting on the Haram Wall was met with in the excavations, and the rock at the bottom of the shaft was found to fall to the west, and to have been cut away to receive the lowest course. In Shaft II., 90 feet † from the

\* The inscription is: TITO AELIO HADRIANO AVGVSTO PIO Patri Patrie PONTIFICI AVGVRI Decreto Decurionum.

† In Captain Warren's early letters, published in the *Quarterly Statements* of the Palestine Exploration Fund, this shaft is always said to be 40 feet from the south-west angle, and the same distance is given on a drawing dated October 2nd, 1867. On later drawings, and in the "Recovery of Jerusalem," the distance is given as 90 feet, and this has been adopted in the plans, &c.

south-west angle, the rock is 87 feet 6 inches beneath the surface, the height being made up of twenty-four courses from 3 feet 6 inches to 3 feet 9 inches high; the foundation stone has a marginal draft and is finely dressed; the stones of the next fourteen courses from the rock have finely-worked marginal drafts, from 4 inches to 6 inches wide, and rough three-cornered faces projecting in some instances 18 inches beyond the drafts as if they had not been touched after leaving the quarries; the stone of the sixteenth course has a face projecting 3 inches beyond the draft, that of the seventeenth course has a roughly-dressed face, whilst the stones of courses eighteen to twenty-one are similar to those in the Wailing Place, but much worn, and those of the remaining three courses are plain dressed without drafts. The stones are well fitted, the joints being "hardly discernible," and so close that "the blade of a knife can scarcely be thrust in between them;" the courses are set back 1 inch to give the wall a batter. At 12 feet 6 inches from the surface the shaft came upon a pavement of well-polished *misse* stones, 12 inches by 15 inches, and beneath this passed through 16 feet of "concrete of stones, bricks, and mortar, in which the seal of Haggai" was found; at 28 feet 6 inches the shaft entered a 5-foot stratum of loose stones and shingle, and at 33 feet 6 inches came upon larger stones, and the top of a rubble wall abutting on the Haram Wall; at 79 feet it reached the covering stone of a passage running south, at 85 feet the bottom of the passage, and at 87 feet 6 inches the rock. The passage is of rubble masonry 4 feet and 2 feet wide, with flat covering stones. It was cleared out for 600 feet, and appeared to follow the bed of the central ravine, the rock rising on either side of it. At 350 feet from the wall a drain runs in from the east. The passage starts at once from the Haram Wall, and seems to have been cut through when that wall was built. At the foot of the shaft, galleries driven to the right and left showed the rock rising to the east and west. In Shaft III., 64 feet 6 inches from the south-west angle, eight courses of stone, from 3 feet 4 inches to 3 feet 10 inches in height, were exposed, but the shaft was not carried down to the rock; all the stones have marginal drafts, but those of the upper courses are much weather-worn: the stones with rough faces were found to commence at the same level as those in Shaft II. At 15 feet 6 inches from the surface there is a rough pavement of stones 12 inches cube, and beneath this the stones in the Haram Wall are better preserved. In Shaft IV., at the south-west angle, thirteen courses, from 3 feet 4 inches to 4 feet high, were bared; the shaft was only continued to the upper course of stones with rough faces, which is at the same level as in the other shafts. At 23 feet from the surface there is a pavement, at 25 feet several Christian lamps were found, and at 38 feet there is a second pavement.

\* This seal is inscribed "Haggai, the son of Shebaniah," and is supposed to be at least as old as the Maccabæan period.

*Result of the Excavations.*

The excavations seem to show that the masonry of the Haram Wall between the "Double Gate" and the south-west angle is composed, up to the level of 2,344 feet, of stones with rough projecting faces; that there are then two courses of stones with carelessly dressed faces, reaching to 2,351·6 feet, and above these four courses, similar to the Wailing Place masonry, attaining a level of 2,366·3 feet. At the south-west angle there are ten additional courses of drafted stones, but the plain dressed stones begin to show themselves in Shaft II. at 2,366·3 feet, and it is clear that at this point no less a height than 54 feet of the massive masonry has been overturned, and the wall reconstructed at different periods. As far as the drafted stones are concerned the wall, throughout this section, is evidently of one construction, and if the courses are compared with those in the west wall they will be found to run through to Wilson's Arch.

*The Rubbish.*

The chief features in the rubbish are the two pavements, and the zone of Christian pottery between them; the upper pavement extends from the south-west angle at least 90 feet along the wall;\* the lower pavement, 20 feet beneath, was only seen in Shaft IV. Among the fragments of pottery were several Greek lamps, one with "an inscription of Christian origin, similar to those on lamps which have been considered to be of the third or fourth centuries." The pieces of pottery appeared to have been "lying in the position in which they were found when this upper pavement was laid, and if so we must suppose it to have been made after the third or fourth century." † The relation of the rubbish to the stones with rough projecting faces is here of much interest. Captain Warren considers that this portion of the wall was built "after the Tyropœon had commenced to fill up," and that "the rough stones below the pavement were never exposed to view.‡ On the other hand, it is hardly possible to believe that rubbish had accumulated to a depth of over 50 feet in the central ravine before the date of Herod's reconstruction, or that such a mass of *débris* could have been removed when the solid wall was built. The erection of one or more retaining walls to finish off the southern end of the rubbish would in itself have been a work of great labour. The effect produced by the highly finished masonry resting on a sub-base of bold rugged work would be at once grand and striking, and it would almost seem as if the two courses of stone with rough but not projecting faces were intended to soften the line of junction between the two styles of masonry. The passage at the bottom of Shaft II. seems to have been an old channel to carry off the drainage of the central ravine, but it seems strange that no drain was found beneath the Haram

\* Captain Warren thinks this pavement extended to Wilson's Arch, and was the surface level during the Latin kingdom; it does not, however, appear to have been seen in the shafts along the west wall.

† "Recovery of Jerusalem," p. 124.

‡ *Ibid.*, p. 122.

Wall, as there must always have been a flow of water down the ravine after rain, unless the water running under Wilson's Arch was conveyed by some means into the rock-hewn cisterns north of Robinson's Arch.

The natural bed of the ravine is at the bottom of Shaft II., thence the rock rises about 30 feet in 90 feet to the west, and 32 feet in 123 feet to the east.

*General View of the South Wall.* The south wall of the Haram is 921 feet long, and broken into three sections by the Double and Triple Gates, which are 330 feet and 588 feet respectively from the south-west angle. The present surface of the ground from the south-west angle to the Triple Gate is nearly level, but thence it falls about 23 feet to the south-east angle. This is due to the enormous accumulation of rubbish, which entirely conceals the natural features. These are very different. The highest point of the rock is under the Triple Gate, about 2 feet below the sill, at an altitude of 2,378 feet, thence it falls eastward 101 feet in about 310 feet to the south-east angle, where the level is 2,277 feet, and there is a further fall of 106 feet in 240 feet to the true bed of the Kedron (2,171 feet). West of the Triple Gate the rock falls 88 feet in about 520 feet to the bed of the Tyropœon (2,290 feet), which is 90 feet east of the south-west angle, and thence there is a rise of about 31 feet in 90 feet to the south-west angle.

The masonry of the south wall has some special features which deserve notice. At the south-east angle the stones are as a rule well dressed, with marginal drafts of very unequal width, but in some cases they are roughly dressed or have projecting faces, and occasionally the drafts are not carried right round the stones. At the Single Gate and "Great Passage" there is some reason for supposing the existence of a straight joint, whilst in the Tyropœon Valley the masonry for a height of 54 feet is of stones with rough projecting faces. One of the most marked features is the "Great Course,"

*The "Great Course,"* which, owing to the form of the ground, is the first that could have been carried through from end to end. There is, however, no trace of it west of the Double Gate, or at the south-west angle, where the stones are certainly *in situ*. It is hardly possible to believe that the builders of the wall west of the Double Gate would have neglected to carry the "Great Course" on to the south-west angle had it been in existence at the time, as, being on a level with the sill of the Double Gate, it would, if not carried on, have been an eyesore to every one entering the Temple by that approach; and if Herod were the builder of the south-west angle it is quite certain he would not have allowed his masonry to fall short of any previously in the wall. The "Great Course" may thus be of comparatively recent date. Another point for consideration is that from Wilson's Arch to the Triple Gate the courses of stone are, through-

out, nearly on the same level,\* and that the masonry appears to be of one construction, but when the south-east angle is reached there seems to be a distinct change in every respect. Unfortunately there was no complete examination of the wall between the south-east angle and the Double Gate, and its character must still to a great extent be matter of speculation.

Captain Warren believes the wall east of the Double Gate to be older than that to the west, and ascribes the former to Solomon, the latter to Herod; he appears to base his opinion on the position of the "Great Course" to the east, and not to the west of the Double Gate, and on the fact that "at the south-east angle, and at the Single Gate, we find the wall springing from the rock, with the faces nicely worked, while at the south-west angle, and for at least 213 feet to east of it, we find the stones up to a certain level with beautiful marginal drafts, but with rough picked faces."† There is no doubt that the older masonry of the south wall is of two if not three different periods, but the excavations do not enable us to say where one style of masonry ends and another commences. The "Great Course," as explained above, is possibly of late date; the shaft between the Double and Triple Gates did not reach the level of the rough-faced stones, and, in fact, the height of the rock at this point would not allow of their continuation so far to the east; the three courses which were uncovered correspond more nearly with those west of the Double Gate than with those at the south-east angle. At the Single Gate the wall was not seen, and the next shaft at the south-east angle shows a mixed style of masonry not found elsewhere.

The following view is put forward as a suggestion. The older masonry of the wall from Wilson's Arch to the Triple Gate belongs to one period of construction, and when it was built the south-east angle was standing as a separate tower, perhaps "the tower that lieth out," with sides about 105 feet long. At a later date, after the wall had been partially destroyed, there was a reconstruction, during which the

\* For instance, the level of the bottom of course E, which corresponds with the bottom of the "Great Course," and the level of course H.

	Wilson's Arch.		Barclay's Gate.		S. W. Angle.		Shaft III.		Shaft II.	
	ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.
E. ...	2,381	3½	2,380	10¾	2,380	3½	2,380	7¼	2,380	0
H. ...	2,370	1½	2,369	9	2,369	5½	2,369	11½	2,369	7
	Shaft I.		Shaft between Double and Triple Gates.				S. E. Angle.			
	ft.	in.	ft.	in.	ft.	in.	ft.	in.		
E. ...	2,380	0¾	2,380	0	2,378	5¼				
H. ...	2,369	8¾	2,369	0	2,367	5¼				

† "Recovery of Jerusalem," p. 122.

interval between the Triple Gate and the outlying tower was filled up, the "Great Passage" being left as a sort of drain, and the "Great Course" laid\* to mark at the same time the top of the hill and the floor of the vaults at the south-east angle.†

\* Procopius, in describing the Mary Church of Justinian, says that the fourth part of the ground required for the building was wanting towards the south and east; the builders therefore laid out their foundations at the extremity of the sloping ground, and raised up a wall until they reached the pitch of the hill; above this they constructed a series of arched vaults, by means of which they raised the ground to the level of the rest of the enclosure. Procopius also speaks of the immense size of the stones and of the skill with which they were dressed. This describes exactly what is found at the south-east angle: solid masonry to the level of the top of the hill under the Triple Gate, then vaults to raise the level to that of the area, and the "Great Course" to mark the *end* of the solid masonry.

† The following are the principal levels along and near the south wall:—

General level of Haram area ... ..	2,420	feet.
Spring of Robinson's Arch ... ..	2,387·5	"
Sill of Double and Triple Gates ... ..	2,380	"
Bottom of "Great Course" and floor of Solomon's Stables ... ..	2,380	"
Bottom of Great Course at south-east angle...	2,378·8	"
Sill of Single Gate ... ..	2,376·5	"
Top of rough masonry in Tyropœon ... ..	2,344	"
Rock 90 feet east of south-west angle ... ..	2,290	"
Rock 213 feet east of south-west angle ... ..	2,322·3	"
Rock under Triple Gate ... ..	2,378	"
Rock at south-east angle ... ..	2,277	"
Rock 18 feet west of the south-east angle ... ..	2,298·8	"
Rock in true bed of Kedron ... ..	2,171	"





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THE  
PALESTINE EXPLORATION FUND.

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NOTES AND NEWS.

At a Meeting of the Committee held on December 30th, 1879, the following resolution was unanimously passed :—

“That a letter of condolence be written to Mrs. Hepworth Dixon, expressing the deep regret of the Committee at the distressingly sudden death of their late chairman, and their appreciation of the constant and persevering attention, the tact and ability which he devoted to the service of the Fund.”

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At the same meeting of the Committee a letter was read from Colonel Wilson stating that he found it impossible to carry on the editorship of the Memoirs at such a distance from England, and with the cares and duties of his office as Consul-General in Anatolia. The Committee accepted his resignation, and invited Mr. E. H. Palmer, Lord Almoner's Professor of Arabia and Fellow of St. John's College, Cambridge, the explorer of the Desert of the Exodus, to take his place. Professor Palmer has accepted the invitation, and the Memoirs will be now edited by him and Major Anderson, C.M.G., R.E.

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At a meeting of the Committee, held on Jan. 6, 1880, Mr. James Glaisher, F.R.S., was elected Chairman.

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The Great Map of Western Palestine, in twenty-six sheets, is now being coloured, nearly the whole having been delivered by the Director-General of the Ordnance Survey. The first issue to subscribers will probably be made about the middle of April.

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The first volume of the Memoirs may be looked for in June. The following

volumes will be issued at intervals of about three months. Among the Memoirs will be included a report written specially for this work by Colonel Warren, of his excavations in Jerusalem, with illustrations, to which will be added a paper by Lieut. Conder, on the discoveries made in the city since his shafts were sunk.

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Another edition, unnumbered, will be issued of the Memoirs on smaller paper. This will be published, with the map, when the special edition is in the hands of subscribers, at the price of twenty guineas.

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A list of subscribers to the Great Map (without the Memoirs) has been commenced. Names may be sent to the Secretary. The maps will be sent out in order of entry. The subscription price is two guineas, carriage free. The sheets will be issued in a strong portfolio.

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The prospectus of future work will be found in the report of the meeting of the General Committee. It is recommended that expeditions be sent out to excavate on the supposed sites of Capernaum, Chorazin, Bethsaida, &c.; and to examine the eastern shores of the Sea of Galilee; to make a geological report on the Dead Sea and the Jordan Valley; to survey the whole of Eastern Palestine; to excavate in search of special points in Jerusalem, and at various places in Western Palestine; to explore the cities of the Negeb or southern country; to explore the Lebanon and North Syria as far as the "entrance of Hamath;" and to explore Midian.

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The Committee propose to carry out this programme by yearly expeditions which will cost from £1,000 to £1,500 each. The results will be published in their *Quarterly Statement*.

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In the July number of the *Quarterly Statement* we shall give Professor Palmer's transcriptions of all the Arabic inscriptions in the Cubbet es Sakhrāh, Masjed el Aksa, and Temple Area, with translations. These include the mosaics, inscriptions on the coloured glass windows, on the copper tablets over the doors, tablets, &c., recording the different restorations.

The collection contains also a number of *graffiti* in Hebrew and Kufic characters from "Solomon's Stables" and other places in the Haram Area.

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The papers on the "Colonisation of Palestine" in this number are published by kind permission of the proprietors of the *Jewish Chronicle*, in which they have appeared from time to time during the last quarter. The subject is one in which many subscribers to the Fund are deeply interested.

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A cheap edition of "Tent Work in Palestine" will be published in the

autumn. Its price will probably be seven shillings and sixpence. About fifty copies of the library edition still remain.

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Lieut. H. H. Kitchener, R.E., formerly one of the officers in charge of the Survey, Vice-Consul in Asia Minor under Colonel Wilson, has been appointed Surveyor-General of Cyprus.

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The income of the Fund from all sources, from December 22nd, 1879, to March 20th, 1880, was £648 4s. 11d. The general expenditure on rent, parcels, postage, printing, &c., during the same period has been £452 15s. 6d. The amount in hand at the Committee meeting of March 16th was £1,114 6s. 7d.

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It will be seen by the Report of the Executive Committee that a visit of exploration among the Biblical sites of the Delta was proposed in the autumn by the Rev. Greville Chester. A letter has been received from him dated Feb. 19th, in which he states that he was about to commence his journey.

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It is suggested to subscribers that the safest and the most convenient manner of paying subscriptions is through a bank. Many subscribers have adopted this suggestion. This method removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward the periodical to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

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The publications of the Society now in print are:—

1. The Recovery of Jerusalem. Third Thousand. 16/- to Subscribers.
2. Our Work in Palestine. Ninth Thousand. 3/6.
3. Tent Work in Palestine. Second Thousand. 17/6 to Subscribers.
4. The *Quarterly Statement*.

The second of these contains a popular account of the excavations in Jerusalem, with the reasons and aims of the work.

A few copies still remain of Lieutenant Kitchener's Guinea book of Biblical Photographs. It contains twelve views, with a short account of each. The views are mounted on tinted boards, and handsomely bound.

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Cases for binding the *Quarterly Statement* can be obtained of the Society's publishers, Messrs. R. Bentley and Son, at eighteenpence each. They are in green or brown cloth with the stamp of the Society.

The following are at present Representatives and Lecturers of the Society, in addition to the local Honorary Secretaries :—

Archdeaconry of Hereford : Rev. J. S. Stooke-Vaughan, Wellington Heath Vicarage, Ledbury.

City and neighbourhood of Manchester : Rev. W. F. Birch, St. Saviour's Rectory.

Lancashire : Rev. John Bone, St. Thomas's Vicarage, Lancaster.

London : Rev. Henry Geary, 16, Somerset Street, Portman Square.

Norwich : Rev. W. F. Creeny.

Suffolk : Rev. F. C. Long, Stow-upland, Stowmarket.

Peterborough : Rev. A. J. Foster, Farnish Rectory, Wellingborough.

Worcester : Rev. F. W. Holland, Evesham (Member of General and Executive Committee, and one of the Hon. Secretaries to the Fund).

Diocese of Ripon : Rev. T. C. Henley, Kirkby Malham Vicarage.

North Wales : Rev. John Jones, Pwllheli, North Wales.

Yorkshire, Durham, and the North : Rev. James King, St. Mary's Vicarage Berwick. Mr. King has recently returned from the Holy Land ; communications for lectures, &c., can be sent to the Office at Charing Cross.

SCOTLAND.—Rev. R. J. Craig, Dalgetty, Burntisland.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee beg it to be distinctly understood that these rest solely upon the credit of the respective authors, and that by publishing them in the *Quarterly Statement* the Committee neither sanction nor adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

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The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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## MEETING OF GENERAL COMMITTEE.

A MEETING of the General Committee was held at the Offices of the Society on Tuesday, March 16th. Mr. JOHN MACGREGOR in the chair.

The following Report of the Executive Committee was read and adopted:—

“MY LORDS AND GENTLEMEN,—Your Committee, elected at the last General Meeting, held on June 24th, 1879, have, on resigning their trust, to render to you an account of their administration during the months.

1. The registration of the Society under the Companies Acts of 1862 and 1867 has been since that day completed.

2. This meeting is called in accordance with the rule in Article 21 of the Articles of Association.

3. The Financial Statement, presently to be read to you, with a list of the assets and property of the Society, has been already sent to every member of the General Committee.

4. The balance in hand this day is £1,114 6s. 7d.; of this sum £186 5s. is on deposit account, being the amount paid on account of the proposed Galilee Expedition; £340 is on deposit account, being set aside to meet part of the cost of the small map; £257 7s. is on deposit account, being the amount as yet paid up for the special edition of the memoirs and map.

5. The large map is already printed and is now being coloured. The portfolios are in preparation. It will be delivered to subscribers in the course of a few weeks.

6. The engraving of the small map is finished in outline; the hill shading is progressing. It is expected that this map will be ready about the end of the year.

7. The American reconnoissance map of Eastern Palestine, in thirteen sheets, has also been photo-zincographed under the superintendence of the Director-General of the Ordnance Survey, and is now ready for issue.

8. The first volume of Memoirs is printed and will be issued as soon as the engravings and illustrations are ready.

9. Colonel Wilson having resigned his post as one of the Editors of the Memoirs, the Committee have invited Professor Palmer to undertake the work in his place. The Committee are happy to report that he has accepted the invitation.

10. The Large Paper Edition of 250 copies has been entirely taken up. About twenty names have been added to the list on the chance of copies falling in.

11. The Committee have resolved on issuing, as soon as the Special Edition is in the hands of subscribers, another edition on smaller paper at twenty guineas a copy, including the large map in twenty-six sheets.

12. The Committee have accepted an offer made by Mr. Greville Chester to undertake a journey of exploration among the Biblical sites

of the Delta while in Egypt. This journey, the cost of which will be trifling, has probably been already completed.

13. The Committee have to regret the loss of their Chairman, by his sudden death on December 26th, 1879.

14. At a meeting specially called for December 30th, it was resolved that a letter of condolence should be written to Mrs. Dixon expressing the deep regret of the Committee at this lamentable event, and their appreciation of the constant and persevering attention, the tact and ability which Mr. Dixon devoted to the services of the Fund during the three years and a half of his chairmanship.

15. At a meeting held on January 6th, the Committee proceeded to elect a successor. Mr. James Glaisher, F.R.S., was unanimously invited to accept that post.

16. The Committee have to express their gratification at the appointment of Dr. Barclay, for many years an active member of the General Committee, to the Bishopric of Jerusalem.

17. As regards the present position of the Society and its future work, it seems well now, as at the meeting of the General Committee of 1878, to recall the attention of the Committee to the original prospectus of the Society. Under the head of Archæology, this prospectus said:—

“Beyond the Holy City the country is full of sites which cannot fail amply to repay examination. Of these a few only may be enumerated:—Mount Gerizim, possibly the Moriah of Abraham’s sacrifice, certainly the Holy Place of the Samaritans, containing the stones which they allege to have been brought up by Israel from the bed of the Jordan—the Valley of Shechem, the earliest settlement of Jacob in the Holy Land, with his Well and the Tomb of Joseph—Samaria, with the traditional tombs of John the Baptist and others, and with the extensive remains of Herod’s edifices—the splendid Roman cities along the coast, Cæsarea of Herod and St. Paul—Antipatris—the once-renowned harbours of Jamnia and Gaza—the mounds and other remains of Jiljilieh, probably the Gilgal which contained the Great College of Prophets in the days Elijah and Elisha—the Fortress and Palace of Herod at Jebel Fureidis—the Tombs (probably those of Joshua) at Tibneh—the mounds at Jericho—the numerous remains in the Valley of the Jordan—Bethshean, one of the most ancient cities of Palestine, with remarkable remains of Roman, and probably still earlier, date—Jezreel, the capital of Ahab and Jezebel—the Assyrian mound, called Tel es Salhiyeh, near Damascus,” &c., &c.

The Survey of Western Palestine, now happily completed, affords a basis, then wanting, for carrying out these and many other points of examination. The map now in our hands will be our guide to further exploration and excavation. The special plans will suggest the best spots for work. Our increased knowledge of recovered and ascertained sites will prevent useless and tentative shafts. We not only know what to look for, but we now know where and how to look for it.



In the second section of the original prospectus, the Manners and Customs of the People, a good deal has been done by M. Clermont Ganneau, Lieut. Conder, Mr. Tyrwhitt Drake, and others.

In the third section, that of Topography, the Society has quite fulfilled its programme so far as Western Palestine is concerned. The Americans have executed a reconnoissance map of Eastern Palestine, but it has been found impossible to incorporate this map with our own exact survey. As a reconnoissance it adds considerably to our knowledge of the country, but it is only a preliminary, and not an accurate and exhaustive survey. Thus, while it has been issued separately, the Committee are advised that it cannot be reduced and engraved as part of their small map. What has been done for the west of the Jordan remains to be done for the east.

Of Geology and Natural Science almost the same words may be used as in 1865. Canon Tristram has undertaken a paper on this subject for the Memoirs of the Survey.

In 1878 the Committee recommended for the immediate work of the Society—

1. Publication of the Map.
2. Publication of the Memoirs.
3. Either an expedition to Galilee or one to the Dead Sea.

The publication of both Map and Memoirs is now fully provided for. It behoves the Committee, therefore, to proceed to their next work.

They recommend, as the best way of carrying out the objects of the Society, the dispatch of an exploring party every year, at a cost of about £1,000, each party to have definite instructions and special objects. Thus the following might be taken up:—

1. The Lake of Galilee, with excavations on the supposed site of Capernaum, Chorazin, Bethsaida, &c., and the eastern shores of the lake.

2. The Dead Sea and the Jordan Valley to be examined by a geologist.

3. The Survey of Eastern Palestine. The attention of the Committee has been specially drawn to this district. It is proposed that a pamphlet be drawn up on the subject, which shall set forth the desiderata and points of interest, Biblical and otherwise, in this hitherto unexplored and little-visited region.

4. Excavations in search of special points in Jerusalem. The return of Colonel Warren to England gives the Committee the benefit of his special advice as to Jerusalem.

5. Excavation and examination of some of the places mentioned in the original prospectus, such as Mount Gerizim, the Valley of Shechem, the Tomb of Joseph, Samaria, Cæsarea, Jamnia, Gaza, Jebel Fureidis, Tibneh, Bethshean, Jezreel, and some of the places discovered and planned by Lieuts. Conder and Kitchener.

6. The Negeb, or south country.

7. The Lebanon and North Syria.

8. Midian.

Lastly, the Committee have to acknowledge the services of those gentlemen who have acted as their honorary secretaries, and to express their best thanks for the trouble they have taken; the subscribers and donors of the Fund, who have had to wait in patience for the long-promised map, and to all who have aided them in their work."

The Financial Statement of the Executive Committee, as follows, was then read and adopted.

"The Palestine Exploration Fund having been incorporated by the Board of Trade for the purpose of being in a position to protect itself from piracy of its valuable copyrights, in accordance with the resolutions passed at the General Committee of June 24th, 1879, it becomes the duty of the Executive Committee to submit to the General Committee, in addition to the usual Statement of Receipts and Expenditure for the year 1879, a General Statement of the Assets and Liabilities of the Fund.

The Balance Sheet for the year ending Dec. 31st, 1879, will be found appended.

The subscriptions show some falling off, due mainly to the fact that the work of the year has been entirely office work. The expenditure of the year has been marked by the payment of all the outstanding debts. The printer's bill almost wholly covers the balance of unpaid accounts which appear on the balance sheet. The management expenses are £168 less than in the preceding year. The exploration expenses are limited this year to a few bills which had not been received in time to be paid last year, and to a grant made to Mr. Greville Chester in aid of a journey of exploration among the Biblical sites of Egypt.

The balance in hand at the end of the year was double that at the beginning.

The assets of the Society are as follows:

1. A valuable collection of ancient glass and pottery, including vases, lamps, etc., with inscriptions, casts, coins, and objects dug up during the excavations in Jerusalem, by Colonel Warren, R.E., and M. Clermont-Ganneau. The greater part of this collection is in the South Kensington Museum.

2. A large number of photographs. The negatives are with Messrs. Vincent Brooks and Co. The stock in hand for sale is with the agent, Mr. Edward Stanford.

3. The following copyrights:—

1. Recovery of Jerusalem. In this work the Committee went on the system of half profits with Messrs. R. Bentley and Son.
2. Our Work in Palestine.
3. Tent Work in Palestine.

These two books are the absolute property of the Committee; the latter being subject to a royalty paid to the author.

4. The *Quarterly Statement*, now in its twelfth year.



Major ANDERSON, C.M.G., R.E.  
 J. D. CRACE, Esq.  
 F. A. EATON, Esq.  
 JAMES GLAISHER, Esq., F.R.S.  
 GEORGE GROVE, Esq., D.C.L.  
 SAMUEL GURNEY, Esq.  
 Rev. F. W. HOLLAND.  
 Professor HAYTER LEWIS.  
 JOHN MACGREGOR, Esq.  
 WALTER MORRISON, Esq.  
 WILLIAM SIMPSON, Esq.  
 Rev. CANON TRISTRAM, F.R.S.  
 W. S. W. VAUX, Esq., F.R.S.  
 Lieut.-Col. WARREN, C.M.G., R.E.”

2. “That the Archbishop of York be the President of the Society; that Walter Morrison, Esq., be the Treasurer of the Society; that George Grove, Esq., and the Reverend Frederick Whitmore Holland be the Honorary Secretaries.”

3. “That the Executive Committee shall have power to fill up vacancies or elect additional members of its body by co-optation, not less than seven nor more than fourteen days’ notice having been given to each member of the said Committee of the name or names of the person or persons proposed to be so added, provided always that the number of the Executive Committee shall not exceed sixteen.”

4. “That the Executive Committee shall have power to accept the resignation of any member or members of the General or of the Executive Committees.”

5. “That the Executive Committee have power to fill up vacancies in, or to elect new members to, the General Committee to a number not exceeding five.”

The Chairman then stated that it had been the intention of the Treasurer to propose the election of Mr. Edward Atkinson, of Leeds, as a member of the General Committee. As Mr. Morrison was unavoidably absent from the meeting, the Chairman would himself propose Mr. Atkinson. He stated that during the existence of the Society this gentleman, their Honorary Secretary at Leeds, had raised for them the sum of nearly £600.

Mr. Glaisher seconded the proposal, and it was carried unanimously, the Secretary being instructed at the same time to convey the thanks of the Committee to Mr. Atkinson and Col. Cooke.

Mr. Glaisher then proposed that a vote of thanks be passed to Colonel Cooke, the Director-General of the Ordnance Survey, who was present at the meeting, for the kind assistance rendered to the Society by him and his Department. This was seconded by Mr. Henry Maudslay, and carried unanimously.

After a vote of thanks to the Chairman, the Committee adjourned until their next regular meeting in June.





## THE TYROPEON VALLEY.

THE accompanying plan, embracing part of the city of Jerusalem, between Christian Street on the west and Valley Street on the east, and between the slope of Sion south of David Street on the south and the Via Dolorosa on the north, has been constructed with a view of showing how the observations of the levels of the rock beneath the surface may be used for the purpose of obtaining general results serving to elucidate the ancient topography of the city.

The plan includes 56 actual observations of the rock, and is fairly representative of the kind of information obtained throughout Jerusalem, as the known points in other parts are, if anything, more numerous in comparison with the area—excepting always the ground immediately west of the Haram, where few measurements have been made—as appears on the plan published in the last *Quarterly Statement*.

The area in the present plan has, however, been selected because the accumulation of *debris* in this part of the city is greater than in almost any other part within the modern walls; and for this reason the observations of the rock have here given results of more importance than in other quarters of Jerusalem. By glancing the eye along the surface contour No. 2449, and then along the rock contour No. 2450, and observing the wide divergence between them, it is at once evident that a great alteration has taken place in the outline of the ground.

The only method by which general results can be obtained from isolated observations of level is by the use of contours, or lines of equal level, the tracing of which indicates the relative positions of the features of the ground. By this method Colonel Wilson has delineated the supposed outline of the present surface beneath the houses of the modern city; and Colonel Warren has employed the same principle in his plan of rock surface in the Haram Area. In the case of the present surface the number of observations is of course considerably larger than it has been as yet possible to obtain by soundings of the rock, taken in deep excavations, or under the foundations of houses, or in cistern mouths. The surface contours are consequently more accurately traced, but all contours are by nature merely approximations to actual surfaces, answering to the lines which in section may be drawn to indicate the supposed lie of the rock between known points.

It is not, however, on the known levels of the rock alone that the contours depend in the case of the present plan. They are controlled by two other considerations. In the first place by the surface levels and contours, for it is evident that the rock level must never be higher than the surface contour, except in cases where the rock is visible above the general surface. In the second place, the level of the floor of various vaults and cellars being known, it is practically almost certain that the rock in their vicinity does not occur at a level higher than that of these floors. These negative observations are often very useful in determining

the *superior* limit for the rock level, though they do not of course give an *inferior* limit.

In order more clearly to show the manner in which the contours may be traced, it may be useful to follow one line across the plan. The contour 2,450 feet above the sea may be taken as a good specimen, and is, in fact, the master contour of Jerusalem, running through the heart of the city from the north-east to the south-west angle.

This contour first appears on the present plan in the north-east corner, where a vertical scarp 20 feet high runs parallel to the Via Dolorosa on the north side of the street. Behind the Austrian Hospice there is a steep slope (from which we may fairly suppose the rock to be close to the surface), and the surface contour 2449 limits the deviation of our rock line on the south; all the ground farther south being here not more than 2,339 feet above the sea. On the north an observation occurs about 200 feet from the rock contour at a level 2477, thus confining the contour 2450 within a limit of about 70 feet north and south. As, however, the surface slope is much gentler to the north, the limit of deviation is probably in reality less.

The rock contour 2450 reappears on the west side of the valley which runs down south-east from the Damascus Gate, the bed of which has an accumulation of some 40 feet of *débris* above it. We have here three observations in a line east and west, showing an even fall of the rock of 36 feet in 150 feet. The farthest east of the three observations has a level 2453, thus limiting the position of our contour on the west, while on the east the surface contour 2449 occurs at a distance about 100 feet from our rock line, and an observation (2402) of the rock is obtained 10 yards east again.

These data practically limit the deviation of the rock contour 2450 at this point within about 20 feet east or west, and its direction southwards is controlled between the surface contour on the east and the observations (2455 and 2454) near the Via Dolorosa on the west.

Proceeding southwards to the street called *'Akabet et Takíyeh* (the next parallel to the Via Dolorosa) we find that the surface contour 2449 curves outwards to the east, and that an observation (2444) west of *et Takíyeh* shows rock above the ground. The rock contour therefore cannot here be far away from the surface contour, and its approximate direction is obtained by joining the point 2444 with the point 2477 at the top of the above-mentioned street, where also the rock is visible on the surface for a short distance; by dividing this distance of 350 feet proportionally (in the ratio 27 to 33) we obtain the point through which the contour should pass.

The next observation, in the street south of the last, agrees with the preceding determination. The rock contour is here confined between the observation 2457 on the west and the surface contour 2449 on the east—an extreme limit of 100 feet; and on the supposition of an uniform slope the limit of deviation is not greater than about 30 feet at most.



Within 50 yards of the last point the line of the contour, which here begins to deviate considerably from that of the surface contour, is fixed within a limit of about 20 feet—passing between two observations of the rock, 2470 on the north, and 2440 on the south, at a distance apart of about 100 feet. A section of the hillside, extending over a length of 200 feet, is here obtained by aid of the observed lie of the rock in a great cistern discovered in 1876, showing a uniform slope of about 1 in 5, and defining in a satisfactory manner the northern bank of the great valley now hidden beneath 50 feet of rubbish.

The rock contour 2450 now enters the area of the *Muristân* (the old Hospital of St. John), the surface of which, before the excavations undertaken by order of the German Government had been commenced, was an open field at a level about 2480 feet above the sea. The first observation (2438) gives the level of the rock under the south wall of the Church of St. Marie la Grande, where a rock-cut tomb (of Crusading date) was found in 1872. The next (2462), about 100 yards farther west, shows rock 15 feet below the surface. In connection with these we must take the observations close to the Holy Sepulchre Church, where, in the vaults of the southern courtyard, the rock is found 15 feet from the surface (2458). Under the belfry (2473) it is only 7 feet from the surface, and in Mount Calvary it is about 10 feet above the floor of the church (2490). From these and the other neighbouring observations it is clear that the church stands on the hilltop, and that the ground falls rapidly south of it. The contour which we are tracing therefore runs between the Holy Sepulchre Church and the south wall of St. Marie la Grande; and on the supposition of a uniform slope its position is limited to narrow bounds, as the slope is about 1 in 4.

It now becomes evident that the contour must again turn south, as there is an observation near the south-west angle of the *Muristân* of 2478, while all the observations farther west are at yet higher levels. The ancient Byzantine Chapel discovered in 1840 at the corner of Christian Street and David Street, has its floor 25 feet beneath the surface, and the level of the rock seems thus to be about 2470 in this place. On the east our contour is limited by the level of the rock in the magnificent tanks excavated in 1872-3, where the bed of the valley was laid bare to the rock at a depth of 50 feet below the surface. The rock was here found to be stepped down eastwards with a gentle fall, the mean level of the part measured being 2429.

Crossing David Street we obtain further indication of the rock levels. The two ancient towers, which are now built into the cistern of the Jewish Mission School, have their bases about 35 feet below the street. East of Dr. Chaplin's house there are also vaults below the street level, and at this point Colonel Warren obtained an observation (2449) at a depth of 34 feet beneath the surface, under the so-called Gemath Gate. The ground at the present day falls northwards from Dr. Chaplin's house to David Street at a slope of about 1 in 14; but the fall of the rock

from the so-called Gennath Gate to the great cistern in the Muristân is at a slope of 1 in 10.

Following our contour eastwards from the last point (2449) we find it controlled by another level (2457), where the thickness of *débris* is only 12 feet. The last point is 400 feet from the preceding, and between them the line is not well defined; but immediately east of the point 2457 we find the contour line almost absolutely fixed, the surface contour again approaching it, while four observations, at levels differing by nearly 50 feet, occur so close together as to give evidence of the existence of a precipitous slope or rocky scarp, which runs southwards until it becomes visible as a cliff some 20 feet high, facing the Haram opposite the south-west angle.

From the detailed account of this important contour the reader will be able to judge the manner in which the other lines of level have been traced. The general results may, however, be perhaps more clearly explained by means of sections of the ground. Three sections are accordingly given, one through the hill spur (east and west), a second along the valley bed (east and west), and a third across the valley and hill (north and south).

From these it will be evident that there is only a very small accumulation of *débris* on the hilltop, while the valley bed has been filled up nearly to a level with the higher ground, or to a depth of 50 feet in the middle.

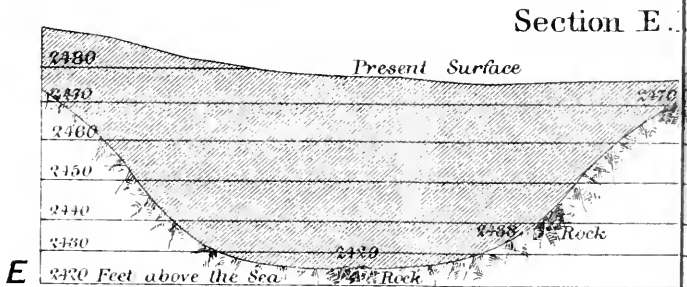
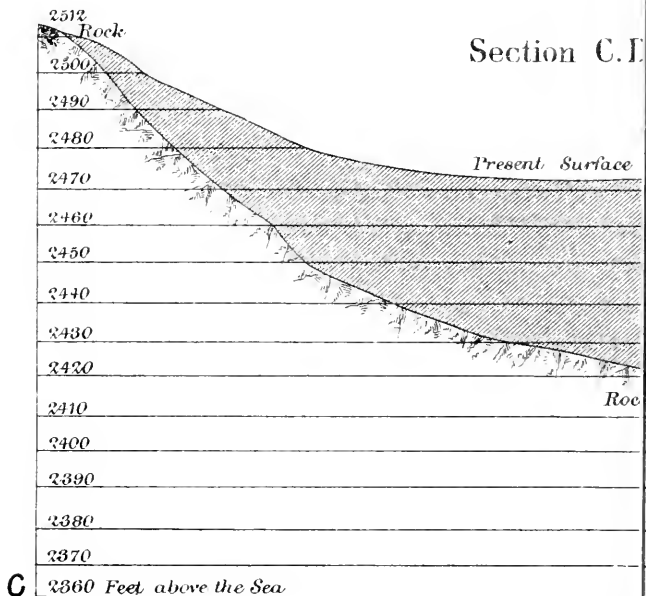
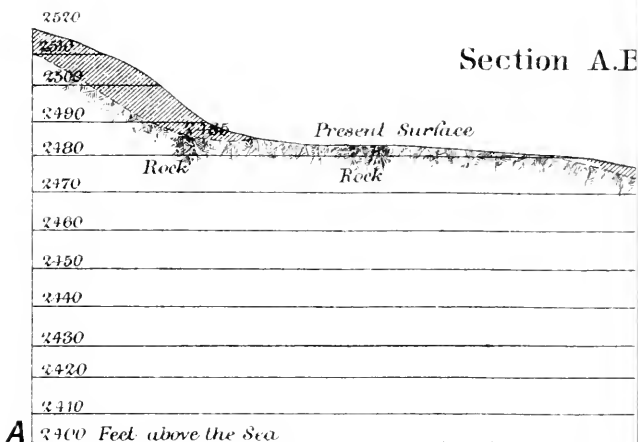
The surface outline in these sections is traced in accordance with the contours given on the Ordnance Survey; and, with regard to the rock outline, it should be noted that the line depends not only on the points marked *Rock*, where observations occur on the cutting line, but also on other intermediate observations near the cutting line, and thus on the rock contours of the plan.

Before the year 1872 scarcely anything definite was known with regard to the lie of the rock in the great valley delineated on the present plan. Colonel Warren excavated in the Muristân to a depth of 40 feet without finding rock. The contours show that it existed at probably 4 or 5 feet on the average beneath his trench. The small plan which he constructed (see "Recovery of Jerusalem," p. 303) shows the contour 2450 running approximately as it is now traced, but the great breadth of the valley was not as yet fully appreciated.

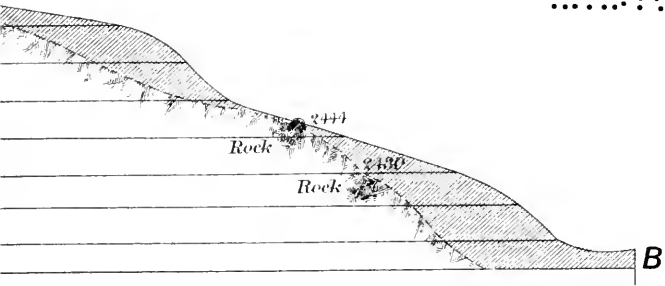
In 1872 the great cistern in the south-east portion of the Muristân was excavated, and the bed of the valley laid bare. In 1876 the discovery of another tank north-east of the Bazaars gave a valuable confirmation to the correctness of the contour lines previously traced; and although further observations would be of great interest, the main fact of the existence of a valley some 100 feet deep and 800 feet wide (north and south) may now be considered definitely proved.

It is interesting to compare our present information with the discussions of earlier writers by whom it would have been considered invaluable. In 1838 Dr. Robinson described the Tyropœon Valley as

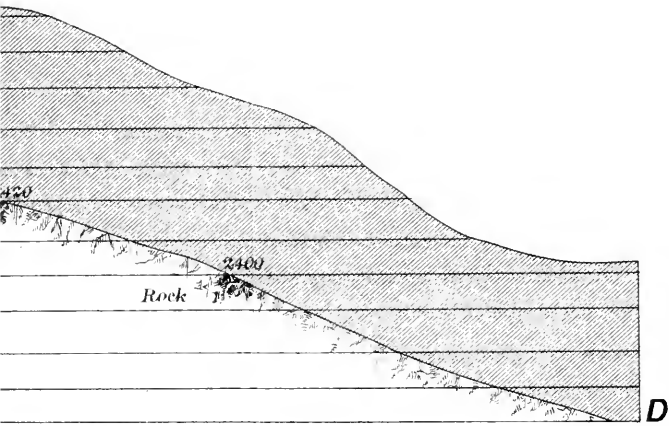




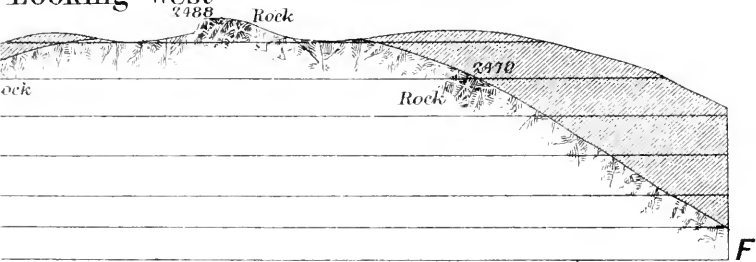
Looking North.



Looking North.



Looking West





commencing near the Jaffa Gate, and pointed out the fact that there was a descent northwards to David Street from the so-called Mount Sion ("Bib. Res." ii. 264). In 1849 Canon Williams writes: "I never could find any traces of the valley Dr. Robinson calls the Tyropæon" ("Holy City," ii. 29). In answer to this Dr. Robinson was only able to point out the level of the old chapel of St. John 25 feet below the street ("Later Bib. Res." p. 185).

The earliest attempt to restore on the ground the city of Jerusalem as described by Josephus, is that of Brocardus, who, writing in 1283 A.D., says of the valley under consideration: "The ravine is now itself quite filled up, but nevertheless shows signs of its former concavity." Brocardus had visited Jerusalem, and possibly was aware of the existence of the great tanks subsequently filled up. His description at all events now proves to be absolutely correct.

By denying the existence of this valley it became possible for the apologists of the traditional site of the Holy Sepulchre so to draw the line of the second wall as to pass entirely clear of the church on the east. It can hardly be now supposed that the city wall can have crossed the bed of so deep and wide a valley, leaving ground at an elevation 80 feet higher and only 100 yards to the west, on the outside. The determination of the contour of the valley thus forces us to remove the line of the second wall farther west, where a saddle of higher ground forms the head of the great valley.

The tracing of the rock also throws light on the description which Josephus gives of the ancient city, which was rendered obscure by reason of the filling up of the valley.

Josephus (*5 Wars*, iv. 1) speaks of the Tyropæon Valley as dividing the hill Akra from that of the Upper City, and describes Akra (which was separated from the Temple Hill by another valley) as being "gibbous" in shape (*αμφαίκυρος*), or like the moon in the fourth quarter. Nearly all authorities agree in placing Akra near the present Church of the Holy Sepulchre, and the gibbous shape of the spur on which that church stands is rendered conspicuous by the rock contours, but is not apparent from the surface contours. It will also be observed that a flat terrace is here formed with a steep slope on both the east and west (see Sect. A. B.), and it seems possible that this marks the artificial levelling of the Akra hill by the Hasmonæans, as twice described by Josephus.

The amount which would have been cut off supposing the original slope to have been uniform, is about 30 feet on the average, and if, as seems not improbable, there was here originally a knoll of higher ground, the amount cut down would have been yet greater.

The rock contours have been traced all over Jerusalem (as shown in the small plan published in "Tent Work in Palestine"), but with exception of the Haram Area there is no part of the city where the results of a study of the original surface appear to be so interesting and instructive.

C. R. C.

## REGISTER OF ROCK LEVELS, JERUSALEM.

## REMARKS.

1. THIS register includes all the recorded observations up to the present date—total 265. Those marked (O), 22 in all, are taken from the Ordnance Survey Notes and Plan, dating 1864-5. Those marked (W), 76 in number, were taken by Captain Warren in 1867-70, as noticed in the "Recovery of Jerusalem." Those marked (S), 139 in all, were collected by Herr Conrad Schick, in 1872. They are mainly the results of excavations for the foundations of houses. Those marked (C), 27 in all, were observed by Lieut. Conder in 1872-5.

2. The levels depend on, and are referred to, the surface levels marked on the Ordnance Survey.

3. Negative results of value have also been obtained, as noticed in the works above mentioned. In 1872 all the chambers under the platform of the Dome of the Rock on the south and west were entered by Lieut. Conder. No rock was found in them, the general floor-levels being 2420 feet above the Mediterranean.

No.	Position.	Level above the Mediterranean.	Depth below surf. of ground.	Authority.	Remarks.
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## INTERIOR OF HARAM.

1	Highest crest of <i>Sakhrah</i> ...	2440	...	O	5ft. 3in. above floor.
2	Dome of the Rock 100 ft. E. of last ...	2432	3	C	Excavated, 1874.
3	<i>Kubbet el Ar.rah</i> ...	2435	...	C	Surface.
4	E. wall of platform 180 ft. N. of steps ...	2421	...	C	1ft. above base of wall.
5	E. wall of platform 80 ft. N. of last ...	2423	...	C	4ft. above base of wall.
6	Flat rock 50 ft. E. of last ...	2419	...	O	Surface.
7	Flat rock 120 ft. S. of S.E. corner of platform ...	2420	...	O	Surface.
8	N. wall of platform 50 ft. E. of top of N.W. stairs ...	2432	...	C	2ft. above surface.
9	Flat rock N. of N.W. stairs...	2430	...	O	Surface.
10	Top of rock scarp, E. wall of chamber No. 21 ...	2433	2	C	Examined, 1872.
11	Bottom of ditch (rock falling W. 30°) ...	2425	9	W	Recov. Jer., p. 214.
12	<i>Kubbet el Khale</i> floor ...	2426	...	C	Surface.
13	E. side of N. door of last ...	2428	...	C	2ft. above surface.
14	N.W. corner outside same ...	2425	...	C	Surface.
15	Flat rock N.W. corner of Haram ...	2425	...	O	Mean surface.



No.	Position.	Level above the Mediterranean.	Depth below surf. of ground.	Authority.	Remarks.
16	Highest point (at steps) of scarp in N.W. corner of Haram ... ..	2462	...	S	30ft. above interior.
17	E. end of same scarp ... ..	2432·5	...	S	13½ft. above interior.
18	Scarp on W. Haram wall, highest point 80 ft. N. of <i>Bâb es Serai</i> ... ..	2447	...	S	7ft. above interior.
19	S. face of same scarp at window in Haram wall S. of last	2434	...	C	3ft. above interior (1873)
20	Under-sill of Triple Gate ... ..	2378	1	W	Recov. Jer., p. 230.
21	W. wall of passage 60 ft. N. of outside line of Triple Gate	2388	...	W	Surface of floor.
22	W. wall 130 ft. N. of last ... ..	2396	...	W	3ft. above floor.
23	Cistern No. 1... ..	2427	12	W	Recov. Jer., pp. 206-217
24	„ No. 2... ..	2429	6	W	
25	„ No. 3... ..	2426	9	W	
26	„ No. 4... ..	2417	18	W	
27	„ No. 5, N.W. end ... ..	2425	10	W	
28	„ „ S.E. entrance	2408	8	W	
29	„ No. 6... ..	2410·5	5·5	W	
30	„ No. 7, average ... ..	2411	5	W	
31	„ No. 8, average ... ..	2411	5	W	
32	„ No. 9... ..	2400	15	W	Doubtful, p. 208.
33	„ No. 10 ... ..	2387	31	W	
34	„ No. 11 ... ..	2397	19	W	
35	„ No. 12 ... ..	2406	...	W	Surface.
36	„ No. 13 ... ..	2409	...	W	Surface.
37	„ No. 14 ... ..	2409	...	W	Surface.
38	„ No. 15 ... ..	2393	15	W	
39	„ No. 18 ... ..	2414	4	W	
40	„ No. 22 ... ..	2416	4	W	
41	„ No. 23 ... ..	2429	...	W	Surface.
42	„ No. 25 ... ..	2416	20	W	
43	„ No. 28 .. ..	2412	3	W	
44	„ No. 29, top of scarp... ..	2419	10	W	
45	„ No. 31 ... ..	...	...	...	Doubtful.
46	„ No. 34 ... ..	2431	4	W	
47	„ No. 35 ... ..	2429	6	S	
48	„ No. 36 ... ..	2411	5	C	

## OUTSIDE HARAM WALLS.

49	W. Haram wall at Wilson's Arch ... ..	2339·75	82·25	W	Recov. Jer., p. 81.
50	West pier (42 ft. W. of last)... ..	2347·25	75	W	
51	W. Haram wall, Tyropeon bridge ... ..	2325	62	W	„ p. 104
52	Prophets gate 14 ft. W. of wall	2320	90	W	„ p. 114.
53	„ 7 ft. N. of N. jamb	2320	74	W	„ p. 115.
54	<i>Hammâm es Shefa</i> , S. end ... ..	2339	80	O	
55	Rock surface at S. end of Aqueduct from Twin Pools (channel 2406 at bottom)... ..	2409	22	C	Measured 1873.

No.	Position.	Level above the Mediterranean.	Depth below surf. of ground.	Authority.	Remarks.
56	S. Haram wall 90 ft. E. of S.W. angle ... ..	2289	85	W	Recov. Jer. p. 97.
57	S. Haram wall 213 ft. E. of S.W. angle ... ..	2322	52	W	
58	S. Haram wall 14 ft. S. of Single Gate ... ..	2334	35	W	„ p. 132.
59	S. Haram wall, S.E. angle, falls E. 1 in 9 ... ..	2277	80	W	
60	S. Haram wall 16 ft. W. of last ... ..	2287	73	W	„ p. 138.
61	E. Haram wall 15 ft. N. of S.E. corner... ..	2287·5	70	W	„ p. 149.
62	E. Haram wall 18 ft. N. of S.E. corner... ..	2298·8	60	W	
63	E. Haram wall 41 ft. N. of S.E. corner... ..	2279	80	W	„ p. 147.
64	E. Haram wall 162 ft. N. of S.E. corner... ..	2312	70	W	„ p. 151.
65	Golden gate S. jamb ... ..	2360	33	W	„ p. 97.
66	N.E. tower of Haram S. side	2293·2	112	W	Estimated. Recov. Jer. p. 183.
67	„ „ 200 ft. E.	2317	30	W	„ p. 176.
68	„ „ 135 ft. ... ..	2317	47	W	Falls S. 1 in 4.
69	N.E. angle of Haram 100 ft. E. of wall ... ..	2341	64	W	Recov. Jer. p. 178. A little N. of next.
70	N.E. angle of Haram 97 ft. due E. of wall ... ..	2337	59	W	Recov. Jer. p. 180.
71	E. wall of Haram 18 ft. S. of N.E. angle... ..	2330	74	W	„ p. 181.
72	Outlet of <i>Birket Israil</i> ... ..	2344	60	W	Estimated.
73	72½ ft. S. of No. 66 ... ..	2282	120	W	
74	45 ft. „ „ ... ..	2289	115	W	
75	61 ft. „ „ (rising N.)	2278	125	W	Greatest depth, p. 187
76	104 ft. „ „ (rising S.)	2289	115	W	

## MOSLEM QUARTER OF CITY.

77	256 ft. E. of <i>Báb Sitti Miriam</i>	2370	21	W	Recov. Jer., pp. 174-177
78	162 ft. „ (scarp 20 ft. high)	2379	30	W	Top of scarp.
79	109 ft. „ (rising W. in steps)	2388	23	W	
80	43 ft. N. of „	2400	19	W	
81	34 ft. S. of „	2390	20	W	
82	78 ft. „ „	2377	33·5	W	
83	Outside Ch. of St. Anne ... ..	2410	...	W	Surface, p. 193.
84	N.W. corner of <i>Birket Israil</i>	2363	15	W	p. 189.
85	53 ft. E. of last ... ..	2344	30	W	
86	Cistern 33 ft. W. of <i>Tarik Báb Hitta</i> , 61 ft. N. of <i>Tarik Báb Sitti Miriam</i> ... ..	2385	36	W	p. 195.
87	Top of <i>'Akabeb et Taktyeh</i> ... ..	2477	...	C	Above surface.
88	Ecce Homo arch ... ..	2436	9	O	

No.	Position.	Level above the Mediterra- nean.	Depth below surf. of ground.	Authority.	Remarks.
89	W. of St. <i>el Wad</i> at Catholic Armenian Monastery ...	2378	40	W	Scarped on W. and N. Recov. Jer., p. 231.
90	Scarp over Cotton Grotto ...	2524	...	O	Average.
91	400 ft. W. of <i>Bâb ez Zahrah</i> ...	2520	...	O	"
92	N.E. corner of city highest point of scarp ...	2474	..	O	Base of city wall.
93	E. side of <i>Tarik Bâb el 'Amâl</i> 60 ft. N. of <i>'Akabet Sh. S'ad</i> ...	2420	35	S	
94	W. end of Arch in alley E. of N. end of <i>Sâk el 'Attarin</i> close to B. M. 2472.5 ...	2470	...	S	Surface.
95	At arch E. of last ...	2457	10	S	
96	N. end of vault S.W. of last ...	2440	30	S	Discovered 1876.
97	S. " 120 ft. S. of last ...	2420	50	S	" "
98	N. side of street 180 ft. E. of last ...	2400	45	S	Surface marked 2445 on O.S.
99	N.E. of arch 60 ft. S. of last ...	2400	45	S	
100	Corner of <i>Sûk el Kattanin</i> and <i>el Wad</i> ...	2390	10	S	
101	80 ft. N. of <i>Bâb el Hâdid</i> in N.W. corner of court ...	2365	35	S	
102	100 ft. S. of <i>el Taktyeh</i> ...	2430	7	S	
103	W. of last, S.W. of <i>el Taktyeh</i> ...	2444	5	S	
104	"House of Dives" point 2412 O.S. ...	2360	52	S	
105	W. of last 130 ft., N. side of Via Dolorosa ...	2374	50	S	
106	S. of B.M. 2420.6, 17ft. W. of No. 89 ...	2400	17½	W	Recov. Jer., p. 231.
107	Opposite French Consulate on E. ...	2402	45	S	Foundation.
108	N. side Via Dolorosa under wall of Austrian Hospice opposite Armenian Catholic Monastery ...	2420	5	S	
109	W. end of scarp N. of Via Dolorosa ...	2440	5	C	Measured, 1874.
110	E. end of same scarp in chapel of Sisters of Zion ...	2456	...	S	The scarp is about 20ft. high (see No. 88).
111	Scarp at N. end of Twin Pools ...	2454	10	S	Scarp 37ft. high.
112	" S. " " " ...	2458	...	S	Surface of Barracks.
113	Rock bottom of Twin Pools on S. ...	2400	48	S	The S. scarp is 58ft. high
114	Rock bottom of Twin Pools on N. ...	2417	50	S	W. side of pool rock, 2410 to 2420.
115	Arch in <i>Tarik Bâb ez Zahrah</i> , N. of B.M., 2479.1 ...	2474	12	S	
116	Second arch, 100ft. N. of last ...	2489	...	S	Surface.
117	<i>Tarik Sh. Rihân</i> E. of English Consulate, opposite B.M., 2489.6 ...	2477	12	S	

No.	Position.	Level above the Mediterra- nean.	Depth below surf. of ground.	Authority.	Remarks.
118	Corner of same street, 50 ft. E. of B.M., 2442·1 ...	2400	40	S	
119	150 ft. N. of B.M. 2462, which is opposite Austrian Consulate ... ..	2471	7	S	
120	E. side of street N. of <i>el Mala- wiyeh</i> ... ..	2503	3	S	
121	N. of last 50 ft. S. of B.M. 2525·2 ... ..	2504	2	S	
122	100 ft. W. of B.M. 2525·2 at 2502 ... ..	2503	...	S	1ft. above surface.
123	N. side of <i>Hârat Bâb Hitta</i> 80 ft. W. of B.M. 2501·6...	2496	8	S	
124	Alley N. of last, W. of point 2508 ... ..	2498	10	S	
125	In garden 200 ft. N. of last...	2522	...	S	Surface.
126	N. side of <i>Hârat Bâb Hitta</i> 150 ft. E. of <i>Tarik Bâb ez- Zahrah</i> ... ..	2497	6	S	420ft. S. of N. city wall.
127	Corner of <i>Sikket Deir el 'Adas</i> 100 ft. S. of Madeleine Church ... ..	2474	6	S	
128	Same street, corner N. of Madeleine Church, near point 2483 ... ..	2487	...	S	4ft. above surface.
129	Opposite B.M. 2450·9 at 250 ft. S. of, and 500 ft. W. of city walls ... ..	2446	5	S	
130	At 80 ft. S. of B.M. 2468·4 and 180 ft. W. of city wall	2440	20	S	
131	' <i>Akabet Abu Waly</i> near point 2441 ... ..	2399	35	S	
132	At 50 ft. E. of arch in <i>Sikket Deir el 'Adas</i> in buildings between ' <i>Akabet Abu Waly</i> and ' <i>Akabet Sh. Hasan</i> ...	2457	6	S	

## JEWISH QUARTER OF CITY.

133	Surface of scarp opposite Haram ... ..	2430	...	O	General level.
134	At W. pier Tyropæon Bridge 41½ ft. W. of Haram wall	2345·5	42	W	Recov. Jer., pp.95—99.
135	285 ft. W. of Harara wall same line as last ... ..	2379·5	21	W	
136	250   "   "   "   "   "	2388·6	18	W	
137	216   "   "   "   "   "	2377·5	32	W	
138	182   "   "   "   "   "	2383·5	22	W	
139	132   "   "   "   "   "	2369	30	W	
140	92   "   "   "   "   "	2354·5	40	W	
141	Corner 180 ft. N. of W. wall of German Jewish Hospital	2451	45	S	
142	N. wall, same hospice ...	2436	10	S	
143	<i>Hârat el Mastah</i> , S. end, W. side of street ... ..	2454	36	S	
144	Same street, 60 ft. N. of last	2452	38	S	

No.	Position.	Level above the Mithorfa- near	Depth below sur- face of ground.	Authority.	Remarks.
145	Corner, 90 ft. S. of N. wall of synagogue, No. 53 (O.S.)...	2460	36	§	
146	80 ft. W. of last ... ..	2455	44	§	
147	Under synagogue No. 58 (O.S.) ... ..	2497	2	§	
148	N. of last by point 2508 on E. side <i>Hârat el Jawâny</i> ...	2480	25	§	
149	Under large synagogue, No. 57 (O.S.) ... ..	2476	17	§	
150	W. of arch in <i>Hârat el Ychâd</i> , near synagogue, No. 47, (O.S.) ... ..	2468	30	§	
151	<i>Hosh Nammer</i> , middle of street on N. side ... ..	2472	30	§	
152	In alley S.W. of Caraité Syna- gogue, near point 2497 ... ..	2477	20	§	
153	Synagogue No. 48 (O.S.), S.E. corner ... ..	2464	34	§	
154	Synagogue No. 48 (O.S.) N.E. corner ... ..	2465	30	§	
155	Synagogue No. 48 (O.S.) N.W. corner ... ..	2475	25	§	
156	Steps in <i>Hârat el Meidân</i> , S. of northern arch ... ..	2412	35	§	
157	Corner S. of last ... ..	2427	32	§	
158	150ft. W. of last, near No. 6 (O.S.) ... ..	2457	12	§	
159	<i>Hârat el Meidân</i> , E. side, N. end of third arch from Temple street ... ..	2456	3	§	
160	At 70ft. E. of last ... ..	2409	40	§	
161	Wall west of Wailing place...	2323	70	§	
162	Gennath Gate (so-called) ...	2449	34	W	Recon. Jour., p. 276.

## ARMENIAN QUARTER.

163	N.W. angle Protestant Bishop's Palace ... ..	2500	40	§	
164	E. wall do. ... ..	2510	30	§	
165	N.E. angle Bible warehouse	2520	20	§	
166	W. wall English church ...	2512	38	§	
167	N.W. angle do. ... ..	2509	41	§	
168	S.W. corner courtyard, do. ...	2521	22	§	
169	N.W. corner of school, S. of church ... ..	2515	28	§	
170	S.W. do. ... ..	2536	10	§	
171	Cistern in barracks S. of castle	2537	7	§	
172	David-st. S. side, E. end of arch E of Christian-st. ...	2478	40	§	
173	Cistern N.E. corner of Ar- menian convent garden ...	2527	17	§	
174	Cistern 100ft. S. of last ...	2520	24	§	
175	Cistern 80ft. S. of last ...	2517	22	§	

No.	Position.	Level above the Mediterra- nean.	Depth below sur- f. of ground.	Authenticity.	Remarks.
176	Corner of <i>Hārat Dvires Suriān</i> N. of B.M. 2505·5 ...	2485	25	S	S. side of Mission Hos- pital.
177	W. end of alley S. of Syrian convent ... ..	2492	29	S	
178	S. side of same alley near point 2512 ... ..	2492	20	S	
179	W. corner of arch in front of synagogue No. 60 (O.S.) ...	2515	20	S	
180	<i>Hārat el Jaurāny</i> , E. side point 2505 ... ..	2492	13	S	
181	<i>Hārat el Armen</i> , S.W. corner of southern arch ... ..	2529	16	S	400ft. N. of S. city wall.
182	Cistern 100ft. N.W. of <i>Bāb en</i> <i>Neby Dāwūd</i> ... ..	2516	11	S	
183	Cistern 50ft. N.W. of last ...	2518	10	S	
184	S. wall of building E. of B.M. 2490·8 ... ..	2499	10	S	E. of <i>Hārat Bāb. Neby</i> <i>Dāwūd</i> .
185	<i>Tarik Bab en Neby Dāwūd</i> , 50ft. S. of southern arch, W. side ... ..	2484	20	S.	
186	At 100ft. S.W. of last ...	2510	20	S.	

## CHRISTIAN QUARTER.

187	Church of Holy Sepulchre, Tomb of Nicodemus ...	2485	...	C	Possibly higher.
188	Church of Holy Sepulchre, Chapel of Adam ... ..	2490	...	C	N.B. Floor of the Cal- vary Chapel, 2494.
189	Church of Holy Sepulchre, N. of Latin Chapel ...	2479	...	C	
190	Church of Holy Sepulchre, N.W. corner, S. courtyard	2473	7	S	
191	Church of Holy Sepulchre, in front of Convent of Abraham	2458	18	S	
192	Church of Holy Sepulchre, West door ... ..	2495	8	S	Top of ridge.
193	Church of Holy Sepulchre, S.E. corner of courtyard, above Chapel of Helena ...	2480	...	S	Surface.
194	Excavation No. VI. O.S. ...	2470	7	O	Excavated 1864.
195	<i>Kala't Jalūd</i> S. side ... ..	2580	...	O	Surface.
196	" city wall, N. of	2576	4	W	Recov. Jer., p. 235.
197	" 140ft. N. ... ..	2470	...	O	Average surface.
198	Outside city wall, 700ft. N.E. of <i>Kala't Jalūd</i> ... ..	2527	...	O	Surface.
199	Corner of <i>Hārat Istambuliyeh</i> 250ft. E. of <i>Kala't Jalūd</i> , by Convent of St. Basil ...	2567	5	S	
200	N. wall Latin Convent (180.S.)	2549	10	S	
201	<i>Hārat Istambuliyeh</i> , founda- tions of Convent of St. Theodore ... ..	2565	...	S	Surface.

No.	Position.	Level above the Mediterranean.	Depth below surf. of ground.	Authority.	Remarks.
202	W. of same street, 80ft. N. of Convent of St. Demetrius	2537	8	S	Approximate.
203	Latin Patriarchate N.E. angle	2549	...	S	
204	Latin Patriarchate, 50ft. E. of last ... ..	2557	13	S	
205	Latin Patriarchate, W. wall, 100ft. from N. W. angle ...	2534	14	S	Doubtful.
206	Ch. of St. Saviour, under floor	2532	20	S	
207	<i>Harat el Warāyich</i> , 140ft. N.E. of last ... ..	2553	3	S	
208	Grounds of Patriarchate, S.E. corner ... ..	2553	12	S	
209	At 50ft. N. of B.M. 2563 ...	2553	10	S	
210	100ft. W. of Greek Catholic Convent ... ..	2522	20	S	
211	W. side of <i>Hārat Istambūlyeh</i> , between St. Demetrius and Greek Catholic Convent ...	2525	12	S	
212	Greek Catholic Convent (11 O.S.) ... ..	2523	17	S	
213	Pool of the Bath, middle of N. side ... ..	2512	...	S	Surface.
214	„ „ W. side ...	2510	9	S	
215	„ „ S.W. corner	2500	20	S	
216	Mediterranean Hotel, S.W. corner ... ..	2494	32	S	
217	German shop, N.W. corner, 70ft. N.W. of last... ..	2494	32	S	
218	100ft. N.W. of W. door H. Sep. Ch. ... ..	2500	15	S	
219	N. of Holy Sep. Ch. S.W. of <i>Khankah</i> ... ..	2479	30	S	
220	<i>Muristān</i> N.W. corner 60ft. S. of Minaret <i>Jāmi' el 'Omary</i> ... ..	2462	54	S	
221	Ch. of St. Mary Magna S.E. corner ... ..	2438	31	S	Tomb under wall in rock.
222	Cistern mouth, 120ft. N. of S.E. corner of <i>Muristān</i> ...	2426	53	C	
223	Bottom of large cistern S.W. of last ... ..	2429	50	S	Visited by Lt. Conder, 1872. Rock stepped and falling E.
224	Corner of Via Dolorosa and <i>Khan ez Zeit</i> , B.M. 2464.9	2465	...	C	
225	House W. of German Hospice of St. John ... ..	2488	...	S	
226	Corner of <i>Khôt el Khankah</i> , and <i>'Akabet el 'Asafir</i> ...	2487	...	S	Surface.
227	50ft. N. of entrance to German Hospice ... ..	2455	13	S	
228	E. of <i>'Akabet el 'Asafir</i> , 40ft. N.E. of No. 226 ... ..	2484	...	S	Surface.
229	In front of Damascus Hotel... ..	2437	24	S	
230	N. wall .. ..	2453	13	S	

No.	Position.	Level above the Mediterranean.	Depth below surf. of ground.	Authority.	Remarks.
231	W. of last, 70ft. from <i>Tarik Bib' el'Amil</i> ...	2470	15	S	
232	<i>'Akabet el Batikh</i> , W. of point 2494 ...	2489	5	S	
233	Between last and Convent of St. John Euthymius, N. of B.M. 2501·8 ...	2497	7	S	
234	Corner opposite St. John Euthymius on north ...	2486	20	S	
235	N. of Khankah, E. of Deir es Seiyideh, and of Street ...	2477	30	S	
236	Spanish consulate, N. wall...	2487	13	S	
237	E. end of second alley, N. of last at point 2484 ...	2464	20	S	
238	E. end of next alley, N. of last at point 2482 ...	2472	10	S	
239	N. side of same alley ...	2483	8	S	Surface.
240	Jew's House of Industry, B.M. 2490 ...	2482	8	S	
241	E. end of alley opposite No. 238	2480	12	S	
242	Open ground near city wall, 50ft. N.W. of point 2501...	2483	18	S	
243	150ft. S. of last, in street, 100ft. N. of B.M. 2502·1 west of point 2499...	2494	5	S	
244	W. side of winding street 80ft. N.E. of last ...	2487	15	S	
245	Corner of House 100ft. W. of B.M. 2517·2, which is on corner N.W. of Greek Convent of St. Catherine ...	2517	12	S	

## OUTSIDE THE CITY.

246	240ft. E. of S.E. angle of Haram (bed of the Kedron Valley) ...	2171	38·5	W	Reco. Jer., p. 97. The rock was traced 175ft. W.
247	Golden gate 133ft. E. of S. side of gate, rock rising W. 1 in 4 ...	2312	30	W	Reco. Jer., p. 154.
248	Cenaculum, N. end of courtyard ...	2504	15	S	
249	„ middle S. wall...	2479	30	S	
250	„ at cross roads, 50ft. W. ...	2465	25	S	
251	Rock tower foundation under Protestant School on Sion	2483	...	C	Scarp is 36ft. high, 9ft. above passage.
252	Rock platform W. of last ...	2447	31	C	
253	Scarp S.E. of tower (top) ...	2485	...	C	Average.
254	Outside school washhouse on E.	2472	...	C	Surface.



No.	Position.	Level above the Mediterra- nean.	Depth below surf. of ground.	Authority.	Remarks.
255	Back of shoemaker's shop, N. of last ... ..	2467	42	C	For these observations, 250—259, see Lt. Con- der's plan of this scarp.
256	N. end of scarp, N. of tower	2480	...	C	10ft. above surface in cemetery.
257	Tower in S.E. corner Protes- tant cemetery (top of scarp)	2480	...	C	
258	Bottom of same scarp ...	2435	35	C	
259	Scarp running N.E. from last	2500	...	O	Surface.
260	Cistern opposite last on S.E.	2480	...	O	Surface.
261	Rock 400ft. S.W. of No. 250	2380	...	O	Surface.
262	„ 400ft. S. of last ...	2350	...	O	Surface.
263	Scarp 200ft. W. of Pool of Siloam (top) ... ..	2200	...	O	Surface.
264	Scarp 300ft. E. of pool ...	2160	...	O	Surface.
265	Scarp 500ft. N. of Aceldama	2180	...	O	Surface.

CLAUDE R. CONDER, LIEUT., R.E.  
Nov. 1st, 1879.

## NOTES ON COLONEL WILSON'S PAPER ON THE MASONRY OF THE HARAM WALL.

### I. *Dressing of the Drafted Masonry.*

The peculiar dressing of the Haram masonry—which is not mentioned in Colonel Wilson's paper—seems to be worthy of notice. The eight-toothed chisel described by Colonel Warren (Recov. Jer. p. 138) was used in two directions at right angles, making a regular criss-cross pattern. This dressing has been found at the south-east angle in the courses near the base of the wall, and it has also been specially noted, 1st, on the stones of the Master Course; 2nd, on those at the Wailing Place; 3rd, at the south-west angle; 4th, on the voussoirs of the Tyropœon bridge. This dressing distinguishes the finished masonry of the Haram from other drafted masonry of later date. The stones in the wall east of the Holy Sepulchre, for instance—supposed by Du Vogüé to be part of the *propylæa* of Constantine's great Basilica—are finished almost as finely as the Haram stones, but have no criss-cross dressing. The inferior Byzantine drafted masonry (as for instance in Justinian's Church on Gerizim) is dressed with a toothed chisel used in various directions, but the regular criss-cross pattern of the Haram work is never found on it.

On the supposition contained in Colonel Wilson's paper this dressing would have been first used by Nehemiah, and four centuries later by Herod, and again six centuries later by Justinian, a result which it seems difficult to adopt without hesitation. As far as our information yet goes it appears that the method of dressing masonry is as a rule very

distinctive of the period to which the masonry belongs. Possibly, then, all the stones with criss-cross dressing may belong to one period

The present arch of the Tyropæon bridge seems, as Colonel Wilson points out, plainly attributable to the time of Herod the Great, and the voussoirs, as above said, are all dressed criss-cross, like the stones round them. I would suggest that it is possible that the more ancient masonry of the Temple Area was removed by Herod, who "took away the old foundations" (Ant. xv 11. 3) and built the cloisters "from the foundation," (Wars i. 21. 1).

### II. *Dressing of the Byzantine Masonry.*

The large plain masonry which stands immediately above the drafted stones is found in many parts of the Haram occurring in connection with round arches having this special characteristic, that the keystones are very narrow and that the voussoirs graduate in width to the haunches where the proportions are more cubical. The size, shape, and dressing of these stones, together with this peculiarity of the arches, are architectural features which occur throughout Palestine in the interiors of Byzantine convents between the fourth and seventh centuries. In earlier Roman work the voussoirs are of even width, as in the aqueducts at Cæsarea; and the style of building described seems distinctive of Byzantine period. For this reason it would appear that Wilson's Arch, which consists of voussoirs so graduated, cannot probably date earlier than the Byzantine period. The same kind of vaulting occurs in the passages from the Double and Triple gates in the roofs of Cisterns Nos. 1 and 3, and in the passage from the Prophet's Gate. The walls and vaults (where not of later construction) in the Twin Pools present the same peculiarities in the proportions and finish of the stones and in the vaulting. The dressing is with a toothed chisel used irregularly, and the finish is generally coarse and uneven when compared with the Crusading work, which is distinguished by careful tooling, small stones, and masons' marks.

### III. *North-West Angle.*

The general conclusions of Colonel Wilson's paper confirm those advocated in my paper on the Haram read to the Royal Institute of British Architects (Transactions, 1879, No. 1, p. 27). The discrepancy in the level of the aqueduct under the scarp, as given by Mr. Schick, may be due to the fall in the channel from north to south. It does not appear where the level 2,412 was taken, but the following was that which I obtained in 1873:—

Level of Haram at window . . . . .	2431
Height of Aqueduct, 6 feet 6 inches	} . . . . . 25
From roof to Haram floor, 18 feet 6 inches	
<hr/>	
Level of the bottom of the Aqueduct channel west of the window . . . . .	2406

The rock at this point is 3 feet higher (2409), the channel being 3 feet deep.

The level 2429 is not that of the window, but of the floor of the chamber outside the Haram wall, in which I discovered the buttresses shown in my sketch (*P. E. F. Quarterly*, 1877, p. 136). The level of the sill of the old window is the same as that of the Haram inside—*i.e.*, 2,431, according to the Ordnance Survey.

The reason why the scarp found running from the window westwards to the aqueduct could not be traced farther west is that the upper part of the aqueduct consists of a masonry wall and arch which could not at the time be broken through. It should also be observed that close to the point where the aqueduct is intersected by the Haram wall there are two large tanks on the interior (Nos. 18 and 22).

The level of the aqueduct is 2406, that of the bottom of Tank No. 18 is 2391. Thus the aqueduct might probably have entered the tank 15 feet above the bottom. The total depth of the tank is 34 feet 6 inches.

The height of the scarp at the window is 25 feet above the exterior, and 3 feet above the interior of the Haram.

#### IV. *North Wall of the Haram.*

It should be noted that some of the stones of the south wall of the Birket Israil have fallen out, and that a second row of similar masonry, with wide joints packed in a similar manner, is visible behind. Taking this in conjunction with the fact that the vaults inside this wall are not earlier than the twelfth century, it seems highly improbable that any drafted masonry like that of the other walls of the Haram exists here.

#### V. *East Wall.*

The level of the highest course of rough drafted stones is 2346, which appears to be that of the rock just north of the Golden Gate, at about 1,090 feet from the south-east angle. The rough masonry would probably not extend farther south, judging from the similar case on the south wall.

It should be noted also that the line of the ancient rock scarp found by Colonel Warren to form the north wall of the platform on which stands the Dome of the Rock would strike, if produced eastwards, the same point, 1090 feet from the south-east angle. These two indications perhaps point to an ancient corner as existing near the Golden Gate.

The suggestion that the city wall did not extend farther north than the present north-east angle of the Haram seems open to the objection that the north-east portion would in this case run nearly at the bottom of a valley, and that it would be entirely commanded from the hill (Bezetha) on the north side of the valley. The disappearance of the ancient masonry farther north seems, as in other parts north of the city, to be due to the fact that the rock is at no great distance below the surface, and that there is no great accumulation of rubbish on this side of Jerusalem.

It appears that the foundations of almost the whole of the third wall must have been dug up and reused in building the later walls, which have been renewed seven times since the great siege, and now consist to a great extent of ancient materials. The rock scarp at the north-east

angle of the modern city runs in line with the east wall of the Haram, and turns north at the top of the hill. I would suggest that it represents the original line of the third wall on this side, as previously proposed by Colonel Warren and other authorities.

#### VI. *South-East Angle.*

Whatever be the reason for the straight joint on the east wall of the Haram, there seem to be objections to the supposition of a tower unconnected with the western part of the south wall which are worthy of consideration.

1st. Josephus states that the Ophel wall joined the east cloister of Herod's Temple (Wars, v. 4. 2), just as the wall discovered by Colonel Warren on Ophel joins the east wall of the Haram. Josephus makes no reference to any large tower at this point, and the supposed dimensions of 108 feet side would represent a tower considerably larger than the largest of the three Royal Towers which the historian describes so minutely.

2nd. Although the inner side of the ancient masonry of the east and south walls is visible in the great vaults at the south-east angle, no remains of the north and west walls of the supposed tower can be seen in them. The substructures extend 200 feet either way along the walls, so that the foundations of the tower ought, if they still existed, to be visible within them.

3rd. There are no remains of any ancient corner at the Triple Gate, or of any wall like that of the Haram running northwards from that entrance.

In the absence of a complete examination of the foundations of the south wall the best indication obtained seems to be that afforded by the Master Course. Colonel Wilson appears to follow Mr. J. Fergusson in attributing this course, which is visible between the Single and Triple Gates, and appears to connect the south-east corner with the rest of the south wall, to Justinian. Against such a view it may be urged that at the south-east angle this course, standing on twenty-seven courses of drafted stones, and apparently *in situ*, has seven courses of the same masonry above it; that the dressing of the stones in the Master Course is the same as that of the other courses of drafted masonry; that it is not a dressing used in any building of the Byzantine period as yet found, but occurs on the Herodian masonry of the south-west angle of the Haram. Immediately west of the Single Gate, the level of the bottom of the Master Course is about 6 inches above the surface, and another course of drafted stones is then visible beneath.

I would suggest that the undrafted masonry which occurs on all the walls of the Haram in connection with details of architecture plainly Byzantine is attributable to Justinian, and that it is impossible to separate the Master Course from the other courses of drafted masonry with which it is identical in character and dressing.

The tabular statement (page 64) of the levels of courses E and H might perhaps give rise to an impression that a break must occur in the

line of the beds of these courses between the Triple Gate and the south-east angle. The difference of 1 foot 6 inches is, however, apparently due to the fact that the courses were here not built quite horizontally, as Colonel Wilson so clearly explains in speaking of the great course (p. 55).

It is worthy of remark that all the dimensions of the Haram—angular, horizontal, or vertical—are apparently so rude as to suggest very imperfect means of mensuration. The same rudeness of measurement characterises even the finest specimens of the Jewish tombs.

#### VII. *Identifications.*

Some of the identifications proposed in Colonel Wilson's paper appear to be open to further consideration. He supposes that the expression used by Josephus (Ant. xv. 11. 5) as to the first gate on the west refers to the viaduct over the pool *el Burak*. The late date of this viaduct has, however, been already indicated. Josephus, speaking of four western gates, says: "The first led to the king's palace, and went to the passage over the intermediate valley" (Ant. xv. 11, 5). He again mentions "the passage to the upper city" above the Xystus, where was Agrippa's palace (Wars, ii. 16, 3), which seems probably the same place. In this case the first gate led out by the Tyropæon Bridge, but in no case could it have well led to Wilson's Arch, which is intermediate between the two gates or passages (Tanks Nos. 19 and 30), and would therefore, had the viaduct then existed, have occurred second or third in the enumeration of the gates.

It is not clear why Colonel Wilson supposes the bridge broken down during Pompey's siege to have been of wood. Josephus does not say so, and the bridge in question may possibly be recognised through the older *vousoir* lying beneath the pavement of the Tyropæon bridge (Ant. xiv. 4. 2; Wars i. 7. 2).

The suggestion of the existence of the original wall of Solomon's Temple east of the Cistern No. 19 (see *Quarterly Statement*, Jan., 1880, p. 20) is also, apparently, merely a speculation, as there is no literary evidence as to the line occupied by the west wall of Solomon's Temple, nor are any remains of an older rampart known to exist within the present Haram walls.

The identification of the aqueduct west of the Temple enclosure with that constructed by Hezekiah is in the same way hardly satisfactory.

According to the A. V., Hezekiah's Conduit was on the west side of the City of David, which Josephus identifies with the Upper City of his own time (cf. 2 Sam. v. 7-9; Ant. vii. 3. 1; Wars v. 4, 1). According to Keil and other scholars the Hebrew words should be rendered, "westwards to the city of David." Neither rendering would admit of an identification with the aqueduct just mentioned, which is east of the upper city, and which runs north and south. The great rock-cut tunnel running westward from the Virgin's Spring seems more probably the work of Hezekiah, for the Gihon, or "fountain head," whence it brought water, was in the *Nakhla*, or valley, a title which

seems to be invariably applied to the Kedron Valley (2 Chron. xxxii. 30) where the Virgin's Spring wells up.

The identification of the supposed tower at the south-east angle of the Haram is also open to remark.

The "tower that lieth out" (the "projecting tower") was on Ophel, between the Water Gate and the Horse Gate (Neh. iii. 26-28). The Horse Gate, by common consent of various authorities, has been placed south of the Temple. It was *at a corner*, and apparently close to the Royal Palace of Solomon (Neh. iii. 28; Jer. xxxi. 40). The Water Gate may probably be placed near the great shaft discovered by Colonel Warren leading down to the Virgin's Spring, and the Horse Gate at the angle of the Ophel wall south of the Haram. Between these two points Colonel Warren discovered the great outlying tower which he identifies with that mentioned in the Book of Nehemiah as the "tower that lieth out." The supposed tower at the south-east angle of the Haram would seem to be too far north to be identified with the "tower that projected," and moreover it was according to its proposed reconstruction almost flush with the wall, and projecting inwards instead of outwards.

Nothing short of a complete examination of the Haram walls by galleries extending their whole length would suffice to prove definitely the continuity of their structure, and even if such proof were obtained the objection might be raised that the masonry was not *in situ*. However puzzling the minor differences in the masonry may be, and however difficult it may be to explain the reasons for straight joints or sudden changes in the finish of the stones, certain important indications will be acknowledged as controlling any conjectures on the subject.

1st. The dressing of the finished stones on the west, south, and east walls is the same, and serves to distinguish the Haram drafted masonry as a whole from drafted ashlar of the Byzantine period.

2nd. The existence of the north-west rock scarp; of the Tyropœon bridge; and of the Ophel wall joining the east wall of the Haram, corresponds in a most marked manner with the description of the rock of Antonia; the bridge leading to the Royal cloister; and the ancient wall joining the east cloister of Herod's Temple; and affords strong indications of the identity of the three angles of the modern Haram with the corresponding angles of Herod's Temple enclosure.

3rd. The alterations effected in the Temple Area by Herod the Great were so considerable that any theory based on a reconstruction of the site as described in the time of Solomon or Nehemiah must be considered unsatisfactory if it is not in accordance with the descriptions of the site as existing at the later period of the Herodian edifice. It should not be forgotten that between the time of Solomon and that of Herod, a period of time elapsed equal to that separating the reigns of Alfred the Great and Victoria.

#### VIII. Plans.

The plans are of great value as preserving drawings previously

unpublished. They appear, however, not to have been finally checked by Colonel Wilson, owing probably to his absence abroad.

In No. 1 (page 6) a certain number of the observations which I obtained from Mr. Schick are inserted, but this plan is not complete. In addition to the observations outside the east wall of the Haram, which are beyond the margin, several have been omitted, viz., those bearing the numbers 2, 3, 12, 14, 15, 19, 20, 21, 22, 36, 39, 40, 41, 47, 49, 50, 53, 56, 57, 58, 60, 86, 88 in the Register. The observation No. 56 is also given 2287 instead of 2289; and No. 55 appears as 2400 instead of 2409. These omissions do not affect the contours, but observation No. 20 is given as 2420 instead of 2408 (Warren), which materially alters the contours. The observation 2370 west of Wilson's Arch does not agree with contours. It is not in the Register.

The contours appear to be taken from the unpublished plan sent home in 1873 from Jerusalem. The name "Convent of the Sisters of Sion" has been written by mistake to the Barracks farther south.

It does not appear why an area is shaded in the south-west angle of the Haram, while the north-east angle, where no observations have been taken, is not shaded. It should be noted that negative observations have been made in tanks Nos. 19 and 30, and in all the chambers in the south-west part of the platform of the Dome of the Rock, which serve to control the contours in the shaded portion. The question of the lie of the rock in this part of the Haram is, however, fortunately, of very little practical importance, as it is known to be nowhere higher than 30 feet below the level of the Sakhrak rock.

In Plan 6A *B'aidha* should be written *Beidha* ("white") according to the Arabic of Dr. Sandretzky. There is no *Ain* in the word.

On Plan 9 the level of the equeduct at its south end should, as above explained, be given as 2406 instead of 2412. At the point B, the aqueduct should also be shown as cut in rock on both sides, as the plan gives the impression of a rock buttress which does not exist.

It is to be regretted that the valuable sections of the east wall have not been published, and an elevation of the Antonia scarp seems also much wanted, which I hope to be able to supply from a sketch made in 1873.

January, 1880.

CLAUDE R. CONDER, Lieut. R.E.

[The contour map was taken from the plan sent home by Lieut. Conder, dated July 29, 1873. It was inserted without instructions from Colonel Wilson, in order to show approximately the lie of the ground. The name of Lieut. Conder ought to have been affixed to the plan, which is due to him, and for which he is responsible. It must, however, be understood that its appearance in the *Quarterly Statement* does not mean that these contours have been adopted by Colonel Wilson. The reason for shading the south-west corner will be apparent by comparing Colonel Wilson's with Colonel Warren's lie of rock in Plate 6. Lieut. Conder, in his plan of 1873, differs from both. The observation 2370 west of Wilson's Arch appears on Lieut. Conder's plan, if not on the Register. —ED.]

## LENGTH OF THE CUBIT.

In the *Quarterly Statement* for October, 1879 (p. 181), Mr. S. Beswick raises this interesting question, and advocates a length of 17·7 inches, which is very close to the length 17·4 inches proposed in an article on Jerusalem in the *Edinburgh Review*, 1873. The paper is, however, open to some objections, which may be briefly stated.

*The Tyropæon Bridge.*—The existing arch is 50 feet broad, and measures 38 feet 9 inches from the south-west corner of the Haram. The accord between this and the dimensions of the Royal Cloister of Herod's Temple is striking, but Mr. Beswick omits all consideration of the thickness of the Haram wall, which is at least 8 feet when measured at the north-west corner, and assumes that Josephus was thinking of 17·7-inch cubits, and translated them into feet. As regards the diameter of the pillars of the Royal Cloister, they may, no doubt, be assumed at about 6 feet, which is about the diameter of the existing monolith at the Double Gate. The measurements of the Cloister will then be—

*Josephus's Measurement.*

Wall (thickness) ... ..	8 feet	} 38 feet.
South Walk of Cloister ... ..	30 feet	
Pillar (diameter) ... ..	6 feet	} 52 feet.
Central Cloister ... ..	45 feet	
Pillar (diameter) } ... ..	6 feet	
Total ... ..	90 feet.	

*Actual Measurement.*

From south-west corner to south side of	
Bridge .. .. .	38 feet 9 inches.
Breadth of Bridge ... ..	50 feet.
Total ... .. .	88 feet 9 inches.

This is as near as we can go without actually knowing the diameter of the pillars, which could hardly be spanned by three men (*Ant.* xv. 11. 5). If we reduce the diameter to 5 feet 6 inches, the result will agree with actual measurement within 3 inches. This question has, however, no bearing on the length of the cubit.

*Length and Width of El Aksa.*—The attempt to deduce the length of the cubit from the fifteenth century Arabic MS. is unfortunately based on a very grave error. The word which the translator renders "cubit" is the Arabic *dhr'a*, a very well known measure, equal to the Turkish pic, and as nearly as possible 2 feet 3 inches in length. The measurements given are those of the *Masjid el Aksa*, which, as is well known, was the old Arab name for the whole enclosure now called *Haram esh Sherif*. The Arab writer gives the breadth along the north wall as 155 *dhr'a*, which is just the length of the north wall of the Haram,



1,042 feet. The length, 784 *dhr'a*, which he gives, is equally close to the length of the west Haram wall, 1,601 feet.

The measurements of the Masjid given in the same century by Mejr ed Din (Hist. Jerusalem, chap. xx.) are equally exact. He makes the length of the east wall from *Bab el Asbât* to the *Mihrab Dâûd* (south-east corner) to be 669 common architectural *dhr'a*, which agrees with the length of the present east wall, 1,530 feet. The width he gives is a mean measure from the outside of the wall at the *Bab er Rahmeh* (Golden Gate) to the opposite cloisters. This he states at 406 *dhr'a*, agreeing very closely with the actual measurement of 970 feet.

Mejr ed Din adds, "Should any one else find it one or two *dhr'a* more or less, it must be put down to the difficulty of measuring. I measured it twice myself before I obtained the true measure" (chap. xx. see. 20).

Mejr ed Din also gives the size of the *Jam'ia el Aksa*, or mosque, on the south Haram wall. He makes it 100 *dhr'a* long by 77 *dhr'a* wide. The measurements are exact, without including the porch outside on the north, the *dhr'a* being 2·3 feet.

These measurements are of value as showing that the area of the Haram was the same in the fifteenth century as it now is, and that Mejr ed Din, who took the mean width, was aware that the area was not rectangular. Mr. Beswick, however, misled by the very loose translation "cubit," has endeavoured to apply the measure to a 17·7-inch cubit. This question also has, therefore, no bearing at all on that of the length of the Hebrew *ameh*.

*The Digit.*—Mr. Beswick enters upon a very difficult question, for there are two elements of incertitude in the matter. 1st. Whether the Jews were accustomed to great exactitude in measurement, such as we now require, or whether their measures were rude and inexact, like those of the modern Arabs and ancient Egyptians. 2nd. Because the exact application of the Hebrew terms rendered "digit," "handbreadth," &c., has never been minutely described by any ancient author.

Two standard examples of the small and medium *ameh* are said in the Mishna to have been preserved at the Gate Shushan, which was due east of the Holy House. This gate, though known to Mejr ed Din, has not yet been rediscovered. When it is, let us hope the standard measures (Kelim xvii. 9) will also be found.

The Jews had at least three measures called *ameh*. The smallest, of five handbreadths, measured the vessels of the Temple; the medium, of six handbreadths, measured its buildings (Tal. Jer. Menakoth 97a). The medium cubit consisted of two spans (*sit*).

It must not be forgotten, in dealing with this matter, that the Jews were not a tall people, and that their hands were probably as delicate as those of the present Jews and Arabs. We may therefore take the measures of an English gentleman's hand as not being less than those of a Jewish hand.

Taking, therefore, the cubit of forty-eight barleycorns (Maimonides,

Sepher Torah ix. 9), and the barleycorn as equal to our English long-measure barleycorn—as results from actual measurements of barleycorns in Syria made in 1872—we obtain 16 inches for the medium cubit, and the span is consequently 8 inches, which is the extreme distance which can be stretched from the thumb to the small finger of an ordinary hand. A hand spanning 9 inches is a large one.

The *zereth*, rendered “handbreadth,” will in this case be 5·33 inches, which is the ordinary span of the four fingers. As to the smaller divisions, there is great difficulty in ascertaining how the measurements are to be made, and the determination of the larger ones, *sit* and *zereth*, is of course more conclusive in the matter. The details will be found in the new Handbook to the Bible just issued by Messrs. Longmans, page 79. As regards verification from monumental remains, I have already pointed out that in the Synagogue of Umm el 'Amed the pillars are ten cubits high, with bases of one cubit and capitals of half a cubit, the cubit being taken as sixteen inches.

The satisfactory determination of the levels of the Temple Courts from the same hypothesis has also been explained in “Tent Work in Palestine” (vol. i. p. 359).

In the Haram itself there are several other similar indications. Thus, at the north-west corner of the Area, the chamber which I explored in 1873 shows piers projecting from the wall at an interval of 8 feet 8 inches, with a face of 4 feet 8 inches, giving a total of 13 feet 4 inches as the distance from centre to centre of the piers. Ten cubits of sixteen inches is equal to 13 feet 4 inches, giving an interval of ten cubits for the piers from centre to centre, while the piers are three and a half cubits broad.

The average height of a course of masonry in the Haram walls is 3 feet 4 inches, or two and a half cubits of sixteen inches. The lintel of the Single Gate is eighty-two inches high, which is within two inches of five cubits. The master course on the south wall is 6 feet in height, or four and a half cubits of the sixteen-inch dimensions. Three consecutive stones in the second course of the east wall, as measured by Colonel Warren, are respectively seven cubits, three and a half cubits, and four and a half cubits in length. Colonel Warren has remarked that the dimensions of the Haram masonry are generally multiples of the English foot. The explanation is perhaps to be found in the relation of 4 to 3 between the foot and the cubit.

It may be that this accumulation of coincidental indications is not conclusive, but at least no such evidence has been collected in favour of a longer dimension for the cubit.

The *ameh* was the length of the fore-arm to the first joint of the fingers. It requires a long arm to make this equal to eighteen inches.

C. R. C.

## NOTES ON JERUSALEM.

IN the *Quarterly Statement* for October, 1879, Mr. Birch advocates the prosecution of further excavations in Jerusalem as soon as funds will allow. Whether the present administration of the country offers greater advantages than of former years is only known to residents, though the reports which reach us are far from encouraging. I beg, however, to offer a few suggestions, which may be possibly of service.

*Tombs of the Kings.*—While agreeing with many of the general results of Mr. Birch's papers—papers which have, I think, done service to the cause of Jerusalem topography—I would point out that there were *two Tombs of the Kings* in Jerusalem. The sepulchres in which the nine most famous monarchs were entombed were in the "City of David," and according to the Talmud, within the walls of the town. But there was also a Royal Garden, or "field of burial of the kings," in which Uzziah, Manasseh, and Amon were buried, which seems to have been a distinct place. This second cemetery is mentioned in connection with the Royal Palace, which stood south of the Temple, and it seems probably to be the tomb of the House of David on Ophel, which is placed by Nehemiah near Siloam, as mentioned by Mr. Birch. Near to Siloam, also, the King's Garden (the Garden of Uzzah) and the King's Winepresses were to be found, the recess between Ophel and the upper city being apparently a royal domain.

The tombs of the nine famous kings were in the City of David, but their position is not clearly indicated. I do not think that the view that Ophel was the City of David—which, though often put forward, has never been accepted by the great authorities Reland, Robinson, &c.—will be found capable of proof, for Josephus (Wars v. 4. 1) distinctly identifies the "citadel," or *Metzad Zion*, which was called the "City of David," with the Upper Market of his own time, the *Suk ha'Alian* of the Talmud. Millo or Akra was also in the City of David, but the Ophel wall west of Gihon (*Ain Umm el Deraj*) is distinctly stated to have been without the City of David.

It remains, then, to look for these tombs on *Millo*, a site not among the nine enumerated by Mr. Birch, as proposed by various authorities.

The ground in which the present Church of the Holy Sepulchre stands is now known to be the summit of a kind of knoll, which slopes steeply down on every side, and is divided from the modern Zion by the deep, broad valley which, from the twelfth century down, has been generally recognised as the Tyropœon. This northern knoll or hill is the site, according to Robinson and the majority of authorities, of the Akra of Josephus, and Akra, according to the Septuagint, was Millo, and Millo was in the City of David.

Now, immediately east of the so-called Holy Sepulchre is an ancient Jewish tomb with *kokim*—the only undisputed specimen of a Jewish tomb within the walls of modern Jerusalem, and a tomb which,

as placed on Akra or Millo, would have been within the circuit of the ancient city also.

This tomb, minutely described by Colonel Wilson in a former number of the *Quarterly Statement*, and now called the Tomb of Nicodemus, I would propose to identify with the long-lost tombs of the nine famous kings of Judah. Any one who studies Colonel Wilson's plan will see that the tomb had originally nine *kokim*, or graves for nine bodies, and it is yet more remarkable that some of these are sunk below the level of the chamber floor, reminding us of the expression of Josephus, that the sepulchres were underground, and could not be seen even by those who stood within the monument.

The reasons, briefly recapitulated, for this identification, are—

- 1st. The tomb is undoubtedly ancient and Jewish.
- 2nd. It is in the City of David.
- 3rd. It is within the probable circuit of the old walls.
- 4th. It contains graves for nine bodies, according to the number of kings enumerated in the Bible.
- 5th. Some of these graves are concealed beneath the floor.
- 6th. It is the only undoubted Jewish tomb in Jerusalem.

If the Holy Sepulchre were really an ancient tomb, we might identify it with the tomb of Huldah, the only other sepulchre within the walls, according to the Talmud.

Those who are interested in this question will find it fully worked out, with all the references, which time does not allow of my now giving, in "Conder's Handbook to the Bible," just published by Messrs. Longmans, page 341.

*The Stone hat T'aim*.—I would suggest a few notes on the interesting paper by Prof. Sepp.

It is evident that the stone in question was in a high part of the city, or itself elevated to some height, from the following passage:—

"The showers came down abundantly until all Israel went up from Jerusalem to the Mount of Olives because of the rains. They came and said to him (Honi), 'As thou hast prayed that the rains may fall, so pray that they may cease.' He said to them, 'Go and see if the Stone of Proclamation (Eben hat T'aim) be covered.'"—*Taanith* iii. 8.

It is curious to see the same differences of opinion arising in the nineteenth century which can be traced in the fourth and twelfth in the conflicting accounts of various writers, and which are due to the brevity of the Gospel narrative. It must, however, be pointed out that Herr von Alten, though condemned by Prof. Sepp, is correct in stating that the Temple guards occupied Antonia, as the fact is expressly stated by Josephus (Wars v. 5. 8).

Prof. Sepp seems also to have fallen into a misconception in supposing that the footprint of Christ, mentioned by Antony of Piacenza, was in the Dome of the Rock. Such a footprint was indeed shown in the same building in the twelfth century, probably the present *Kadam en Naby*, or "Footprint of the Prophet." But Canon Williams

has shown that Antony of Piacenza refers to a place in the present Mosque el Aksa, which is still called *Kadam Aisa*, or the "Footprint of Jesus." The point may have no practical value except as an instance of "transference of tradition" by the Crusaders—one of many.

Prof. Sepp appears also to confound the place where the Jewish Sanhedrin sat with the Prætorium of the Roman Governor. With regard to the site of the former, it is distinctly stated in the Mishna that the Beth Din, or Smaller Sanhedrin, sat in the chamber Gazith ("cut stone"), also called Balutin ("pavement"), which was at the south-east corner of the Court of the Priests. To this, of course, the Roman Governor can never have had access. As to whether the place Lithostroton, or Gabbatha, was in Antonia or on Zion, the writers of fourteen centuries have been constantly of different opinion, there being nothing in the Gospel narrative to fix the site.

C. R. C.

### THE GOLDEN CALF AT BETHEL.

ANY theory stalking through these pages is for the time a Goliath deliberately inviting an attack. Josephus is like Saul's armour, too clumsy to be used with effect. I wish (*Idem non vitrei culminis immemor*) to sling a few smooth stones.

The Samaritans indulge in most extravagant pretensions; they assert that Gerizim is the scene of Abraham's sacrifice of Isaac. "The Land and the Book" disposes of the claim at once by a reminder that no ordinary Syrian ass would be cajoled into performing nearly a four days' journey in two days and a part. The distance from Beer-sheba to Gerizim is too great, while that to Jerusalem suits the narrative very well. The minor objections against Mount Moriah, named in "Sinai and Palestine," (251)—viz., that "there is no elevation, nothing corresponding to the place *afar off* to which Abraham *lifted up* his eyes," vanish when it is pointed out that—

(1) There was a *far off* place (lit. *house* ? Araunah's) on the west side of the brook Kidron, not half a mile from Jerusalem (2 Sam. xv. 17). Miriam also watched the ark *afar off* (Exod. ii. 4). A few hundred yards would suffice."

(2) The expression "*lifted up* his eyes" hardly requires the existence of an *elevation* in Gen. xxii. 13, which is not admissible in *both* cases in Gen. xxiv. 63, 64, and contrary to fact in Numb. xxiv. 2.

The soul of Simon Magus must have migrated into the dark-eyed and fascinating Jacob, now high priest of the Samaritans, and "custos rotulorum," for Lieut. Conder, after seeing him, was actually inveigled into seriously advocating the claim that the Bethel where Jeroboam set up a golden calf was immediately west of Gerizim, at the ruins called Lôzeh (Luz).

Seven points in favour of the claim are given in *Quarterly Statement*, 1878, p. 28, and condensed in "Tent Work," vol. ii. 107; but not one of the seven appears to me able to stand scrutiny.

The fact that some declare that these pages instead of dispelling uncertainty only throw them into a fog, leads me to drop a stone on this claim, and to answer the points *seriatim*.

(1) If Amos vii. 13 indicates that "the calf was close to the king's palace," then it was not close to Shechem, but to Samaria or Jezreel, since Jeroboam II., not I., is referred to.

(2) Abijah, on taking (the true) Bethel from Jeroboam, would hardly be driven by his conscience to destroy "the calf temple," since he permitted worse things in his own kingdom (2 Chron. xiv. 3, 5).

(3) The southern (or true) Bethel, though allotted to Benjamin, was from the first seized by Ephraim (Judges i. 25), and is reckoned to it in 1 Chron. vii. 28, and therefore it is not "strange that it was chosen as a religious centre" by Jeroboam, being not "beyond the bounds of his own kingdom."

(4) "The prophet that came out of *Samaria*" (2 Kings xxiii. 18) died long before the city of Samaria was built. The word is obviously used proleptically either of the kingdom of Israel or of the district described as *the cities of Samaria* (1 Kings xiii. 32; 2 Kings xvii. 26). Further, Samaria is mentioned (Amos iv. 1, 4; v. 5, 6) in connection not only with Bethel, but also with Gilgal and Beer-sheba. Are the two latter places, therefore, to be looked for close to Samaria (? Shechem)?

(5) "The Samaritans in *Shechem* having been plagued with lions," &c. *Shechem* is here introduced inadvertently, not being mentioned in 2 Kings xvii. The colonists were placed in *the cities of Samaria*—*i.e.*, the cities of the captive tribes.

(6) Surely not more than *one Luz* was likely to have had the alternative name of Bethel.

(7) (The true) "Bethel was the seat of a school of prophets." But still the children of the city mocked Elisha, an act quite consistent with the worship of the calf.

(a) Dan was "consecrated by the memories of Jewish history" (Judges xviii. 30).

(b) Bethel, as shown in (3), was within "the bounds of Jeroboam's kingdom" when the calves were set up.

Scrutiny thus shows that *the seven notes* are invalid and unable to disturb the common opinion that one golden calf was set up at Jacob's Bethel (Beitin), possibly within sight of Solomon's Temple.

W. F. BIRCH.

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## THE NAMELESS CITY.

[See *Quarterly Statement*, 1879, p. 130, 171.]

I HAVE not yet learnt as a *fact* that the Mount of Olives is visible from some spot on the Bakoosh hill below the summit.\* That it really is so I

\* The Survey Triangulation diagram shows that the neighbourhood of Jerusalem is visible from the top of the Râs Sherifeh, but it is hidden lower down by the intervening ridges.—C. R. C. But see Finn, pp. 445, 449.—W. F. B.

feel certain; but as the point is essential to showing satisfactorily that the nameless city was on the Bakoosh hill, it seems desirable to secure all the voussoirs before beginning to build the arch. Accordingly the proof promised will be kept back for the next number.

Still, as Lieut. Conder has raised objections, they shall have immediate attention. He suggests Bethlehem as an alternative position. Establishing an *alibi* will best disestablish all rival sites, so that to this reply is deferred. His other objections, however, must be met at once, as they directly controvert point (3)—viz., that “*the hill (Gibeah) of God* (1 Sam. x. 5, 10) is the place of the Upper City of Jerusalem (Gabbatha, John xix. 13).” He urges—

(1) “The name Gibeah is nowhere connected with Jerusalem.” In reply it is enough to quote Isa. x. 32: “The mount (of) the daughter of Zion, *the hill (Gibeah) of Jerusalem.*” Here the earlier words represent the eastern hill, the italicised words the south-west hill, the site of the Upper City.

(2) “Jerusalem was at that time held by the Jebusites, whereas the *hill of God* was a garrison of the Philistines.” This is the common (and I think *erroneous*) opinion; for I consider it demonstrated (in *Quarterly Statement*, 1878, page 182) that the stronghold of Jebus, *i.e.*, the city of David, was on Ophel, so called.

Therefore it was *quite open to the Philistines*, who had a garrison in Geba, to put one also on the south-west hill (*Gibeah*) of Jerusalem, even even if it partly belonged to the city occupied in common by the Israelites and Jebusites.

The statement of Josephus (Ant. vii. 3. 1) that “David took the lower city *by force*” now seems to me one of his frequent misapprehensions of the Bible.

(3) “Gabbatha . . . applies to the Court of Antonia.” I did not mean to connect Gabbatha philologically, but *topographically* with the *Gibeah* of Jerusalem. Hebrew scholars must decide the former question; as to the latter, Lewin seems to me to prove conclusively that Pilate’s palace was not Antonia, but Herod’s palace, in the Upper City, where Florus (Jos. Wars ii. 14. 9), before his tribunal, crucified Jews of the highest rank, on the very spot (I believe) where some of them had years before raised to Pilate the cry against Jesus, “Crucify Him!”

I gladly accept the correction that the cairn is named Rujm el Kabtân (Captain’s Cairn), the Arabic equivalent for “Conder’s Cairn,” which originally stood in the proof and was at the last moment altered to “Salami’s Cairn.”

Though Lieut. Conder reports that he did not find any traces of antiquity among the ruins on Râs Sherifeh (identical, I assume, with Dahar es Salâhh), I am not persuaded that Mr. Finu was mistaken about what he did see.

Seventeen years in Palestine must have taught him something about ruins, and his words (“Byeways in Palestine,” 412) are these: “On the mountain top is a *large oval space*, which has been walled round; frag-

ments of the enclosure are easily traceable, as also some *broken columns*, grey and weather-beaten. This has every appearance of having been one of the many sun-temples devoted to Baal by early Syrians.\*

By temple I mean a succession of open-air courts, with a central altar for sacrifice; a mound actually exists on the highest spot of elevation, which may well have been the site of the altar."

The italicised words seem to me to indicate an antiquity greater than that of a *modern hamlet*. Indeed I shall be greatly surprised if a *great cistern* is not to be found hereabouts, described in 1 Sam. xix. 22 as "a great well in Sechu." A comparison of the different versions, Arabic, Syriac, &c., leads me to think that *Sechu* has been substituted for *Shefi*, = a bare place on a hill, and in "Tent Work," vol. i. 279, the position is said to be "a bare and rocky hill." W. F. BIRCH.

### THE ROCK OF RIMMON OR THE POMEGRANATE.

MR. RAWNSLEY'S recovery of the name *Rimmon* in Wady er *Rumman*, and of the tradition that the vast cavern Mugharet el Jai holds *six hundred men*, makes the Benjamites' actual place of refuge to coincide with the obvious position in a way seldom attained in disputed questions of topography.

A further test of the correctness of the identification is afforded in the points proposed for consideration by Lieut. Conder in *Quarterly Statement*, 1879, page 170. In reply to—

1 and 6, Migron is allowed to mean a *precipice*. The difficulty about *two Migrons*, one north, the other south of Wady Suweinit, seems to me to vanish if we take the word to mean the wall of rock forming the north and south boundary of the passage of Michmash (see *Quarterly Statement*, 1877, page 55). That Saul was on the south side of the gorge, opposite to the Philistines, seems clear from 1 Sam. xiv. 6, "Let us go over, &c.," and *id.* 17, "See who is gone from us." Therefore the pomegranate-tree, which is *in* (so A. V. rightly, not *by*; see below, 2) Migron, cannot be "a tree in Ramah," if Lieut. Conder means us by Ramah to understand er Ram, distant nearly three miles to the west. Further the latter is literally "the tamarisk" (1 Sam. xxii. 6), and so could not be a pomegranate-tree.

2. It is true the Biblical narrative says nothing about a cave, but a little reflection shows that such a shelter would be desirable (not to say necessary) during a four months' stay in the hold, and *large caves* were frequently used as places of refuge (1 Sam. xxii. 1; xxiv. 3).

Lieut. Conder objects on principle to great caverns, such as that at Khureitan (called also Mugharet M'asa = cave of refuge), and

\* The circular depression mentioned by Mr. Finn I have seen, but do not consider it very ancient. It looks like an old lime-kiln. The place is fully described in the Memoir to Sheet XVII. of the Survey. The columns intended seem to be the Roman milestones close by.—C. R. C.



says that they are "never inhabited in Palestine" ("Tent Work," ii. 159). Mr. Rawnsley, however, was informed that *the cave* near Rimmon "had been used time out of mind for refuge by the neighbouring villagers when persecuted by the government."

Mr. Drake (*Quarterly Statement*, 1874, p. 26) reported that the so-called (and, in my opinion, *true*) cave of Adullam is "dry and airy, and admirably adapted for an outlaw's hold." The *little caves* at Aid el Mieh do not at all satisfy the Biblical requirements for the famous cave of Adullam, which was *one*, and necessarily large, and a real *hold*.

If there had been no cave "*in* the Rock Rimmon," the rendering "*in*" might have been misleading, but "*in*" is the *commonest* meaning of the Hebrew "*Bi*," though it also means "*by or near*." The quotation is wrong in Judges xx. 47, "*unto* the rock is "*Al*;" "*in* the rock" is "*Bi*," as in xxi. 13.

(3) Naarath was certainly *not* the border town of *Benjamin* and *Ephraim*, since it was on the *northern*, not southern, boundary of Ephraim, as Mr. Kerr showed in *Quarterly Statement*, 1877, p. 44. His line for the northern boundary of Benjamin seems to me to be drawn *correctly* up "the ravine on the north of Jebel Kūrūntel," and it gives Remmoon to Ephraim. Of course with this line Taiyibeh cannot be Ophra (Josh. xviii. 23), an identification which strains the order of the places named in that passage. The same error has crept into "the Handbook," and the conclusions drawn from it are consequently wrong.

(4) "The Rock Rimmoon was apparently not far from Shiloh (Judges xxi. 12, ? 13), which is an argument in favour of the northern site." I fail to see this in the words, "They sent . . . to the children of Benjamin . . . in the rock Rimmon." Of two places, four or five miles apart, how is it thus implied that they sent to the nearer one?

(5) The sting of course is in the tail. If *Sela* necessarily means a *precipice* (see Lieut. Conder in "Tent Work," II. 91, "A narrow but deep chasm, impassable except by a detour of many miles . . . 'Cliff (sela) of Division' . . . *cliffs*, such as are to be inferred from the word *Sela*") then Beit Atab cannot be the rock (*Sela*) Etam as proposed by the same writer. The two points cannot both be held together, and so Lieut. Conder *rightly* abandons one, but retains, I think, the *wrong* one.

The meaning of the Hebrew *Sela* is not to be settled by its *general* (N.B., *not universal*) *modern* use, but by *Biblical comparison*. The standard of measurement for *Sela* seems to be Petra (ha-*Sela*, *the cliff*) with its well-known precipices (Sinai and Pal. 499). "The shadow of a great rock" (Isa. xxxii. 2). This must mean a rock more or less perpendicular. "A sharp rock" (lit., *tooth of a Sela*) surely means in 1 Sam. xiv. 4 a cliff, so precipitous that Jonathan had to "climb up upon his hands, and upon his knees." These passages, as well as those previously quoted, seem sufficient to show that *Sela* is only applied to a rock when it is *precipitous*. Height alone does not entitle to the name.

## GEBIM.

Is once mentioned in the Bible, in Isa. x. 31, "The inhabitants of Gebim gather themselves to flee." It seems to have been visible from and east of Geba (*Quarterly Statement*, 1877, 56; 1879, 103).

The name apparently survives in Gobà (Captain Warren's letter, 29), otherwise called El Kuba' or Kub'a (1879, 125, 127). It is not far from the cave of the six hundred Benjamites, to which place the men of Gebim doubtless carried off their worldly goods on the invasion of Sennacherib. Genesis says the full idea of the words above is, "they hurry off to conceal their treasures;" and where, if not in their great cave? One of the traditions collected by the Rev. H. B. Rawnsley seems to me to refer to this period, viz. (1), "That the Christians used it a long while ago, when God sent an evil wind to destroy them."

Time, I venture to think, has substituted *Christians* for *Jews*, and *them* for the *Assyrians*. The legend hardly disguises the sudden destruction of Sennacherib's great host, foretold in the words, "I will send a blast upon him" (2 Kings xix. 7). It is probable, therefore, that the cave (Mugharet el Jai) again did good service to Benjamin in Hezekiah's time, and that the feet of the inhabitants of Gebim helped in ages past to polish the descent to Ain Suweinit (*Quarterly Statement*, 1879, p. 123).

I find that twelve years ago Captain Warren obtained a trace of this spring, since he says (Letters, 19), "The wady which runs from Beitin between Mukmas and Jeba is first called Towahin, and . . . becomes W. Shiban, then W. *Ain*, Suweinit, and then W. Farah."

M. Ganneau also appears to have recovered a name indicating that W. Suweinit was used as a place of refuge, when he states (Letter, June, 1879) that "the wady running from the west to the east, immediately north of Jeba, is called Wady *el Meysa*." This word seems to me to represent in Arabic the Hebrew word Mahseh, translated "*refuge*" in Ps. civ. 18, "The rocks (lit. Selas = cliffs) are a *refuge* for the conies." The same name curiously clings to the traditional and *true* cave of Adullam, now called not only Mugharet Khureitun, but also M. el M'asa (Drake and Conder); M. el Misa (Ganneau). The wady below bears, I believe, also the same name.

W. F. B.

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 THE PLACE CALLED BETHSO.

"But if we go the other way westward (first wall), it began at the same place (Tower Hippius) and extended through a place called Bethso to the Gate of the Essenes."—Josephus, Wars v. 4. 2.

DR. ROBINSON, in his *Bib. Researches*, has a note in relation to this place called Bethso which needs correction, as other eminent critics have adopted his opinion. He says: "Bethso, which Josephus does not translate, seems to be the Hebrew *Bethsoah*, dung-place, and not im-

properly marks the spot where the filth of this part of the city was thrown down from Zion into the valley below. From this circumstance the adjacent gate might naturally receive the synonymous name *Dung Gate*."

Mr. W. F. Birch has adopted the same opinion, for he says: "The *Dung Gate*, near south-west corner of the Upper City. Here apparently was 'the place called Bethso' (= dung-place)."—*Quarterly Statement*, Oct., 1879, p. 178.

I have seen the same identification assumed several times in the same periodical by different writers; and it has crept its way into some standard works on Jerusalem topography.

It is much more likely that Bethso comes from *Beth-tzo*, "Interdicted Place," or a place from which persons are prohibited and excluded, such as we may very naturally suppose the military parade-grounds of the Three Royal Towers to have been, lying along the fortifications of the west wall from Hippicus to the Tower and Gate of the Essenes. The Hebrew word *Beth-tzo* means a place over which persons are forbidden to pass or trespass. It was doubtless the royal parade-grounds for the soldiers in the Three Royal Towers, which were located on this spot.

In the form *Beth-tzoh* it literally means the House of the Commander. And the title of commander, which is used only once in the Bible, is *tzoh* in the original (Isaiah lv. 4). In this form it would mean the Commander-in-Chief. But the name, in all probability, was not applied to the house, but to the district, grounds, or surroundings of his place of residence, and be in the form *Beth-tzo*=the interdicted and forbidden place.

Whenever a positive command, injunction, or precept—in the form of a forbiddance, prohibition, ordinance, or interdiction—is given in the Bible, this word has the form of *tzo*, as in Isa. xxviii. 10, 13, where it reads, "precept upon precept, precept upon precept." The word is invariably used for the Ten Commandments, or Interdictions and Precepts (Exod. xx. 6; xxiv. 12; xxxiv. 4, 32, 34; Deut. iv. 13; v. 31; x. 14; xi. 12). Dr. Robinson's explanation of the word, and its derivation, almost forces a smile. Its identification as the site of the *Dung-gate* is equally as absurd. We cannot for a moment suppose that the *Dung-gate* would be located on the highest point of Zion, and in the very neighbourhood of the royal towers, gardens, and palace.

S. BESWICK.

Canada, Oct., 1879.

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## EPIPHANIUS ON GOLGOTHA.

Having lit upon the following passage in Epiphanius on Heresies, treating of the locality of Golgotha, I thought it would be interesting to the friends of the Palestine Exploration Fund to present it to them:—

“Wherefore he may wonder who learns, as I have by books, that our Lord Jesus Christ was crucified in Golgotha, in the very spot where the body of Adam was laid. For after leaving Paradise, and dwelling opposite it a long while, he at length left it, and having died in this spot—Jerusalem, I mean—there he was buried in Golgotha. Whence, it is probable, that the place took its name, being translated, ‘the place of a skull,’ while the outline of the place bears no resemblance to a skull. For neither is it situated on any height, so that it should be called a skull, answering to the place of the head in the body, nor is it a place of outlook; for neither is it situated on an elevation beyond other places. For opposite it is the Mount of Olives, which is higher, and Gabaon, eight miles farther on, is also loftier. Moreover the height which once existed on Mount Zion, but has now been scarped, is also loftier than that spot.

“Whence then has it derived its name—‘the Skull’? Because the skull of Adam, the first created man, was found there, and his mortal remains were laid there, therefore the spot was called ‘the Place of a Skull.’”—Epiph. i. iii., *Hæc.* xlvi. cap. 5.

R. GOVETT.

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## THE COLONISATION OF PALESTINE.

WE are indebted to the courtesy of the editor of the *Jewish Chronicle* for permission to reproduce the following letters on a subject in which many of the subscribers to the Palestine Exploration Fund are deeply interested. It may be remarked that some very important communications have lately appeared in the pages of this paper on the present condition of the Jews in Constantinople, Russia, and Syria, together with articles, letters, and notes on the future of the Holy Land:—

“Sir,—‘The Jews Regaining their Land’ is the title of a paragraph going the round of the papers, to the effect that ‘owing to the Jewish immigration the population of Palestine has more than doubled during the past ten years.’ As a resident of this country since 1867, I can positively deny this statement. Many Jews, it is true, have come to live in Jerusalem, not in other places, or rather to lay their bones in the valley of Jehoshaphat, during the past decade; but it is utter folly to declare that ‘the population of Palestine had been doubled’ by such immigration. The population of Palestine was reckoned at 1,200,000 ten years ago, and to maintain that it has doubled would give us an influx of 1,200,000 Jews. The truth is that about 5,000 Jews have come to this land during the past ten years, and this fact is the origin of much exaggeration. Of these a large number have died, but others may have taken their places, leaving the number about the same. Nearly all live in poverty, and make appeals from time to time to their wealthy

brethren in Europe and America for means to maintain themselves and their families. The immigration is virtually a pauper influx, who expect to live in idleness upon the hard-earned savings of their coreligionists abroad. Some are eventually disgusted at the penury which the rabbis' strict rule often enforces, and return to the countries whence they came. A few weeks ago I helped a poor American Jew to return to New York, and the United States Consul at Jerusalem has given assistance to many. A number of new houses have, indeed, been built outside the walls of Jerusalem by both Jews and Christians, following the example of the Russian and Protestant missions, which first began to do so. These houses, being built over cisterns of rain water, are for the most part nests of typhus and malarial fever, and, instead of contributing to the health of the city, have materially added to the prevalent insalubriousness of Jerusalem. In the city itself the soil is so saturated with the impurities of past generations that any disturbance of the ground for building purposes invariably engenders malignant fevers. Captain Warren, R.E. and his corps of assistants, while making explorations and excavations in and about Jerusalem, suffered terribly from this cause. The scarcity of pure water is another source of evil at the Holy City, and although an abundant supply could be brought from the ancient Pools of Solomon, yet all efforts to repair or rebuild the aqueduct are thwarted by the fanaticism of the Moslem rulers.

“The land of Palestine is extremely productive, and were colonies planted here as they are in Australia, New Zealand, and the United States, there is no reason to doubt their success. The Rev. James Neil, B.A., formerly incumbent of Christ Church, Jerusalem, gives the following reasons why farming should be profitable in Palestine:—1. Labour is extremely cheap. The wages of ordinary labourers are—men, 5s. to 6s. a week; women, 3s.; boys and girls, 2s. These are considered good wages, and are amply sufficient to enable them to live. 2. The plough is extremely light. A man can carry it on his shoulders, and walk miles with it to his home. Two diminutive oxen, or one mule, are amply sufficient to draw it. 3. There is no expenditure whatever for manure. No artificial manure or any requiring carting is ever employed. That deposited by the beasts as they graze over the fields, and the ashes of whatever stubble is afterwards left to burn appear to be all the manure the rich Syrian arable lands have ever needed or received. 4. Horses, asses, oxen, and farm stock generally are very cheap. Horses cost from £3 to £10; mules, £12 to £15; camels, £8 to £20; asses, from £3 to £6; oxen, from £6 to £15; full-grown sheep, from 2s. to 8s.; and goats still less. 5. The keep of animals is very trifling. Their food consists chiefly of barley and chopped straw. Four horses can be kept at an annual cost of £30. For oxen very rich oil cake is abundant, but for the most part of the year they live and work on little else beside chopped straw. This is explained by the fact that animals, like their masters, require only the lightest and simplest food in a hot country. 6. Harvest can be gathered in without injury from wet. Rain is never known at

harvest time. The weather in May is warm and dry, and remains so until the next October. 7. There is no need of stacking the crops. All the sheaves are carried on the backs of camels or asses to an open floor, some smooth rock surface, in the middle of the fields, and are threshed, winnowed, &c., in the open air at leisure in the course of three or four months of uniformly hot weather, during which no rain falls. 8. No farm buildings of any kind are required, except the roughest and simplest cattle sheds, and no hedges, ditches, walls, or enclosures of any kind around the fields. The only storehouses needed are underground cisterns. These are alluded to in Jer. xli. 8. The lands are virtually undrained, and one farm or one field marked off from another only by large rough stones placed here and there along the boundary line. 9. The total amount of taxes is only a tithe of each year's produce. 10. The great fertility of ordinary arable lands. The heavy lands in some parts yield a hundredfold—at Siloam, for instance, and to the south of Gaza, in the region where it still retains the character it bore when 'Isaac sowed in the land, and received a hundredfold' (Gen. xxvi. 12). 11. The still greater fertility of irrigated lands. These yield four crops a year, and bear the combined products of England and Italy. 12. The immense productiveness of fruit trees. The olive, vine, fig, apricot, and mulberry tree in the high lands are excellent examples of the wealth that must have once been derived from this source. The vine, which is carelessly left to train along the ground, seems in some instances, as in the neighbourhood of Hebron, to turn into one huge mass of white grapes. In the hot plains oranges of very many kinds, lemon, citron, and banana, yield most abundantly.

“I can corroborate from personal observation the truth of the foregoing description, and believe that a European immigration on a large scale would be a valuable means of regenerating Palestine. A judicious outlay of capital in planting orange orchards and vineyards would yield a return in three years' time. Farming is lucrative; and native labourers must be employed when long exposure to the direct rays of the sun is required, but Europeans can readily oversee their labourers without suffering from the summer sun. The autumn and winter and spring months are charming; the summer heat can be diminished by building houses, as I have done, with verandahs and venetian blinds, and placing doors and windows opposite each other to facilitate cool ventilation.—I am, &c.,

“JOHN B. HAY, late United States Consul General.

“Jaffa, November 6, 1879.

“P.S. Since writing the foregoing I have seen the 56th annual report for 1878 of the Berlin Society for Promoting Christianity among the Jews. The population of Jerusalem is given as 7,000 Mahometans, 5,000 Christians, and 13,500 Jews. There were 8,000 or 10,000 Jews in Jerusalem ten years ago, and the increase of about 5,000 corroborates the statement of my letter as above.”

*To the Editor of the "Jewish Chronicle."*

"Sir,—To Mr. John B. Hay's interesting letter I am enabled to add the following from the same pen. 'The German settlements at Jaffa, Mount Carmel, and Jerusalem are successful as far as they go. They are, however, possessed of very limited capital, and confine themselves chiefly to trades; their colonies can scarcely be called agricultural. The success which has attended their cultivation of the vine at Carmel, their soap factory, tannery, and brewery, show that European energy avails much in spite of all obstacles. Religious views induced them to come to Palestine, and they make no aggressive attempts to evangelise the natives, holding that example is better than precept, and thus they will become a power for good in the land. They have a school and hospital at Jaffa, and own thirty-six houses, and a steam flour mill, also threshing machines, a large number of carts and waggons, and improved agricultural implements. Their spring waggons ply regularly between Jerusalem and Jaffa, conveying passengers. At Jerusalem they own about five acres and thirteen dwelling-houses. At Mount Carmel they possess sixty-eight dwellings and many vineyards. Leather and soap have been considerably manufactured by the Carmel colony and even exported. The importing firm of Duisberg, Breish, and Co., of Jaffa, have been successful in introducing Marseilles tiles for roofing, and dealing extensively in Asia Minor and Austrian timber, besides supplying Palestine with European, and chiefly German, commodities and manufactures. In view of these facts, it is reasonable to surmise that Anglo-Saxon energy and enterprise, aided by judicious outlay of capital, would accomplish as much, and even greater things, in Palestine.'

"Would that religious views could induce some of our millionaires to expend a few pounds out of their millions on practical undertakings such as the above."

"Yours obediently,

"December 1st, 1879."

"H. GUEDALLA."

*To the Editor of the "Jewish Chronicle."*

"Sir,—In conversation, at Constantinople, with Mr. Lawrence Oliphant, that gentleman was kind enough to confide to me, for publication in your columns, the hitherto unpublished details of a scheme which he has been maturing for a long time past, which is known only to a select few. His scheme has received the (unofficial) approbation of Lords Beaconsfield and Salisbury, and that of several of our co-religionists. So far Mr. Oliphant has been delayed by changes of Government and by political crises, but the approximate probability that the Sultan will see his way towards encouraging an enterprise which can only redound to his credit, by securing him a large share of public sympathy all over the world, which will tend to dissipate the growing impression that he is opposed to all reforms, even when they in no way interfere with his sovereign rights, and are attended with no political danger, has induced Mr. Oliphant to break the silence which he has

hitherto preserved, and to give me the following outline of his plan, fuller details of which will appear in the introduction to his forthcoming book of travels in Palestine. There can be no doubt but that the Sultan's firman will shortly be given to a scheme, which can only be a source of profit to his Government in its great financial extremity, and of strength to his empire at large.

“Every scheme in which the welfare of the Jews is involved, which emanates from external sources, is, not unnaturally, regarded by our coreligionists with suspicion. I may as well, at once, state that Mr. Oliphant is actuated by no kind of religious feeling in the matter. Anxious to discover a means by which the Sultan might show that prosperity is possible under his rule, he has, after mature deliberation, hit upon the colonisation of Palestine by the Jews—a people composed of varied nationalities—as the only possible solution of his problem which should not offend political prejudices. Whether the success of his scheme may not prove to be the corner-stone, thus fortuitously laid, of the great restoration which we all hope for, it would be premature to judge. In any case, Mr. Oliphant was good enough to read to me the complete rules for the government of his projected colony, as well as the whole of the introduction to the book, before alluded to, and anything more matured, clearer, or more intelligent, it has rarely been my lot to listen to. Such details as Mr. Oliphant allows me to lay before your readers are given, as nearly as memory will permit, in his own words.

“‘A great opportunity,’ Mr. Oliphant said, ‘is now being afforded to the Sultan of manifesting the sincerity of his desire to introduce reforms into one of the Asiatic provinces of his empire, which stands in much need of it. I have submitted a scheme to the Turkish Government for the colonisation of the fertile and unoccupied tract of land lying to the east of the Jordan, now sparsely inhabited by tribes of nomad Arabs. This tract, which I myself have visited and examined, consists of the land of Gideon and of the northern portion of the Plains of Moab, which formed the former heritage of the tribes of Gad and Reuben. This country is far superior in productive capacity to the territory on the west of the Jordan, the mountains of Gillead rising to a height of upwards of 4,000 feet above the level of the sea, and being heavily timbered, well watered, and susceptible in the highest degree of agricultural development. They can scarcely be said to be inhabited, the plains in the south forming a lofty plateau about 2,500 feet above the sea-level, consisting of rich arable land, cultivated, in patches, by the Arabs; but, with the exception of the town of Es Salt, there is no resident population, nor landowners. The whole tract belongs to the Government, which, omitting only a small sheep-tax levied on the Arabs, derives no revenue from it. The entire region proposed for colonisation comprises an area of about a million and a half acres, which should become the property of an Ottoman company, through whose agency, in conjunction with the Turkish authorities, it should be administered. The advantages to the Turkish Government of the



proposed scheme are as follows. It would bring into cultivation a rich tract of country, at present unproductive. It would be a reform involving no expense to the Porte, but, on the contrary, be the means of providing it with an immediate sum of money to be derived from the sale of the lands. It would prove to Europe that the Jews found greater facilities for toleration and protection in Turkey than in some Christian countries. It would in no way interfere with the sovereign rights of the Porte, as the administration would be under the auspices of an Ottoman 'Compagnie Anonyme,' and the colonists would become Ottoman subjects, while good government would be guaranteed to them by special regulations having the Imperial sanction. It is proposed to constitute the district set apart for colonisation into a separate *Sarjak* (province). The emigrants would not be exclusively Jewish, but an asylum would be afforded to many Muslim refugee families from Bulgaria and Roumelia, who have proved by the character of their farms, which they have been obliged to abandon, that they are excellent farm-labourers. The *fellaheen* would also flock over to be employed from Western Palestine, where they are in a state of extreme poverty. It is not intended, in the first instance, to utilise Jewish labour on the soil, but it is anticipated that out of the 200,000 Jews in Asiatic Turkey (to say nothing of the millions in Europe) enough men of more or less capital could be found to become landlords. As an investment, farming in Palestine, when properly conducted, is most remunerative. The colony could be connected by rail with the port of Haifa, by way of the Valley of the Jordan, which has a good incline the whole way, presenting no engineering difficulties.'

'It will at once be seen that Mr. Oliphant has hit upon the only present practicable plan of colonisation by the Jews. In their present condition of insufficient acclimatisation, they would only be capable of directing the economical labour of the *fellaheen*. Later on, practice and custom might make them agriculturalists *per se*. But when the whole of Mr. Oliphant's regulations come to be known, they will be seen to be replete with correct appreciation, and to be eminently practical in their character.

'The Sultan would clearly be conferring a great favour upon the Jewish race, for which they would be very grateful, in granting a concession of this nature. All they need is some kind of guarantee for protection and good government. They would, in all probability, respond to his invitation, and they would do their utmost to prove, by making their colony a success, that his generosity was not thrown away; and they would make it into a model of a peaceful and prosperous province, which might be imitated elsewhere, and be the beginning of a system which should extend throughout Asia Minor, and strengthen and consolidate the empire. The difficulty of dealing with the Arabs will not be found (Mr. Oliphant who has visited the district and dwelt amongst them says) to be as great as it would appear. The present comparative security which reigns there proves the beneficial results of the presence of a few troops.

“The fact that the Jews, as a race, are interested in the success of the project divests it of a British character. It is essentially of an unpolitical character in its bearings, and, inasmuch as the Jews are not struggling to acquire an independent national existence, it can be accompanied by no danger to the integrity of the Turkish Empire. Mr. Oliphant greatly hopes that when his proposed company is brought out, our co-religionists will show, by the liberality of their support, that they are not dead to all efforts which tend to secure some occupation by them of the land of their fathers, without involving any question of immediately charitable support of the occupants.

“Yours obediently,

“Odessa, December 21st, 1879.”

“SYDNEY M. SAMUEL.”

*To the Editor of the “Jewish Chronicle.”*

“Sir,—Having read with much interest the account which appears in your columns of Mr. Oliphant’s scheme for the Colonisation of Palestine, I should be glad to be allowed to contribute a few facts connected with the question.

“The character of the district selected for Colonisation, also gives good reason to hope for success. The plateau of Mount Gilead, elevated 2,500 feet above the Mediterranean, is always considered to surpass Western Palestine in the healthiness of its climate. Well supplied with water and with a rich arable soil, it also possesses considerable forests of oak trees towards the north, while a sub-tropical climate, giving facilities for the cultivation of almost every kind of fruit and vegetable, exists on the lower slopes above the Jordan. The country, though now entirely deserted, proved, as we know, once so attractive as to be preferred by some of the tribes of Israel to the Promised Land itself, and it is covered with the ruins of cities which continued to flourish even as late as the fourth century of the Christian Era. The ruins of Gadara, Gerasa, Heshbon, Madeba, &c., surpass in importance any remains existing West of Jordan.

“The district is bounded on the north by the plains of Hauran and Bashan, which are inhabited by the Druses. The corn of this northern district is of remarkably fine quality, and there seems no reason why crops equally magnificent should not be produced on Mount Gilcad.

“The details of Mr. Oliphant’s scheme will, no doubt, show that the undertaking is founded on principles as safe as that which is laid down in your correspondent’s letter, one which I have already had the opportunity of noticing in your columns—the employment of the native population under Jewish landlords. I may however be, perhaps, permitted to point out one or two of the principal difficulties which are likely to be encountered, and of the evident dangers to be guarded against.

“In the first place the constitution of a New Sanjak or ‘Standard’—a Government whose ruler would be directly responsible to the governor of Syria, Midhat Pasha, should give the opportunity for instituting a reformed system of administration.

“ It does not yet appear whether the governor would of necessity be a Turk or (which would appear possible) a member of the Colony, but it is evidently of the greatest importance that the choice of the officials working under him should depend in great measure on the Colonists, and that the laws regulating the levying of the taxes should be modelled on European custom, rather than on the unjust and ruinous practice of the Turkish administration—that the Colonists, in short, should be preserved from the official corruption and licence which are so rapidly reducing the Syrian peasantry west of Jordan to a condition of desperation.

“ A difficulty which would not be experienced west of Jordan arises on the east, namely, that of dealing with the Bedawin or nomadic Arabs who roam over the deserted country. The great tribes of the Sukr, the Anezeh, and the Beni Sakhr, have for so long remained undisturbed occupants of the country ‘ beyond Jordan,’ that they are in the habit of affixing their tribe marks to all buildings where treasure is thought to lie hid, a simple indication of their claim to the possession of the country and all its products.

“ These warlike tribes will resent and possibly resist the incursion of Colonists. The attempt forcibly to expel them would lead to long feuds and constant guerilla warfare, which would prove very damaging to agricultural prosperity. On the other hand, the Arabs have learned the value of money. It is not beyond the bounds of possibility that many might be induced to settle down as cultivators, while others would become breeders of cattle in pastoral districts. There is plenty of room for the Bedawin farther east, but it must not be forgotten that they are a distinct race from the Fellahin, a race always nomadic, never agricultural, and claiming a hereditary right to the country which it is proposed to colonise.

“ The construction of a railway from the port of Haifa is one of the first requisites for the success of the scheme. The Colonists would find themselves in the first instance almost entirely dependent for supplies on the country nearer the coast. Caravans of camels might no doubt be at first organised to communicate with the interior, but the competition with the country already cultivated would only be possible through the existence of rapid means of communication.

“ The railway presents some engineering difficulties connected with the passage of the Jordan valley, but they are comparatively unimportant. From Haifa in 15 miles it would rise gradually only 250 feet. In the next 15 it would fall about 900, following the broad passage down the valley of Jezreel to the Jordan. Thence by the line of the ancient Hieromax river it would ascend 3,000 feet in about 30 miles. The Jordan once crossed branches to Damascus on the north, and along the pilgrim route southwards to Moab would in time be made with the greatest ease. Haifa has long been proposed as a terminus for the Euphrates valley railway, and although the northern line from the Orontes possesses more important advantages, there is no doubt that a railway from Haifa might easily be extended northwards to Aleppo,

and from the main line of communication throughout Syria, north and south by Damascus and Hamah.

"I may perhaps note that, in the opinions of engineers, a light steam tram is considered far better fitted in the first instance for a semi-civilised country than a heavy line requiring greater initial expenditure.

"Heartily wishing success to a scheme which appears to be founded on sound principles, and supported by influential and able men,

"I remain, your obedient servant,

"CLAUDE R. CONDER, Lieut. R.E."

## THE EMPIRE OF THE HITTITES.

*Reprinted from the Times of January 23rd, 1880.*

ONE of the most curious results of modern research has been a belief in the existence of a great and influential Empire in Western Asia, the very existence of which had been forgotten in the days of classical antiquity. Even the name of the people who founded it, the Hittites, was known only from a few stray notices in the Old Testament, and none suspected that it had once been a name of power and terror to the nations of the ancient East. We hear in Genesis of a small and obscure Hittite tribe which inhabited the south of Palestine in Patriarchal times, and whose literary character might perhaps have been guessed from the title Kirjath-Sepher, or "Booktown," given to their capital Debir, west of Hebron. Twice, again, in the Book of Kings is mention made of the "Kings of the Hittites"—once as purchasers of the horses imported from Egypt by the merchants of Solomon (1 Kings, x. 29), and once as the dangerous rivals of the Syrian Monarch (2. Kings, vii. 6). So little, however, was known of their history, so utterly ignored was their existence by Greek and Latin writers, that Professor F. Newman once urged these two references as evidences of the unhistorical character of the passages in which they occur.

But the very statements which Professor Newman believed to damage the truth of the Biblical narrative have been turned into arguments in its favour. The kings of the Hittites not only existed, but were powerful enough to threaten Assyria on the one hand and Egypt on the other, and to carry the arts and culture of the Euphrates to the Euxine and Aegean Seas. The Hittites, called Kheta by the Egyptians and Khatti by the Assyrians, first appear on the monuments of the Egyptian monarch Thothmes III., in the 16th century before the Christian era. Thothmes had reduced the greater part of Western Asia beneath his rule; Nineveh and Babylon paid him tribute, and the Hittites, who occupied the north of Syria, formed part of his empire. It is probable that they had but recently established themselves so far to the south; at all events their place is taken by the inhabitants of Aram-naharain or Mesopotamia in the wars of Thothmes I., and by the Rotanu or

Semitic Syrians in the wars of Thothmes II. Henceforward for several centuries they are the most formidable antagonists of the Egyptian monarchy.

The two centres of their power were Carchemish on the Euphrates and Kadesh, the "Holy" City, on the Orontes. Amen-em-heb, an officer of Thothmes III., tells us how he had brought spoil and captives from the land of Carchemish and Aleppo, and how, during the siege of Kadesh, he had killed "a mare" sent by the King of Kadesh against the besieging forces, and had led the Egyptians through the breach they eventually made in "the new walls" of the town. The Hittites, too, took their share in the great confederacy which was defeated by Thothmes at the battle of Megiddo—an event which laid the whole of Palestine at the feet of the Egyptian conqueror.

The conquests of Thothmes, however, were not permanent. About two centuries afterwards, his successor, Seti I., was confronted by a formidable league of Syrian and Canaanite tribes, under the leadership of the Hittites. Once more the arms of the Egyptians triumphed, but the triumph was only momentary. Ramses II., the Sesostris of Greek historians, whose accession may be placed about 1400 B.C., found himself attacked in the fourth year of his reign by a wide-reaching confederacy of Asiatic nations, who all owned the supremacy of the Hittite princes of Carchemish and Kadesh. The Hittite monarch had gathered under his flag the tribes of Mesopotamia, of Western Armenia, and of Asia Minor. The story of the struggle has been recorded in a long epic by the contemporary court poet Pentaur. Ramses is there invested with the character and prowess of a divine hero; like the demigods of Homer, the gods fight on his behalf, and the fate of the whole war is made to depend on the might of his single arm. The battle raged round the walls of Kadesh till the Hittites, terrified by the superhuman deeds of the Egyptian monarch, fled precipitately and agreed to terms of peace. Such at least is the account of the epic writer; as a matter of fact, however, the contest was not decided till the 21st year of Ramses, when both sides, wearied out by the varying fortunes of a long war, determined to conclude a treaty. The Hittite text of this treaty was engraved on a silver plate and sent to Ramses by "the Grand-Duke of the Hittites, Kheta-Sira, by the hand of his herald Tartisbu and his herald Rames." The Egyptian translation of the treaty has been preserved, and we learn from it that an offensive and defensive alliance was formed between the rival monarchs, each of whom promised to come to the other's assistance in case of foreign attack, and to deliver up all political offenders or other criminals who may have fled from the one country into the other. The treaty seems to have been observed for about a century, when we find the Hittites and Egyptians again engaged in hostilities. Ramses III. (about 1280 B.C.) led the Egyptians as far as Carchemish itself, and returned home with spoil and prisoners from various Hittite towns. But the Hittites were no longer so powerful as they had been. The central authority had disappeared, and each of the chief cities was ruled

by an independent prince. Kadesh, too, seems to have passed into the hands of the Syrian, Carchemish from henceforth becoming the sole centre of the various Hittite tribes. Situated as it was on the Euphrates, it commanded the high road of commerce and war which led from Babylonia and Assyria into Asia Minor on the one side, and Palestine on the other. Driven back from the south by the rising Semitic kingdoms of Syria, the Hittites were forced to compensate themselves by conquests in the north and west. In the reign of the Assyrian monarch Tiglath-Pileser I. (B.C. 1130), they were still paramount from the Euphrates to Lebanon. They had subdued the Aramean tribes of Syria; Pethor, the home of Balaam, at the junction of the Sajur and the Euphrates, had become a Hittite city, and their sway extended as far as the Euxine. The Colchians and Urumians, who inhabited Western Armenia or Cappadocia, were tributary to the King of Carchemish and furnished him with troops, 4,000 of whom were defeated by the Assyrian invader. But from this time onward the power of the Hittites was on the wane. Threatened by the Arameans on the west and by the Assyrians on the east, they became more and more confined to the territory immediately surrounding Carchemish. The two Assyrian kings, Assur-natsirpal (B.C. 883—858) and his son Shalmaneser II. (B.C. 858—823), overthrew them and their allies, captured their cities, seized Pethor and the ford it commanded, and exacted an enormous tribute of gold, bronze, lead, precious stones and stuffs, and other objects from the wealthy inhabitants of Carchemish. After a respite granted by the temporary weakness of Assyria, the Hittites were once more attacked under Sargon; their last monarch, Pisisir, was defeated and slain (B.C. 717), and Carchemish made the seat of an Assyrian governor. The wars carried on by the Assyrians against Phœnicia soon afterwards caused the stream of trade to be diverted to the old Hittite capital, where merchants from all parts of the world met together. The maneh or maund of Carchemish became a standard of weight and money, and it was not until the fall of Assyria that the decline of the city can be said to have begun. At any rate, it was still considered the key of the countries beyond the Euphrates at the time when the ambition of Pharaoh Necho was overthrown by Nebuchadnezzar. It seems to have been known in Greek times under the name of Hierapolis, the Sacred City of the Asiatic Goddess.

The site of Carchemish was long a hotly-debated question. Circesium was the spot usually selected, but the selection threw the geographical statements of the Assyrian inscriptions into hopeless confusion. M. Maspero next proposed Mumbij, the ancient Bambyce, a little to the east of Aleppo, but this site also, though better agreeing with the *data* of the inscriptions than Circesium, was not entirely satisfactory. The discovery of its real position is due to Mr. Skene, at that time British Consul at Aleppo, and the verification of the discovery was the last achievement of Mr. George Smith, the lamented Assyrian decipherer. On the western bank of the Euphrates, midway between the village of Sajur and Birejik, which now overlooks the ford over the Euphrates

traversed by the caravans, is a huge mound of earth, covering an area as large as that of Bloomsbury, and composed of the crumbling remains of the Hittite capital. The ruined walls and towers which still surround the mound, as well as fragments of masonry and sculpture found upon its surface, had struck Pococke and some others of our older travellers, and the ruins had been supposed to mark the site of Gerrhæ or Europus. We now know that they represent a far richer and more famous city than either of these, and that the relics preserved among them belong to a much more remote age than that of any Greek town. They go by the name of Jerabis, and the excavations which are at present being conducted in them under the direction of Mr. Consul Henderson have already resulted in the discovery of several interesting monuments, two of which may now be seen in the British Museum. A writer in the *Cologne Gazette*, quoted by us in our impression of January 1, says of the most recent excavations:—

“I have seen on the spot the following three monuments:—First, a large square limestone block; upon it is a high relief representing a lion stretched out at length, against which two persons are advancing. Secondly, the lower halves of two great basaltic blocks, representing in high relief the lower halves of three persons. Thirdly, a column-like stone of a similar kind, with an inscription on one side and on the other apparently the figure of a woman. The inscription is perfectly clear, and consists of the pictures of animals, animals' heads, and many other signs or characters which for the present are quite enigmatical. In spite of some similarities with the writing on the often-mentioned stones from Hamath, now preserved in the Stamboul Museum, the above inscription is not all in the same character or language as the latter. At first sight the costumes appear purely Assyrian, but on careful inspection numerous details are discovered which are not at all Assyrian. These monuments will probably soon be floating on rafts down the Euphrates, and then find their way over the sea to the British Museum. Mr. Henderson has broken new ground of the highest antiquity. We wish him every success in his further efforts.”

The recovery of Carchemish and the resuscitation of the Hittite Empire have led to results unexpectedly important to the history of Western writing and Western culture. Carchemish was a centre from which the art, the religion, and the civilisation of the East may have been carried through Asia Minor to the Ægean, and thence to Greece. Its inhabitants could further boast of belonging to a race which had achieved what it has been granted to but few to achieve—the invention of a system of writing. They used hieroglyphic characters for this purpose, some of which preserved their primitive pictorial forms, while others ceased to bear more than a faint resemblance to the objects they originally denoted. The characters are always engraved on stone in relief, from which we may infer that the first materials employed for writing were fusible tablets of metal, such as that on which the treaty of peace with the Egyptians was inscribed, or those which must once

have filled the niches observed by M. Renan in the cliffs of Syria. Among the clay impressions of seals inscribed with Egyptian and Phœnician legends which were found by Mr. Layard in the record chamber of Sennacherib's palace were some which bore characters unlike any ever noticed before. For many years these attracted little attention. In 1870, however, certain curiously inscribed stones (one of which had been observed by Burckhardt as far back as 1812) were discovered built into the walls of the bazaar at Hamah, the ancient Hamath, and partially published in the first statement of the Palestine Exploration Society. Squeezes and photographs of them were taken in the following year by Mr. Tyrwhitt Drake, copies of which were published in Burton and Drake's "Unexplored Syria," together with an account of their history and character. Five short inscriptions were altogether brought to light, three of which are practically duplicates. In consequence of the discovery having been made at Hamah, the hieroglyphs of which the inscriptions consist were termed Hamathite, and it was found that they were identical with the mysterious characters on the seal impressions from Nineveh. Subsequently another inscription in the same characters was discovered at Aleppo, while a missionary—Mr. Davis—copied yet another, which was accompanied by a remarkable sculpture, in a wholly different part of Asia, the ancient Lycaonia. It thus became evident that the so-called Hamathite system of writing was not confined to Hamath and its neighbourhood, but must have been carried beyond the confines of Cilicia. This and other facts led to the belief that it was really of Hittite origin, and marked the presence of Hittite influence wherever it was found. The literary character of the Hittites was known from the Egyptian monuments, which, for instance, make mention of a certain "writer of books of the vile Kheta."

The discovery of Carchemish came most opportunely to confirm the belief. On the summit of the mound which covers its remains Mr. Smith noticed a broken statue, resembling in both dress and style of art the figures copied by Mr. Davis on the rocks of Ibreez in Lycaonia, and bearing an inscription in what we may now term Hittite hieroglyphs. Subsequent excavations on the same site have proved beyond question that these curious characters were the peculiar property of the Hittite race. The two monuments sent a few months ago from Jerabis to the British Museum are thickly covered with them, and show that the forms found on the stones of Hamath are later modifications, having somewhat the same relation to the older and more perfect forms of Carchemish that running hand has to printed type. What gives additional interest to these still undeciphered hieroglyphs is the probability that they are the source of the syllabary in the characters of which a large number of Cyprian Greek inscriptions are written as well as the legends on the inscribed objects found by Dr. Schliemann at Troy. This curious Cypriote syllabary, as it is called, must once have been widely used throughout Asia Minor, until superseded by the simpler Phœnician alphabet. The local alphabets of Lycia, Caria, and other districts, however, continued



to use some of the older characters, for which there were no equivalents among the Græco-Phœnician letters.

If the origin of the Cypriote syllabary is to be sought in the hieroglyphs of Carchemish, the presumption arises that Hittite influence must once have extended into Asia Minor. This Mr. Sayce has lately proved to be the case. He has pointed out that certain remarkable sculptures at Eyuk and Boghar Keui (possibly the ancient Pteria), on the Eastern bank of the Halys, are shown by their style, dress, and general characteristics to be of Hittite derivation. What is more, they are accompanied by inscriptions in Hittite characters. The Hittite sculpture discovered by Mr. Davis in Lycaonia has already been noticed, and two more Hittite monuments are now known to exist in the same locality. The silver mines near which they are found were probably the attraction which brought their engravers to the spot. Another Hittite monument was met with by Perrot, forming part of an old fort which commanded the ancient road from Pessinus to Ancyra. But the most remarkable discovery of all still remains to be mentioned. The famous figures sculptured above the roads from Ephesus to Phocæa and from Smyrna to Sardes, which Herodotus (II., 106) believed to represent the Egyptian Sesostris, turn out to be memorials of his enemies, the Hittites. The figures were set up at the place where the two roads met, in a ravine now called Karabel, and the spears they had in their hands served as signposts, the one pointing to Ephesus, the other to Smyrna. One of them has been known for more than forty years; the other, which is the one more particularly described by Herodotus, has been but recently brought to light. Both, however, are equally Hittite, and the inscription which still remains on the first of them is written in Hittite hieroglyphs.

Here, then, we have evidence that the Hittites once made their way as far as the Ægean. We can trace them by the monuments they have left behind to the Black Sea on the one hand, and to Lydia on the other. In moving westward they followed two paths, the northern one along which Croesus afterwards marched against Cyrus, and the southern one subsequently traversed by Xenophon and the Ten Thousand. Both met in Sardes, and here in the capital of Lydia was the centre from which Hittite influence in the west may have radiated, if it ever did so at all. But of this there can be no doubt. The peculiar art of Asia Minor has long excited the interest and curiosity of archaeologists. It is based on the art of Assyria, but has undergone certain changes and modifications which give it a very special form. In the opinion of some its origin has been discovered. They allege that it was introduced by the Hittites, and that the spot where it first took its peculiar shape was the Hittite capital Carchemish. Here Assyrian and Egyptian styles met together, and were modified by the genius of an alien people. The sphinx and solar disk were borrowed from Egypt, almost all else from Nineveh. Perhaps one of the most curious inventions of the Hittite artists was the double-headed eagle, which may be seen among the sculptures of Eyuk and Boghar Keui, and which after becoming the symbol of the Seljuk Sultans is now the crest of two Teutonic Empires.

But the influence of Hittite art was not confined to Asia Minor. It spread from thence to the islands of the Archipelago and to Greece itself. There is much in the art of early Greece, more especially as displayed in objects lately found at Mycenæ and elsewhere, which cannot be derived from a Phœnician source, and it is just this element which resembles the Hittite art of Asia Minor. The old legends which brought Pelops and his riches from the banks of the Pactolus had, after all, a grain of truth at their bottom. The germs of Greek art may have all come from Assyria; but they came by two different paths, partly through the hands of the Phœnicians, partly through those of the Hittites.

What they were in race and language is still unknown, and can only be determined when the excavations at Jerabis have been carried further, and the discovery of more inscriptions has furnished us with means of deciphering them. Mr. Dunbar Heath, indeed, fancies that they spoke an Aramean language, but their proper names as recorded on the monuments of Assyria and Egypt are, as Brugsch Bey has already observed, not Semitic. An inspection of the inscriptions, however, seems to show that they marked the relations of grammar by the aid of suffixes, and beyond this we cannot at present go. It is possible that, like the dialect of the mysterious cuneiform inscriptions of Van, the language they spoke belonged to a family of speech now represented by Georgian. In the words of an eminent Egyptian scholar, "future discoveries will afford convincing proofs" that this Empire, "in the highest antiquity, was of an importance which we can now only guess at."

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ERRATA—"QUARTERLY STATEMENT," 1879.

- P. 128, line 26, for "haroob" read "karoobah."  
 P. ,, ,, 39, after "fixes" read "in."  
 P. ,, ,, 41, for "risk" read "the risk."  
 P. 129, ,, 36, for "best" read "first."
-

THE

PALESTINE EXPLORATION FUND:

A SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHEOLOGY, THE TOPOGRAPHY, THE GEOLOGY AND PHYSICAL GEOGRAPHY, THE MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

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NOTE.—The Price of the "Quarterly Statement" is Half-a-Crown. Sent free to Subscribers.

THE

# PALESTINE EXPLORATION FUND

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On and after July 30th, the Offices of the Society will be  
at 1, Adam Street, Adelphi.

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## NOTES AND NEWS.

THE first instalment of the "Survey of Western Palestine" in the shape of the Great Maps in 26 sheets has now been delivered to all subscribers of the Special Edition. The first Volume of the Memoirs is far advanced and will be issued in the summer. The succeeding volumes will follow at short intervals.

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A few copies of the map have been issued to subscribers. Those who have put down their names may expect their copies in the course of the month. They will be sent out in order of application, and payment should be made in advance.

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The Committee are anxious that as many of their subscribers as possible should have the opportunity of seeing the Great Map. They have, therefore, had the sheets put together so as to form a map about 18 feet long, on rollers, which can be sent to any Honorary Local Secretary to the Fund, for exhibition to his subscribers, or to any subscriber to the Fund who may wish to show it to his friends and will pay the expenses of carriage. The map has already been shown at Edinburgh, Manchester, Leeds, Stroud, Hereford, Ledbury, and one or two other places.

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The "special papers" promised for the Memoirs will probably consist of three volumes containing (1) an account of research and discovery in Jerusalem by Colonel Warren, R.E., including his own excavations and all subsequent work in the city, illustrated by plans. (2) Professor E. H. Palmer's Journey through the Desert of the Tih. (3) Papers on various prints, from the *Quarterly Statement* (1869-1880), and others specially written for the work by the Rev. Canon Tristram, Colonel Wilson, Major Anderson, Mr. Glaisher, M. Clermont Ganneau and others. (4) The name lists, which will include not only all those obtained by the officers of the survey, but also those not in that list, given in Sepp and elsewhere, and found by Rosen, Guérin, Ganneau, and other travellers.

Colonel Warren has joined Major Anderson as Editor of the Maps; Professor Hayter Lewis has undertaken the supervision of the plans and architectural drawings; Mr. Walter Besant has been associated with Professor Palmer as Editor of the Memoirs. The Memoirs and maps will be published when subscribers of the Special Edition have had their copies, at TWENTY GUINEAS inclusive; a limited number only will be printed. A Subscription List is lying at the office of the Fund.

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The publication of the Large Map has been placed in the hands of Mr. Edward Stanford, 55, Charing Cross, who issues it at the price of Three Guineas. Subscribers to the Fund who wish to have it at the reduced price of Two Guineas, should apply to the Secretary of the Society at the new office, 1, Adam Street, Adelphi.

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It has been resolved for the convenience and help of students to issue at the same time as the reduced Map of Modern Western Palestine, two Biblical Maps of the same country in six sheets on the same scale, viz.,  $\frac{3}{8}$ th of an inch to a mile, (see p. 131). There will thus be three maps:—

(1) Western Palestine, illustrating the Geography of the Old Testament within the limits of the Map.

(2) Western Palestine, illustrating the Geography of the New Testament within the limits of the Map.

(3) Modern Western Palestine.

The preparation of these maps has been offered to, and accepted by, Mr. Trelawny Saunders.

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No part of Eastern Palestine will be engraved for these maps. It should be mentioned, to save disappointment, that the sheets sent over by the American Society are not offered as a survey, but as a reconnaissance. They are a valuable addition to our knowledge of that region, but the survey has yet to be undertaken.

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The price of the reduced maps to subscribers will be as low as possible; until they are ready, however, no decision can be arrived at.

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A meeting of General Committee was held on Tuesday, June 15th, in accordance with clause 22 of the Articles of Association. The Chair was taken by Mr. James Glaisher, but as the business of the meeting had all been transacted at the extraordinary meeting of March 16th, 1880, the proceedings were merely formal.

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In order to meet a desire expressed by many correspondents, the Committee have in preparation a pamphlet on the gains to the knowledge and better understanding of the Bible resulting from the survey of Western Palestine. A copy will be sent to every subscriber to the Large Map who wishes to have it.

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The Committee have also resolved upon issuing a general index to the papers

and subjects treated of in the *Quarterly Statement* from its commencement to October, 1880. The work has been undertaken by Mr. W. S. W. Vaux, F.R.S.

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Colonel Warren has in the press a work entitled "Temple or Tomb?" He maintains in this book that his explorations at Jerusalem tended to confirm the authenticity of the traditional sites of the Holy Sepulchre and Temple of the Jews. He shows that the Zion to which the ark of the Lord was brought by King David was a totally distinct hill from Moriah, on which the Temple of Solomon was built, and will point out that the confusion existing in the minds of many on the subject arises from the fact that, of the principal poetical works, the psalms referring specially to Zion were composed by David during the period when Zion was the Holy Hill, while the psalms written after the building of the Temple only refer to Zion in parallelisms. He also shows that of three hills on which Jerusalem is built, there is a general concurrence between the Bible, Josephus, and Maccabees that Moriah, the Temple mount, is that to the east; that to the south-west is the upper city of Josephus, and that to the north-west is the Akra, formerly the city of David (Zion), which was cut down by the Maccabees to prevent it dominating the Temple. He is of opinion that the west, south, and east walls of the Temple, together with the northern edge of the dome of the rock platform, indicate the limits of the Temple courts of Herod; the large marginal drafted stones of which formed the actual walls that existed or were built in his day. He maintains that the threshing floor of Araunah the Jebusite, was on the top of the hill of Moriah, and that the position of the Temple was in the main, identical with that indicated by the common tradition of Jews, Christians and Mohammedans.

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Mr. Laurence Oliphant, who has recently returned from a journey in Eastern Palestine, will publish in the Autumn a work entitled "The Land of Gilead." His expedition, which was undertaken in the interests of the project which we described in the last number of the *Quarterly Statement*, led him to many places never before described, even if they have been visited by European travellers, and was rich in geographical and archaeological results.

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When the Memoirs are completed it is proposed by Mr. Walter Besant to prepare a translation of the early travels in Palestine. This will include, besides those accounts published by Tobler, the description of Jerusalem on the arrival of the Crusaders, which has never hitherto been translated from the Norman French, and a chapter on the Arabic historians, which will be contributed by Professor E. H. Palmer. Colonel Warren has promised to add a running commentary and short notes to the text. This book will probably be published next year by subscription.

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We promised to give Professor Palmer's translations of the Arabic inscriptions in the Cubbet es Sakhrâh in this number of the *Quarterly Statement*. He has, however, been unavoidably prevented from completing them.

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Mr. Greville Chester's report of his journey through the cities of the Delta and the shores of the "Lacus Serbonicus" will be found in this number. He points out serious errors in the revised maps and differs altogether from the theory of Drugsch Bey.

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A cheap edition of "Tent Work in Palestine" will be published in the autumn. Its price will probably be 7s. 6d. A few copies still remain of the Library Edition.

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The income of the Fund from all sources, from March 20th, 1880, to June 28th, 1880, was £1,048 14s. 8d. The general expenditure on rent, parcels, postage, printing of Quarterly Statement, of Memoirs, &c., during the same period has been £528 1s. The amount in hand at the Committee meeting of June 28th was £1,432 2s. 11d.

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It is suggested to subscribers that the safest and the most convenient manner of paying subscriptions is through a bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

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The publications of the Society now in print are:—

1. The Recovery of Jerusalem. Third Thousand. 16s. to Subscribers.
2. Our Work in Palestine. Ninth Thousand. 3s. 6d.
3. Tent Work in Palestine. Second Thousand. 17s. 6d. to Subscribers.
4. The *Quarterly Statement*.

The second of these contains a popular account of the excavations in Jerusalem, with the reasons and aims of the work.

A few copies still remain of Lieutenant Kitchener's Guinea book of Biblical Photographs. It contains twelve views, with a short account of each. The views are mounted on tinted boards, and handsomely bound.

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Cases for binding the *Quarterly Statement* can be obtained of the Society's publishers, Messrs. R. Bentley and Son, at eighteenpence each. They are in green or brown cloth with the stamp of the Society.

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The following are at present Representatives and Lecturers of the Society, in addition to the local Honorary Secretaries:—

- Archdeaconry of Hereford: Rev. J. S. Stooke-Vaughan, Wellington Heath, Vicarage, Ledbury.
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 North Wales: Rev. John Jones, Pwllheli, North Wales.  
 Yorkshire, Durham, and the North: Rev. James King, St. Mary's Vicarage, Berwick. Mr. King has recently returned from the Holy Land; communications for lectures, &c., can be sent to the Office at Charing Cross.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that these rest solely upon the credit of the respective authors, and that by publishing them in the *Quarterly Statement* the Committee neither sanction nor adopt them.

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Annual subscribers are earnestly requested to forward their subscriptions for the current year when due, at their *earliest convenience*, and without waiting for application.

The Committee are always glad to receive old numbers of the *Quarterly Statement*, especially those which have been advertised as out of print.

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### THE REDUCED MAPS.

The following correspondence more fully explains the statement made above as to the reduced maps:—

*To the Editors of "The Leeds Mercury."*

GENTLEMEN,—Having recently written to the Secretary of the Palestine Exploration Fund relative to the exhibition of the great map on Thursday last, and mentioned the criticism of several subscribers that so few of the biblical names of places were introduced—many even of important towns being marked only by their modern names—I have received the accompanying letter in reply, which Mr. Besant asks me to publish, hoping that the subscribers will be satisfied with the action of the Committee in meeting their objections half-way.—I am, &c.,

“ED. ATKINSON.

“Leeds, 10th June, 1880.”

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“Palestine Exploration Fund,  
 “11 and 12, Charing Cross, June 7th, 1880.

DEAR SIR,—I have to acknowledge the receipt of your letter of this morning. The Committee have already considered the questions raised by you in this communication as to the scriptural names, and are fully awake to the importance of making the results of the survey more widely useful to biblical students than is possible with the great map alone. With this object in view they have resolved upon issuing, as soon as they can be prepared, three maps of Western Palestine,

reduced from the large map which you have seen, to three-eighths the original size. The first of these will contain as many of the modern names now in the large map as can be found room for, and will form a trustworthy map for the traveller and geographer of modern Palestine. The second will be a map of the country in the time of Our Lord, forming an accurate map (so far as the identifications are accepted) to illustrate the New Testament and Josephus. The third will be a map of the country in the time of the Kings, illustrating the whole of the Old Testament narrative so far as Western Palestine is concerned. In addition to this, we have now in hand, and shall shortly publish, a pamphlet on the principal gains to Biblical knowledge from the survey. I have to add that the price of these reduced maps to subscribers will be fixed at the actual cost-price of their production. They will all be ready, I think, by February next. It is a great satisfaction to the Committee that their subscribers in Leeds have had a chance of seeing how their money has been expended, and of realising that they have contributed to the completion of the most important work ever undertaken in illustration of the Bible. I have only now to convey to you the thanks of the Committee for your own exertions and trouble in the cause.

“I remain, dear SIR, faithfully yours,

“WALTER BESANT, M.A., Secretary.

“Edward Atkinson, Esq., F.R.C.S.”

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## A JOURNEY TO THE BIBLICAL SITES IN LOWER EGYPT, ETC.

By GREVILLE J. CHESTER, B.A., Member of the Royal Archæological Institute.

THE work of the Palestine Exploration Fund could scarcely be deemed complete if Egypt were left out of the scope of its investigations. In the very first Book of the *Old Testament*, we read of Abram going during a famine to sojourn in the rich and fertile land of Egypt, and of his deceitful dealings with the king of that country, and on the very threshold of the *New Testament*, we are told of the flight of the Blessed Virgin Mary and St. Joseph with the Holy Child to the same place of refuge, and how it was that "out of Egypt God called his Son." In addition to this, much of the *Old Testament* relates to Egyptian transactions, and there is, in point of fact, scarcely a better or more striking commentary upon the inspired Prophets than the present state and aspect of the ancient Biblical cities of Lower Egypt.

So far as the writer can discover, there are no Arabic or Christian traditions in Egypt, relating to the visit of the Patriarch Abram, and Brugsch's identification of a place called in the monuments *T-en Moshè*, the Island or Riverbank of Moses, with the name of the great deliverer and law-giver, must at the best be considered very doubtful. ("Hist. of Egypt," ii, 112). With respect, however, to the "Flight into Egypt," and the sojourn of the Infant Christ in that ancient land, four traditions prevail to this day amongst the Copts, who are the representatives of the ancient Egyptians, and the inheritors to some extent of the traditions, as they are the actual possessors of the property of the ancient orthodox Church of Egypt.

The first of these traditions relates to the Crypt Church of Sitt Miriam, the Lady Mary, under the fine and curious Church of Abou-Sirgeh in the ancient Roman fortress of Kas'r or Dayr-esh-Shemmah at Mis'r Ateekeh, (Old Cairo). The church in question is a small subterraneous building of very early type, perhaps as early as the sixth or seventh century. It has three aisles, each side aisle being separated from the nave by two pillars taken from some earlier Greek or Roman structure. In the eastern, northern, and southern walls respectively, there is a niche with a slab sculptured with a cross at the bottom of each, and according to Coptic tradition, the Virgin and St. Joseph reposed in the side ones, and the Divine Child in that in the centre. His Holiness Kyrillos, the present Patriarch of the Copts, whom I questioned on the subject, declared that this tradition is at least as old as the crypt to which it relates.

The three other traditions are connected with the fountain and tree at Matareeyeh a few miles from Cairo in the immediate neighbourhood of

the ruins of Heliopolis (On). In a garden a little to the right of the road, presented with characteristic bad taste by the ex-Khediv to the Empress Eugénie, and now profaned by a French café, is a venerable *Gemaseh*, or sycamore-fig tree, under whose branches the Holy Family are traditionally reported to have rested at the time of the Flight. Another tradition relates that the Blessed Virgin concealed the Holy Child in a hole in the trunk, and that a spider spun its web over the aperture so as to conceal Him from His pursuers.\* The present tree is said to be the successor of one which died some two centuries ago, but there is nothing in the appearance of the tree itself to militate against the idea that it is of a much greater antiquity, and the extreme longevity of the sycamore-fig is well known. Hard by is a fountain with a sakieh, fed probably by percolation from the Nile, but said to have been brackish until the Virgin bathed therein, when it became sweet. To these stories, I may add that it was interesting to one who in childhood in his native Norfolk had heard the legend which connects the white spots on the leaf of the "Blessed Thistle," with the milk of the Blessed Virgin, to find the road in the neighbourhood of Matareeyeh, bordered on both sides with luxuriant tufts of that beautiful plant.

Thus much being said about the local traditions, the writer would remark that the following notes are the result of a journey undertaken in the early part of the present year at the request of the Committee of the Palestine Exploration Fund, to visit the principal Biblical cities of Lower Egypt, and the places on the route of the Israelites at the Exodus, as proposed many years ago by Richter and Schleiden, and advocated afresh by Brugsch Bey, who, it must be confessed, has made but slight acknowledgment of the labour of his predecessors. The writer, in what he has to relate, has himself no particular theory to advocate with regard to the Exodus; all theories at present promulgated, presenting in his opinion, almost insuperable difficulties. His sole object has been to search after truth, and to relate as plainly as possible what he saw, in the hope that others may be aided in drawing safe conclusions from the facts stated and the observations made. He has not shrunk, however, from noting in passing anything which in his opinion makes for or against a theory, which most people will allow to be a brilliant one, and which, at all events *prima facie*, has much to commend it.

Upon one point, indeed, Herr Brugsch seems to have laid too little stress, although it tells in his own favour. It surely seems unlikely in the extreme that a multitude of people whose main object was to get out of the country as fast as possible—to go out into the wilderness or desert to sacrifice unto the Lord—a multitude laden, moreover, with rich plunder, and encumbered with flocks and herds—it surely seems unlikely in the extreme that they should, in the first instance, have gone utterly out of the way in the direction of Suez, and that through a hostile country, and through the very midst of their former enslavers, when they

\* Bœdeker's Handbook.

might have gone out straight and by a short cut into the desert by the well-known "royal" route into Phœnicia.

It seems probable indeed that the term "Red Sea" adopted by the Authorised Version from the LXX, has put investigators on a wrong scent, and has even led a writer of such justly high renown as Professor G. Ebers to attempt to identify the Baal-Zephon of Scripture with Gebel Attâka, many miles below Suez. The name Baal-Zephon is clearly of Phœnician or Semitic origin, and to be looked for on the road to Syria, and not in a place so utterly remote from Phœnician influences as the desert Egyptian coast of the Red Sea. If one were asked where one could naturally expect to find a Baal-Zephon, one would instantly point to some spot in the direct route from Egypt into Syria, and it is in that very direction that Herr Brugsch finds indicated in the Papyri a Baal-Zapouni, which he seeks to identify with Mount Casius. Why I am compelled to question the correctness of this view will appear hereafter.

In the ensuing notes, I propose to speak separately of the principal sites visited in Lower Egypt, and then to give a more detailed account of my journey on the supposed route of the Hebrews at the time of the Exodus.

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### HELIOPOLIS.

SOME 9 miles from Cairo, and a short distance beyond Matareeyeh and the "Virgin's Tree" are the remains of Heliopolis, the City of the Sun-god Râ, called *An* by the ancient Egyptians, and *On* and *Beth-Shemesh*, the abode, that is, of the Sun, in Holy Scripture. In the LXX and Vulgate, it is called by its Greek equivalent "Ἡλιουπολις;" and in the LXX it is added to Pithom and Ramses, as being one of the "Strong," or rather "Temple" cities which were built by the oppressed Hebrews for the Egyptians. On was a priestly city and a place of learning, and its reputation was such that Plato is said to have studied there under the priests for no less a time than thirteen years. Joseph is believed also to have studied there, and it is expressly stated in the Book of Genesis (xli, 45), that the Pharaoh gave him to wife, Asenath, the daughter of a priest of On, named Potiphera, one, *i.e.*, dedicated to the Sun-god Râ. Although it never attained to the rank of a capital, Heliopolis was always a city of great celebrity. Here the worship of the Bull Mnevis, sacred to Râ, was established as early as the remote period of the second dynasty, under King Kakao, *circa* B.C. 4100-4751. The mystical bird called the *Bennu*, or Phoenix, was likewise venerated here, and speaking generally, On may be described as having been the centre of the worship of the deities connected with the sun. King Amenemhat I, the first King of the 12th dynasty, is said to have *restored* the shrine of Tum, the Evening-Sun-god, and to have laid the foundations of the great Temple of the Sun, in front of which amongst others was erected the noble obelisk, which still exists,

by his son Osirtasen I. The title "Lord of On" was added to the other pompous titles of the Egyptian kings, and the vast wealth of its temple, and the immense number of its priests, are recorded in several papyri. Now almost all the ancient glory of Heliopolis has been swept away by the hand of time, the greed of successive tyrants, and its proximity to Cairo, for the erection of which city its ruins must have formed a convenient quarry. The remains, however, are still considerable. The obelisk of Osirtasen, which still exists, is the oldest in Egypt of its size, which is no less than 66 feet 6 inches above the level of the pavement from whence it sprung. Like other obelisks, it is a monolith, and made of the red granite of Assouan, the ancient Syene, at the first cataract. It is now buried to a depth of between 2 and 3 feet by the deposits of the Nile. This obelisk, which was doubtless one of a pair which stood in front of the great temple of the Sun, now stands amidst a few trees near the centre of the vast enclosure which anciently surrounded the temple. It bears the same hieroglyphic inscription cut in each of its four sides, and includes the cartouch and name of its founder, Osirtasen I. Unfortunately, the mason bees have nearly obliterated the inscriptions on the north and south sides of the monument by covering them with their cells of hardened clay. On the east and west sides, however, the inscriptions appear of a brown colour on a red ground, the cells in those positions only filling up the deeply-incised hieroglyphs to the level of the red granite surface of the obelisk. The sides of the vast oblong space in which the temple was situated are still marked by mounds, or walls of crude brick, those to the east, south, and west, being of narrow dimensions. Those to the north, however, have their continuation in the ruins of the ancient town which, formed of crude brick houses, must have been of considerable extent. Here are frequently found scarabæi, sacred images and emblems in porcelain, and other antiquities. The city is separated from the neighbouring desert by a narrow strip of inundated and cultivated soil. The Pelusæic branch of the Nile, which formerly passed close to the city, is now entirely silted up.

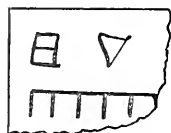
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#### TEL-EL-YAHOUEH.

SOME 20 miles from Cairo, near the Moslem village of Shibeen-el-Kanater, rise the imposing remains of Tel-el-Yahoudeh, "the Mound of the Jew," which, although not connected with any Biblical site, are yet deserving of notice in this place, as being conjecturally the ruins of Onion or Onia. It should be mentioned, however, that Onion is placed by Sir G. Wilkinson at Belbeis, and by Mr. R. S. Poole at Leontopolis. Anyhow, the name of the place indicates some intimate connection with the Jewish people, which cannot be said of either of the other sites.

Onias, son of the High Priest Onias III. escaped in early youth from Syria, and found refuge amongst the party of the Mizraimites in Egypt,

at that time ruled by Ptolemy Philometor, B.C. 222. In order to bring about the union of the Hellenistic Jews, Onias, encouraged by a prophecy of Isaiah, that a time should come when there should be "an Altar to the Lord in the midst of the land of Egypt," (Isaiah xix, 19), applied to the king for permission to build a new temple on the site of a deserted shrine, or fortress. Ptolemy, although marvelling that a Jew should desire to erect a temple to the God of Israel in a place abounding in idolatrous emblems, nevertheless granted his request, and Onias erected the temple and town called Onion after himself. Josephus describes the temple, so erected, as resembling a tower, and states that it was surrounded with a wall of burnt brick, with gates of stone. In it was a golden lamp, suspended by a golden chain. No certain vestiges of this temple can now be discovered, but there are vague rumours of the finding of Hebrew inscriptions, now lost; and Professor Sayce informs me that he this spring found a fragment of stone lying on the inner slope of the mound on the eastern side, bearing two ancient Hebrew letters. This stone seemed to have been originally covered with a thin coating of stucco. The two old Hebrew characters would represent the square Hebrew  $\eta$   $\epsilon$ . Be that as it may, the extent of the ruins shows that Tel-el-Yahoudeh marks the site of an ancient Egyptian town of considerable importance, and one can scarcely doubt that it was a royal residence.



The town was upwards of half-a-mile in length, by a quarter of a mile in breadth, and was defended by a ditch and wall, which last rises on the eastern side into a lofty fortress, built, like the walls, of crude brick, and containing a curious windowless shaft or dungeon, ten feet square. Beyond this, still farther to the east, extends a lower, but equally long, part of the Tel, chiefly occupied by streets of houses of crude brick, some of which still bear the traces of whitewash. This portion of the town has evidently been burnt, and is apparently chiefly of the Roman period. On the western side of the Tel might be seen a few years since some portions of what I conjecture to have been a royal kiosk or country residence of Rameses II. A monolithic bath of limestone, and a few blocks of alabaster, are almost the only remains now existing. Formerly there was visible a floor made of blocks of polished alabaster, on which were set pedestals of granite and alabaster, bearing the cartouches of Rameses II, and others of a later period, inlaid with circular roundels of various sizes of brown and yellowish porcelain, of which each one bears a six-pointed flower or rosette. Amongst the surrounding *débris* were formerly to be found portions of splendid porcelain friezes, and wall decorations of various colours and designs, some of which are inlaid with glass. Other friezes were of alabaster, some inlaid, and some carved in relief. Amongst the latter were several heads of Rameses. The porcelain friezes represented rows of figures of the Phœnix (*Bennu*), serpents, lotus buds, and several conventional designs. Others had inlaid figures of Semitic and Negro captives, and other figures coloured yellow, and apparently representing people of some European race. On one occasion I

dug out a perfect figure of an Asiatic captive with my own hands, and it may now be seen in the British Museum. Besides these, I brought away tiles with the prenomens and name of Rameses inlaid in glass. At different visits to Tel-el-Yahoudeh, I have seen or obtained portions of statues and other objects bearing the names of Apopi or Apappus, an Hyksos King, Seti, or Menepthah I, the presumed Pharaoh of the Exodus, Rameses II and III, and Sheshonk I, the Shishak of the Bible. The statues have unfortunately been all broken up by the fellaheen as soon as they were discovered, from fear of the infamously cruel system in vogue in Egypt, which exposes the accidental discoverer of antiquities to flogging and imprisonment, and to the confiscation of the objects found.

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### TEL-BASTA.

FIFTY miles from Cairo, in a rich and fertile country, and close to the flourishing modern town of Zagazig, or Zakazik, rise the extensive mounds and ruins of Pibast, the *Pibeseth* of Ezekiel xxx, 17, and the Bubastis of the Greeks. The ruins at present cover a very large space of ground. The ancient city, which was visited and described by Herodotus,\* was celebrated for its beautiful temple, dedicated to the cat or lioness-headed goddess, Pasht, the Egyptian Aphrodite or Venus. This goddess is represented with the head of a lioness or cat, and her sacred emblem was the cat. Numbers of bronze cats, some of which have crystal eyes, have been procured from Tel-Basta, and sent to England by Mr. Clark, of the Telegraph Department of the Egyptian Government, who perhaps knows more of the ruins of the Tel than any one else. Only a few granite blocks now remain of the splendid temple described by Herodotus, but Mr. Clark has discovered some small fragments of another, probably that mentioned by the Greek historian as dedicated to Hermes. Around the relics of the great temple, rise the crude brick mounds of the ancient walls of enclosure, which in one place assume the form of a fortress. The houses of the city, which are being continually excavated by the fellaheen for the dust, with which they manure their land, are in an unusually good state of preservation. From the top of the mounds the desert is plainly visible, although at a considerable distance. When wandering amidst the shapeless mounds of Pibeseth, and finding ever and anon pieces of skulls and other human bones protruding from the soil, it was impossible to help remembering that Ezekiel of old time had prophesied that "the young men of Aven and Pibeseth shall fall by the sword, and these cities shall go into captivity."

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\* "Herod." ii, 137.



## TEL-FAKÛS.

TEL-FAKUS, the Kûs of the Copts, and Phacusa of the Greeks, which, with great probability, has been identified with the Goshen (Gosem or Kosem), of the Bible, is about  $4\frac{1}{2}$  hours distant from Tel-Basta. It was itself a city of considerable size, and the capital, probably, of a district bearing the same name, which, as we read in Genesis xlvii and xlviii, was granted to the immigrant family of Joseph, as an habitation for them and for their children, for their flocks and for their herds. The rich and fertile appearance of the surrounding district, the "Land of Goshen," quite bears out the scriptural statement that it was "the best of the land," and one has no cause to wonder that the Israelites should have "grown and multiplied" therein "exceedingly." The Tel at present is of considerable extent, but the mounds have been mostly carried away by the country folks who use the disintegrated bricks of Nile mud, and the dust and rubbish as a top-dressing for their land. The innumerable potshards which are left, cause the mounds to be of a red colour. Part of the ancient site is occupied by palm-trees, amidst which, from heaps of red pottery, tower up large fragments of the crude brick houses. A few blocks bearing the name of Rameses II, are said to have been found in the Tel. Apart from the beauty of the site, beside a small lake, and amidst innumerable palm-trees, Tel-Fakûs is an uninteresting place. I was awakened several times during the night by the melancholy cries of numbers of jackals, which were answered by the bay of the dogs, which had voluntarily constituted themselves the guards of my tent.

There are two routes from Tel Fakûs to Sãn. The nearest of these leads through swamps, which at the time of my visit were impassable on account of the amount of water on the track. The other conducts the traveller by way of Salaheyeh. This road passes first through a country abounding in splendid palm-trees, intersected by small pools of water, and then enters an altogether treeless district of marshes, intersected by reed-encumbered lakes, and with the desert in full view to the right of the track. The scanty inhabitants dwell in huts constructed of reeds, and in appearance, and to a certain extent in language, they differ from the other inhabitants of Egypt, being doubtless of Semitic origin. After passing a large lake covered with innumerable wild-fowl, Salaheyeh is reached at the distance of about four and a-half hours from Tel Fakûs. From its position on the caravan route to Syria, Salaheyeh is an important place, and its Sheik has a widely extended authority. At the time of my visit, the Sheik, who has the title of Bey, was absent, but I was received with much kindness and gentlemanlike courtesy by his son Edroos, a handsome youth of pleasing manners, and by his brother, the Sheik Imâm. The houses of Salaheyeh, instead of being crowded together, are scattered about beside a small birket or lake, and amongst the magnificent groves of palms, of which there are no less than 54,000 in Salaheyeh alone.

## SÂN.

THE journey from Salaheyeh to Sân occupies little more than five hours. The path, after leaving the palm-groves, crosses a strip of desert, when another grove of palm-trees is reached, and soon afterwards a ferry-boat takes the traveller across an ancient canal, which represents the ancient Pelusaic branch of the Nile, and runs down to Tel Dephneh, and so out into the lakes. The place now reached is called "Gezeereh," *i.e.*, the Island, and is an elevated tract of sand surrounded by a zone of cultivated land, and tenanted by a tribe of immigrant Mogrebi or Moorish Arabs. Seeing some splendid greyhounds near the Sheik's tent, I accosted an ancient, and requested permission to examine them. I was thereupon invited to alight and to partake of coffee in a rude hut formed of palms, supports, and reeds, and open at one end. Here I found four superb peregrine falcons, jessed and hooded, with crimson plumes on their hoods. They are used, in conjunction with the greyhounds, in the chase of gazelles, which abound in the adjacent desert. Leaving Gezeereh, and on the edge of the waste, I diverged from the tract to the left to examine some huge granite fragments which I saw lying upon the sand. They proved to be the half of a kind of bath, and portions of what seems to have been a Colossus. Around are strewn numerous fragments of pottery and glass. I now entered "the field," or "plain of Zoan," the great and hideous waste which extends to the foot of the mounds of Sân. The soil of brown, and sometimes blackish, pulverized mud, with an efflorescence here and there of white salt, is diversified only by the flickering mirage, and by low tumps of windswept sand precariously held together by the roots of stunted bushes of tamarisk and "worgat." In places, pools of salt water crossed the track, which only a few days before would have been impassable. As I advanced on foot, to spare the wearied beasts, the huge mounds of Sân appeared in front looming over the blasted marsh, and red with innumerable sherds of pottery, the accumulation of long-forgotten generations of men—men of whom of old time the Prophet Isaiah exclaimed, "Surely the princes of Zoan are fools, the counsel of the wise counsellors of Pharaoh is become brutish? Where are they? Where are thy wise men?" (Isaiah xix, 11, 12.)

The modern village of Sân is a small collection of mud hovels standing in a pestilential situation on the banks of a canal, once the Tanitic Branch of the Nile, about 10 miles from its junction with Lake Menzaleh and near the west end of the huge mounds which contain the Temple.

Sân, or Sân-el-Hagar, "Sân of the Stones," is the Zoan of Scripture, and its antiquity is spoken of in the Book of Numbers, where it is said (xiii, 22), "Now Hebron was built 7 years before Zoan in Egypt." Upon or close to the site of this ancient Zoan, called also in the monuments Zor, *i.e.*, the Strong, was founded another city, but by whom it does not appear to be certain. The Sanctuary or Holy of Holies, of the great Temple, however, is stated to belong to the sixth dynasty, as the name of King Pepi (Apappus) has been found in that position, and of the twelfth dynasty

monuments have been found at Sân, bearing the names of Amenemhat I, Osirtasen I, and Osirtasen II. That Sân was a place of great importance under the foreign monarchs of the Hyksos dynasties is certain, as Mariette-Pasha discovered many important monuments belonging to them, which are now in the Museum at Boulak. One of these is a group of two figures in dark grey granite. The heads are unfortunately much damaged, but the beards are in the Asiatic form and utterly unlike those of the Egyptians. On the base of their throne are represented aquatic flowers, and fish resembling the grey mullet and a kind of perch or bream. The fore part of a Sphynx in blackish granite, which bears the name of Ra-aurenen Apapi in a cartouch upon the shoulder exhibits features widely different from the Egyptian. By some Zoan is conjectured, at the early time of the erection of the sanctuary in the sixth dynasty to have been Ha-awar, the Avaris of Manetho. Avaris, however, is placed by Brugsch, but as I believe erroneously, at Tel-el-Hîr. After the conquest of the Hyksos by Aahmes (Amosis) the first king of the eighteenth dynasty, the importance of Sân seems to have declined. It rose again, however, under Seti or Menepthah I, for this king, as also his successor, the Great Rameses, erected such vast and splendid buildings with the aid of the conquered Hyksos people and of the captive Hebrews, that they, and especially the latter, may be considered as the new founders of Sân, which now obtained the name of Pi-Ramessu, or the City of Rameses. The new city, in fact, under this monarch became the principal royal residence and the capital of the Egyptian Empire. Rameses enlarged and added to the sacred edifices already existing, and Brugsch states that the Papyri abound in dates relating to the building of the new sanctuaries, and to works in stone and brick, with whose erection the workmen were burdened. The Pharaoh "who knew not Joseph," was this same Rameses, the king who so grievously oppressed the Hebrews, and the father of the princess who found the infant Moses in his cradle of papyrus in what was afterwards known as the Tanitic branch of the Nile. Sân, then, or Pi-Ramesses was the Raameses, one of the "Treasure" or rather "*Temple Cities*," (Pithom or Pi-Tum, the City of the Setting-Sun-God being the other), which are stated in Exodus i, 11 to have been erected by the Hebrews for the King of Egypt. At this period the fortifications of Sân as strengthened by Rameses were so strong and its position commanding as it did the road into Syria, so important, that the city was regarded as the "*Key of Egypt*." The temples were dedicated to the great Gods Amen, Ptah, and Hornakhu, with whom Rameses associated the foreign Baal-Sutekh, a deity whose worship had been introduced from Phœnicia. Brugsch mentions the interesting speculation that in the Papyri the priests of Zor-Rameses bore the name of *Khar-tob*, *i.e.*, the Warriors, and considers that the Magicians summoned by Pharaoh to imitate the miracles of Moses and Aaron and who are called *Khartumin* in Scripture, probably derived their name from the same word.\* As the capital of the Empire Zoan or Raameses was no doubt

\* Brugsch, "Hist. of Egypt." Vol. ii, 354.

the head-quarters of the captive Hebrews, and we have the express authority of Holy Writ for the fact that the miracles of Moses were wrought in the "field" or "plain" of Zoan. Psalm xxviii, 12. It was amidst the stately buildings of this city that the wailing of the Egyptians over their firstborn was heard, and in the reign of Menepthath II, the successor of Rameses, the Sesostris of the Greeks, the main body of the Hebrews must have started on their long wanderings.

After the Exodus, although with some fluctuations, Sân, or Tanis, as it was called from the time of the twenty-first dynasty, seems for long to have retained its importance. Thus in Isaiah xix, 11-13 "the princes of Zoan" are coupled with the "princes of Noph," *i.e.*, Memphis, as though those two cities were the principal ones in Egypt, and in Isaiah xxx, 4, "the princes of Egypt" are mentioned as being at Zoan.\* The Prophet Ezekiel also, at the time of the invasion of Egypt by the Assyrians, prophesies its destruction, and that "fire should be set in Zoan." How this prophecy has been fulfilled to the letter will be seen hereafter.

At the present time the ancient glory of a royal capital has dwindled down to an even unusually squalid village of mud hovels. Looking eastwards towards the Tel the huge mounds appear to open and the space between is filled with, as it were, an avalanche of immense stones, which are the remains of the western pylons of the Great Temple. Perhaps, however, the most striking view of all is, when coming from the north or south, one gains the summit view of the mounds, and suddenly and unexpectedly looks down upon the ruins of a Temple some 600 feet in length and constructed entirely of red granite from the far-off quarries of Assouan. Strewn about in all directions are papyrus-bud columns, obelisks, colossi and shrines, overthrown indeed, but otherwise in a marvellous state of preservation; the inscriptions and carvings in the finest style of Egyptian art, being as fresh as though they had been cut yesterday. It is a great solitude, and brooded over by a deep silence, which makes the scene of ruin and desolation all the more striking. Few scenes in Egypt, the land of wonders, are more impressive, none lay more closely hold upon the imagination. The highest point of the Tel is a small wely or Mohammedan Sheiks' tomb, called "Ryeed-Sân," behind the easternmost sanctuary. Hence northwards across a marsh the eye ranges to the great Lake of Menzaleh, and eastwards and southwards, across a pestilential, uninhabited, and blasted waste; in the dim distances are discerned the tops of palm-trees, marking the limit of cultivated land. Westwards, beyond the hovels of Sân and the ancient canal, extend vast swamps, with here and there scant patches of cultivation, far as the eye can reach.

It has been supposed that the destruction of the Great Temple is owing to a burst of Christian zeal or fanaticism in the time of Theodosius.† Far more likely, however, is the supposition that the overthrow of the Temple was caused by the mighty shock of some earthquake; and this the more so, since,

\* See Murray's Handbook. Vol. i, 318.

† Murray's "Egyptian Handbook."

as is also the case in several other instances in Lower Egypt, the vast structures were literally founded on the sand or mud, without adequate support or foundations.

Approaching from the west to the left of the front of the Temple, there is a prostrate statue of the great Rameses sculptured out of a block of the hardest reddish sandstone of a crystalline texture. The workmanship is admirable, and the plaits or bands of the wig or head-dress being in relief and of a yellow colour, the monument may be looked on as a huge cameo. Here also, cut in a block of soft limestone containing shells, is a Sphynx, and three large broken obelisks of granite. At a short distance is a small granite head of a king or deity surmounted by four plumes, and a gigantic head of a king, still preserving traces of red colour. To the right of this first compartment of the Temple is a lateral chapel constructed of limestone.

In the second compartment are several fine papyrus-bud columns covered with hieroglyphs sculptured with amazing skill, and obelisks of magnificent work with their apices perfect.

In the third compartment are more obelisks, on one of which Rameses appears making an offering, in sculpture of the finest style. Several erect colossi occur here in black basalt and yellow and red crystalline sandstone, and some granite remains of the Hyksos. There are also several seated statues in bluish granite, and a sandstone kneeling figure of a sacred scribe bearing a table of offerings. The finest object, however, in this compartment of the Temple, is one of a pair of Monolithic Chapels or shrines. This monument has a coved roof and is covered with sculptures and hieroglyphs within and without. At one end is a Triad of deities, Amen, Tum, and Mut. The carving is absolutely superb, and it is no exaggeration to say that the figure of Rameses on the roof is cut like a gem. The material is crystalline conglomerate sandstone, of a purple and reddish-yellow colour. Many of the statues hereabouts preserve the colours with which they were originally painted, one small black granite statue being coloured green.

In the fourth compartment are more broken obelisks, and in the fifth and last the remains of columns with papyrus-bud capitals. This is the most ancient part of the Temple and dates back to the remote period of the sixth dynasty. The number of obelisks and statues is, in point of fact, quite bewildering, and Pi-Ramessu must have boasted of more of the former class of monoliths than any other holy place in Egypt. Around the Naos, or Holy of Holies, are the marks of a great conflagration.

Surrounding the Temple was a vast enclosure or wall of crude bricks formed of Nile mud, with little or no traces of straw to bind them, and beyond these are the remains of innumerable houses also of crude brick.

Farther off to the north rises a strong and massive rampart constructed of small mud bricks arranged in a very intricate manner, the walls sloping inwards on both sides from the bottom to the top. Between the wall and the Temple are the remains of a gateway constructed of sandstone and granite, near which again are the marks of a great fire. In one place, in

this part of the ruins, lumps of molten glass are strewn about in all directions. Farther north again are traces of the outer wall of the city and again the marks of fire. The mounds hereabout are strewn with pottery of an extremely rude description, from which it may be concluded that this was the poorer quarter of the city. A few hundred yards to the south-west of the west end of the Great Temple lies a prostrate single granite column, and some half-a-mile to the south-east lie the disintegrating remains of a double row of huge columns of red granite, resembling the skeleton of some gigantic saurian; these last remains being, I should imagine, of a much later period than the other ruins. The mounds of Sân are of great and unusual height and cover a vast extent of ground, testifying to the ancient size and importance of the city. Perhaps nowhere else in the world is the contrast between former magnificence and present destruction and desolation so keenly felt as it is amidst these mighty relics of the past.

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### FROM SÂN TO EL ARÎSH.

HAD it been possible I should have preferred traversing "the field" or plain of Zoan by a line of country to the east of the track by which I had travelled to Sân, seeing on the way the Tels called in the French map Tel Dekik, Tel-el-Atieh, and Tel Chomeh, which lie a little off the track to the north of the direct route between Sân and Tel Deplneh, and in part of what is probably rightly identified by Brugsch as the district of Succoth.\* The water had not, however, subsided sufficiently to permit me to deviate from the main track, or to allow me to visit the Tel further to the north-east, at which Brugsch places the site of Pithom, the city, that is, of the Solar Deity Tûm. This I take to be the place called "Tel-el-Scherig" in the French map, and the ancient chief town of the Sethrôitic Nome. I accordingly returned to Salaheyeh and started the following day for Tel Deplneh. I may remark in this place that it seems to me extremely doubtful whether the Succoth of the Bible, which Brugsch would identify with the Thuku or Thukot of the papyri, but as Professor Robertson Smith believes, without sufficient philological authority, was ever applied to a definite place at all.† The name Succoth, *i.e.* Tents (why not huts made of reeds, like those of the present inhabitants of this part of the country?) would more probably seem to indicate a district than a town, and if it be insisted on that the name in Exodus necessarily

\* To the west of the direct route there is a sandy Tel, not marked in the map, and bearing the remarkable name of Tel Faraon, the "Mound of Pharaoh." There are no ancient remains.

† It is important to notice that Brugsch, without one word of explanation, calmly changes the "Thuku" and "Thukot" of his *map* into "Sukot," in the *text* of his discourse. "L'Exode," p. 9.

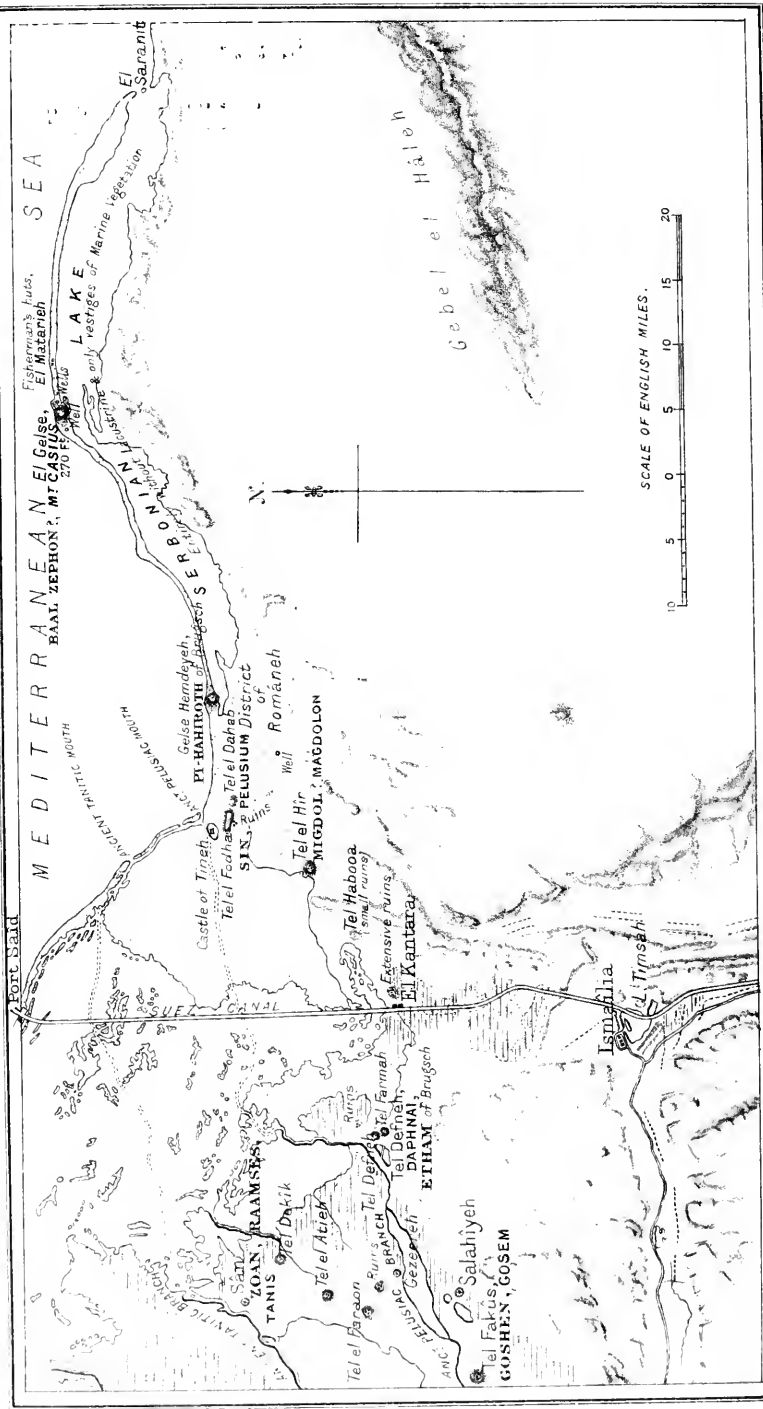
1. The first part of the document discusses the importance of maintaining accurate records of all transactions. This is particularly crucial for businesses that operate in highly regulated industries, where even the smallest error can have significant consequences. The document emphasizes the need for a robust internal control system that can effectively monitor and report on all financial activities.

2. The second part of the document focuses on the role of technology in improving financial reporting. It highlights the benefits of using automated systems to collect, process, and analyze financial data. These systems can help reduce the risk of human error and provide more timely and accurate information to management and external stakeholders. The document also discusses the importance of data security and privacy in the context of financial reporting.

3. The third part of the document addresses the challenges of financial reporting in a globalized economy. It notes that companies operating in multiple countries must navigate complex legal and regulatory requirements, which can vary significantly from one jurisdiction to another. The document suggests that companies should adopt a consistent reporting framework that can be adapted to meet the specific requirements of each country.

4. The fourth part of the document discusses the importance of transparency and disclosure in financial reporting. It argues that providing clear and concise information about a company's financial performance and risks is essential for building trust and confidence among investors and other stakeholders. The document also highlights the need for companies to disclose any potential conflicts of interest and to provide a clear explanation of any significant accounting policies or estimates used in the preparation of the financial statements.

5. Finally, the document concludes by emphasizing the ongoing nature of financial reporting and the need for continuous improvement. It suggests that companies should regularly review and update their reporting processes to reflect changes in the business environment and regulatory requirements. By doing so, companies can ensure that their financial reporting remains accurate, reliable, and transparent, thereby supporting their long-term success and growth.





signifies a *stage* in the journey of the Israelites, it might easily have been applied to some particular spot in the district inhabited by the Semitic Nomads, where a number of tents or booths were gathered together. Such an assemblage or encampment might be termed "Succoth," as being *par excellence* a place of tents. As to its position, it would surely be more reasonable to place it at some healthy, sandy spot near Sãn, such for instance as the Gezeerch already mentioned, or even at Salaheyeh, than in the midst of the unwholesome marshes a little farther to the north. If on the other hand Succoth were amongst the marshes and a definite place, its site would more probably be found at one of the chain of Tels already named in the direct line between Sãn and Tel-Deplneh, rather than farther to the north towards Lake Menzaleh, which is altogether out of the direct route from Raames into Phœnicia. It should be remarked that Professor R. Smith looking at the question from a philological point of view regards Brugsch's identification of the  $\chi$ etam of the monuments with the Etham of Exodus as quite inadequate.\*

The route from Salaheyeh lies across a sandy portion of the desert and then approaches the ancient canal already mentioned, and which, in this place is fringed and tufted with quantities of tall reeds. This neighbourhood has at present a bad name on account of its insecurity, and numerous robberies and murders have recently occurred. The Mamour of El-Kantára has repeatedly forwarded complaints to the Mudîr of Zagazig, but has received no answer; the latter official being probably of opinion that the collection of taxes to repay those Europeans who lent their money to enable the late Khedîv to erect innumerable palaces and to import French actresses, is a subject of far greater importance than a matter which merely affects the lives and property of the people. This portion of the desert is inhabited chiefly by the Masæed Bedouen. In five hours from Salaheyeh I arrived at Têl-Deplneh, according to Brugsch the  $\chi$ etam of the monuments and the Etham of Exodus. By some this place is believed to be the Tahpanhes of Jeremiah x, 4, iii, 9, where the King of Egypt is said to have had a residence.† It is undoubtedly the Daphnai of the Greeks. Tel-Deplneh occupies a very commanding situation on "the edge of the wilderness." To the west is a brackish lake of small dimensions, across which extends a Gis'r or Dyke, apparently artificial and ancient. It leads towards the swamps in the direction of Sãn. To the north the place is defended by the ancient canal which represents the Pelusaic branch of the Nile, long since silted up. Beyond the lake and canal is a vast tract of uninhabited marsh land; more to the east are the waters of a part of Lake Menzaleh and of Lake Balas, now perhaps at a higher level than formerly. To the south there is the Gebel or "wilderness" upon whose verge the Tel is situated. The view

\* Brugsch everywhere assumes that Succoth, Etham, and Migdol, indicate a single day's journey. It may have been so, but it is not so stated in the sacred text.


† Cf. also Ezek. xxx, 9.

from the highest part of the Tel is very extensive, and ranges from the extensive lake country near Port Said to Gebel Attâka on the coast of the Red Sea below Suez, which is plainly visible across the intervening desert. To the east, beyond the mounds and line of the Suez Canal is seen afar off upon the horizon, the lofty rounded form of the natural hill called Tel-Abou-Assap, on the right of the direct route to El-Arîsh. On the north side the highest part of the principal mound descends upon the already named canal, and on the opposite bank is seen, not a Tel indeed, but the pottery-strewn remains of a small ancient town. These two sites are supposed to represent the two ancient fortresses, hence the plural  $\Delta\alpha\phi\upsilon\alpha\iota$  in the Greek name, depicted in a monument of Seti I at Thebes, behind which was a town called Tabenet.\* If this be the case then Tel-Dephneh is the Pelusian Daphne mentioned by Herodotus, ii, 30, as having been occupied by an Egyptian garrison for the protection of the frontier towards Syria. The existing remains are extensive and show that the ancient city was a large one. Many large hewn blocks of granite sandstone and limestone are lying about in different parts of the ruins, and especially around the central mound, where also I found several hewn blocks of blue volcanic stone of the same shape as those I afterwards found in greater numbers at Tel-el-Hîr. Hereabouts I likewise picked up three or four hammers or mullers of a hard, close-grained black stone. About a quarter of a mile eastward of the principal mound rises another, the remains evidently of a tower of crude brick which has been destroyed by fire. This mound and the ruins in its immediate neighbourhood to the south are called by the Bedouen Tel-Farmah. To the south and east of this spot may be traced an ancient road leading towards the lake, and the foundations of numerous streets of crude brick houses. Amongst these last I found the mouth of a well, and the rims of several huge vases of red terra-cotta embedded in the soil, and apparently used to hold water. As regards the identification of this place, once a populous city, but now a complete solitude, with the Etham of the Bible, I will only remark that it could be easily reached in two days from Sân, and that supposing Lake Menzaleh had, as is probable, a lower level in ancient times than at present, Tel-Dephneh would probably be not more than a day's journey from Tel-el-Hîr, which as will be seen hereafter, I am disposed to identify with the Migdol of Exodus. I notice also that the Bedouen distinctly pronounce the name of this Tel as Dephneh, in *two* syllables, and not as Defenneh in *three*, as it is written in the maps. From Tel-Dephneh I went on in about  $3\frac{1}{2}$  hours to El-Kantâra, and crossing the Suez Canal encamped in the half-deserted village, where I was met by Arâdeh, the Sheik of the Suarka Bedouen and his people, with whom I had arranged for a supply of camels and for guidance across the desert as far as Gaza.

Immediately behind the modern village of El-Kantâra, whereof the

\* "L'Exode et les Monuments Egyptiens." Discours par Henri Brugsch Bey. Leipzig, 1875. Throughout this paper I continually refer to this essay.

eastern portion is formed by the deserted shanties of the French engineers employed in the construction of the canal, is the site of an ancient town of considerable extent. Pottery, glass, and other ancient *débris* are scattered about far and wide on the surface of the desert. The most curious objects, however, are the numerous coffins of terra-cotta, whose broken fragments cover a considerable space of ground, some nearly perfect specimens remaining *in situ*. Two large pots, tapering towards the lower end, were employed in each case, and the head being placed in one and the feet in the other, the rims met in the centre, thus completely enclosing the corpse. I had previously found some somewhat similar interments in a railway cutting near Alexandria. These pots are of coarse fabric, very thick in texture, and of a red and blackish colour. From these ruins two monuments have been removed and may now be seen in the French village. One of these, at present perched on the top of a deserted house, resembles in colour and general contour a red chimney-pot, but the top is conical, and it is perforated with oblong apertures, resembling windows; on one side is an obscene effigy, crowned with the feathers of Bes, and it is probably a comic representation of that deity, although the face is more youthful than is common. Like the terra-cotta coffins, it belongs to the Roman period. The other monument, which is of far greater interest and importance, is placed in the centre of the principal thoroughfare. It is a kind of obelisk, now unfortunately truncated, although still more than 6 feet high, and formed of the splendid hard sandstone conglomerate, which was used for some of the coeval monuments at Sâh. On three of its sides—the fourth is entirely defaced—this stone bears hieroglyphic inscriptions, amongst which are several royal cartouches, including that of Rameses II. Above are seen the lower portions of several truncated figures. The ruins just described are, in my opinion, far *more* likely to have been Migdol than the paltry and utterly insignificant remains at the point called by Brugsch Bey, Tel-es-Samût. This name, I was assured by Sheik Arâdah and all his people, as well as by a most intelligent Arab who joined my company, the Hadji Abdullah of El Arîsh, who is perhaps better acquainted with the district than any one else, is utterly unknown, an assertion which, to say the least, is remarkable. At a distance, however, of about three hours from El Kantâra, and so far as I can judge, at the point indicated in Brugsch's map as Migdol, I found a small Tel, a mere heap of burnt red bricks and a little pottery, to which the Arabs, one and all, assigned the name of Tel Habooa. That these pitiful remains, however, can by any possibility be Migdol, I utterly disbelieve. Turning to the left, however, from the main track, across a portion of the Gebel called El Adâm, I arrived at Tel-el-Hir, the Tel Uar and Avaris of Brugsch. Before this point was reached the way descended into a marsh without vegetation, save that a few stunted a'l or tamarisk bushes, and a few patches of rushes, but no reeds, grow in the salt unkindly soil. Crossing an elevation, also, a distant view is obtained of the two or three palms which grow in the desert near the Bîr of Românah. Românah, by the way, is not a *place* as it is marked in the maps, but a *district* of the desert of considerable extent.

Tel-el-Hîr marks the site of a town of large extent and considerable importance, and its surface is strewn with innumerable sherds of pottery, ancient glass of fine quality, and bits of hewn stone. Of these last, the most curious are numerous rectangular-shaped pieces, cut with great care out of what I believe to be the blue volcanic stone or lava of the distant Haurân. As two of these  shaped stones placed together form an oblong or square, I conjectured that they might be the frames of windows, but the Bedoneen thought that they originally formed the mouths of tanks or wells. This conjecture is at least as probable as the other, but neither seems to be very satisfactory. On the west side of the Tel, the one that is, farthest from the desert, rise the remains of a massive square tower, each of whose sides measures about 94 paces. The north, south, and western sides of this fortress descend into an immense desiccated lake or marsh, which extends westwards far as the eye can reach, with its brown surface unrelieved by any vestige of vegetation. The eastern side of the tower, which is built of crude brick, is joined to the rest of the sandy Tel, which extends eastwards to the desert. In Brugsch's map this Tel is called Ha-uar or Avaris, but the French map,\* and that I believe correctly, designates it as "Tel Hîr, *Migdol de la Bible.*" It is at once evident to the eye that this was an important frontier fortress, and its importance is such as to justify its being considered the Migdol or fortress *par excellence*, and to justify the Greeks in continuing and perpetuating its more ancient name under that of Magdolon. Scattered about in various parts of the Tel I found several ill-preserved brass coins of the Ptolemies, and on the western corner of the tower I saw one of the Bedoueen stoop down and pick up what proved to be a gold coin of the Fatimite dynasty.

It is likely that before the construction of the Suez Canal, whose distant mounds would now intercept the view in that direction, Tel-Deplneh (Etham ?) could have been visible from Tel el Hîr (Migdol), and if we can suppose that lakes Menzaleh and Balas anciently stood at a lower level, which, from what is certainly known of Lake Menzaleh, is a probable conjecture, then it might have been possible to reach the latter city in one day's journey from the former. Brugsch records the interesting fact that during the eighteenth dynasty, King Amenophis IV summoned workmen from Elephantine to Samout, Samout being the Egyptian name of Migdol. This illustrates Ezekiel xxix, 10, and xxx, 6, where the marginal reading "*from Migdol to Syene*" is doubtless the right one, and indicates Egypt from its northern to its southern extremity; the reading in the text "from the tower of Syene even unto the border of Ethiopia" being sheer nonsense.

Leaving Tel-el-Hîr, I pursued my route in a northerly direction for about  $1\frac{1}{2}$  hours, when crossing a ridge I suddenly saw before me the vast mounds of Tel-el-Fodha rising up from out of an immense marsh with the outlying Tel-el-Dahab at a short distance to the right. At some distance to the left rose the fortress-like Tel-el-At'l, and behind, afar off, the Kulat,

\* Avril Frères. Paris, 1861.

or castle of Tineh.\* This square tower, for such it appears to be, rises, as I was assured by Hadji Abdullah, from the centre of a small lake at a short distance from the sea, and is built of stone. I should imagine it may be an Arab work. Tel-el-Fodha, "the Mound of Silver," is the Arabic name of the Tel which marks the site and embraces all that remains of the ancient Pelusium or Sin, anciently, "the strength" and key "of Egypt."† Tel-el-Dahab, "the Mound of Gold," of the Bedoueen, appears to be the "Faramah" of the maps; but the Arabs unanimously denied the knowledge of any such a name, and asserted that the only name resembling it even is that of Tel-Farmah, already described as a part of Daphne. The Mound of Gold rises at only a short distance to the east of the Mound of Silver, and appears to have been a great outlying fortress of Pelusium. The names by which these Tels are known to the Bedoueen have been given from the number of coins which have been discovered on their site.

Arrived at the edge of the marsh it at once became evident that no camels could pass upon the treacherous soil without being engulfed. I therefore ordered my tent to be pitched in the desert to the right, and taking with me two of the Bedoueen, prepared to cross the swamp on foot. I had gone but a short way when I found the circle of an ancient well, formed of burnt red brick. The difficulty of proceeding was great. The surface of the marsh, which extends for miles, was covered with drifting sand, and with not only an efflorescence but with long crystals of brown salt, through which, as through a cake, the feet went down into a greasy mud, of which large masses adhered to the boots each time they were withdrawn. The farther I went the wetter did the marsh become. Over and over again I was tempted to turn back, and when I was within 200 yards of my goal farther progress seemed impossible, as at every step I sank nearly up to the knees in mud. However I persevered and at last had the satisfaction of standing on the remote and rarely visited site of Pelusium or Sin. The Tel, which in truth is an island, rising from a vast lake of mud, which must occasionally be covered with water, is of very large extent, scarcely less I should suppose than 2 miles in length. Its surface is red from the quantity of broken pottery. One part of the city, near the centre, seems to have been fortified, or at all events divided from the rest by a massive wall of crude bricks. To the north-east of this is a massive fragment of a wall of burnt red brick, apparently of the Roman period, and at some distance to the west, lying on the surface of the Tel, are the overthrown remains of a small temple of red granite. Several columns remain entire; there are no hieroglyphics, but its date may be safely assigned to a late period, that, probably, of the Ptolemies. The top of the Tel commands a view of the sea, breaking on a sandy beach on the other side of a swamp, at a distance of about 3 miles, of great

\* Sir Gardner Wilkinson strangely enough confounds Tineh with Pelusium. See Murray's "Lower Egypt."

† Cf. Ezek. xxx, 15, 16.

trackless marshes of brown mud, and southwards of the Gebel. The desolation is complete and awful. There is no fresh water, no sign, and indeed no possibility, of human habitation, and the silence was alone broken by the hoarse murmur of the distant waves.\* I returned across the swamp to the eastward of my former track, passing on the way a small circular Tel slightly raised above the mud and covered with ancient pottery. Hadji Abdullah afterwards assured me that amidst these desolate swamps there exist signs of former habitation; wells, sakihs, and trees, and of these last I saw some traces myself. What can have caused this widespread and complete desolation? and when was this tract of country overwhelmed? The sun had set before I had crossed the marsh, and on the edge of the desert I was rejoiced to find an Arab who was on the look-out to conduct me to the tent. Night had fallen before I reached it. That night on the brow of a hill above my tent, when listening to the distant music of the sea, borne to me across the marshes by a north wind, I saw the quick flash of the lighthouse at Port Said, distant, I should suppose, 25 or 30 miles.

My object next morning was to visit the supposed site of Pihahiroth. I accordingly directed my course in a north-easterly direction, and after passing several places with signs of ancient occupation on the skirts of the desert, I reached the open shore of the Mediterranean in about 2½ hours. After a welcome bath in the waves I pursued my course eastwards along the beach, making for a low *Ras* or headland, which I reached in little more than an hour. This Ras, incorrectly named "C. Românah" in the English charts, is known to the Bedouen of the adjacent desert as *Gelse† Hemdeyeh*. On reaching it I found that it is a sandhill of moderate elevation, with its sea-front defended by massive walls and towers of hewn limestone, parts of which, undermined by the waves, have fallen upon the beach. The interstices of this limestone are filled with a yellowish spar. On ascending to the top of the Gelse I saw at once that I was indeed at "the entrance of the Gulfs," at the Pi-ha-Xirot of the Papyri as cited by Brugsch, if not at the Pihahiroth of the Book of Exodus. Eastwards, far as the eye could reach, extended a narrow strip of sand, with the Mediterranean on the left hand, and the great Lake Serbonis on the right, upon the opposite side of which the low desert hills shimmered in the heat and mirage. Southwards also the lake extended itself behind the Cape whereon I stood, for during the hour I had been traversing the sea-shore I had unknowingly passed its westernmost extremity. I may mention here that the usual Arabic word for a cape or headland, *Ras*, is unknown by the Suarka Bedouen, who term a promontory "*Gelse*," calling this one Gelse Hemdeyeh and Mount Casius "El Gelse," the Gelse, *i.e.*, or Headland, *par excellence*. The name Cape Româneh applied to this promontory by the English Admiralty Chart is also unknown to the Arabs, and is not strictly correct, although the neighbouring *district* indeed, as already stated, is called Româneh.

\* Cf. Ezek. xxx, 15.

† I spell this word as it is pronounced.

After exploring Gelse Hemdeyeh, which besides the walls already mentioned, affords the usual signs of an ancient town and the shaft of a brickwork well in the face of the low cliff, I descended, and commenced my journey along the strip of sand between the sea and the lake, with the intention of regaining the desert at Mount Casius, which *Brugsch's map*, which I had with me, *represents as joined to the Gebel by a tract of sandy desert hills*. Little did I then imagine that the whole course of my route would be altered by that Isthmus being a mere creature of the learned doctor's imagination and having no existence in fact!

I travelled for  $4\frac{1}{2}$  hours along the strip, when the setting sun warned me it was time to camp for the night. I found the beach between the two waters to be extremely narrow, seldom more than five or six hundred yards in width and generally much less. The best track for the camels was actually at the very edge of the waves, for there the sand was hardest. Above the water mark there occur occasional tufts of stunted tamarisk, the white-leaved "worgat," and a salt shrub with small round succulent leaves, somewhat like a kind of iceplant. The roots of these shrubs permit the formation of small low mounds of sand, and their dead roots and branches afford a scanty supply of fuel, which in our case was supplemented by the abundance of drift wood upon the shore. Under the lee of one of these mounds my tent was pitched at a distance of 80 paces from the sea and 200 from the lake. A light northerly breeze was blowing, and the Mediterranean broke with a loud noise upon the beach and exhibited several lines of white-crested breakers. About 2 o'clock in the morning I was awakened by a noise, and found that the wind had changed, and a furious south-east-by-east wind was blowing across the lake, and threatening to sweep my tent away; I accordingly dressed, awoke the Bedouen and had the tent pegs fixed afresh; I then lay down and slept in my clothes until 5 A.M. On rising I found the fury of the wind had abated, but a fresh breeze was still blowing across the lake. Going out, I found to my surprise that "the sea had seen that and fled." There was now a dead calm, and the sea had retired no less than 26 paces farther back from the point it had reached the previous night. From this circumstance one may form the following opinion.

Presuming that other portions of *Brugsch's* theory as to the route of the Hebrews at the Exodus are correct, one might admit that supposing the sea, driven by a strong north wind, were breaking over the beach into Lake Serbonis, the water would be driven back or divided by a south or south-east wind, and the track between the two waters might then be poetically described as having a wall of water upon either side. The wind again returning to the north and blowing with violence would cause the sea to sweep over and inundate the narrow belt of land, and would naturally drive any passers-by towards the lake. Here however, the sands are but quicksands, and men, horses, or chariots would speedily be engulfed and overwhelmed. Whatever may have been the truth with regard to the pursuing host of the Egyptians, it was probably in this way and near this spot that the invading army of the Persians under Artaxerxes, mentioned

by Diodorus met with its destruction. I should perhaps have mentioned before that the previous evening I repeatedly tried to get near enough to the lake to dip my hands in the water, but I failed on every occasion. When I got near—and sometimes I got within 3 or 4 yards—the treacherous sand gave way under my weight, and I was compelled to retire on pain of being engulfed in the mud beneath. The surface of the beach throughout its whole length is exclusively composed of sand, but in places layers of a sort of recent conglomerate are strewn about, which serve to strengthen the fabric of the beach. This conglomerate is formed by the action of the rain, which dissolving the lime of the innumerable shells forms a cement which binds them together with the sand into a stone of considerable hardness. It was easy to see during the entire journey how much the narrow beach would be narrowed by the rise of the sea when raised by a gale from the north, and how in some instances the Mediterranean would be driven across into the lake, then and so, as in Strabo's time, temporarily making Mount Casius an island.\* This indeed in some places from the scour across the beach seemed actually to have occurred within a recent period, as indeed has been the case within the experience of my fellow-traveller Hadji Abdullah, and the deposits of pumice-stone from Santorino or some other volcanic Greek island which I found on the shores of Serbonis, shows conclusively that the sea occasionally breaks over into the lake.

I left my first camping ground between the waters at 6.30. Behind me the Gelse Hemdeyeh lay like a purple line upon the pale blue waves; in front the rounded yellow summit of Mount Casius bounded the view along shore; while a long wavy flock of countless flamingoes crossed over the beach on their way from the sea to the lake. In about 20 minutes I arrived at a point where a low natural causeway slightly raised above the water, extends in a north-easterly direction half way across the lake from the opposite Gebel. This is not given in Brugsch's highly imaginative map. After passing this point the ribbon-like lake widens considerably, extending farther back into the desert, which forms throughout its southern boundary. Far off the distant range of Gebel-el-Hâleh now appears in sight. The lake here can scarcely be less than 8 miles across, but the clearness of the atmosphere on the one hand and the moving mirage on the other, alike render it hard to compute distances with accuracy. The whole coast between the two headlands along which I was passing appears to be particularly dangerous for shipping. The beach is everywhere strewn with masts, spars and other fragments of wrecks, amongst which the boilers of more than one steamer are conspicuous. The quantity of shells too, is everywhere extraordinarily great. This day's journey was very hot and fatiguing to the laden camels, and as there was no chance of reaching the Gelse before nightfall I consented to stop about an

\* Strangely enough, Herr Brugsch, who cites this fact from Strabo, does not perceive that it destroys his imaginary Isthmus of communication from Mount Casius to the mainland.



hour before sunset, and for the second time pitched my tent close to the sea.

At 10.45 the following morning I arrived at the Gelse; before which point is reached the strip widens out considerably. The western prospect of the Cape shows a long gradually ascending ridge of sand scantily covered with desert scrub, running seawards from the lake, and ending in a rounded dome of bare yellow sand, whose base rests upon the sea-beach. The height is stated in the English Admiralty Chart as 272 feet. The name given in the same chart and followed by other authorities for Mount Casius, "Kas" (? Ras) Bouroum, is Turkish and signifies Nose (Naze). It is of course unknown on the coast. From its eastern side the outline of the Gelse is very different, five truncated cones of sand rising from a ridge which runs inland from the sea towards the lake. I expected to find, but looked in vain, in the sea-face of the promontory for a nucleus of rock which would account for the accumulation of sand to such an unusual elevation; all, however, was sand. Hadji Abdullah having reported the existence of a Bir on the western side of the Gelse, Sheik Arâdah sent the thirsty camels round while I ascended the hill, but the Bedoneen failed to find it. Near the summit a few hewn stones and fragments of ancient pottery and glass—sure signs of ancient occupation—are strewn about at the edge of the cliff, but I could discover no traces of the Temple of the Phœnico-Egyptian "Lord of the Lagoons" or of his Greek successor, Zeus Kasios. The remains of the Temple doubtless lie concealed under the drifted sand on the summit of the ridge, which in places is so extremely narrow as scarcely to admit of the passage of a single person. At any rate the ridge, like Slieve League in Donegal, is at best only a "one man's path." Southwards the ridge descends in steep "combes" and slopes of pure sliding sand to a small wady or rather dell, whose sides are prettily clothed with bushes, amongst which I noticed the white broom so common in Palestine, but which I now for the first time saw on Egyptian soil. Here also, as afterwards, I found an immensely large variety of Orobanche with brilliant canary-coloured flowers, which I had only found before on the small "Nelson's Island" in the Bay of Abou-kîr. Towards the bottom of this valley are one or two palm-trees, and below them the dell descends to the shores of a small bay of the lake. A few poor Bedoneens have lately come to occupy the Gelse, and they obtain sufficient food amidst the scanty scrub for their camels and asses and for a few sheep.

I am not competent to give a definite opinion whether as Brugsch-Bey alleges, Mount Casius is the Baalzephon of Scripture, or whether the identification of the latter with the Baal-Zapouni of the papyri can be sustained. On the one hand, one would certainly be more inclined to look for a place bearing a Semitic name upon what was in ancient times the high or royal road from Egypt into Phœnicia, rather than on the western shores of the Gulf of Suez, or where it is placed by Mr. R. S. Poole, about 30 or 40 miles north of the present head of the Red Sea. On the other hand if, as I am compelled to believe, the route proposed by Brugsch be

almost entirely a mistake, then I must consider the identification of El-Gelse or Mount Casius, like that of the other places to be also "not proven" and a failure.\*

The prospect from the top of the Gelse is curious. Northwards, its summit commands a wide view of the sea; westwards and eastwards the eye ranges over the long yellow strip of sand between Serbonis and the Mediterranean, with the glittering water upon either side; southwards across the lake, are the sandhills of the desert backed by a fine chain of distant mountains. Spite of the denial of the Bedoueen, that any access existed from Mount Casius to the mainland, it was not until I stood upon the top of the Gelse that I realised the utterly false impression conveyed by the map appended to Brugsch-Bey's "*L'Exode et les Monuments Egyptiens*" and reprinted in his *History of Egypt*. The learned savant connects the *Gebel* with the *Gelse* at this point by an *Isthmus of desert* which he colours yellow to represent sand, and shades with black to represent hills. I was literally aghast with surprise to discover that the whole of this representation is a sheer invention and creature of Herr Brugsch's imagination. It is indeed true that a little to the east of the Gelse a narrow natural causeway scarcely raised above the water extends about half way across the lake in a north-easterly direction and *obliquely* from the desert. It is true also, as I ascertained from Hadji Abdullah, that before 1878, when Lake Serbonis was partially dried up by the silting up of its single communication with the sea, a few Arabs had succeeded in wading through the mud from the mainland to the promontory, *but of an Isthmus there is no trace; sandy, desert hills in the position indicated are non-existent!* I had read of a *faith* which by a striking figure of speech is said "to remove mountains," but I had certainly no previous idea of the possibility even of an *assurance*, which, in order to support a theory, howsoever brilliant, could *invent* topographical and geographical features and then place them in a map as *real!* I had originally, in reliance upon this precious map, determined to cross from Mount Casius to the desert of the mainland, and could not imagine why the Bedoueen had pronounced such a route to be impossible, but I now saw that it was so, and that I must pursue my journey along the second division of the strip of sand between the sea and the lake, and get out from thence as best I could, all communication with the mainland being here impracticable. It is, of course, absurd to contemplate the possibility of a vast host like that of the Hebrews, laden with rich spoil, encumbered with flocks and herds, and flying moreover from a pursuing army, wading through an expanse of mud some miles wide, even if at the time there were no water in the lake. But the presumption is that there *was* water; the narrative

\* It is fair to remark that if Gelse Hemdeych be Pihahiroth and El Gelse Baal-zephon, the curve of the sea-coast is such that the former could be spoken of as "over against" or *vis-à-vis* with the latter. Exod. xiv, 2. But it would surely be more natural to speak thus of places within sight of each other and on opposite sides of the lake."

plainly states, and Brugsch's whole theory of the Exodus depends upon the fugitives having passed along with water on their right hand and upon their left. In either case then the theory breaks down, and, with however great reluctance, must be given up as unsupported by facts and consequently untenable. This being so, the remark may be allowed that it was scarcely fair of Herr Brugsch to construct a map and publish it to the world without having himself visited the place depicted.

And now I must advert to another important fact which goes also to prove that Herr Brugsch's theory as to the route taken at the Exodus is utterly untenable.

Dr. Brugsch states with the utmost probability that the *Jâm Souph*, (translated Red Sea in the A. V. of the Bible), through which the Israelites are said to have passed, signifies the sea of "algues, roseaux, joncs, plantes de papyrus," and he assumes that Lake Serbonis anciently abounded with that sort of freshwater vegetation. That Souph, or Sûf, does bear this meaning may indeed be taken as certain. Gesenius translates the word "rush, reed, sea-weed." Thus in Exodus ii, 3, Moses is said to have been laid in an ark of Sûf, and elsewhere in the A. V. the word is translated "bull-rushes," "reeds," "flags," and "paper reeds." Cf. Isaiah xix. In Jonah ii, 6, *only*, the signification of the word is extended to mean seaweeds.

Now it is almost impossible to believe that Herr Brugsch can ever have visited Lake Serbonis, for if he had done so he would never have pressed the Hebrew term "Jâm Sûf" into service in support of his theory, or have imagined that the name in question could ever have been applied to Lake Serbonis. It must be borne in mind that in order to justify the appropriation of the name to any sea or lake, that tract of water must be shown to have abounded in some *remarkable* and *striking* degree with either a marine or a lacustrine vegetation. But what are the facts of the case? The waters of Lake Serbonis are salt, salter no doubt than that of the neighbouring Mediterranean. They are *salt* because they are *probably* derived in part by the infiltration of sea-water through the sand of the intervening beach along its whole length, and because they are otherwise exclusively supplied from a single aperture from the sea. They are *salter* from the constant evaporation which takes place from so vast an expanse of salt water running so far into the dry and scorching desert. The lake in fact may be regarded as one vast salt-pan. Now it is not too much to assert that a like physical condition must always have existed. There is no trace of evidence, no probability, no possibility even that Serbonis was or ever could have been other than a salt lake. Now, as every one, except Herr Brugsch, well knows "roseaux, joncs, et plantes de papyrus," which are all freshwater plants, do not and cannot grow in brine, and as a matter of fact they *do not grow in Serbonis* at all. The clear bright waters are as devoid of lacustrine vegetation as the Dead Sea itself. Of it there is no trace whatsoever. But more, it is likewise matter of fact that Lake Serbonis is almost equally devoid of *marine* vegetation. With the exception of rare and infinitesimally small quantities of a green filmy

species of ulva there are no sea-weeds of any description whatsoever in the lake. I may add that the Mediterranean also, all along the coast which runs parallel with Serbonis, is entirely devoid of marine vegetation. Not a morsel appears thrown up upon any part of the beach, the reason probably being that the sea-bottom, being entirely formed of shifting sand, affords no root-hold for sea-weeds. From all this it conclusively appears that Lake Serbonis is not, and cannot be the Jâm Sûf, the Lake or Sea of Reeds.

It may be proper to notice here that the Bedoueen call both the Mediterranean and the Lake "El-Bahr," "the Sea," but commonly speak of the former as the Salt Sea or the Great Sea.

The camels which had been despatched in quest of water having at length come round into the dell, I was led over an acclivity near its lower end into a kind of deep basin surrounded on all sides by steep slopes of sliding sand. At the bottom of this were about a score of circular holes, excavated in the sand, and by scooping therein a little slightly-brackish, but drinkable, water can be obtained. The supply, however, is very scanty, and in nearly 2 hours' time we obtained only enough to fill two water jars and none for the camels. Emerging from the sandhills at the eastern end of the Gelse, I once more found myself upon the strip of sand, and in little more than half-an-hour reached the only permanent habitations upon it, a cluster of a few huts, called El-Matarieh, and tenanted by a few fishermen and their families. The surprise of the people at my unlooked-for appearance was great, as no Frank had ever passed that way before. I found the ex-Sheik suffering from a severe attack of fever and ague, and left him some quinine, with directions how to use it. The people had a few boats on the sea-beach as well as on the lake, but they draw their principal supply of fish from the latter. Their water is obtained from the wells already described at El-Gelse. I purchased a quantity of white mullets and of a sort of sea perch for myself and my Arab attendants, and found the last-named fish delicious. Unwilling to camp near a place redolent with such "an ancient and fish-like smell," and so unwholesome withal, I pushed on, and again encamped on the beach at a point an hour distant from the huts. The lake hereabout is very wide; at one point, I should suppose it is scarcely less than 12 miles across.

I started next morning at 7. At a point 1 h. 30 min. distant from my camping-place, the salt vegetation upon the beach, which had ceased for an interval, recommenced. In 2 hours 20 minutes, I passed a small island in the lake not far from shore, and hereabouts I noticed a most unpleasant and mephitic smell. At 3 hours from my starting-point, the strip becomes wider. It is somewhere here that Brugsch places in his map an entirely imaginary inlet of the sea, and the site of Ostracina. Sir Gardner Wilkinson likewise places Ostracina in this neighbourhood, and says the site is now called "Ostraki." This name, however, is unknown to the Bedoueen, and there are no ruins or other ancient remains upon the beach. Perhaps it was on the southern shore of Serbonis. At 4 hours 5 minutes, the "strip" proper ceases, and the lake retreats towards

the desert, leaving between itself and the sea an absolutely flat waste, utterly destitute of herbage, and *apparently* reaching from the sea to the mountains. At 4 hours 45 minutes, the lake again approaches the sea, and the strip of beach becomes not more than 50 feet wide. Hereabouts the wet sand was marked by the footprints of a large hyena, and I learned that these animals are in the habit of swimming across from the desert to pick up dead fish which are washed ashore. At 12.30 P.M., 5½ hours from my camping-place I arrived at the end of the lake, and at the spot where a narrow channel connects it with the sea. In the midst of this channel is a tiny island, and from this, to my inexpressible relief, a small boat put off and came across. The camels were now made to lie down at the extremity of the spit of sand and were unloaded there. Meanwhile, I and my party were ferried across to the island with the baggage and water-jars, two persons only being able to cross at a time, for the boat was old, rickety, and half full of water. The sea-water was running through the channel into the lake like a mill-race, which cannot be wondered at, when it be remembered that this is the only inlet into the lake, and that the evaporation from so large a body of water must be enormous. Before this inlet was re-opened a few years since Serbonis had become nearly dry; a bog rather than a lake. The islet to which I was ferried over is circular in form, and only 54 paces across. At a few yards distance from the water is a sort of rude encampment, formed by a circular hedge of scrubby fuel brought across from the desert. Within this the fishermen bivouac in the open air. While my tent and water-jars were being brought across in the boat, the camels were driven into the sea and compelled to swim across to the islet. The scene with these ungainly animals amongst the waves with the naked Arabs screaming and splashing around them was a very strange one, and I certainly never expected to see "ships of the desert" taking to the sea. The fishermen on the islet, like those of El-Matarieh, are immigrants from the country bordering on Lake Menzaleh. They obtain their supplies of water by means of camels and asses from El-Arîsh, and they live upon fish. Their manner of cooking has the merit of simplicity. They chuck the fish into the fire, and when they are burnt black, take them out and eat them. The transit to the islet took nearly two hours. When the camels and baggage had all arrived, the former were reloaded, and mounting we commenced to wade across through the sea to the mainland. Fortunately, there was no wind, and the sea was perfectly smooth, but even so, the water came up to the bellies of the camels. Had the sea been the least rough, the passage would have been impossible, and I should have been compelled to retrace my steps with thirsty animals along the weary length of sand between the sea and the lake. It was, then, with the utmost satisfaction that I once more found myself on *terra firma*.

The route I had thus taken is undoubtedly shorter than that usually taken across "the short desert" between Egypt and Syria; but the scarcity of water, the precariousness of encamping on an exposed beach, and the chance of the ferry being impassable in rough weather, render it

one little likely to be generally adopted. None of the Bedoueen who accompanied me had ever taken that route before except Sheik Arâdah, who had done so once in his boyhood. His father, then Sheik of the Suarka, had on one occasion been employed by the Egyptian Government, to convey some prisoners from El-Arîsh to Cairo; and in order to effect this secretly, they passed along the coast instead of inland. Hadji Abdullah, a native of El-Arîsh, had traversed the strip several times.

The French map of 1861, which includes a portion of Lake Serbonis calls it "Lac Desséché," and as already mentioned, I learned that till about four years ago, Serbonis was rather a swamp, "the Great Serbonian Bog," than a lake. This desiccation was occasioned by the silting up of the channel, which, for the greater convenience of fishing, the fishermen of El-Saranît, for so the place of passage is called, are most anxious to keep open.

Evening coming on, I again encamped near the sea-shore, and the next morning arrived at the Wady, Fiumara, or dry Torrent-bed of El-Arîsh, so strangely and misleadingly termed in the A.V. "the *River* of Egypt." The town, or rather village, of clay-houses, stands between the desert and the sea, at the distance of about  $1\frac{1}{4}$  mile from the latter. It is dominated by a dilapidated fortress erected by Sultan Selim. To the west of the entrance of the Wady, close to the sea-shore, and near a Wely called Nebbi Jasar are the remains of some ancient houses, one of which shows a ground plan of no less than seventeen rooms. Occasionally in winter, when heavy rains have fallen amongst the mountains inland, the Wady of El-Arîsh is temporarily a turbulent, rushing torrent, but as, during the rest of the year, it is a wide, dry Fiumara, it is to be hoped that the company of revisers of the Old Testament will excind the word "River," which to an English ear conveys an entirely different idea. El-Arîsh, or rather the Wady at that place, is the natural boundary of Egypt, and appears as such in many maps. It is not, however, the political boundary between the Turkish Empire and the Vice-realm of Egypt. That is a day's journey farther on towards Gaza, at a place called Râfeh, the ancient Raphia, where two ancient pillars have been re-erected as a land-mark to the left of the track out of Egypt into Syria.

I cannot close these notes without mentioning the aid I received in negociating with Sheik Arâdah from Messrs. Floyer and George, and from Suleyman Effendi, all of the Telegraph Department of the Egyptian Government. I have also to thank the last-named gentleman for the loan of his excellent tent. My thanks are also due to Rogers-Bey for his kindness in procuring me a letter from Riaz-Pasha, which proved of use on several occasions. To Sheik Arâdah, I shall always feel grateful, for at his hands, I met with the courtesy of a high-bred gentleman, the kindness of a friend, and the ready and cheerful service of the best of attendants.

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## NOTES ON COLONEL WILSON'S PAPER ON THE MASONRY OF THE HARAM WALL.

By LT.-COL. WARREN, C.M.G., R.E.

COLONEL WILSON informs us that these "Notes on the Haram Wall" were written two or three years ago as part of a revised edition of the "Notes on the Ordnance Survey of Jerusalem," but that he was obliged, from press of work, to lay them on one side, and was unable to continue them.

In the perusal of notes thus prepared to accompany Ordnance Survey plates, we ought to have the advantage of his matured and well balanced opinions; but, unfortunately, apparently for want of time, the account is very much abridged, and some very important matters are either entirely omitted, or but slightly alluded to.

Lieutenant Conder has already, in his observations on these notes (published in the last Quarterly), shown that the identifications of Colonel Wilson are open to considerable qualification, and that many of his suggestions are wanting in any authorised support from local indications or historical or traditional evidence, and to this I may add the very important fact that he has in these notes expressed very decided views as to the dates of construction of the walls of the noble sanctuary and site of Solomon's Temple, though unfortunately they are obscured by many inconsistencies.

I submit that it is of very great moment that we should clearly understand exactly what are Colonel Wilson's views, as he has devoted so much study to the subject, and I will therefore endeavour, if practicable, to eliminate the apparent misconception into which he has fallen, and state, in a few words, the theory he advances. I may possibly fail to do this satisfactorily, but I can at least point out the discrepancies which occur, and the difficulties arising therefrom, in weighing his proposals.

Colonel Wilson follows Mr. Fergusson in supposing the original wall of Solomon's Temple to be east of Cistern XIX, at the south-west corner of the sanctuary, in attributing the building of the "great course" in the south wall to the time of Justinian, and in identifying Mount Moriah with Mount Zion.

Yet he materially differs from him in attributing the building of the whole sanctuary wall to King Herod, Mr. Fergusson allotting only part of the south and west wall to Herod. It is necessary to show that Colonel Wilson does actually attribute the whole sanctuary wall to Herod in many passages in his notes, because he also disagrees with himself in many other passages on this subject.

He states there were *five periods of construction* in the sanctuary wall which follow each other in the following order:—

1. The large stones with marginal drafts.
2. The large stones, plain dressed.
- 3, 4, 5. Medium-sized, and small stones.

Now the sanctuary wall, west, south, and east, is built of large stones with marginal drafts. Thus it is obvious that he attributes the whole of

the sanctuary wall to one epoch, and from the following it is clear that this epoch was the time of Herod.

P. 13. "On Herod's re-construction of the Temple the existing Haram Wall and Robinson's arch were built."

P. 14. "The Haram Wall was built by Herod."

Yet he differs from Mr. Fergusson and from himself in attributing the wall of the south-east angle to Nehemiah, and in stating that the wall of "wailing place" is a re-construction out of old materials, and again appears to be at variance with himself in affirming that the masonry from Wilson's arch to south-west angle is of exactly the same character, and again in stating that the masonry of the south wall is of two or three different kinds.

If there was but one epoch of large marginal drafted stones, and that epoch was the time of King Herod, how can there be three different periods (of marginal drafted stones) in the south wall? How can Nehemiah, Herod, and Justinian, over an interval of 1,000 years, have all built with the large marginal drafted stones?

Colonel Wilson affirms that the whole wall was built by Herod, and yet that only a part was built by him; that the large marginal drafted stones belong to but one epoch, and yet belong to three periods; that the sanctuary wall from the south-west angle to Wilson's arch is of one identical character throughout, and yet that the portion about the wailing place is a re-construction out of old material.

His views as at present expressed cannot be properly synchronised. In one case we have—

*a.* Large marginal drafted stones, cut at one epoch and used in building the whole of the Haram Wall by King Herod.

In another—

*b.* Large marginal drafted stones used—

1. In time of Nehemiah, south-east angle (p. 64)
2. „ Herod, south-west angle (p. 64).
3. „ Justinian, south wall (p. 65).
4. „ Nehemiah, Herod's "Castle of Antonia" (p. 44).
5. „ before Herod. Wailing place (p. 17).

Colonel Wilson thus would propose that large marginal drafted stones were used in building for at least 1,000 years, viz. :—

From the time of Nehemiah to the time of Justinian.

I can quite comprehend the use of such stones from the time of Solomon to Herod, because, during that period, the feeling of the country was decidedly Eastern, and the ancient system of building would be kept up; but after the time of the Herods western influences prevailed and he adduces no authority for supposing that in the sixth century a Christian Emperor used large marginal drafted stones; indeed the account of Procopius appears clearly to prove that the stones were not large, comparatively speaking.

The ambiguity and obscurity of these and other affirmations will probably detract from the value of Colonel Wilson's notes, and being



thus so uncertain, it is very difficult to review his deductions as a whole.

Other weak points appear to be the hypercriticism accorded to many of the measurements taken by myself and others, from which there is an inference that the measurements are not sufficiently accurate (*vide* "The Temples of the Jews," pp. 11 and 172), the comparison of measurements on unrevised plans with those that have been revised, the collection of matter, sometimes partially from the "Recovery of Jerusalem," ignoring what was said in the original letters; sometimes from the original letters alone, ignoring the more complete account in other writings.

As an example, it is stated that I believe that the "Red Heifer Bridge" commenced at a point 600 feet north of the south-east angle. Now I may once have suggested this, but if so, it was a long time ago, for both in the "P.E.F. Quarterly," April 1875, and in "Underground Jerusalem," I have proposed the Red Heifer Bridge as commencing at the Golden Gate.

As another instance, Colonel Wilson is endeavouring to prove that there is a tower at the south-east angle, and considers it a *conclusive proof* that there is straight joint in east wall from top to bottom, because there was a gush of air into our mine below the cut joint above, from the joint of the stones during an east wind, and not during a west wind; and yet in another place where we find a pavement at several points within a few feet of each other, and nearly at the same level, he considers there is no proof that it was continuous. Having thus proved conclusively that there is a break in east wall from top to bottom, he proceeds to prove that there is also a break in the south wall at the "Great Passage," apparently (p. 56), because I do not mention there was not one. He states that I was unable to examine the wall either above or below the opening, but in this he is mistaken. If he had referred to my plan he would have seen that I show the stones of the sanctuary wall down to the rock, with the remark "detail mislaid"; it is very improbable that if there had been the slightest appearance of a cut joint here, I should have failed to have seen it, and I think it may be stated confidently that no such joint there exists. So far from my having closed this work up precipitately as inferred by Colonel Wilson, I kept it open "until further orders are received from England about it," from 26th October to 28th November, 1867; so that there would have been ample time for Colonel Wilson to have written out special inquiries about a cut joint. On 6th December I commenced another shaft to south-east of Single Gate, and again drove in to the sanctuary wall, reaching it on 16th December, 1867, and examined it for several feet with the object of seeing whether there was any passage under the next arch into the Sanctuary.

In another instance, Colonel Wilson pointedly calls attention to the apparent discrepancies between the measurements of Lieutenant Conder and Mr. Schick in their respective plans, and descriptions of the rock-cut passage leading from the Souterrains of the Sisters of Zion to the Noble Sanctuary, and in speaking of the height of this passage states, "Captain Warren gives the height as 30 feet "Recovery," p. 199, and as 36 feet

above the sewage, p. 201. Lieutenant Conder as 20 feet. *Quarterly Statement P.E. Fund, 1873, p. 92.*" I have followed Mr. Schick's section, which gives 40 feet.

Now it is to be observed, that the roof of this passage falls about 28 feet in its length, that there is a difference of about 5 to 6 feet in the line of the rocky bottom (*vide* Mr. Schick's plan), and that there was (when I was there), a difference of level of 6 feet in the sewage west and east. Thus taking Mr. Schick's plan alone and with no fixed points for the measurements, all the various [heights mentioned may be obtained, or indeed any height from 32 feet to 8 feet, so that thus far there need not necessarily be any discrepancy, as we have no record of the exact position where each measurement was made. Lieutenant Conder has already explained the matter so far as he is concerned, and with regard to my measurements they not only accord with themselves, but very closely with Mr. Schick, when read aright.

My visit to this duct was when it was full (up to a certain height), of liquid sewage, and I had to balance myself on a floating door; on entering, I mention that I found myself in a rock-cut passage "30 feet high." I then describe the roof sloping downwards, and state that I came across a dam and descended on to a lower line of sewage 6 feet, and thence traversed the passage to a distance of 200 feet, and then in general language state that the roof of the passage is full 36 feet above the sewage, referring to the lower line, (30 feet plus 6 feet fall). These observations I made merely with the eye, as we had no means of reaching up such a height.

I now examine Mr. Schick's plan, and I find that the height he gives at the entrance (which he notes as "supposed height" (!) and also only appears to have estimated with the eye), where I measured it, from the upper sewage to the roof is 32 feet, and that in no place is it more, so that I cannot account for Colonel Wilson's mistake about 40 feet, unless he measured from some point after the ditch was cleared out; in which case he should not compare my estimate of 30 feet with that of 40 feet of Mr. Schick, taken from a lower line. I expressly state in my section that the line of upper sewage was 2,422 feet. Our measurements are as follows:—

	Warren.	Schick.	Wilson's revised plan.
Top of passage, highest point	2,452	2,454	2,456
Level of upper sewage ..	2,422	2,422	2,422
Level of lower sewage ..	2,416	2,417	?
Presumed lie of rock ..	?	2,410	2,416

The above analysis will show how Colonel Wilson has fallen into this error; he has altered both the height of passage and level of rock as given in Schick's plan, and making it 40 feet, he has compared it with a totally different measurement of mine. If I am wrong, in supposing that Colonel Wilson has taken the very highest point in the roof, and he has taken any other point, then he must be still further in error than I have shown.

While on the subject of discrepancies, I note that Colonel Wilson has forgotten that there was a very considerable discrepancy between his measurement of the Souterrain of the Sisters of Zion and my own, so much so, that I found it necessary to alter the eastern end about 5 feet farther to the north, making the prolongation fall upon the Sakhrah instead of on the edge of the dome of the rock.

This alteration appears to have been adopted by Colonel Wilson, as it is shown in the altered direction on the Revised Ordnance Survey Plates, but I see no mention of it in these notes.

P. 10. Colonel Wilson proposes that the set-off of 1 foot 3 inches from the face of the wall under Robinson's Arch was probably formed by allowing the course to run up perpendicularly from the rock, and suggests that this has escaped my notice. This, however, is a misconception, and I scarcely concur in Colonel Wilson's suggestion, which I note he has embodied in my section of the wall. I think this set-off affected only the one course under the spring of the arch, just as there is a similar set-off under the balcony arch, at the south-east angle, and that the alteration of my section may not be correct: however, this is a matter which could be settled in half-an-hour at Jerusalem.

P. 11. It appears to me that Colonel Wilson is aiming at very close coincidences which may not exist on the ground, in suggesting that the width of Robinson's Arch was exactly the same (viz. 42 feet) as that of Wilson's Arch. The pier of Wilson's Arch is different in every respect from that of Robinson's Arch, and there is no reason for supposing them to be of one age, merely from their appearance. I gave the space as a "trifle" over 41 feet 6 inches, because I could not get a thorough measurement and did not wish to give inches if I was not sure of them, but it is to be noted that a measurement of Colonel Wilson's supports my view: he gives 54 feet from the sanctuary wall to west side of pier. I found the pier 12 feet 2 inches, which would leave 41 feet 10 inches, agreeing with my 41 feet 6 inches and a trifle.

I do not think, however, that Colonel Wilson's measurement at that depth is likely to be correct to an inch, and he does not say whether he measured from the actual Haram wall or from the set-off of 1 foot 3 inches under the arch; in the former case there would be a discrepancy between our two measurements of over a foot.

P. 11. Colonel Wilson argues that as the pavement under Robinson's Arch was only seen in a few places, there is no proof positive that this pavement was connected between these points, and in this I must agree. On the other hand, however, at page 51, he states that because during an east wind a gush of air was felt through a joint of the stones at south-east angle it is *conclusive evidence* that there is a cut joint all the way up, so as to form the tower he proposes. While I will allow that there is a probability of the existence of a cut joint, yet I submit that if there must be a judgment of "not proven" with regard to the first case there must be a similar judgment regarding the second.

P. 12. The remark "no search appears to have been made for other

voussoirs" is scarcely correct, and I do not know on what authority it is made ; it would, I think, lead a general reader to suppose that the work was performed in a somewhat perfunctory manner.

P. 12. Note †. Colonel Wilson states that I have made no mention of man-holes leading up to pavement in the text, though I have shown them on the plan. It is to be regretted that he should have written this note, as in Letter XXXVI he will find it stated, with regard to this aqueduct, "every few feet we meet with shafts for lowering buckets." He has quoted these letters on several occasions to point out apparent discrepancies, but on this occasion he appears to have omitted to look at the text before he wrote this foot-note.

P. 13. *Deductions from Discoveries.* He considers that the source from which water was brought to aqueduct is unknown. I have little doubt myself that it was the Hamamesh Shefa, which I believe in former days was either the Dragon well or fountain of Zion (Akra) to the west of the Temple Mount.

Colonel Wilson in suggesting that this aqueduct is the conduit of Hezekiah, makes Zion identical with Moriah, a proposal which appears to be untenable.

He affirms that the existing Haram wall was built by Herod ; this is not consistent with his other proposals, pages 14 and 17, in which he gives different dates for the construction of various portions of the wall.

P. 15. He alludes to certain discrepancies between the rock levels in the "Recovery of Jerusalem" and the lithographs ; the latter were published without being examined by me, and may possibly be wrong in some respects in consequence. I am now examining these points.\*

P. 16. He appears to find fault with the excavations, for throwing no light upon his proposed roadway and broad flight of steps ; but it is difficult for an excavator to throw light upon what does not appear to exist.

P. 17. *Wailing place.* He proposes that the stones are not *in situ*, and that it is a reconstruction out of old materials. As he considers the wall of Sanctuary to be Herodian, then these stones must be pre-Herodian, perhaps of the time of the Jewish kings. At page 65 he attributes similar stones at south-east angle to the time of Justinian.

Pp. 19, 20. He suggests that the original wall of Solomon's Temple is in rear of the Prophets' Gate, and enters into a discussion as to the flights of steps that lead up to it. In order to facilitate this proposal he shows the rock (in plate 6), running up precipitously to east, but there are no

\* I find, for example, that in letter XVII (22nd November, 1867), I stated that Lieutenant Anderson and I differed only a quarter of a minute (15 seconds of arc) in latitude of Ain Shems, while in printed report the numerator is left out of the fraction, and I am made to say that we differ 4 minutes. [The lithographs were issued as they arrived from Jerusalem to illustrate Colonel Warren's letters. Many of them were only diagrams showing progress which naturally differed from week to week.—Ed.]

apparent grounds for this disposition of the rock, and I think that a jury of 12 surveyors would, with our present knowledge, decide that the rock lies more nearly at the angle I have given it.

P. 22. *Wilson's Arch*. He appears to have fallen into a very singular error regarding the voussoirs of Wilson's Arch. He states that the stones are of *equal thickness*, causing an almost painful appearance of regularity, and then proceeds to prove that they must be ascribed to same date as Haram wall, which he pronounces to be Herodian.

Now both Lieutenant Conder and I, independently, believe that these stones are not of equal thickness. My elevation of the arch certainly shows them of various thicknesses, and we both, on the spot, considered the arch as Byzantine on account of the form and graduated thickness of the voussoirs. It is singular that Colonel Wilson omits to notice this discrepancy, for he refers to my mention of the different forms of the voussoirs.

P. 26. *Vaults west of Wilson's Arch*. I think Colonel Wilson goes rather too far in suggesting inaccuracy in my plans merely because they do not coincide with his plan of the street above. In the first place the plan of the street may be in error; in the second place, there is no absolute reason why the street should be exactly over the secret passage. I have written to Jerusalem to endeavour to have the street examined. Mr. Schick, writing on 28 April, 1880, sends a revised plan of this street and states "it is at once clear that my drawing differs greatly from that of Colonel Wilson."

P. 29. *Possible nature of Causeway*. The deductions of Colonel Wilson appear to hinge upon a hypothetical wooden bridge, for which he produces no authority. I shall shortly be able to publish some account of these vaults, which will throw much light upon the matter.

P. 30. Gate. Colonel Wilson proposes to call this gate by my name, because he discovered it, on the same principle that Tobler's discovery was called Wilson's Arch. I would deprecate the naming of the ancient buildings in this manner.

P. 31. *Hamam esh Shefa*. He states that the lie of the rock is here very puzzling, but has omitted to mention a discrepancy between his measurement and mine of 30 feet. I state (December 12, 1867) that the rock is 50 feet below the level of Haram Area, while Major Wilson makes it 80, and I make the bottom of the conduit 2,359 feet, while Colonel Wilson makes it 2,339-feet. I went down this well for an examination of the bottom and merely calculated the height from some observation I happened to have taken when engaged in these operations, so that I may possibly be wrong; but if I am right then the difficulties vanish. It would not take half-an-hour for an agent at Jerusalem to settle this point so far as the level of the bottom of the conduit is concerned.

P. 44. Colonel Wilson informs us that the Haram Wall from the "Castle of Antonia," to the Golden Gate has certain characteristics not found in any other section of the wall, but omits to suggest any epoch to which this very imposing piece of masonry may be referred. This is much

to be regretted, as it appears to introduce a still further complication in his proposals.

P. 58. *Triple Gate.* It is mentioned that the openings of the Triple Gate are only 13 feet wide, while those of the Double Gate, Barclay's Gate, are from 18 to 19 feet, but no notice is taken of the fact that the Triple Gate leads to a double tunnel very similar to that to which the Double Gate leads, and that the one is about 41 feet wide while the other is about 39 feet wide, and that the old wall in each double tunnel terminates at a distance of about 190 feet from the south wall, and that in each case there is a ramp up towards the surface of the Haram Area; and further, no notice is taken of the west wall of the double tunnel of the Triple Gate which Mr. Fergusson asserts was the east wall of the Temple Court. It is to be regretted that so important an omission should have taken place, p. 52. It is to be remarked that no notice is taken of the abutment of the Ophil wall on the south-east angle, beyond the mere mention of the fact; it seems a pity that no reference should have been made to this wall in the deductions.

P. 60. *Shaft near south-west Angle. No. 13.* Colonel Wilson states that in my early letters this shaft is *always* said to be 40 feet from the south-west angle, and the same distance is given on a drawing dated October 2nd, 1867, but that in subsequent drawings and in the "Recovery of Jerusalem" this distance is given as 90 feet.

It is difficult to comprehend the precise object in calling attention to an error made in October, 1867, which has been corrected in every subsequent drawing and description.

A similar effect would be gained were I in describing the revised plans of the Ordnance Survey of Jerusalem to call attention to all the errors that have been corrected in the new edition.

In this particular instance Colonel Wilson has overstated the case.

This shaft was commenced 16th September, 1867, under cover of the cactus bushes which conceal the south-west angle, and, on account of the animosity or greed of the Abu-Saud family, we were unable to cut through the cactus bushes and measure the distance until the work was completed: therefore a blank was left in the account of the number of feet the shaft was distant from the angle. Colonel Wilson says that I *always* called this shaft 40 feet from south-west angle, but I cannot find that I have done so in a single instance. On 22nd September and 2nd October I say it is *about* 40 feet from south-west angle. On 11th October, 1867, I say *near* south-west angle. On 22nd October *at* south-west angle. It was closed on the 26th October. As soon as the measurement was taken, the correct distance was laid down and the plans drawn. The drawing referred to by Colonel Wilson was merely a section through some of the courses of stones and had nothing to do with the site of the shaft.

Space has not allowed me to analyse these notes very fully, neither is it necessary to do so, as I am now engaged on a description of the whole of the excavations for the P.E. Fund, the publication of which, owing to want of funds, could not be previously undertaken.

## THE TOMB OF DAVID, ZION, AND JOSEPHUS.

By PROF. W. F. BIRCH.

AN ancient tomb near the Holy Sepulchre is mentioned by Lieutenant Conder, in his "Handbook to the Bible," as being possibly and perhaps really the Tomb of David. This site—the tenth proposed—I consider impossible, being beyond the limits of Zion.

In the tomb referred to there are nine *kokim* or sepulchral recesses, and Lieutenant Conder makes the number of persons buried in the tomb of David to be exactly nine. My calculation is different, as I fail to see why Asa and Ahaziah, if not also the good high-priest, Jehoiada, should undeservedly be thrust out of *the* royal catacomb. (Handbook, p. 341.)

So strong is the Biblical evidence in favour of the City of David having been on Ophel (so called) that it must elude all opposition.

Lieutenant Conder still thinks that this hill was made outside the Jerusalem of David's time, and yet (Handbook, p. 341) he has to admit that the sepulchres of David were apparently situated on Ophel above Siloah (Nehemiah iii, 16). He does not attempt to explain a second difficulty, viz.: how the company after leaving the fountain gate by the stairs of the City of David on their way to the water gate, could *naturally* pass *above* the house of David, if it were either in the Upper City, or near the Holy Sepulchre.

If David neither lived nor was buried on Ophel, *i.e.*, if it was not the City of David, it is certainly a curiosity of literature that in Nehemiah both the *house* and *tomb* of David (or the tomb *twice*, if house = tomb) should be placed there. Which are we to believe, the ancient Nehemiah, or the modern theory that rejects Nehemiah?

Further it seems to me that it is rather rash in 2 Chronicles xxxii, 30, to state that "Marabah al" means "westwards to," instead of "to the west side of" (A.V.) since the same expression cannot possibly have the former meaning in xxxiii, 14.

Some writers, led (or rather *mised*) by the inventive Josephus, identify the City of David with various portions of Jerusalem, viz., the part near the Holy Sepulchre (Lieutenant Conder), that north of the Temple, or with the Upper City. Let the powerful advocates of these positions bring forth their *strong* reasons; it will not be difficult to overthrow them, unless they are decidedly *stronger* than the unsupported statements and random guesses of the Jewish historian, who (as Prideaux says) "frequently varies from scripture, history, and common sense," and (it may be added) as distinct from the three, also from himself. When he is short of information, Josephus often draws a bow at a venture, as long as Jonathan's was sure. Hence the "cock-and-bull" (story) of the levelling of the Acra. How he must have chuckled over thus duping the Gentiles! The idea is rich of sleepy orientals *working*, not as Nehemiah just induced the Jews to do, from "the rising of the morning till the stars appeared" for fifty-two days but *day and night* (!) without any intermission (!!) for three whole years (!!!). Why not have turned this superhuman effort to making the Acra impreg-

nable? "The tale cuts its throat with its own absurdity." (Quarterly Statement, 1878, pp. 183, 186.)

Whiston thinks (Note Ant. XIII, vii, 1), that the copy of 1 Macc. used by Josephus ended at xiii, 50, *i.e.*, with the capture of the Acra. This would afford an opportunity for the incredible story.

When, however, Josephus speaks of his own times he deserves attention. It is fair to add that he is occasionally *mistranslated*. He does not say that Acra was *like a crescent*, since ἀμφίκυκρος (Wars V, iv, I) describes the shape of the moon, when it is more than a semicircle and less than a circle. Some inconvenient statements of his in regard to Acra are also ignored when it is placed north of the Upper City. This position has not a *deep valley on the outside*. Acra, quite as much as the Upper City, was defended where necessary by *three* walls. North of the Upper City it could only have *two*. Josephus often *directly* gives the title of Acra to the Ophel hill (so called), but never to the part north of the Upper City. Nor is it given by implication. Lewin's *four points* are all fallacies, *e.g.* (1) "The part north of the upper city did not belong to it, nor yet to Begetha, therefore it belonged to Acra." In truth it belonged to none of the three, being called *the suburb*. The rest are too complicated to be noticed here.

Josephus often lies open to rebuke, now *altering* (not omitting) what he does not understand, now (to spare his brains) blindly copying the errors of the LXX.

Here are some of his paraphrastic freaks:—

BIBLE.	JOSEPHUS.
(1) "David went <i>down</i> to the hold*" (near) the cave of Adullam. 2 Sam. v, 17.	"David went <i>up</i> to the citadel of Jerusalem." Ant. VII, xii, 4.
(2) "David took the stronghold of Zion, the same is the city of David." 2 Sam. v, 7.	"David called it (Jerusalem) by his own name, the City of David." Ant. VII, iii, 2.
"David dwelt in the fort and called it the city of David." <i>Id.</i> , 9.	The <i>upper hill</i> (afterwards <i>city</i> ) was by David called the <i>citadel</i> or φρούριον (meaning fort or <i>metzad</i> ). "Wars," V, iv, 1. See "Handbook," 336.

N.B.—In the historical passages of the Bible the stronghold of Zion, and Zion (2 Chron. v, 2), are *identically the same* place, while Josephus

\* Metsoodah (Hebr.) in both cases. This word seems to be used exactly six times in the historical books, and in every case, I believe, refers to (or to a place near) the cave of Adullam); twice certainly (2 Sam. xxiii, 14; 1 Chron. xi, 16); twice probably (1 Sam. xxiv, 22; 2 Sam. v, 17); twice quite possibly (1 Sam. xxii, 4, 5); since *the land of Judah* may be used in contrast to the *wilderness of Judah*. See also xxiii, 3 "in *Judah*" opposed to "*Keilah*."



makes the former to be *part* of the latter, really knowing nothing about either.

Both in the Bible are here said to be *the City of David*, and in 1 Macc. i, 21, 33, 35, the City of David is clearly distinguished from Jerusalem. Who is Josephus that we are to sacrifice the precision of these two authorities to his careless statements? As a matter of fact, according to the Bible, David did not call any part of the Jebusite possessions "the citadel," the name he gave was "*the City of David*." The Bible most carefully avoids describing the *upper hill* as *the City of David*, as when Nehemiah (ii, 13) going from the valley gate to the dung views the walls of *Jerusalem*, and no mention is made of *the City of David* until the Tyropœin is reached (iii, 15).

It has been stated that "the City of David" is used in the Bible both in a narrower and wider sense; it remains for the statement to be proved. It seems to me to be *precisely the same place throughout*.

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|---|---|
| (3) "David and his men gat them up unto the hold*" (Metzoodah (near the cave of Adullam). | "David went up to the <i>Straits of Mastheroth</i> " (εις τὴν Μασθηρῶν ἀρίβη στενήν). |
| 1 Sam. xxiv, 22.  | Ant. VI, xiii, 4.   |

Here he thoughtlessly copies from the LXX, *εις τὴν* [Μεσαρὰ] *στενήν* where *στενήν* is a marginal explanation which in time has got into the text. This copying is the clue to his *too easily* credited account of Jerusalem (Ant. VII, iii, 2), a stupid paraphrase from the LXX.

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|--|--|
| "David built round about from Millo and inward."                             | "David made buildings about the <i>lower city</i> ; he also joined the <i>citadel</i> (τὴν ἄκραν) to it, and made it one body. |
| 2 Sam. v, 9.   | Jos. Ant. VII, iii, 1, 2.  |
| <i>ῥοκοῖ ὀμνησεν ἀπὸ τὴν πόλιν κύκλω ἀπὸ τῆς ἄκρας, καὶ τὸν οἶκον αὐτοῦ.</i> |  |
| <i>Id.</i> , LXX.  |  |

Josephus also says Joab took the citadel (τὴν ἄκραν). Observe that Millo (Hebr.) becomes in LXX Acra, which word Josephus here adopts, naming it elsewhere as *φρούριον* = Upper City. Therefore Millo, if we are to believe Josephus, was the Upper City. Who will allow this? "Credat Judæus."

Thus the question of Jerusalem topography is really narrowed to *this important issue*. Which are we to believe, the Bible or Josephus? Let the earth speak.

Zion *excavated* will prove to be "the faithful city" by declaring the truth. The discovery of the Tomb of David will set this matter at rest.

The *tomb* near the Virgin's fountain is (I believe) after all *modern*, and so does not affect the position of the Tomb of David, the entrance of which

\* See Note, p. 163.

from other indications I place at *less than 40 yards* distant from the corner of the city wall, south of the Haram Area.

I hope in the next number to show full reason for this on a plan. Omitted accidentally in *Quarterly Statement*, 1879, p. 175.

## GATH.

OF the five Philistine cities, four are well known,—Ekron (Akir), Ashdod (Esdūd), Askelon (Askalân) and Gaza (Ghūzzeh). Gath alone is missing, having apparently slipped out of notice before the time of Josiah, not being mentioned in Jeremiah xxv, 20; Zephaniah ii, 4-7.

Where then stood this famous city, often contested for (1 Chronicles xviii, 1; 2 Kings xii, 17; 2 Chronicles xxvi, 6), and rich in reminiscences of David's eventful life? For here in the home of the loyal Ittai he twice took refuge with Achish; here the braggart Goliath grew up to being "six cubits and a span;" here the abusive Shimei stumbled over the fugitive slaves.

Dr. Porter identifies Gath with Tell es Sâfi, a white chalk cliff guarding the mouth of the Valley of Elah. This theory is at first sight very attractive, yet here the old error which formerly placed Zoar on the *mountains*, appears to recur, as there is no reason for supposing that Gath was not in the *plain*, like the other cities of the Philistines. Their strength lay in chariots of iron (Judges i, 19). The "Shining Hill," however is apparently open to attack from the interior over ground ill-adapted for their use, and the list of cities in 2 Chronicles xi, 5-10, admits of the missing city having been situated as far from the hills as was Lachish. If some indications point to Gath having been towards the north of Philistia, they are at once neutralised by the fact that Ziklag, one of its towns, was in the south (1 Samuel xxvii, 6; xxx, 14). We must, therefore, scour the whole open country for the object of our search.

On sheet XX of the large map, a "Wâdy el Ghûeit" is marked, about 10 miles west-north-west of Beit Jibrîn.

This probably implies that there *has been a place of that name*. Mr. Finn recovered the name *Ghatt*, as that of a deserted place near Beit Jibrîn, but states that *Gath* in Arabic would most probably be *Jett* or *Jatt*. If *Ghûeit*, however, could represent Gath, we seem to have a clue worth following.

Near the Wâdy is a Crusading tower now known as Kûl'at el Fenish, Castle of the Philistines ("Tent Work" ii, 163), adjoining the village Keratiya.

Uncertain as is the precise value of these two points, there is another reason for this being the neighbourhood of Gath. Micah (i, 10, 11) says, "Declare ye it not at Gath, weep ye not all; in the *house of Aphrah* roll

thyself in the dust. Pass ye away, thou inhabitant of *Saphir*." It is a remarkable coincidence that near the same Wâdy, not 2 miles from Keratiya, is the village *Beit* (= house) *'Affeh*, and another 2 or 3 miles farther down called *es Sââfir*.

The resemblance of these names to those above must be more than accidental.

Saphir has already been identified with *es Sââfir*, and if we take *Beit 'Affeh* to represent "the House of Aphrah," Gath must have been near.

The Onomasticon of doubtful credit, mentions a Gath between Jammia and Antipatris, and one 5 miles from Eleutheropolis (Beit Jibrin) on the way to Diospolis (Lydda), but Jerome (in Micah i, 10), states that Gath was on the borders of Judah, on the way from Eleutheropolis to Gaza. This exactly suits a position at (or near) Keratiya close to the track from *Beit Jebrîn* to *El-Mejdel* (near *Ascalân*), and the Antonine Itinerary, and the Pentinger Table give the stages thus: Eleutheropolis—Askalon—Gaza.

About two miles east of *es Sââfir* there is marked on the map a low eminence (248 feet above the sea) called *Khirbet Jelcdiyeh*, close to which are ruins and cisterns. As Bethany has become *el Aziriyeh* in memory of Lazarus, so the ruins of Gath may, owing to her famous champion, have been named *Khirbet Jelcdiyeh*, if this word as well as *Jâlûd* would be the Arabic form of Goliath. With Gath removed from *Tell es Sâfi*, the identification of the latter with *Libnah* ("Sinai," p. 258) seems to me irresistible.

W. F. B.

## EASTERN PALESTINE.

THE recent publications of the Palestine Exploration Fund Plans of Western Palestine, have enabled me to check the correctness of my reconnaissance of the Jordan Valley East, Gilead, and Moab, with the most gratifying results.

Starting with the peak of *Kurn Surtabeh*\*, as a point of reference for latitude and longitude, I find that my position of Jericho is exactly correct for latitude, and differs only 4 seconds of arc for longitude (equal to 03 inch on the scale of  $\frac{1}{2}$ -inch to the mile). The island on the northern extremity of the Dead Sea is also exact for latitude and 18 seconds too far west in longitude, or about 15 inch on same scale.

My sketch of the Jordan lies over that on the published plans, crossing

* Kurn Surtabeh.	Latitude.	Error.	Longitude.	Error.
Trig. Survey....	32 5 43....	— ....	35 27 22....	—
Warren ....	32 5 25....	-0 13....	35 27 50....	+0 28
Anderson ....	32 5 33....	-0 15....	35 29 03....	+1 41

and recrossing, and is nowhere more than 30 seconds of arc apart, except in one spot, where I have shown a loop of 1 minute to east. Whereas the Jordan as surveyed by Lieutenant Lynch, varies in distance from 1 minute to 6 minutes of arc to east of Jordan on Palestine Exploration Fund plan. I should state that I did not sketch the minor twists of the Jordan themselves, but accepted those of Lieutenant Lynch, only altering the general positions from 1 to 5 miles to west.

I find that in carrying the work on from Jaffa to Kurn Surtabeh, I have an error of 30 seconds of arc in about 43 minutes of arc, but at Jerusalem I had an error of only 11 seconds in 30 minutes.

Taking 10 seconds as the limit of error in these astronomical calculations, I would propose from these and other data, that my mean error in carrying the longitude eastward from Jaffa is 15 seconds in 30 minutes of arc, or 1 in 120.

Now, my most easterly point is near 'Amman, about  $1^{\circ}15'$  east of Jaffa, and I should suppose therefore that my utmost error there would amount to  $37\frac{1}{2}$  seconds of arc plus 10 seconds limit of error.

Having arrived at this conclusion, I can apply a constant correction for each observation for longitude, and thus hope nearly to eliminate this error and obtain both the latitude and longitude of the principal points east of the Jordan in Gilead and Moab, to within a limit of 20 seconds of arc, or 600 yards on the earth surface.

Twenty seconds of arc of longitude in this latitude measures about one-fifth of an inch, roughly speaking, on plan.

In this reconnaissance I surveyed about 1,400 square miles in 28 days, including special surveys of Aman, Jerash, Nebo, and other ruins, besides examining sites and arranging for taking about 50 photographs.

At this rate 15,000 square miles could be surveyed in 12 months, on a scale half-inch to the mile, with a prospect of the limit of error not exceeding one-fifth of an inch on plan, from one end of the survey to the other.

I have to suggest that this is the system which should be adopted for the south country below Beer sheba from Gaza to Rhinocolura, round to Petra.

It would cost about £3,000.

I was the first to advocate a detailed trigonometrical survey for Palestine proper, on account of the mass of biblical sites so close together, but in the south country such detailed accuracy is not requisite; a detailed survey would be out of place, it would occupy about 10 years, and cost about £25,000.

CHARLES WARREN.

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## NOTES ON DISPUTED POINTS.

*The Calves of Bethel.*—Mr. Birch's paper on this subject has caused me to reconsider the views on the question put forward in the Quarterly State-

ment 1878, p. 28. There is no doubt that the Crusaders thought that the Calves erected at Dan and Bethel stood on the ridges of Ebal and Gerizim, and there is no doubt that the site of Luz or Bethel was shown by the Samaritans on Gerizim from a very early period; for it is mentioned by Eusebius and other writers of the fourth century. The removal of Bethel to Gerizim is very probably as old as the time of Samballat, when the Samaritan Temple was built, but a careful study of the various Biblical passages seems to show that no trace of the heretical Bethel can be certainly discovered in the Old Testament.

*Moriah.*—The dispute as to whether the Jewish or the Samaritan site of Moriah is the true one is very ancient. It must be remembered that in Chronicles Moriah is identified with the Temple Hill (2 Chronicles iii, 1); on the other hand that hill is not visible from off the road from Beersheba until within a distance of half-a-mile, because the ridge of *Abu Thor* is 100 feet higher than the Temple Hill. As to the distance, Beersheba may be easily reached from Jerusalem in two days, while Gerizim is visible *afar off* from the Maritime plain within about 50 miles of Beersheba. From the experience of the Survey marches I am able to say that a Syrian ass can march 20 miles in a day for several days, as we always had donkeys with us on our longest journeys.

*Rock Rimmon.*—I still feel unable to accept Mr. Birch's proposed site for the Rock Rimmon as connected with the cave Mughâret el Jai. The Biblical account is not sufficiently detailed to allow of much being based on it and Josephus gives nothing further to assist us; but in addition to objections previously stated I would urge that the cave in question is only *a mile and a half* from Gibeah of Benjamin, and it seems highly improbable that the remnant of the defeated Benjamites would have been able to find refuge so close to the scene of the battle. The Rock of Rummôn is 5 miles from Jeba' and separated by most difficult country.

If the word *Sela* mean "high" as Gesenius renders it, then Rummôn suits well, being on a most conspicuous hill (300 feet above Jeba'), but if it should be applied simply to precipices—as Mr. Birch urges with considerable force—then the site is again appropriate, standing as it does above the precipices of the rugged *Wâdy el 'Asâs*. The word *Rummôn* is not Arabic, but evidently the Hebrew Rimmon which—it may be noted in passing—probably means "lofty," in allusion to the site of the village, and has nothing to do with a pomegranate (Arabic *Rammân*).

*Adullam.*—I presume that as Mr. Birch has given his adhesion to the traditional site of this cave he will be able to furnish some argument in support of its claims. I am not aware at present that there is any sound reason for identifying the Cave of Adullam with the present *Mughâret Khârcitân*. The theory first appears in William of Tyre's works, no reason being assigned. The modern name is derived from the proximity of a ruined monastery of Saint Chariton. The name *Mughâret M'usa*, also applied to the same caves, would signify in Arabic "the intricate cave" which applies very well to the innumerable

passages and halls surveyed by the R.E.s in 1874. The explanation "cave of refuge" seems open to objection, and the word *Meis*, which Mr. Birch connects with Masa, is the name of a well known tree.

Mr. Birch identifies the "hold" (1 Samuel xxii, 5, 1 Chronicles xi, 16) with the Cave, but the word is *Metzed* "a mountain Castle") applied to the "Stronghold of Sion" (2 Samuel v, 7, &c.,) which was not a cave. Josephus says that the Cave was at the City of Adullam (Ant. vi, 12, 3) and there seems no reason to suppose that David's band of 400 men lived in the cave with him. They may properly, it seems to me, be considered to have garrisoned the "hold" or fortress, that is the City of Adullam on its strong hill, close to or even within which was the cave described in "Tent Work" (vol. ii, p. 159).

As to the position of the *City* of Adullam there is I think no dispute. The situation of 'Aid el Ma corresponds exactly with the Adullam of the Onomasticon, and the name is radically preserved. The position agrees also with the accepted identifications of Socoh Jarmuth, Zoreah and Eshtaol and other places mentioned in the Adullam group (Josh. xv. 35). It is also noticeable that David is spoken of whilst in the hold of Adullam as not being in the territory of Judah (1 Sam. xxii, 5). This agrees with the position of Adullam in the Shephelah beyond the mountains to which Judah was confined when the Philistines were too powerful for the Jews.

*Naarath*.—Mr. Birch quotes a paper (Quarterly Statement 1877, p. 44) by Mr. Kerr as proving Naarath to have been on the north boundary of Ephraim. He seems, however, scarcely to have followed the meaning of the writer. Mr. Kerr points out nearly the same position for Naarath which I had previously advocated, and uses the same arguments. The accepted identifications of Janohah and Taanath Shiloh preclude the possibility of placing Naarath much farther north than the site proposed in the "Handbook to the Bible" and the aqueduct still existing, with the distance given for Nearah from Jericho by Eusebius, seem to afford strong indications in favour of the identification with Khurbet el Auja which I proposed some years since.

24th April, '80.

C. R. C.

### HIRAM, KING OF TYRE.

(From the "Athenæum," April 17, 1880. By permission of the Proprietors).

SOME years ago M. E. Renan, in one of his lectures at the Collège de France, that have contributed so much to the progress of Semitic epigraphy, exhibited and explained before his audience a copy of a Phœnician inscription originated in Cyprus. The copy—imperfect and fragmentary, made, it appears, by an inhabitant of Cyprus whose name is unknown—had been found, if I remember rightly, among the papers left by a German scholar,

who died in the East (M. Sigismund, I think), into whose hands it had come in some indirect way. For its transmission M. E. Renan was indebted to the attention of M. J. Euting, the renowned Phœnician scholar. Unfortunately it had not been possible to obtain information respecting the form, the finding, or the ultimate destiny of the original inscription. It was not known even where it had been found, or in whose possession. All that was known was that its characters had been engraved in bronze.

M. E. Renan, noticing the extremely archaic aspect of the characters, nearly similar to those on the Moabite Stone and to the oldest of Greek inscriptions, did not hesitate to say that the text was of great palæographical importance. The copy, "as arranged in five lines, might thus be given in square Hebrew characters :—

נלבעללבנ (1)  
 ללבננאדני (2)  
 עבדחר [ר ?] דשתעבדחר (3)  
 דני (4)  
 סבנקרתח (5)

In deciphering the characters there was no great difficulty. Several words were easily recognised:—**בעל** (Baal), **אדני** (his or my lord), **עבדחר** (apparently a proper name, Abdhor, signifying servant of Horus), and **סבן** (inhabitant). In line 5 **קרתח** seemed a mutilated word, to be completed as **קרתח [דשת]** (Carthage or the "new city"). I even proposed to connect line 5 with line 3, and—taking as *daleth* the first letter of line 3, also uniting the end of line 5 with the first three letters of line 3—to read in full the name **קרתחורשת**. True, this new arrangement was opposed to the indicated disposition of the lines; but I suspected that their order as given in the copy did not truly represent the order of the original inscription. This idea also led me then to compare together the lines 1 and 2, and to suppose they might originally contain the same dedicatory sentence; **לבעל לבנ אדני** ("to his lord Baal-Lebanon").

In this Baal-Lebanon I proposed to recognise a divinity of a new kind, the Baal of Lebanon, *i.e.*, the mountain Lebanon itself adored as a god; for we find the mountains Carmel, Hermon, &c., treated as gods, and Sanchuniathon (edit. Orelli, p. 16), whose names as Phœnician gods, Casius, Libanos, and Antilibanos, gives an account of their mythological filiation. This conjecture of mine might well at that time seem adventurous—the more so as it would transfer us rather unexpectedly from Cyprus to Syria—but it has been, as will be seen, fully verified by the sequel.

In 1876—thanks to an obliging indication given by General Palma di Cesnola—I was made acquainted with the name of the possessor of this inscription, M. Laniti, a merchant at Limasol. My further success in the acquisition of a monument of which the scientific value had already been sufficiently shown was largely due to the interposition of a dear and now regretted friend—one whose early decease is a serious loss for archæology

—M. Georges Colonna-Ceccaldi. His influence in Cyprus won for me the opportunity of purchasing the inscription. M. E. Renan and M. Waddington, the latter then Minister of Public Instruction, kindly consented to aid our negotiation, and to defray the expense required to secure for the Bibliothèque Nationale, the monument of which we were in quest—say, rather, monuments; for, in fact, we obtained not one inscription alone, as we expected to, but a group of texts engraved upon eight fragments of different bronzes, which at first view seemed to be the *débris* of cups, paterae, or tripods.

In January, 1877, M. E. Renan, in the Collège de France, resumed his scrutiny of these texts with collation of their originals, and rather later he made the Académie des Inscriptions a memorable communication, followed by a memoir, which appeared, with an illustrative plate, in the “Journal des Savants,” in August of the same year (*see* “Journ. des Sav.,” p. 487).

Of the texts now examined five fragments corresponded with five lines of copy already noticed, and served to define certain characters doubtful or wanting in the copy, viz., in lines 2, 4, 5 :—

על לבנאדני (2)

אדני (4)

סננקרתח [ו] (5)

But, moreover, there are now three fragments containing three epigraphs, wanting in the copy already noticed :—

טבסננקרתחדשת (6)

מלכצדנמאזית [ן ?] (7)

בראשתנחשת (8)

The two conjectures above-mentioned were materially confirmed by these new elements. The name of the city, קרתחדשת—let it mean strictly Carthage proper, or any “new city” of like name—was here seen engraved in full on one fragment, and the existence of a Syrian god named בעל לבנן (Baal-Lebanon) was now made clear. The mention of a “king of the Sidonians”—מלך צדנמ—in line 7 added new interest to these fragments; but unfortunately the name of this king was wanting. One might notice a trace of a letter just visible after the *mem*, and so guess that the required name ended perhaps with a *nun*. On the fragment 8 the word נחשת (brass, brazen) detached itself perspicuously from the word, or vestige of a word, preceding and very obscure.

At a first glance the eight fragments of bronzes—bent, twisted, cut, flattened, and variously oxidized—would suggest the notion that they belonged to as many distinct monuments. But four of them obviously were connected, as two and two, by their inscriptions, viz., the fragments 5 and 3 (as I supposed at first), and again, those known by the numbers 1 and 4 thus :—

דשתעבדחר + סננקרתח [ו] (5) + (3)

נלבעללבנן [ן] + אדני (1) + (4)



Moreover, the fragments marked 7 and 8, though showing no material signs of contact with each other and making no sequence, seemed by their likeness of engraving to have been parts of one and the same inscription. The two fragments numbered 2 and 6 seemed isolated. On the whole, the fair conclusion seemed to be this: that the eight fragments might well be disposed in five groups belonging to five distinct objects, whether patere or tripods.

It has been my study to make a careful examination of these antiquities, in order to give a graphic representation of them in the "Corpus Inscriptionum Semiticarum," published by the Académie des Inscriptions, and last year I had the opportunity of pursuing my researches with sufficient leisure. My examination of the remains has been minute and prolonged, and has led me to unhoped conclusions respecting the right arrangement of the fragments, and the true interpretation of their seemingly incoherent inscriptions. After many experiments, of which details may here be spared, I have established, with almost complete certainty, this fact: that all the fragments are parts of one and the same vase of bronze, which was purposely broken into pieces in some time far remote. I have connected as parts of a whole seven of the fragments, and this has been done by making due allowance for such accidents as twisting, bending, flattening, and cutting. One fragment still refuses to be brought in contact with the rest; however, as I believe, even this odd fragment belongs to another part of the same vase. By my reconstruction of the original form I obtain, instead of a series of phrases or broken words without sequence, one inscription, or a large part of one inscription, having a consistent general tenour and a character entirely novel. Many obscurities vanish when the parts are rightly put together, and a grand historical light is shed over the whole inscription by the appearance of an historical name recorded in the Old Testament. Thus I put together these fragments. In the plan of reading here shown, \* marks a junction of lines that is quite certain, \*\* marks a junction extremely probable. At the top I put and set apart the fragment still isolated, which gives I think, the aim or address of the inscription, but is insulated from the series by a lacuna of which the extent is not readily guessed. I divide the words here, and restore in brackets some letters obviously implied.

(A) [לב]על לבני אדני  
 .....  
 (B) [ו]סנן קרת ח  
 \*\*  
 (C) דשת עבר חר  
 \*  
 (D) [ם] מלך עדנם אז ית  
 \*\*  
 (E) ן לבעל לבנ  
 \*\*  
 (F) ן אדני  
 \*\*

† Cf. סנן; and perhaps there was some reference to the mysterious chrub, סוכר, at Tyre, to which Ezekiel alludes in xxviii, 14, 16.

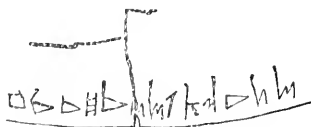
בראשת נחשת ה? (G)  
 \*  
 טב סנן קרתחדשת [א] (H)

The inscription ran on in one line all around the lip or margin of a bronze vase, having a large circular opening, and was engraved on the exterior convex surface. The fragment H still shows some part of the original curvature. With this aid I have calculated that the opening of the vase was a circle with a diameter obviously equal to a Babylonian foot, or say 0·315 mètre. In its general shape the vase was a section of a sphere, and the wall of the part most bulging was very thin. The thickness of metal was increased towards the opening, and here its strength was aided by a sort of swelling border. The vase, showing signs of being wrought under the hammer, was apparently the work of a coppersmith. The inscription—a dedication of the vase itself to Baal-Lebanon—may now be read in one continuous line by following the order already shown by the letters A,...B, C, D, E, F, G, H :—

[לב]על לבנן אדני... וסנן קרתחדשת עבד הרם  
 מלך צדנם אז יתן לבעל לבנן אדני בראשת נחשת  
 ה? טב סנן קרתחדשת א.....

That is to say, “To Baal-Lebanon, his lord,.....[mention of a vow, name, and rank of the author].....(? and) soken of Qarthadachat, servant of Hiram, King of the Sidonians; has given it [or “he has given it”] to Baal-Lebanon, his lord, in excellent brass [or “in heave-offering of brass”] —H.....tob, soken of Qarthadachat [“who”? or “that”? “it”?—.....”

The point to which I would especially invite attention is the appearance here of the name of HIRAM, described as “King of the Sidonians.” The final *mem*, which I have put in brackets, may be accepted for a restoration *quasi*-certain. Its stem is visible at the end of the line C, and the zig-zag is seen at the beginning of the line D. A blow from the edge-tool used in ancient time for cutting up the vase has hit exactly the middle of the *mem*, and pressed out the metal towards the right and the left. The material junction of the two fragments cut away by the tool, though less perfect than the proofs of junction left on other fragments by breaking, is still as satisfactory as may be.



Here is a fac-simile of this capital passage, including the words—

עבד הרם מלך צדנם

“Servant of Hiram, King of the Sidonians.”

The word *soken* seems, at a first glance, well translated by “inhabitant”;

yet it may be asked, might not this word refer to a function, as in Isaiah xxii, 15? or be applied to a personage who, in the name of King Hiram, governed Qarthadachat? The name of this personage would probably be followed by his patronymic, ending perhaps in *vau*. Or if the *vau* is here a conjunction, it should be preceded by some word designating another quality or function. The word here lost would be contained in the lacuna above noticed. The whole turn of expression would correspond exactly with such a title as we find in 2 Kings xxv, 8 :—

נבוזראדן רב־טבחים עבד מלך בבל

*i.e.*, “Nebouzaraddan, chief of the *tabbákhim*, servant of the King of Babel.”

The exact interpretation of this inscription, mutilated at the beginning and at the end, gives rise to many queries of detail, which cannot be noticed in this *précis*, but will be treated in the critical memoir which I am preparing respecting the monument: for example, the exact division of phrases, the grammatical character of the demonstrative **אן**, the construction of **יתן ב**, the real sense of **בראשת**, the difficulty of knowing if there are here named two distinct *sokens* of Qarthadachat—one having made the vow, the other having executed the vase—and other queries that may possibly arise. But here I must limit myself, and add but a few words respecting these famous names, Hiram, Carthage, and Lebanon, as revealed to us in this inestimable inscription. “Hiram, King of the Sidonians”! This at a first glance is surprising; for we know of no Hiram save the King of Tyre. But here “King of the Sidonians” (not “King of Sidon”) can mean only King of the Phœnicians. Of this we are assured by a reference to the remarks of Gesenius (“Scripture... Monumenta,” pp. 263-4). The facts there noticed had already been well observed by Des Vignoles (“Chronologie de l’Hist. Sainte,” p. 25), and we might refer also to the judicious observations of M. de Vogüé (“Mém. de l’Acad. des Inscriptions,” Sav. Étr., VI, i, 64). According to Homer, Sidonian = Phœnician; Ethbaal, in the Bible, is King of the Sidonians, and is described by Fl. Josephus as King of the Tyrians and Sidonians. Solomon, referring to Hiram’s subjects, calls them Sidonians (1 Kings v, 20), when speaking of their going to cut down timber on that mountain Lebanon to which our monument ascribes a sacred character. Apparently Hiram is called King of Tyre in the Bible, because his residence was Tyre. Still, his official title might be King of the Sidonians, or Phœnicians. But is the Hiram of our vase identical with Hiram the contemporary of David and Solomon? The characters of the inscription are very archaic; the paleography would not peremptorily contradict such a supposed date. But it should be noticed that several Phœnician kings might have this name Hiram. (There was also, we know, a Hiram the architect.) Under the dynasty of one house the same name might be transmitted to several kings, from grandfather to grandson, as Semitic peoples were fond of onomastic atavism. Assyrian documents show a Hiram, King of Tyre, paying tribute (c. 742) to Tiglathpileser II (and at that time there is

no question of Sidon : these documents are interesting as showing intermittent occultations of certain large cities in Syria). A third Hiram, King of Tyre, flourished in the time of Cyrus (Menander ap. Fl. Josephus c. Ap. i, 21a).

Another question arises respecting the city Qarthadachat. Is the city identical with Carthage proper, or did the name belong to some other "new city"? The name occurs often, in various times and among various peoples. M. Renan has pertinently noticed the Syrian habit of denoting old cities by such names as Pale-Tyrus, Pale-Byblos, &c., to distinguish them from new cities. Even in Phœnicia itself might there not be a Carthage, or "new city"? M. Renan might even be tempted to find in Qarthadachat a synonym of Tyre itself, set in contrast with Sidon ; one might think also of Sidon named in contrast with Tyre, or refer to the Sidonian colonization of Aradus (c. 760). Several colonies (in Cyprus, for example) might have been also called Qarthadachat. After all, it is not impossible we may be led to regard our inscription as one made a little subsequent to the foundation of the Tyrian Carthage, and this would bring us near that Hiram who lived in the former half of the eighth century B.C.

Where on Lebanon was the sanctuary of Baal-Lebanon, for which this bronze vase was destined? I leave the inquiry for further research, while I would suggest that the place was not far from the sea. The fragments were found in Cyprus, and at first sight it seems strange to find there an inscription clearly belonging, in the first instance, to the coast of Syria. But it should be remembered there were long disputes and wars carried on between Cyprus and Phœnicia. In the expedition of Apriès, for instance, his squadron ravaged the Phœnician coast, seized Sidon, and stayed there long enough to pack and carry off their plunder. In a similar raid invaders, coming in galleys from Cyprus, might have pillaged the sanctuary of Baal-Lebanon, and carried away to Cyprus its precious things, which would probably be partly vessels of bronze. For convenience of lading it was apparently a general habit to break up, bend, and pack such vessels, which were chiefly valued as pieces of metal that might be recast to other uses. This habit is expressly referred to in the Bible. The passage—relating especially to the sack of Jerusalem by Chaldeans—has not been, perhaps, sufficiently considered hitherto. "The Chaldeans," we read, "broke [שברו] the columns of brass, the *mekonot* and the sea of brass which were in the temple of Jehovah, and they carried away the brass to Babylon" (2 Kings xxv, 13).

Our vase, we conclude, was thus seized, and so broken in pieces. Then the fragments were twisted or bent to suit them for stowing away, with other spoils, in the hold of a galley. Brought to Cyprus, they were cast in a heap with other metals destined to be melted down for various uses ; but the *débris* of our vase luckily escaped their projected conversion. During many centuries they remained buried in the ground, and this was their state when they were covered with their second patine, very distinct from the former, the vase being already oxidized before its cutting and breaking up. Or possibly the previous consecration of the vase suggested it might

well be reserved *in statu quo*, as booty to be offered to the gods worshipped by the captors. Mesa, we remember, makes a boast of the fact that he threw down before the face of Chamos vases taken from the sanctuary of Jehovah at Nebo. It would, therefore, be important to know exactly the spot in Cyprus whence these fragments came, as there may be a chance of finding there more of the sort: this hint, I hope, will not escape the attention of English antiquaries residing at Cyprus.

My own observations may, perhaps, serve to confirm the truth of the remark of M. Renan about the pakeographical rank of these fragments, "which may claim the second place, immediately after the Moabite Stone," and to show that their historical is not under their pakeographical value.

C. CLERMONT-GANNEAU.

## A FIND OF COINS IN JERUSALEM.

By DR. AD. ERNAN.

(From the *Zeitschrift* of the German Palestine Association).

ON the 5th of April, 1872, an earthenware lamp containing 41 gold coins and a pot 118 silver pieces, were found in the ground belonging to the German Johannites in Jerusalem.

Most of the coins date from the fourth century of the Hejira and the latest of these particular years is 325 Hej. A.D. 936-7. This leads in all probability to the year of grace 937, having been the time when the coins were hidden. Putting aside a few coins that are indecipherable, the others date from:—

The 5 years	320-5 of the Hej.	G. 16 S. 14,	thus in the decade	60
„ 10	„ 310-20	„ „ 4	„ 38	„ „ 42
„ 10	„ 300-10	„ „ 1	„ 14	„ „ 15
„ 20	„ 280-300	„ „ 1	„ 27	„ „ 13,5
„ 50	„ 230-80	„ „ 4	„ 3	„ „ 1,4
„ 30	„ 200-30	„ „ 6	„ 3	„ „ 2
„ 50	„ 150-200	„ „ 9	„ 9	„ „ 3,6

It is apparent from this that the oldest coins were not the most uncommon.

Many of the coins in this find were of course struck in Syro-Palestine, and hardly any such have been discovered in the northern finds. Next comes Filistia (Palestine) by which Jerusalem is undoubtedly meant. One silver piece of 320, and several gold pieces of 320, 323, 325 are extremely rare; silver coins issued by this place were long unknown, Tabariyeh (Tiberias) possessed a gold and silver coinage, both of which were issued in 320 Hej.; only one of these latter coins has as yet been discovered.

Damascus ceased to be an important mint under the Caliphate of the descendants of Abbas; thus there was but one dirhem belonging to that place in our find. Two silver pieces issued at Homs (one of them in 323)

are of special interest, as before that its copper coinage only was known. There is one coin that was struck at Antakiyeh (Antioch), and all such are very rare.

A new country, ancient Cilicia, has been brought within the domain of Muhammedan Numismatics by a gold piece of 313, and two silver coins (one of which dates from 312) all of which were struck at Tarsus.

Egyptian money always had a large circulation in Palestine. This find therefore contains gold pieces of the years 317, 314, 311, 277, 264, 238, and silver pieces of 323, 324, 319, 313, 312, 308, 295, 289, 285 (?) and 220—many of which are historically interesting as the coinage of the Toulunide princes. There is also a dinar of the Aglabite Ziyadat-Allah of the year 214.

Northern Mesopotamia is represented by the following silver pieces: Harran 323, er-Rahaba 282, er-Rafika 299, Mausul 31, Nisibin 302 and 323.

The money of 'Irak-'Araby had a large circulation throughout all parts of the kingdom; hence many specimens of it are to be seen in our find. Nearly one-fourth of the dirhems belong to Baghdad, and were struck in the years 324, 318 (?) 317, 316, 312, 311, 308, 305, 300, 295, 294, 291, 286, 282, 279, 193, 192, 191, 170, 160, 157.

There is a gold piece of the year 231, and there are also some silver coins of 317, 308, 291, 284, all issued at Samarra; some of Kufa belonging to the years 309, 303, 297 and 288; some of Wasit belonging to the years 309, 305 and 283, and some of Basra struck in 3, 289 and 286.

There are two dirhems of 'Irak-'Adjemy which were coined in Ispahan in 293 and 291; 3 of Khuzistan coined at Ahwaz in 3, 297 and 293; 1 dirhem of Farsistan coined at Istathr in 322; 1 of Shîrâz (?) in 304, and 1 of Fars in 242.

One silver coin comes from the farthest east of the Mussulman Empire, having been struck at Kirman in 311.

Very few of these coins belong to the north-east Muhammedan lands; two silver pieces of Esh-Shash (296 and 3) and one of Samarkand are all that the Jerusalem find contains. It is difficult to decide whether a dinar that was struck in the year 253 belongs to Merv in Khorassan.

Seven coins come from the Caucasus. Five dirhems (of the years 312, 311 and 294) belong to Tiflis, one silver coin of 315 to Armînyah, one dinar of 311 to Azarbaijan. The two last were struck by Yusuf ibn Dâoud of the Sajide dynasty and are of extreme rarity.

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## THE RUINS OF ASCALON.

By Herr GUTHIE (Leipzig).

(From the *Zeitschrift* of the German Palestine Association.)

NEXT to the ruins of Cesarea, those of Ascalon are the most important on the coast of Syria; although they lie at a considerable distance from the usual route they have very justly attracted the attention of various

travellers in Palestine, both in ancient and modern times. There are, therefore, many descriptions of them in existence. A short time ago, Herr C. Shick, architect in Jerusalem, sent me a plan of the city and the country around. The publication of the plan is of the greater value because the ruins are being rapidly buried in sand. In a few more generations all that remains of the city will be hidden under the drifting sand, and its position will be no longer known.

The first sight of the walls surrounding the city proves the correctness of the statement made by William of Tyre, the celebrated historian of the Crusades, that Ascalon was built in the shape of a semi-circle, the diameter of which ran parallel with the sea, while the circular part swept out into the land in an easterly direction. The same author goes on to relate that the walls were strengthened by numerous towers built on artificial ramparts ("*aggeribus manufactis*"). This statement is not quite correct, because it is an indisputable fact that the city was bounded on the west by cliffs from 30 to 70 feet in height rising perpendicularly out of the sea and only broken in one or two places, as for example where a stream fell into the sea. Guérin, who visited the place in 1854 and 1863, is of opinion that these rocks were made even more precipitous by the human hand than they were by nature, or that this natural defence was protected and supported by upright blocks of masonry which have now fallen to pieces. Much the same thing must have been the case with regard to the fortifications that form the west or diameter of the half-circle. Nothing regarding this question can be decided by means of the state of the eastern and south-eastern portions of the walls, for these parts of the fortifications are completely buried in the sand drifted over them by the action of the south wind. On the north-eastern side alone, it is possible to make out the lie of the ground with any certainty, as it is more protected from the encroachment of the sand. Tobler, who, in 1857, approached the ruins from the northern or Jaffa side, became convinced by his investigation of the remains of the fortifications, that they "rest on a not very high (*see* more exact statement above) range of apparently rocky hills, which rises like one hill towards the south." Thus it is evident that the walls of the old city of Ascalon were built on a semi-circular range of rocky hills which ended in perpendicular cliffs of various heights on the sea-shore. Wherever nature had failed to make the defence afforded by this natural rampart complete, the weak places were strengthened by the help of earthworks or masonry. These rocks rose out of the sea and the surrounding valleys like a natural fortress. Their highest point was towards the east; and in the west, where the ground fell away, they formed a glacis.

The western wall, the "string of the bow," follows the line of rocks exactly, and is therefore indented with little bays. It is about 1,200 feet long; at its opposite ends, *i.e.*, at the south-west and north-west corners of the town, there are extensive ruins of fortifications that were undoubtedly intended for the protection of the coast. The "sea-gate" or "*porta maris*" mentioned by William of Tyre is nearly in the middle of the western

wall. The ground reaches its lowest point near the south-western corner. At this place a little bay stretches into the city ; it somewhat resembles a moderate sized basin. In spite of the drifting sand, the ground here is even now but little higher than the level of the sea. This bay, in old times, was most assuredly a dock or harbour within the walls, the fortifications on either side of it were particularly strong. A great number of solid columns of grey granite were laid like beams across the thickness of the fortifications ; when the walls fell into ruins, many of them tumbled upon the beach, where they now lie and are washed by the waves of the sea ; the rest are buried under the *débris* of the masonry. This use of the columns is not only to be seen near the harbour, but also in other parts of the fortifications of Ascalon. Guérin says that those built in columns seemed from a distance like loopholes with the muzzles of the cannon peeping out. Of course the columns originally belonged to the grand halls and temples of ancient Ascalon. The Saracens first, and then the Crusaders, used the pillars and stones of the old buildings for the defence of the city without a thought about their historical or artistic value ; a state of affairs that Guérin remarked had also obtained at Cesarea. From this we perceive that the ruins of the walls of Ascalon which now exist are the remains of the fortifications built by the Saracens and Crusaders.

Those portions of the town wall against which the drifting sand from the south has beaten, are nearly covered by it on the outside. On the southern and south-eastern sides, the sand has penetrated the city by means of breaches in the walls, and every day it covers the old fortifications more and more, both within and without. The ancient towers alone rise distinctly like rocky islands out of the sea of sand. They are particularly close together in this place. The road to Gaza leaves the city on the south by a gate which used to be called in the time of William of Tyre, the Gate of Gaza. This road is still recognisable, although thickly covered with sand.

On the eastern side we come to the highest and strongest part of the fortifications. The sand has not drifted so much there, thus the original form of the ruin is more easily recognisable than elsewhere. Schick has marked this spot on his plan as the "old citadel." Beside it was the gate opening on the road to Jerusalem. William of Tyre describes it as follows :—

"The first gate looks to the east, and is called the Great Gate. It also bears the name of the Jerusalem Gate, because it opens on the way leading to the Holy City. There are two high towers, one on either side of it, which command and defend the city below. In front of it are three or four small gates in the out-works leading to the Great Gate by means of winding paths." Guérin saw traces of this in the ruins. Schick says nothing about it.

Plantations of trees border the ruins on the north. The fourth gate, or Jaffa Gate, used to be in this place. The ruins are lying in such wild confusion that one is inclined to suppose that they were thrown down by



an earthquake. Guérin estimates the walls as being 2 m. thick, and about 10 m. high. The outer parts of the wall were built of stone, and the inside of it was filled up with small stones and mortar. It is rather difficult to make one's way round the walls, and it takes fully an hour to do it. One's progress is much impeded by the heaps of ruins and by the sand.

The interior of the town is quite different from what one expects to see. There are no heaps of ruins, and almost everywhere blooming vegetation. The roads, which are probably the same as the old streets, are bordered by low walls of loosely built stones. The ground falls away in different places within the city; and the plan shows the beds of four old watercourses. Thus the fortifications overtopped and protected the houses almost all round. The lowest part of the city is the south-west corner in which the before-mentioned little harbour is to be found. Between this and the street leading to the sea-gate is the highest part of the ground to the west. The cliff is crowned by the remains of a Mussulman wely. The ruins are hidden behind hedges, and the low walls before described. Guérin examined them in a cursory manner. He discovered the ruins of three churches, the remains of a theatre, several vaults, and a great number of tanks and wells. Schick had so little time to spare that he was only able to examine and introduce one of these last into his plan. It lies in the north-western corner of the city. It is hewn in the rock, is round and deep. Its water level is the same as that of the sea. William of Tyre stated long before that there were no springs either within or without the town, but that there were many draw-wells containing good drinking water. Barclay ("City of the Great King," 1857, p. 577), mentions "many wells of water," on the hills and in the valleys of the city, by which he means the ancient wells and not springs.

The valleys that surround Ascalon on the land side are half covered with sand on the east and south-east of the city. There are beautiful orchards in those on the north and north-east. Opposite the "old citadel" are the first trees; they are old caroobs and sycamores. They form the boundary between the sand and the gardens. A Mussulman wely is under their shade, which, according to Abulgeda, once belonged to a great Mosque. Travellers usually pitch their tents there; as for instance, Lady Hester Stanhope in 1815, when she employed from 100 to 150 men in digging on the south side of the old Mosque, in hopes of finding a treasure, but all in vain. To the north, the gardens stretch out as far as the village El-jora ("The Hole," out of which the plain to the north-east of Ascalon runs). Egyptian Mussulman families live in the mud huts of this village, and support themselves on the products of the gardens within and without the old walls of Ascalon. Besides vegetables, there are fig, orange, olive, pomegranate and citron trees, almond trees, apricots, and palms. The onions that grow wild in the sand around Ascalon, are celebrated for their delicate flavour. The Romans gave them the name of *Ascalonia*, hence *scalogno* (Italian), *échalotte* (French), *schalotte* (German), *shallot* (English). The roads between the gardens are all bordered with low walls.

The strip of sand at the foot of the western wall is covered at high tide when the waves beat against the cliffs. There is no secure landing-place or anchorage for ships on the coast of Ascalon. It is sandy, shallow, and not sufficiently protected from the east wind by the city. The little basin within the town scarcely deserves the name of a harbour. Still J. G. Kinnear (Cairo, Petrea, and Damascus. London, 1841, p. 212), found some remains of a mole. This discovery is confirmed by Schick, when he writes: "Looking down from the rocks we could perceive shallows, shaped something like a half-moon. Perhaps the walls of a harbour may once have rested on them, although we could not discover any such wall." The regular form of these crescent-shaped shallows is an apparent proof that they were made by human agency. It is true that there is no precise mention of any harbour in the immediate vicinity of Ascalon. The sea-port of Ascalon mentioned by the Patriarch John of Jerusalem in a synodical letter, in the sixteenth century, under the name of *Majumas Ascalonis*, does not come into consideration here, for it cannot have been situated between the town and the sea; it must have lain at some distance to the north or south of the city, especially as the letter before alluded to mentions the Bishop of *Majumas Ascalonis* as well as the Bishop of Ascalon. Nevertheless Guérin has vainly sought for this sea port. But William of Tyre's description of the siege of Ascalon by Baldwin III in 1153, goes to support the assumption that the city then possessed a sort of sheltered roadstead. While Baldwin beleaguered Ascalon on the land side, Gerhard of Eidon with a small fleet cut off all ingress and egress by sea. When a large Egyptian fleet suddenly appeared in the offing, Gerhard at first sailed to meet it and dispute its *landing*, but soon took to flight for fear of being overpowered by numbers. And then the enemy's fleet, in which were some ships of "marvellous and monstrous size," was able to approach the city unopposed, and bring succour to the besieged. From this it is probable that Ascalon then possessed a landing-place suitable for large ships. The shallows described by Schick were probably connected with the buildings erected for this purpose. The existence of a real harbour is not to be thought of, for William of Tyre distinctly states that Ascalon had none. Guérin (*Judée II*, p. 138 f.), mentions two moles, to which, however, he gives a different position to that described by Schick.

To the history of Ascalon given by Guérin in the same work, p. 152 ff., I add the first mention of it in Egyptian history. The great campaigns in Asia, under the kings of the eighteenth dynasty, reached this city. The conquest of Ascalon by Rameses II (of the nineteenth dynasty), is especially praised on the Egyptian monuments. It is inscribed on the stone walls of the Temple of Karnak, and is given by Lepsius in his *Denkmäler III*, 145 C. According to this description, Askelna ('Askalna), the wretched town his majesty took when it rebelled against him," lies upon a height. Pharaoh's soldiers climbed the walls by means of ladders, and beat in the gates with clubs. The defenders of the city are represented with the dress and features of the Canaanites, and differ entirely from the Philistines of

the Egyptian monuments. This almost leads to the conclusion that the Philistines had not yet taken possession of the land, and that it was still inhabited by its original Canaanite owners.

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### PROGRESS IN PALESTINE.

In a letter in the Austrian "Zeitschrift für den Orient," Herr C. Schick, Government Surveyor of Buildings in Jerusalem, gives some interesting facts to show the progress which has been made in Palestine during the last 25 years. This is especially evident in the erection of many new buildings. In the small villages very few new houses are to be seen, while, on the other hand, great extensions have been made in the larger places, especially in towns—a sure sign of centralization. This is especially the case with the Christian population. In Jerusalem, inside the town, neglected or ruined houses have been restored or rebuilt by private persons or companies; outside the old town are entirely new suburbs, the extension being made especially towards the west. The Jews have formed among themselves building societies, which have erected long barrack-like buildings adapted for several families. It may be estimated that the number of dwellings during the last 25 years has been more than doubled, probably trebled. This is especially the case with Bethlehem, which conveys the impression of a newly-built town. In Jaffa the town wall has been demolished, the ditch filled up, and a number of large new houses and magazines, even palatial buildings, been erected. So also in the gardens of Jaffa, many new houses have been erected, and to the south and north of the town complete Arabic suburbs, mostly by settlers from Egypt. In Ramleh, also, new houses are seen, still more in Kaifa, which Herr Schick hardly recognised again on his last visit. In the neighbourhood of this town is the new German colony at the foot of Mount Carmel. Nazareth gives quite the same impression; the place has increased in size, and looks as if it had been rebuilt. Tiberias also has its new houses, in Jenin a new military arsenal has been erected, as also in Nablus, along with a fine new barrack. In the latter place the once lonely valley towards the east has assumed quite a homely aspect, and in the town are many new private buildings and also a new khan. There are also the new school, the Roman monastery, and the buildings of the Protestant mission. In Bethlehem a new barrack and arsenal have been erected. New houses are also to be seen in Jifne, Ramallah, Beit-Jal, Beit-Sahur, and other places. Through the schools and the increasing trade the working people have acquired greater style and taste, and the newer houses are thus mostly a great improvement on the old—not the oldest, which, as a rule are well built. Nearly all the houses have now glass windows, a rare thing 20 years ago. As a sign of the advance in agriculture, it may be mentioned that in Jaffa the gardens have increased in extent fourfold during a quarter of a century. Besides the German colony referred to,

new settlements are to be seen on the Aujeh river, in the plains near Bir Addes, and Kefr Saba, as also many new gardens, especially in Hable. New plantations are seen here and there; the country people are investing their capital abundantly in cattle-rearing. At Kolonieh several new houses have been built, and the gardens there are noteworthy; as also in Artos. In the vicinity and in the region around Jerusalem, the land has nearly all been taken up, trees have been planted, and cisterns dug. So also the aqueduct, which brought the spring water in the olden time from the so-called Pools of Solomon to Jerusalem, has been again erected; so that again it discharges at the place of the Temple. A very notable advance is seen in the lighting of the streets of the towns and the arrangements for keeping them clean; in the latter respect, however, there is still much to be desired. No longer are the gates of towns shut at sundown, to the obstruction of trade and the imprisonment of the inhabitants within the walls. There has also been a great advance in the paving of the towns; in Bethlehem, even in the winter time, the streets are quite passable, which was far from being the case formerly. In Jerusalem, the tanneries and the slaughter-houses have been removed outside the town. On several buildings clocks have been placed which strike the hours for the public benefit. Herr Schick notices as a great advance the increasing toleration between the different religionists during the past 25 years; Jews, Mussulmans, and Christians, as a rule, live in harmony, and a non-Mussulman seldom suffers in any respect on account of his creed. Even the red fez is not obligatory on non-Mussulman Government servants. European clothing is now common both with men and women, and many of the latter may be seen dressed in the latest Paris fashions. The pashas no longer move about in constant state, but may often be seen on foot in the streets with only one or two attendants. European furniture, chairs, sofas, and tables, are now common. Great bells are now allowed to be tolled in the Christian churches; old Christian churches have been restored and new ones built in Jerusalem, Nazareth, Tiberias, Tabor, Nablus, Jifne, Ramallah, Beit-Jal, Lydd, &c. So also have a number of synagogues, especially in Jerusalem, been built during these 25 years. All this progress must not be taken as a sign of any laxity in religion on the part of Mahomedans, who have during this time built many new mosques and otherwise shown themselves as much attached to their religion as ever. Justice, also, is much more impartially administered and the old barbarous punishments have been abolished. In Jerusalem the sanitary department is in charge of a German physician, and building affairs are in the hands of a German architect. From these statements, which we believe are perfectly trustworthy, it is evident that great progress has been made in Palestine during the past 25 years. We would hope that this example might prove infectious, and that in the next 25 years a like progress might be seen in the whole of Turkey in Asia.

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THE

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NOTE.—The Price of the "Quarterly Statement" is Half-a-Crown. Sent free to Subscribers.

THE  
PALESTINE EXPLORATION FUND

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NOTES AND NEWS.

THE following letter has been received from General Sir Henry F. Ponsonby, K.C.B. in answer to that from the Chairman of the Executive Committee accompanying a copy of the Great Map.

Sir, Balmoral, *September 22nd*, 1880.

I am commanded by the Queen to request that you will convey to the Executive Council of the Palestine Exploration Fund Her Majesty's best thanks for their kindness in presenting to the Queen the beautifully executed maps which you have forwarded to Her Majesty.

I have the honour to be, Sir,

Your obedient Servant,

JAMES GLAISHER, ESQ., F.R.S.

HENRY F. PONSONBY.

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THE following correspondence has been received, at the moment of going to press, from the Foreign Office :—

Sir, Foreign Office, *October 1st*, 1880.

With reference to my letter of the 14th July last, I am directed by Earl Granville to transmit to you, for the information of the Committee of the Palestine Exploration Fund, a copy of a despatch from Her Majesty's Ambassador at Constantinople, giving an account of the presentation to His Majesty the Sultan of the Map of Western Palestine, which, at your request, was forwarded through this department to Mr. Goschen for presentation to His Majesty.

I am, &c.,

The Chairman of the Executive Committee,  
Palestine Exploration Fund.

TENTERDEN.

My Lord, Therapia, *September 14th*, 1880.

In your Lordship's despatch, No. 238, of the 14th July last, your Lordship communicated to me the desire of the Committee of the Palestine Exploration

Fund to present His Imperial Majesty the Sultan with a Map of Western Palestine, and directed me to take an early opportunity of complying with their request.

In accordance with your Lordship's instructions, I had the honour yesterday to present His Imperial Majesty with the map in question, and to introduce Lieutenant-Colonel Wilson as having been engaged some years ago in exploring Palestine for the Committee of the Fund, and as having been subsequently an active member of the Executive Commission.

His Imperial Majesty was pleased to accept the map, and to express his appreciation of the interest of the work that had been undertaken by the Committee, and his high sense of the services that had been rendered by Colonel Wilson in connection with the exploration.

The Sultan subsequently expressed to me his wish to confer upon Colonel Wilson the Third Class of the Imperial Order of the Osmanié, but, as your Lordship is aware, Her Majesty's Regulations respecting foreign orders do not admit of Colonel Wilson accepting the decoration which His Majesty was pleased to offer.

I have, &c.,

The Earl Granville, K.G.

GEORGE J. GOSCHEN.

The promised pamphlet on the "Biblical Gains due to the Survey of Western Palestine" is nearly ready. It states the amount of work executed by the Surveyors,—points to some of the geographical discoveries that have been made,—and refers to the varied information collected during the operations, which is now in course of publication in the "Memoirs." This is followed by remarks on the bearing of the Survey upon the Verification of Scriptural History; the Topographical Elucidation of the Talmud; Josephus; the Byzantine Pilgrims; the Early Christian Fathers; the Crusading and Arab Chroniclers; the Assyrian, Egyptian, and Samaritan Records; after which a description is given of the most interesting identifications proposed by Lieutenants Conder and Kitchener, and these are finally summed up in an Index with references.

In the preparation of the maps for the Old and New Testaments, which was announced in the last Quarterly Statement, Mr. Trelawney Saunders has written an elaborate account of the Natural Geography of Galilee, Samaria, and Judæa as it is now made known by the New Survey. His work is based on the river-basins of the country, each of which is taken up in detail; the principal valleys and watercourses being duly referred to their proper geographical situation in the basin to which they belong. The connection of each basin with the surrounding parts is also explained.

The Survey being thus elucidated, it is made a standard of comparison with the state of knowledge previously existing; and the geographical gains acquired by it are made clear and manifest. No one can have anticipated the great changes that have become necessary, or foreseen the light which the Survey now throws upon the ground. In the course of this work some interesting identifications have been made and suggested which had previously escaped notice. Doubtless much more remains to be done in this way, and the lucidity which



the Survey imparts to the very varied history of the regions embraced in it, cannot fail to encourage further historical investigation.

Mr. Saunders' work is entitled "An Introduction to the New Survey of Galilee, Samaria, and Judæa, with Notes on its Rectifications of Former Investigations." It is already in the press.

The Maps of the Old and New Testaments will also be accompanied by a small special Handbook, by the same author.

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The second issue of the Great Map is at this moment in course of distribution by the Society's Agent, Mr. Stanford. Subscribers should send in their names as speedily as possible, in order to obtain copies of this edition, of which about 250 out of 300 are already taken up.

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A third issue will be prepared as quickly as possible. The work of printing has been put into Mr Stanford's hands, but the plates, which are in course of preparation at Southampton, are not yet ready, so that there will be probably some delay before the work is generally accessible to the public.

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The first volume of Memoirs will be issued in December. The order of publication of the volumes will probably be as follows:—

1. First volume of Memoirs. Galilee; with Appendices by Lieut.-Colonel Wilson, and Lieutenant Conder. In December.
2. Arabic Name-lists of the whole Map. Now in the Press and nearly ready.
3. Second volume of Memoirs.
4. Volume of special papers, including those written for the *Quarterly Statement*, by the Officer of the Survey and others.
5. Third volume of Memoirs.
6. The Excavations at Jerusalem; by Lieut.-Colonel Warren.
7. Fourth volume of Memoirs.
8. Natural History, by Canon Tristram; Notes on Geology, &c., &c., &c.

Great efforts will be made to issue the whole work before the end of the year 1881.

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The programme of Exploration for next year will be announced in the January *Quarterly Statement*. The Committee will be pleased to receive suggestions and advice from the Subscribers. The proposed Galilee Expedition, the Survey East of the Jordan, new excavations at special points, are at present under consideration.

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A Phœnician inscription has been discovered by Herr Schick in Jerusalem. The Committee have taken such steps as seemed best for the security of the stone, and for obtaining a more perfect squeeze than that sent to them. An account of the inscription will be found on p. 238. Another account has been published in the Transactions of the German Association for the Exploration of

Palestine. Phœnician letters can be clearly deciphered on the imperfect squeeze received, but no words have yet been made out.

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The Committee are most anxious that the Map should have as wide a circulation as possible. The Subscribers to the Fund may greatly assist them by causing the Map to be ordered for public libraries, school and college libraries and institutions.

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It is also greatly desired that *all* those whose contributions have enabled this great work to be completed, may have an opportunity of seeing it. Arrangements have been made with the Rev. James King, of Berwick, for explaining and lecturing on the Map and its uses, during the winter. The Rev. Henry Geary is also ready to give one evening in every week to the Society, provided he be not invited to go too far from London.

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The Reduced Map is promised by the engravers for February; it will be rapidly followed by the two ancient maps, already announced, on the same scale. A book will be kept at the office of the Society for the entry of names. The price is not yet fixed, but it will be as low as possible for subscribers.

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The Cheap Edition of "Tent Work in Palestine," will be published by Messrs. Bentley and Son among their October books. All the small illustrations which were in the Library Edition, and two of the full-page drawings, will be found in the new Edition, which has also been carefully revised by the author. An additional chapter has also been added on the "Future of Palestine." The work will be read with greater interest now that the progress of the Survey may be followed on the Map.

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Colonel Warren's book called the "Temple or the Tomb," will appear at the same time. Its price will be Ten Shillings to the general public. The author, however, wishes the subscribers of the Fund to have the opportunity of getting the book at a reduced price, and arrangements have been made with the publishers by which the book can be sent from the office of the Fund to Subscribers at the price of 7s. 6d. Application must, however, be made to the Secretary.

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Among other books shortly to be issued, are "The Land of Gilead," by Mr. Laurence Oliphant; an account is also promised by Mr. St. Chad Boseawen, of his explorations in North Syria.

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The income of the Fund from all sources, from June 28th, 1880, to September 20th, 1880, was £373 7s. The amount in hand at the last Committee meeting was £1,478 5s. 2d.

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It is suggested to subscribers that the safest and the most convenient manner of paying subscriptions is through a bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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Subscribers who do not receive the *Quarterly Statement* regularly, are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

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While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that these rest solely upon the credit of the respective authors, and that by publishing them in the *Quarterly Statement* the Committee neither sanction nor adopt them.

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## THE MASONRY OF THE HARAM WALL.

I HAVE recently received a copy of the July *Quarterly Statement*, with some remarks by Colonel Warren on my "Notes on the Masonry of the Haram Wall," published in January last. I have no copy of my notes, nor any papers connected with Jerusalem with me, so that I am unable to reply in detail to Colonel Warren's remarks, but I must ask space to say that he appears to have misunderstood much that I wrote; and, no doubt unintentionally, to have misrepresented my views with regard to the masonry of the Haram Wall, and the site of the Temple. My views, unfortunately perhaps, differ from those of Colonel Warren, but they are at least the result of honest conviction and some years of study; I do not think that, in the existing state of our knowledge, any new arguments can be brought forward which would induce me to alter those views, but I am quite ready to abide by the result of future excavation. No one has a greater admiration for Colonel Warren's work at Jerusalem than I have, but I think it only right to state that his excavations, interesting as they were, left the two great questions connected with the sites of the Temple and Holy Sepulchre as much matter of dispute as they were before. The spade alone can settle these questions, and I trust that some movement may be set on foot for recommencing the excavations at Jerusalem; it is

now known, within pretty narrow limits, where excavation would lead to positive or negative results of great value.

I may add that I am always glad to have any errors in what I have written corrected, my wish being to lay before the public the most accurate and detailed information possible; but I object very strongly to any one formulating theories for me which I do not hold.

C. W. WILSON.

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## TESTIMONIAL TO MR. GEORGE GROVE.

ON Monday, July 19th, a meeting was held at St. James's Hall in order to present to Mr. George Grove a testimonial of respect and appreciation for the many and valuable services he has rendered to Biblical History and Geography, especially in the Foundation of the Palestine Exploration Fund, and to Music and Musical Literature. The following was the address accompanying the purse and chronometer which formed the testimonial.

“TO GEORGE GROVE, ESQ.

“We the undersigned ask you to accept the accompanying purse of one thousand guineas and gold chronometer, which we offer you as a token of our appreciation of the great services which you have rendered, in the first place, to Biblical History and Geography, by your valuable contributions to the Dictionary of the Bible, and by your labours in connection with the foundation of the Palestine Exploration Fund; in the second place, to Music and Musical Literature during your long association with the Crystal Palace Saturday Concerts, and more recently by the production of the Dictionary of Music and Musicians.

“In these and many other fields of research in art and literature you have earned the gratitude of your countrymen at large, and the high esteem and friendship of all those associated with you in your labours, and we welcome this opportunity of testifying in a manner however inadequate our gratitude, friendship, and esteem.”

The Archbishop of Canterbury took the Chair, and the Dean of Westminster bore eloquent testimony to the valuable contributions of Mr. Grove to Biblical Literature in his own work, *Sinai and Palestine*, and in the Bible Dictionary, and to his labours in the foundation of the Palestine Exploration Fund. We extract from the report of Mr. Grove's reply to the address of the Dean, the following passage of special interest to the subscribers of the Society which he started fifteen years ago. “What was it that started me with the study of the Bible? I had been brought up to know the Bible well, and a great deal of it I knew by heart, but the study of it was quite distasteful to me. What was it that altered my feeling? Why the bitter complaint of my dear old friend, James Fergusson (then a new friend) that there was no index of the proper names of the Bible. He was engaged then, as he has been ever since, in an internecine warfare with everybody who doubted his splendid theory that the round church in Jerusalem—the mosque of Omar—was the church which Constantine built over the tomb of our Lord, or rather,

what Constantine believed to be the tomb of our Lord. Fergusson and I used to meet at the Assyrian Court of the Crystal Palace and talk about many things, and this among them ; and it was in one of these talks that he lamented that he could find no list of the proper names in the Bible. Well, I set to work at once, my wife and I, and we made a complete index of every occurrence of every proper name in the Old Testament, New Testament, and Apocrypha. There it was ; what was to be the next step ? Soon after this came a great event in my life. I saw the Dean of Westminster for the first time. He was then Canon of Canterbury, and it was there I saw him in 1853 or 1854. I had heard of him often from Bradley and other Rugby men, but had never met him. It was in his house at Canterbury ; he was finishing *Sinai and Palestine*, and I recollect as well as yesterday, the way he came forward to me, with his hands out, as if he were welcoming an old friend, and then he showed me what he was engaged on. He showed me that in Hebrew there were distinct words for all the different kinds of natural objects ; for mountains and hills, and rocks and plains, and rivers and torrents, and that while in Hebrew these terms were never interchanged, in the English Bible they were used indiscriminately, and that a great deal of light might be thrown on the narratives if these were set right in our Bibles, and other things of the same sort rectified. He set me alight in a moment, and I fairly blazed up. I rubbed up my Hebrew, of which I had learnt the alphabet at Elwell's school, I got up German enough to plough through Ewald and Ritter, and plunged with delight into a sea of Biblical research. Now the Dean would have you believe that it was I who invented the Appendix to his book, in which the Hebrew typographical terms are described and catalogued. But that is only his way of putting it. It was *he* who invented it, and I just carried out what he devised, and did the mechanical part of the work for him. Next came the *Dictionary of the Bible* ; and my connection with that I owe entirely to the Dean. Dr. Smith had proposed the dictionary and was looking about for help, and Stanley told him of me, and of my list of proper names ; and there we were."

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## A STATION OF THE AGE OF STONE NEAR TYRE.

By Dr. LORTET.

IN his remarkable researches in the geology of the Lebanon, Botta discovered that several caverns in Syria contain bone breccia more or less broken, and fragments of pottery. Later, in 1864, during his journey taken with the Duc de Luynes, M. Louis Lortet discovered in the grottoes near the mouth of the Nahr-el-Kelb (the ancient Lycus), at a short distance from Beyrout, numerous flints, worked into scrapers and knives. These instruments, undeniable testimony of a very primitive industry, are

found either lying exposed on the floor of the caves, or imbedded in the cement of the bone breccia.

I had the good fortune, while in Syria, in the month of June last, to find a new pre-historic station, presenting certain remarkable peculiarities.

In the hills, situated at the distance of two hours and a half, walking, east of Tyre, is the little village of Hanaweh, placed on a rounded mamelon, not far from the great sarcophagus called the Tomb of King Hiram (Kubr Hiram). On the north, opposite the village of Hanaweh, is found another hillock, on which may be seen the ruins of a Phœnician citadel (visited and described by Renan). At the base of this ancient fortress winds the wild and arid Wady-el-Akkab, deeply cut in the thick strata of the cretaceous limestone.

Following the left wall of this ravine in an easterly direction, towards the villages of Khureibeh and Kana, at the height of about 800 feet above the level of the Mediterranean, we come to an escarpment of the wall which is prolonged to a considerable distance. Upon these walls are carved in bas-relief, upon the rock, numerous statues, from 2 ft. 6 in. to 3 ft. 3 in. in height. They present the appearance of a remote antiquity. The heads are, for the most part, in profile; but the eyes are represented on the face, as is the case with most archaic types. The dress consists of a simple tunic, crossed on the left side. At the distance of some yards from these singular monuments, at the foot of a cliff hewn by the pick, and about 13 feet high, we remarked certain enormous blocks rising nearly 10 feet above the soil, about 20 feet broad, and 16 feet thick, forming a rock of reddish colour, excessively hard, and offering an almost invincible resistance to such hammers as we had. This mass is formed of a conglomerate or rather a breccia, containing myriads of worked flints, and numerous fragments of teeth and bones. The soil around is covered with flints, rudely worked, among which we found the flakes and scrapers of the type called *Moustierian*. The breccia, which seems to be deeply sunken in the earth, rises again to the surface of the soil, a few yards lower down. These great blocks, isolated on all sides from the surrounding limestone, are composed of flints and bones. The flints are either yellow or black, and are of very fine grain; they have been in places exposed, in consequence of disintegration resulting from the action of atmospheric agents; but it is absolutely impossible to detach them from the matrix; they will break up rather than separate from the extraordinarily hard cement which surrounds them. The few fragments which we extracted with great difficulty may belong to the genera *Cerous*, *Caprae*, *Ibex*, *Bos*, and *Equus*. The bones broken up into fragments are absolutely indeterminable.

This station seems to date from the highest antiquity. The flints present a very primitive form, much more archaic than those which we found in the grottoes of the Nahr-el-Kelb, and it must have required a long series of ages to give these bones the hardness of the most compact porphyry. I believe that this matrix may have been formed in a cavern, the walls and roof of which were hacked away by the Proto-Phœnicians; authors perhaps of the rude figures I have already spoken of. The breccia, too

hard for their tools, would be left alone by the workmen. This is the only way of explaining how it comes to be thus disposed in enormous lumps on the abrupt sides of a valley more than 200 feet deep. The excavations which we made at the base of the sculptured rocks taught us nothing as to their origin. I do not think that the works are those of the Stone Age; but I believe it can be proved that in this very limited space of ground we may see the remains of the industry of those races which have successively inhabited the country: (1) The men whose tools and the remains of whose food we have just described; (2) The Proto-Phœnicians, sculptors of the bas-reliefs and the archaic figures. (3) The Phœnicians of historic times, who had cut and hollowed on the rocks their subterranean chambers, their presses and their oil mills, so learnedly described by Renan.

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## THE SURVEY OF WESTERN PALESTINE.

THE following Extracts from some of the notices of the Great Map will be read with interest.

*From the "Times" (September 7th, 1880).*

The importance of this map to the study of the Bible can scarcely be exaggerated. All previous maps have been constructed from the imperfect observations of individual travellers, and distances and names were given for the most part conjecturally and at random. Now we have a survey of the country executed by English Engineer officers, and setting forth the topography and nomenclature with as impartial accuracy as an Ordnance map of an English county. It is now for the first time possible to read the narrative of Joshua's marches, of Judas Maccabæus, &c., and to follow the Biblical histories generally, in an intelligent way, mountains, valleys, roads, villages, and towns being for the first time accurately laid down.

About 10,000 names incorporated in this map were found by Lieutenants Conder and Kitchener, the officers to whom the survey was intrusted, and the memoirs include a number of others discovered by the French and German explorers, Guérin, Renan, Sepp, and others. Among all these exist in some form or other all the Biblical names, only 622 in all, of Western Palestine. These older Hebrew, Canaanitish, and Phœnician names, although they never disappear and leave no trace behind, are often very difficult of recovery, and their satisfactory identification is impossible without the aid of a work like the present, where exact topography and authentic information as to the present nomenclature are available to supplement and verify the deductions of archaeological and philological research. In some cases, and these are comparatively few, the old name has survived almost unaltered, such words as Beit-Lahm and



Bethlehem, Akka (Acre) and Akko, Bir Seba and Beersheba being such obvious survivals that, taken in conjunction with the collateral evidence from topography, no doubt whatever can be left as to their identity. Sometimes the older name has locally survived a later, though still remote, attempt to change it, as in the case of the ancient Bethogabra, which, though known for centuries as Eleutheropolis, is still called by the inhabitants Beit-Jibrîn, a form that is, if anything, older than Bethogabra itself. In other cases the identification is equally certain, though not by any means apparent to the uninitiated; for instance, Laish has in the Bible the superimposed name of Dan, meaning "a Judge," and the spot where we should naturally look for the remains of the town is called at the present day Tell el Kadi, "the Judge's mound." So Paneas became Cæsarea Philippi, but is yet known as Baneas. Sometimes an old name having some approximate signification in the ancient Semitic tongues is misunderstood by the modern Arabic-speaking population, the Hebrew *nahl*, "a stream or watercourse," being always confounded either with *nakhl*, "a palm-tree," or *nahla*, "a bee." It will readily be understood that a study of the name-lists will yield most interesting results to Biblical students. In spite of the previous identifications, some 200 out of 400 known places have been proposed by the Survey officers. The rest will no doubt, be recovered without much difficulty when the forms and meanings of the names here given have been thoroughly examined.

The geography of Palestine can now be rewritten, for the map of the Survey enables us to lay down the tribal boundaries, &c., accurately; and as the physical features of the country are here exactly set forth, what was before mere conjecture and hypothesis can now be stated as ascertained fact. It is not the religious interest alone that makes the comparatively small territory of Palestine so worthy of deep and careful study. In ancient times the traffic between East and West went of necessity through the country, which became the highway of the world, the focus of trade, and the ground on which rival nations contended for pre-eminence. Here Egyptian, Assyrian, Persian, Greek, Roman, and Moslem civilizations and religions by turns held sway, and traces of their influence and ruins of their magnificence are found at every step. Here is the origin not only of Christianity and Judaism, but of most of those ancient myths around which Grecian art, learning, and philosophy clustered. On the sea-coast by Joppa arose the cult and myth of the fish-god Dagon, which appears elsewhere in the legends of Perseus and Andromeda, of Set and Typhon, of St. George and the Dragon, and even of the Archangel Michael and the Devil. From the Tyrian shore, a little further to the north, set out Cadmus, who colonized Greece, and whose very name is perpetuated to-day in that of the river Casimiyel and the little Moslem shrine of Neby Casim, the Prophet Cadmiel or Casmiel. Close by is the shrine of Neby Mashûk, the Prophet "Beloved," which is nothing more or less than the Egyptian temple set up to the terrible Melkarth or Moloch, under the euphemistic title of Miamûn, or the Beloved of Amon. On to the

shore above Beirut flows the Nahr Ibrahim, the river of another "Friend of God," here identical with the well-beloved Tammûz or Adonis. And not only the ruins and the names, but the people themselves are curious and interesting objects of study, and Canaanites, Hittites, Amorites, Hebrews, Tyrians are still to be easily identified among the Fellahîn and Bedawîn of the country; in fact, to the theologian, archæologist, ethnologist, and historian every foot of Palestine has matter for research and contemplation, and all this has been for the first time made available as a whole by the labours of the Palestine Exploration Fund. Of these most interesting departments of the subject we shall speak more fully when the promised volumes of the memoirs appear; to the present publication, the map of the Survey, we can give unqualified praise. It is the joint work of Lieutenants Conder and Kitchener, and was completed in circumstances of exceptional difficulty, the disturbed state of the country in 1877 making it necessary to work day and night (Sundays included), often in the face of considerable personal danger.

The survey was commenced in January, 1872, and finished in 1877; it has cost during that period about £20,000, of which a large sum was expended from time to time in printing reports, &c. The necessary money was raised principally through the energetic action of the secretary, Mr. Walter Besant; but it must have been relinquished had not Mr. Morrison, the treasurer, himself advanced funds from time to time to carry on the operations at certain critical periods of the Fund's finances.

The earliest Palestine Exploration Society in this country was founded in 1804, but attracted little support. In 1808 the committee published a volume entitled, "A Brief Account of the Countries adjoining the Lake of Tiberias, the Jordan, and the Dead Sea" (Hatchard, Piccadilly), which was, however, only a translation of some rough notes made by the well-known traveller, Seetzen. Two travellers were then sent out by the Society for the purpose of exploring the country, but owing to the accounts they received of the dangerous state of the country they did not proceed further than Malta.

The Society after this lapsed into inactivity and its very existence was forgotten until 1834, when all the books, papers, and funds were handed over to the Geographical Society. In 1840 a fresh association was founded, with no better results than the former; but in 1864 a survey of Jerusalem was made under the direction of the Ordnance Survey Department by Captain (now Lieutenant-Colonel) Wilson, Baroness Burdett-Coutts supplying the required funds. This called general attention to the defective state of information respecting the country, and in May, the next year, the present Society was formally constituted, principally through the efforts of Mr. George Grove, under the name it now bears, "The Palestine Exploration Fund." Captain Wilson, who had completed his survey, was again sent out in company with Lieutenant Anderson, and the exploration of the country was commenced in earnest. In 1867 Captain Warren commenced the excavations in Jerusalem itself, the progress of which was watched with great interest by the public, and resulted in adding largely

to our knowledge of the subject and deciding several weighty problems concerning the sites of the Holy Sepulchre and the Temple. In 1869-70 Mr. (now Professor) E. H. Palmer, accompanied by Mr. C. F. Tyrwhitt Drake, made a journey of exploration through the Desert of the Exodus for and at the expense of the fund. On his return the survey of Western Palestine was commenced and continued till its completion last year. Mr. Tyrwhitt Drake, who had an extensive acquaintance with the Arabic language and manners, accompanied the officers in the field and afforded most valuable aid in obtaining the correct nomenclature and other information from the natives; his death at Jerusalem in 1874 was a great loss to the Society and to geographical science. M. Clermont Ganneau, a well-known French archaeologist, was also employed for a long time by the Society, and his labours in the country are of the greatest practical importance. The archaeological and philological information obtained by these gentlemen is embodied in the work of the Society and immensely increases its value.

It must not be imagined that with the publication of the map and memoirs the work of the Society is at an end. Much that is very important remains to be done, especially the survey of the country east of the Jordan (of which an American association has already completed a reconnaissance map), and the exploration of the cities and remains of the Hittite Empire, to the existence and importance of which attention has lately been called in *The Times*. The work produced by the Palestine Exploration Fund during the 14 years of its existence is of such a character as to merit the continued support of all those who are interested in explorations which yield so much that is important to religion, history, and science.

## II.

*From the "Builder" (July 17th, 1880).*

By the completion of the map and the accompanying memoirs, the position of the Palestine Exploration Fund towards the public will be wholly changed. Instead of coming forward as a body appealing for subscriptions and furnishing, in their quarterly reports, somewhat meagre results of the application of the funds, varied as they have been from time to time, they will hold the status of an association which has succeeded in endowing the scientific world with one of the most successful outcomes of the patient toil of the explorer. It is one thing, moreover, to explore, and another to survey. Any one can do the first,—after a fashion. Few people can do the second,—in any fashion. And of those few, perhaps the officers of our Royal Engineers comprise the greater number,—so far as those who speak our own language is concerned. The Ordnance Survey of England, yet unfinished, and that of India, with its magnificent lines of triangulation, are large operations compared to the construction of the map of Palestine. But they are neither more scientific nor more accurate, within the required limits; neither more original nor more exhaustive. The latest improvements in

the technical work of the surveyor and the map-maker have been introduced in the survey of the Holy Land. The officers who executed it braved danger, ill-health, and hostile attack. Literally, they shed their blood in the service; and that with as much devotion as did the crusading knights. All the party suffered seriously in health. One member of the exploration actually sank beneath the toil and the climate. Judged by this kind of cost,—a cost that no money can repay,—the survey is a costly affair. Judged by the outlay of money, on the one hand, and by the graphical and literary results on the other, it must be considered wonderfully cheap. In the actual state of the East, the map has a daily increasing value. Were it not actually in the hands of the subscribers, very conclusive reasons might be urged against its publication at the present moment. As, however, it is now so far before the world, the best thing to do is to let all those who are interested in the East know of what a valuable document they may become possessed. One of the most venerable of English scholars connected with Bible study, recently said that “he blessed God that he had lived to see the completion of this map.” It is a work done once for all,—well done, and worthily done; and we trust that all concerned in its production will receive their due share of the recompense for faithful and long-sustained labours. We need name no names. Honour is rendered to whom it is due in the title and signature of the map, and in the details of the memoir; and we think it will be felt that Christendom owes a debt of gratitude to all the faithful labourers who have combined to produce this important monument.

### III.

*From the “St James’s Gazette.”*

Some great Asiatic power has long had its capital on the Orontes. At the early date before indicated this northern power was that of the Khita, or Hittites, whose capital was at Kadesh, near Homs. After the death of Alexander the Great, the Selucidæ, or Greek kings of Asia, founded Antioch and Seleucia, and fixed their capital at the former city. Under different names, and successive dynasties, history has repeated itself. The struggle of the kings of the eighteenth Egyptian dynasty with the kings of the Khita was continued, 1,500 years later, by the wars between the Ptolemies and the Selucidæ. In the long interval, the Powers that successively became supreme on the Euphrates and Tigris Valley—the Kings of Elam, of Nineveh, of Babylon, and of Persia—extended their conquests to Egypt. On each of these occasions the shore line of road from Tyre to Gaza and on to Pelusium formed the line of military advance and communication. So it was when the Romans came on the scene; when the Parthians, in the days of Herod, took Jerusalem; when, one after the other, the Persians under Chosroes, the Saracens under Omar, the Turks under Melek Shah, the Egyptian Caliphs, and the Crusaders under Godfrey of Bouillon became masters of the Holy City. The importance of Jerusalem itself was rather

religious than military ; but the command of the roadway through Phœnicia and Philistia to the East was always one of the main objects sought by those who aspired to ascendancy.

Precisely the same value now attaches to this region. This was clearly understood by the first Napoleon, as was shown by his attack upon Acre. The opening of the waterway through the Suez Canal, in substitution for the long voyage to India by the Cape, only increases the strategical importance of the coast-line of the Levant. Under any stable government, or in the case of any return of prosperity to the East, there can be no doubt that the considerable traffic which even at the present time is carried on from Antioch to Aleppo would be largely increased ; and that thus the ancient route through Mesopotamia to the Persian Gulf would be reopened. The key of the Orontes—the northern gateway, as Port Saïd is the southern gateway, of the roads from Europe to India—is now kept in the isle of Cyprus. The masters of Antioch and of Aleppo will command one line of Eastern traffic, as the masters of Alexandria and Port Saïd will command the other. The strategical importance of Acre, flanking both these great lines of international communication, it is now hard to disguise. It follows from this glance at the character of the position which Palestine has ever held, and continues to hold, as the gateway between the East and the West—or rather as the barbican which commands the two avenues of the Euphrates and Red Sea lines of communication—that the importance of such a knowledge of the country as may be attained by the military surveyor may at any time prove to be critical. In case of a struggle for the mastery of Palestine, the same physical causes which determined the site of decisive battles in past times are still active. An army advancing from Damascus on Port Saïd would cross the Jordan Valley near the Sea of Galilee, and would advance with the greatest ease up the broad highway of the Valley of Jezreel, to the point where now exist the ruins of Mujeddá. This spot is identified by the officer in command of the survey with the Megiddo of the Second Book of Kings—the Ar-Mageddon of later sacred writers. In the 23rd regnal year of Thothmes III., as we learn from an inscription on the wall of a temple in Thebes, the hostile King of Kadesbu, with his Phœnician allies, waited for the King of Egypt in Maketha (Mujeddá). The result of the battle which then took place may be read in Brugsch's "Egypt Under the Pharaohs." A thousand and four years later Neco, King of Egypt, taking advantage of the war between the Kings of Assyria and Babylonia, marched towards the Euphrates. At Mujeddá he fell upon Josiah, King of Judah, who opposed his passage ; and the virtual overthrow of the Jewish monarchy took place upon the field of battle. At no period of time since the date of the eighteenth dynasty of Egypt has Palestine been united under a ruler able to hold a thoroughly independent position between the Asiatic and African monarchs. It is probable that the most brilliant period of the Israelitish power was the reign of Herod the Great. But Herod was an Edomite, not a Jew ; and although

acknowledged as king, he was nominated by the Roman Senate, and was in fact dependent on Rome. From his reign the imagination flies back to that of Solomon, still famous in Eastern legend. But if Solomon ruled "from sea to sea," from the Lake Asphaltites to the Mediterranean, and "from the river to the end of the land"—that is from the Egyptian frontier to the northern limits of Palestine—and pushed his boundaries to Hamath and to Tadmor, he did not rule either Phœnicia or Philistia. In the former part of the country the King of Tyre treated with the King of Israel on equal terms. "Even unto the land of the Philistines" is a limit fixed in the Book of Chronicles; and Gaza was taken from the Canaanites by the King of Egypt far on in the reign of Solomon. Thus but little of the coast could have been under the sway of the wise king. In the time of his son the Egyptians mastered a great part of the territory of the King of Judah, and the division between the Jews and the Samaritans reduced the kings of either division of Israel to a very feeble condition. The seaports of Tyre and of Sidon are the points which would have offered the surest stay for a permanent autonomous rule of Palestine; but none such is known to history.

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## HISTORY OF THE HITTITE INSCRIPTIONS.

ABOUT eight years ago, the Hamath tablets, one of which had been seen by Burckhardt, were practically offered to the attention of Orientalists, in the shape of a re-discovery, by Burton and Drake. Squeezes, photographs, and hand copies were, I believe, at once attempted with more or less success, and the copies being sent to England were printed by the Anthropological Society, and were said to contain 500 different letters.

It is not fair to judge those early copies by our present knowledge, and those who laugh at their uncouth appearance would do well to remember that even as it was, the stones containing them were very nearly broken up by the villagers of Hamath. Had they been thus destroyed, nothing that has been found since would have been equally useful, for even in their then state I was soon able to see there were four peculiar tablets built up on one and the same plan, yet differing in what I supposed to be certain names, which names I, not unnaturally at the time, supposed to be those of Kings. This fact gave a solid starting-point, and all subsequent progress has been due in fact peculiarly to them. These four will often recur when men begin to investigate this subject, and I propose to call them A1, A2, A3, and A4. Besides these, there were three others which I call B, C, and D. All these came from Hamath.

Three or four years after this, our lamented George Smith copied an inscription across the back of a decapitated priestly-looking figure at Jerebis or Europus.\* The figure still lies, I believe, at Jerebis, "un-

\* Possibly Carchemish, but I know of no proof.

housed, unanointed, unaneled," and the remarks made above, which hint at the comparatively low value of mere copies, are equally applicable here ; for though Major Butler has recently made another copy, it has become clear that the function of the best of copies is principally to corroborate *fac similes* obtained by more accurate methods.

This figure I should wish to call E, leaving F for a well preserved portion of door-post now visible to the public at the British Museum. G is the melancholy relic of a warrior next to it at the same place. All these were from Jerebis or Europus, leaving H for Mr. Davies's copy of rock figures at Ibriz in Caramania.

The Hamath and Europus inscriptions differ considerably from each other. Many Hamathite forms look like brokendown European ones. If so, the Hamathite are the later. It may be as well here to mention that in my opinion none of the small findings at Karabel, Boghos Keui, Eyuk, or Ghianr Kalessi are Hittite at all.

Between the discoveries of the Hamath and Europus tablets, it may well be imagined there was a good deal of interest manifested in so new a subject. In Europe, photographs were shown about, many of which were wrong side upwards ; and the chief stone having been squeezed in two operations, the two impressions were taken photographically with lights on the right or the left side indifferently. I was thrown back a good deal by all this, till the Palestine Exploration Fund received authentic casts from Beyrout. In Turkey, a Pasha, whose name I have forgotten, pounced down one night on to the unfortunate cottage, bridge, and bazaar, into whose walls A, B, C, and D had been imbedded. Next morning there were great holes found in the masonry of Hamath, and the tablets were well on their way to Stamboul. At Beyrout, however, on the road, certain cunning Europeans offered to clean the stones. This included of course the taking of casts ; and Dr. Ward was by this means soon able to reduce the 500 alleged letters to about 50. Dr. Ward's restorations from the real stones are much more accurate than mine, and remain, so far as I know, the only restorations yet published. They are to be found in the journals of the Palestine Exploration Fund.

It might have been expected that the finding of such curious documents would have stirred up at least a dozen decipherers. Such however, was by no means the case. In fact, I really do not know that even one person besides myself has attempted the task. On the contrary, when the study of five years resulted in a clear success, I found I was being judged by great and learned Orientalists who knew not the Newtonian Philosophy, and forgot that of Grotofend. Even as Champollion began with his Cleopatra, and Grotofend with his Darius, and Newton with his apple, so began I with a conviction based on good reasons that the language I should disclose would be Semitic.

As to the bearing this fact had on my decipherments, it might no doubt be made interesting enough to show how I began to discover the letters, roots, and formatives of a Semitic language, by assuming that I had found the word "di," and that it was the ordinary Aramæan sign of the

genitive case. Then also, I observed a great number of words in four letters, where the third letter (clearly a formative), seemed to be a "vau." Then again, an emphatic-looking aleph seemed to appear at the right places. All this, and more, pointed to a Semitic language with about eleven formatives, and Mr. Davies's figures from Ibrez are clearly Semitic. What then more likely than that the required dialect should be Syro-Chaldaeian, which, as we know, finally swallowed up all the spoken languages round about, including Hebrew? True, the names of some of the Hittite kings may not have been Semitic, but a people's language need not have been a court's language.

It was by a careful study of letters, roots, formatives, and sense, each supporting the other three, and each receiving from the other three support, that I gradually found myself becoming tolerably confident as to what I had to look for, and the transliteration of letters became no longer mere guesswork. The existence and recognition of the formatives lead us by a very long step to a knowledge of the family of the language we are engaged upon. Then again, if the knowledge of letters leads to that of roots, the knowledge of roots will no less certainly lead to that of letters; and the result was that three or four years ago I was already in a position to show Mr. Boscawen a sequency of four words, and to explain the general meaning of the A tablet in the pages of the *Athenaeum*. It is, I think, a pity that, as a hard matter of fact, the history of the Hittite inscriptions means, during this period, the history of my own labours in transliteration. An adversary in the field would have portended an interesting tournament, but if no one has worked in the subject, no one would fight about it. It may perhaps be supposed that Professor Sayce and Mr. Hyde Clarke impugn my results. I do not know that they trouble themselves to do so; and the statements made occasionally by these two gentlemen, however interesting to themselves, are to me so totally incomprehensible that I can offer no opinion at all upon things which they seem to think important. My subject is decipherment; theirs, in a general way, seems to be the ethnology of places or languages I know nothing about. Perhaps I am wrong in this description.

When I speak, however, with such confidence of my own success, I think I am bound to give my readers some sort of explanation as to why I feel able to do so. I suppose I may assume that most people know a little about the doctrine of chances. If the chance of several independent events happening, is  $\frac{1}{2}$  for each event, then for two events it is  $\frac{1}{4}$ , for three events  $\frac{1}{8}$ , for four events,  $\frac{1}{16}$ , and so on. Now suppose I take one of the Hamath tablets, A, and find 18 letters in it. There are 68 signs, but each letter has several signs exactly as in Egyptian. The chance is millions upon millions to one that the 68 signs would not have been cut on the stone in such a way as to make sense, except by a superintending intelligence wishing such sense to be given. It is also millions upon millions to one that all the letters will not go exactly into forming ten "roots." Yet I will give the reader the very roots themselves without inflections or formatives.



The ten roots are :—

Nganah, he sang.	
Sakhak, he played.	} instruments.
Nagan, he struck.	
Rapa, he cured.	
Sachar, he bargained.	
Nasa, he carried.	
Sahid, he witnessed.	
Jah, he will be.	
Halil, he sang.	
Baal, he possessed.	

The sense to be got out of these roots, with their formatives, is, that a person named Sahidijah paid money to a temple for a musical service (see Neginoth in the Psalms of David), that he might be cured. Yet out of this fee Sahidijah claimed right to include a service to his own Baalim at a place called Iban.

It is interesting to observe that the second and fifth of the above roots belong to the names of the patriarchs Isaak and Issachar respectively.

Such then are the "brief annals" of the Hamathite votive tablets. The Jerebis mural engravings may perhaps be thought to be more important. I think that when competent men turn their minds to this matter, I shall find in this word Jerebis, either victory or Westminster Abbey. In the first place, on the left-hand stone lintel, at the top we find the phonetic signs i, r, b, z, preceded by the determinative of a city. This is crucial. Allow the letters and you allow the city. Disprove the letters, and great therewith is the fall of the city. In the last few words, however, of George Smith's statue occurs the sign of a raven, the Semitic of which is Jereb. This is preceded also by the sign for a city, and followed by the letter z, forming as a whole the word "City of Jerebiz." It is very greatly to be lamented that we have not yet received either a squeeze or a photograph of this statue. I may here mention a rather remarkable corroboration of my success with the stone lintels. After the erection in the museum, I found I could construe the right-hand lintel but not the left. After a few months, ten or twelve small fragments were sent us, which may be seen now to belong to the left lintel, showing that all the ends of the left lintel stones had been sawn off. Thus, if I had been able to make sense, my system would have been fearfully damaged instead of profited thereby. At the time when the Anthropological Institute published these lintels, I was not aware of all this. I can translate their first line but not their second.

These lintels seem to me to relate to the probable worship of the Bull Europns, from whence the Greeks got their legend of Europa. Like the Hamaths, they too begin with the preparation for a musical service, not for cure of health, but apparently for joy at bringing back the Bull. This reminds us of the Egyptian Apis worship. There were probably annual games, and a piece of land seems to have been given free of rent, for the

purpose of seeing the wrestling matches. Here we have again a patriarchal root in the word "putal," from which comes "Naphtali."

I have alluded to an unexpected amount of backwardness in accepting what I have done. Yet have I spoken with 8 or 10 competent men, with whom, curiously enough, the chief objection is that the language as represented by me is not a pure one. Here a Hebrew word, there a Phœnician. This, however, seems to me exactly what might have been expected, for we know that the Aramæan ultimately devoured all the neighbouring dialects, which could not have been done without a good deal of mixing. In fact, this very objection really grants what I myself say, viz., that the language is Semitic, with a large predominance of Aramæan grammatical forms.


DUNBAR J. HEATH.

### KHITA.

As my earliest communications on Khita, then called Hamath, appeared in the *Palestine Exploration Journal*, I take the opportunity of communicating the later results. One of those articles was on the Town Names of Canaan, &c., in which I showed the affinity of these to the same class in Asia Minor, (Lydia, Phrygia, &c.) præ-hellenic Greece, Etruria and Italy and Iberia or Spain. This was my basis of argument with regard to the affinity of languages which was thence to be deduced, as has since been done. I have also supplied a few words of Canaanite illustrative of this relationship. A series of papers, not embraced in the *Journal*, records the latest progress of the investigations.

In the last year Professor Sayce recognised Khita characters in Lydia and Phrygia in Asia Minor, and this year he has published his identification of Khita as the other language with Assyrian in the seal of King Tarkondemos, discovered by Dr. Mordtmann.

The Khita of this seal I have found on the Carchemish monument. This gives us the name in the southern Khita district. Linguistically, I have stated that Canaanite is allied to Lydian and Phrygian and these to Etruscan as the town names indicated. These languages have been exterminated by Semites and Aryans. The living representatives of the languages are to be found in Africa, among those tribes formerly under Khita subjugation.

Employing the materials at my disposal I assign to the two animal heads in the inscriptions the value of Tar(a), and Ku(no), for which I find equivalent animal meanings, having also the signification of King and God. These animals are the fetishes or totems of the kingly race. Timmi, which is separable, standing for || || means son, child or offspring. The word I suggest for the emblem of the King is Manes or Minos. The name of the country I cannot explain.  the emblem for country must be Ni, a word for land, region, place.

It is a matter most deserving of remark that most of the characters on the seal, and many of those at Carchemish are to be found on a MS. from Western China, even to such minute details as | | | under the animal's chin. This MS. I believe to be a copy of ancient Kitai sculptured inscriptions, like those of Hamath and Carchemish.

HYDE CLARKE.

## THE SITE OF GATH.

### I.

THE site of the Philistine City of Gath has hitherto eluded modern research. The Crusaders placed it at Yebna, which is now identified with the ancient Jabneh, Jabneel, and Jamnia. Dr. Robinson sought for it in vain, but he referred to Deir Dubban, as corresponding with the position assigned to Gath by Eusebius. ("Bib. Res." ii, 66.) Fifteen years later, Dean Stanley wrote "Gath has entirely disappeared." ("Sinai and Palestine," 255.) After a journey in Philistia in 1857 expressly in search of Gath, the Rev. J. L. Porter, editor of "Murray's Handbook of Palestine," and the writer of the article "Gath," in Smith's "Bib. Dic.," concluded that its site was Tell-es-Safieh, the Crusaders' "Blanche Garde." Dr. Thomson regarded Bethogabra, Eleutheropolis, Beit Jibrin, and Gath, as all one and the same city. ("The Land and the Book," ed. 1879, pp. 564, 565.) Lieutenant Conder falls back on Tell-es-Safieh, and carries his conclusion so far as to give a picture of that place as one of Gath ("Tent Work," p. 148), besides calling the present chiefs of the village, "Sheiks of Gath" (p. 155).

In the "Quarterly Statement of the Palestine Exploration Fund," just published, another site is advocated by the Rev. W. F. Birch, on the basis of a remarkable collocation of names, mostly brought to light by the new survey of the Fund. These are (1) Wady el Ghueit (Gath), between Beit Jibrin and Ashkelon, in connection with (2) Kulat el Fenish, or the Castle of the Philistine; also (3), Beit Affeh, representing "the house of Aphrah," (4) es Suafir, the biblical Saphir, and (5), Khurbet Jelediyeh, which is held to be an Arabic corruption of Goliath. The third and fourth are among the names connected with Gath by the Prophet Micah (ch. i, 10-16), who was a native of Mareshah in this part.

Before a conclusion is formed upon this very alluring proposition, attention is invited to another site, also brought into notice for the first time by the Pal. Ex. Survey. It is Khurbet Abu Gheith, which may be rendered the Remains of Gath. This place is situated at the head of the Wady el Hesy, here called el Muleihah, which falls into the Mediterranean Sea between Gaza and Ashkelon. The position is intermediate between Gaza and Hebron; and it commands the main route from the nomade region of the Negeb or South Country to the lowland hills of the Philistine Shephelah; just as Gaza protects the Philistine coast road, and

Hebron guards the highway through the mountains of Judah from the same aggressive quarter.

An examination of all the passages in the Bible relating to Gath, appears to afford a strong support to the claims of this site, in addition to those derived from its identical name and strategical position. In 1 Samuel vii, 14, it is written: "And the cities which the Philistines had taken from Israel were restored to Israel, from Ekron even unto Gath." In this passage Ekron and Gath seem to be used to indicate the northern and southern extremities of Philistia, like Dan and Beersheba in reference to the Twelve Tribes. This use is thoroughly supported by the identification of Ekron with Akir, and of Gath with Geith; but if Gath be placed at Kulat-el-Fenish, or at Tell-es-Safieh, or at Beit Jibrin, then Gath is no longer a point on the southern frontier of Philistia, for all those places are in the central parts, and the sites of Eglon and Lachish, and the venerable Gaza are further south though not so much so as Geith.

Again in 1 Samuel xvii, 52, it is written, "And the wounded of the Philistines fell down by the way to Shaaraim, even unto Gath, and unto Ekron."

In Dr. Wm. Smith's "Dictionary of the Bible," art. Sharuhin, Dr. George Grove quotes Prof. Knobel ("Exeg. Handbook on Joshua, xv, 32"), as calling attention to Tell Sheriah on the Wady Sheriah for the site of Shaaraim. Thus Shaaraim is found just south of Gath (Geith); and the Wady Sheriah at this time constitutes the definite boundary line between the Felahin, who are the successors of the Philistines, and the nomade Azazimeh, who have succeeded the Idumeans and the Amalekites. Shaaraim seems to define in the text, the extreme southern limit of Philistia, as Gath did its southernmost city and fortress. This second reference to Ekron and Gath in juxta-position, serves to mark the extreme character of the Philistine flight up to the northern and southern limits of heir country.

In considering the connection by the prophet Micah of Aphrah and Saphir with Gath, it must be remembered that those places are only two out of ten included in the passage (Micah i, 10, 16). Gath appears to have been then the chief city of Southern Philistia, as it probably was also when Hazael, King of Syria, made it a special object of his conquest, before attacking Jerusalem (2 Kings xii, 17). Thus it became the first object of the Morasthite prophet's theme, who then proceeds with his composition by allusions to Aphrah, Saphir, Zaanan, Beth-ezel, Maroth, Lachish, Moresheth-Gath, Achzib, Mareshah, and Adullam the glory of Israel. That Aphrah and Saphir are noticed next to Gath, may be owing to their position in the plain immediately under the eye of the writer at Mareshah. To notice the other places in the list is not requisite for the present purpose, unless the opportunity be taken to suggest the identification of Beth-ezel with Deir-el-Asl, eastward of Geith. In conclusion, it may be added that the word Gueith seems to be Arabic, and of a distinct meaning from the Hebrew Gath, a wine press; a point, however, which the present writer would prefer leaving to Prof. Palmer.

## II.

With regard to the suggested identification by Mr. Trelawney Saunders, I have to explain, that being asked by the Secretary what would be the probable modern form of Gath, I explained that it would probably appear as *Jatt*, but that it was quite possible that the doubled letter in it might suggest a false analogy with the more common word *Jennat*, so that the name might appear as *Jennat* or *Jenata*. Instances of these false derivations in local names are common enough: witness Rás en Nâkûra. "The Cape or Promontory of the Trumpet," became Sûr (*i.e.*, the "rock"—Tyre) is known to Arabs in the meaning of a "trumpet," but is little understood in its real and primitive sense.

E. H. PALMER.

## III.

PROFESSOR PALMER is of opinion that Gheith is not admissible as a modern form of the archaic name, Gath, because their meanings are different, and their initial letters are never interchangeable. He argues that Gath would take the Arabic "form of *Jatt* or even *Jennat*, signifying a garden." With this idea, a search was made in the map, and about 9 miles north-east of Gheith, the ruined site of Jennata was found. Thus far, the Professor's view finds support.

But the following objections to it are suggested. (1), Gath is used five times in the Bible as a common noun, and in each instance, the sense of the passage demands the unvaried interpretation of a "wine-press." To accept "garden" as the meaning of Gath would destroy the forcible character of each of those passages, viz.: Judges vi, 11; Nehemiah xiii, 15; Isaiah lxiii, 2; Lamentations i, 15; Joel iii, 13. See "Englishman's Hebrew Concordance," and Davidson's "Analytical Hebrew Lexicon." The anglicised Arabic for a wine-press seem to be Ma'aser or Mugsara. Neither the form nor the meaning of Jennata seems therefore to connect it with Gath.

It may be observed that in the case of a name, however distinguished in history, the site of which has ceased to be identified for many centuries, there is nothing surprising, if in its traditional descent, it has undergone changes both of form and meaning. The wonder is that anything remains of the original word, after transmission through Philistines, Hebrews, Egyptians, Syrians, Idumæans, Greeks, Romans, and Arabs. But the shadow of a name is of value when historical incidents contribute to identification, and it may be thought hypercritical to attach much weight to a linguistic difference.

(2), another objection to Jennata is derived from its position. The flight of the Philistines from the Valley of Elah was first directed to the Gai or Ravine (doubtless that of Wady es Sunt) which carries the drainage of Elah into the Philistine Plain at the northern base of Tell-es-Safi, whence it passes north-westward to the sea at Ashdod. From the mouth of the ravine, they were chased by the Israelites northward up to the gates of Ekron. They also appear to have fled southward, when they reached the plain, for their wounded fell by the way of Shaaraim even

unto Gath. Now the road from Tell-es-Safi to Shaaraim through Gath, (Gheith) follows a line which is nowhere higher than 500 feet ; while, to reach Jennata, the highland whence they had come, must be reascended to a height exceeding 1,000 feet. Facility of flight is therefore certainly not in favour of Jennata. Besides Jennata would be properly described as on the high road from the Wady es Sunt to Beersheba, and it cannot be supposed that Shaaraim would be mentioned unless it related to a line quite distinct from that leading to the more noted place.

August 19th, 1880.

TRELAWNEY SAUNDERS.

#### IV.

FROM the publication of the Survey Sheets may be expected to result a large number of proposed identifications. Until, however, the memoirs are also in the hands of students it may perhaps be doubted whether more harm than good may not be done to the cause of Biblical topography by the hasty suggestions of those whose acquaintance with the facts must often of necessity still be incomplete. In order for an identification to become generally accepted it must of course be shown to be satisfactory—1st, as fulfilling all the requirements of the Biblical narrative and of those of ancient authorities ; 2nd, as presenting philologically a sound radical identity of the ancient and modern names ; 3rd, as referring to an indisputably ancient site. Partial acquaintance with the literature of the question, unsound or fanciful derivations, and identifications with modern ruins are each and all weak points which are certain to be discovered so soon as the complete memoir is in the hands of the public ; and although we may hope that students will derive valuable discoveries from the Survey Sheets, it must not be forgotten that the ancient sites have all been conscientiously sought by the Survey Officers on the ground under circumstances more advantageous than those of the student who only has the map before him.

The question of the site of Gath is a case in point. The search for this venerable fortress occupied the attention of the Survey party for many weeks during the spring of 1875. It was certainly a disappointment to be unable to report anything very novel in connection with the subject.

Had a leading question been ever permitted, no doubt a dozen sites might have been found ; but as this was not done, I will venture to say that no modern title representing the Hebrew name Gath will be found on any of the Survey Sheets within the bounds of Philistia. Had such a word existed in the name Indexes it could not have escaped the searching scrutiny to which the original Arabic lists have been subjected already by Professor Palmer, and, perhaps I may be allowed to add, by myself.

#### *I.—Philological Considerations.*

The word Gath (גַּת) occurring in the names Gath-hepher, Gath Rimmon, Gethsemane, Gittha, Gittaim, and Gitta, is translated "wine

press" and its correct representative in Arabic is the name *Jett* spelt with the first or soft T.

The Samaritan town of that name, the birthplace of Simon Magus, is probably the same *Gethu* or *Gethuna* mentioned in the Lists of the Conquests of Thothmes III, and also noticed in the account of his expedition against Megiddo as if within two days' march of the latter town—*Geuta* (as it is there called) being on the road leading northwards by the land of the Anakim, while the road from Sharon actually pursued by Thothmes led eastwards by Aaruna. A suitable position for this town is found at the village of *Jett*, which stands at the foot of the Samaritan hills west of the plain of Dotham. In this case the name Gath or Gitta is thus found still to exist in the correct equivalent in Arabic.

The Galilean Gath (Gath Hepher), the home of Jonah, has lost its original name, and is now known as *el Mesh-hed* "the monument," because it contains the supposed tomb of Jonah, which has been venerated by Jew and Christian alike at least since the 4th century A.D.

As regards the name Gath-Rimmon, further indications will be found below, but while speaking of the name itself a word may be said as to various proposed identifications of the sound.

Colonel Warren R.E. proposed some time ago to recognise the name Gath in the final syllable of the name *Huleikât* applying to a village south-east of Ascalon. This name appears however to be the diminutive form of *Helkât*, the Hebrew Helkath or "fields" which was also the name of a town of Asher. (Josh. xix, 25.)

Mr. Trelawney Saunders recognises the name in *Khurbet Abu Gheith* or "ruin of the father of rain," but however alike the words Gath and Gheith may appear in English letters they could scarcely be more distinct in Arabic and Hebrew, for the simple reason that they *do not contain a single letter in common*.

The word *Gheith* is written with the strong guttural letter *Ghein*, one of the two modern forms of the Hebrew guttural *Ain*. The *Ei* represents the Arabic—Y the Hebrew *Yod*, and the letter *The* (th) is properly speaking one of the two modern equivalents of the Hebrew *Sin*.

Thus written in Hebrew the word *Gheith* would become (געי) *'Ais* or possibly *'Aith*, and the name if proposed as equivalent with *Ai* or *Aiath* would be less open to objections on philological grounds than would be the case if supposed to represent Gath.

Abu Gheith will be found elsewhere on the map as the name of a Sheikh, and it may be noted that we have not as yet a single well-authenticated instance in which the word Abu (father) has become a prefix to an ancient Hebrew name. It serves in fact as a rule to distinguish a modern appellation from a really ancient local name.

The two names which Mr. Birch proposes to connect with Gath are those of *Wâdy Ghûeit* and the ruin of *Jeledîyeh*. With regard to the former he states that "this probably implies that there has been a place of that name." The assumption is, however, scarcely a safe one, for *Ghûeit* signifies soft or well-irrigated soil, being the same word found in the title

*Ard el Ghâta* or "fertile land" applying to the district surrounding Damascus. The title being thus purely descriptive of the rich character of the soil in this fertile plain does not of necessity imply the former existence of a town. Mr. Birch has moreover fallen into the same error with Mr. Trelawney Saunders in supposing the *Gh* or *Ghein* to represent the Hebrew Gimel—a substitution of which there is no known instance.

The suggestion that the name Jelediyeh is derived from Goliath and that Gath after losing its real name was called after that of its famous champion is, to say the least of it, not founded on any Scriptural or other literary evidence. The place in question is the site of the Crusading fort called Galatia.

The authority of Professor Palmer has been quoted in favour of the statement that the name of Gath might survive under the form *Jenneta*.

Professor Palmer will no doubt have a good reason for his assertion, but I am at present unable to understand it. *Jenneta* would appear to be a derivative from the root נננ like the Hebrew Gannim and the Aramaic Gennath, "gardens," whence the Arabic *Jenn*., pl. *Jennân*. So far as our present experience goes, such changes have not been proved to have taken place in the nomenclature of Palestine. The ancient names when existing are preserved with but slight alteration and the *sound* appears to survive more often than the meaning (*e.g.* Rimmon, Ramah, Endor, &c. the meaning, of which names is now not understood by the peasantry.) It is indisputable that the most probable modern form of the name Gath is the Arabic *Jett*, and an identification founded on the assumption that a radical change had occurred, substituting a double N for the double T, would appear to be extremely unsafe unless supported by very strong testimony of another order.

## II.—Archæological Considerations.

The various sites above mentioned appear unsatisfactory moreover, on account of the character of the ruins there found.

The ruin of Abu Gheith is extremely insignificant, consisting only of heaps of fallen masonry and remains of a modern wall. The description given in the *Athenæum* (Aug. 7, 1880) of this spot as "commanding the main route from the Nomad region of the Negeb or South Country to the lowland hills of the Philistine Shephelah" is scarcely justified by anything in the map or memoir. The ruin lies low and is not on any main road, but more than a mile from the track leading from Beersheba to Gaza. The ruin of Jelediyeh in the same manner does not appear sufficiently important to have been that of one of the five great Philistine strongholds. On visiting the site in 1875, I found the ruins to occupy a piece of level ground and to include the remains of a small tower apparently of Crusading origin.

Judging from scattered references the site of Gath was of great strength. The city was walled, and according to the Rabbinical writers (Midrash Vayikra Rabba, ch. 5) it was a fortress. No remains of anything resembling the site of a large fortified town are to be found at either of



the two ruins above noticed, and we have in this case an illustration of the fact that the Survey map by itself without the memoir is likely rather to mislead than to assist those who are unacquainted with the country.

### III.—*Topographical Considerations.*

In the absence of any trace of the name of Gath we are obliged to base our arguments on the very indefinite indications of position to be found in ancient writers.

In the first place, Gath was a fortress of the Philistines and a royal city in the time of David. The five lords of the Philistines ruled in Gaza, Ashkelon, Ashdod, Gath, and Ekron, and whenever those cities are enumerated the name of Gath occurs next in order to that of Ekron. (Josh. xiii, 3; 1 Sam. vi, 17, &c.) Of these cities the other four are well known as occurring in the plain south of Jaffa. The earliest mention of the Philistine country connects it with the sea-coast north of Egypt at the time of the Exodus, at which time there is good reason to suppose the plain of Philistia to have been subject to the King of Egypt. (Cf. Exod. xiii, 17; and xxiii, 31; and Ezek. xxv, 16.)

There is no good reason for supposing that the Philistines possessed any portion of the Shephelah or low hill country extending between the maritime plain and the high watershed ridge. The name Shephelah has it is true been improperly applied by some writers to the plain itself, but the Philistine plain is called in the Bible *Sudeh* (שדה) rendered "Country" in the A. V. (1 Sam. xxviii, 5 and 7), and is thus distinguished from the Negeb or "dry" country and from the Shephelah or "lowlands." The strict distinction always noticeable in the Old Testament, between the various natural districts, each distinguished by a peculiar Hebrew name, is one of the most interesting incidental indications of the familiarity of the sacred writers with the scenery of their native land.

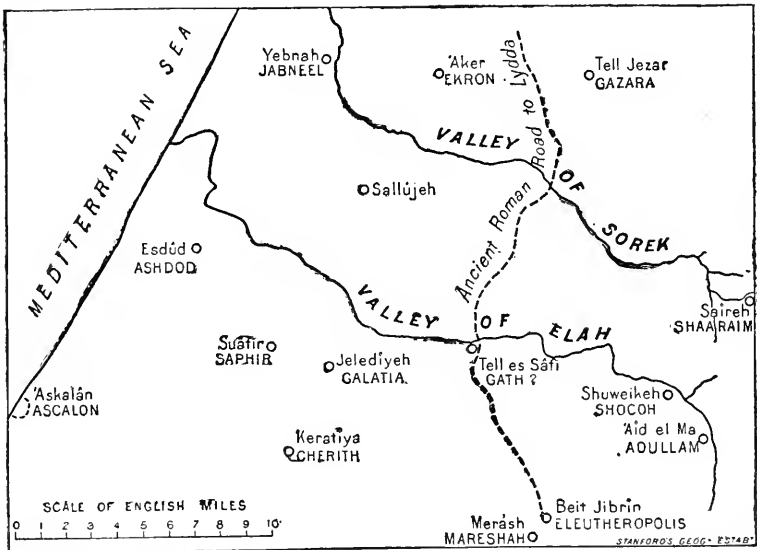
It is in the Plain of Philistia, or on its confines, therefore, not in the Shephelah nor in the Negeb, that Gath must be sought.

The second indication of position is found in the various notices which seem to imply that Gath was a frontier town between the Philistines and the Israelites. Thus after the death of Goliath the pursuit extended to Gath (1 Sam. xvii, 52), and again Gath is enumerated among the frontier fortresses of Rehoboam (2 Chron. xi, 8) with Shocoh, Adullam and Mare-shah, cities of the adjoining Shephelah towards the north-east of the Philistine plain.

A third important indication is found in the account of David's battle with Goliath, which took place in the Valley of Elah near Shocoh and Azekah (1 Sam. xvii, 2). This great valley (Emek) the name of which in Hebrew signifies "Terebinths," is commonly identified with the present *Wady es Sunt*, still remarkable for its magnificent terebinths, and on the south bank of which the important ruin of *Shuweikeh* (Shocoh) is still found.

After the death of Goliath the Philistines are said to have fled "until

thou come to the valley (Gai) and to the gates of Ekron, and the wounded of the Philistines fell down by the way to Shaaraim (or according to some translators 'to the gates') even unto Gath and unto Ekron," (1 Sam. xvii, 52).



Now in tracing the flight from Shuweikeh towards the Philistine plain (Sheets xvii, xx and xxi, of the map), it will be observed that the broad valley (Emek) near that ruin contracts to a gorge (Gai) or ravine east of Tell es Sâfi, and that another direct route leads north-west, passing beneath the hill on which is the ruin of *S'aireh*, which M. Ganneau has identified with Shaaraim.

Supposing the name Shaaraim to be in this passage that of a town, its occurrence is of value as serving to localise the scene of combat. The ruin *S'aireh* correctly represents the probable position of this town, which was one of the cities of the Shephelah belonging to the same group with Adullam, Azekah and Socoh (Josh. xv, 35). Mr. Trelawney Saunders appears to be in error in supposing the site in question to be *Tell Sher'ah*, much further south, belonging to a group of towns in the Negeb.

It is true that the name Shaaraim does occur in one passage (1 Chron. iv, 31) among the towns of Simeon, but it seems probably to be a corrupt form in this case of the name Sharuhen, which takes its place in the corresponding list of Josh. xix (verse 6). The name *Sherid'ah* is much closer to Sharuhen than to Shaaraim because the guttural occurs at the end of the word and not before the R.

To suppose the pursuit of the Philistines to have extended southwards from the valley of Elah, a distance of 20 miles over the intricate country

between Shuweikeh and the little ruin of *Abu Gheith*, or again 8 miles further south to *Tell esh Sheria'h* appears very unsatisfactory; the impression conveyed by the sacred narrative being that after a short pursuit the Israelites returned to the field of battle to spoil the Philistine camp. (1 Sam. xvii, 53.)

Nor is the above-mentioned passage the only one in which Gath is noticed in connection with cities towards the north and north-east of the Philistine plain. The towns noticed in connection with the fortress in question are as below:—

Ekron	( <i>'Aker</i> )	1 Sam. vi, 17.
Shocoh	( <i>Shuweikeh</i> )	1 Sam. xvii, 2.
Adullam	( <i>'Aid el Ma</i> )	2 Chron. xi, 8.
Mareshah	( <i>Mer'ash</i> )	2 Chron. xi, 8.
Jabueel	( <i>Yebnah</i> )	2 Chron. xvi, 6.
Shaaraim	( <i>S'a'reh</i> )	2 Sam. xvii, 52.

If Gath were to be sought in the south of Philistia we should expect to find its name in connection with those of Eglon, Lachish, En-Rimmon, Beersheba, and other cities of the Negeb with which it is never connected.

The situation of Gath was presumably known to Josephus, who mentions it as being in the territory of Dan (Ant. V, 1, 22) and again with Ekron as on the border between Judah and the Philistines (Ant. VI, 2, 3), and in a third passage as being at the opposite extremity of Philistia to that marked by Gaza (Ant. IX, 13, 3). These incidental notices, but especially the first, are only explicable on the supposition that Gath was near Ekron on the north of Philistia. In one passage it is true that Josephus places Githa (probably Gath) in Idumæa, mentioning the place as a walled city (1 Wars XVII, 2) but the title Idumæa is used by Josephus, like the Daroma of the 4th century, to indicate a very large district of Palestine south of Jerusalem (as is fully shown by Reland).

Gath-Rimmon (or "lofty Gath") is mentioned among the towns of Dan (Josh. xix, 45), and there seems no good reason for supposing that this town was distinct from the Philistine Gath; but the border line between Judah and Dan is not defined with sufficient accuracy in the Bible, for many of the border towns (such as Zorah and Eshtaol for instance) appear to have been claimed by both tribes. It appears however tolerably clear that a town called Gath lay near Ekron on the borders of the Philistine plain and of the Shephelah of Judah.

Such indications as we possess in the ancient accounts of the Old Testament, Josephus, and the Talmud appear then to support the following deductions:—

- 1st. Gath was a city of the Philistine plain (גַּת) and is not to be sought in the Negeb district.
- 2nd. Its name always occurs in connection with towns towards the north of Philistia, or in the Shephelah north-east of the Philistine plain.
- 3rd. It was a walled city and an important fortress, possibly standing on high ground (as implied by the name Gath-Rimmon).

4th. It was on the border between the Philistines and the children of Judah, and according to Josephus on the south border of Dan.

These deductions are all fatal to the proposed site at Abu Gheith, which is not (as has, it is hoped, been made clear) satisfactory from either a philological, a topographical, or an archaeological point of view.

In the works of Jerome we have very definite indications as to the site which he supposed to represent Gath. Jerome and Eusebius cannot be quoted as authorities unless their testimony agrees with that of the Bible, yet their indications have preserved for us the sites of Gezer, Bezek, Adullam, and a great many other important Biblical towns.

Jerome (Præfat ad Jonan) notices Gath as lying between Eleutheropolis (Beit Jibrîn) and Diospolis (Lydda). Eusebius (Onomasticon) places Gettha 5 Roman miles from Eleutheropolis in the direction of Diospolis, and again under the head of Geth Rimmon as being 12 Roman miles from Diospolis near Eleutheropolis. In another passage Gittha is placed between Antipatris (Râs el 'Ain) and Jannia (Yebnah), and in another commentary Jerome places Gath on the border of Judah between Eleutheropolis and Gaza (evidently an error for Gazara or Gezer, the site of which on the line from Eleutheropolis to Diospolis was well known to Jerome). These indications agree in placing Gath in the north of Philistia.

The distances are unfortunately inexact, as the distance from Eleutheropolis to Diospolis is about 24 English miles and not 17 Roman miles; but the only really strong site on the ancient Roman road from Beit Jibrîn to Lydda is the fortress of Tell es Sâfi (Blanchegarde), situated about 7 miles from the first mentioned town. It is with this important fortress, guarding the entrance to the valley of Elah, that Dr. Porter proposes to identify Gath; and in this case the Philistine flight through the Gorge (or Gai) to their nearest frontier fortress extended over only seven miles from the field of battle along a natural line of retreat.

Such, so far as I am able to collect the evidence, are the main facts in connection with this question. Gath cannot be identified until the name *Jett* is recovered, and as the name of the city drops out of the enumerations of Philistine places in the later books of the Old Testament, so also it seems to have dropped out of the nomenclature of Philistia. In face, however, of the Biblical evidence existing and of the concordant indications of the early Christian fathers, it seems idle to search for the site of this famous fortress in any district other than the north-east part of Philistia.

No notice has been taken above of the connection between the positions of Gath and Ziklag, for the simple reason that the position of Ziklag is an extremely obscure question. The site of *Sallâjeh*, west of Tell es Safi, has claims to represent the city which Achish gave to David. The position of *Zuheilikah* which I proposed in 1875, is more satisfactory, but there are strong objections from a philological point of view. *Asluj*, proposed by Robinson, is inadmissible, as not being in the Philistine "country" (שׁדד) and as too far from Aplek. Finally even if Ziklag were fixed the effect on the question of Gath would be insignificant. Further

exploration may lead to the recovery of the site, but no amount of examination of the Survey Sheets seems to me likely to settle the question of the position of Gath.

C. R. C.

## V.

The philological disagreement between Lieutenant Conder and Professor Palmer, shows that philology is not the safest of ground for an argument on the present case. Attention was called in answer to Professor Palmer's *Jennata*, to the sweeping sources of disturbance to which names have been exposed in this region. There is another example of just such a change as the name of Gath appears to have undergone, if Abu Geith is the true site. It is found in the connected name of Shaaraim, which the Rev. E. Wilton exhibited as identical with Shilhim and Sharuben in a clear tabulated comparison of the three lists in Joshua xv and xix, and 1 Chron. iv. Wilton's "Negeb," page 157. Also Article *Sharuben*, in Smith's "Bib. Dict.," vol. iii, 1229.

The variations of Shilhim, Sharuben, and Shaaraim, are so instructive, and bear so much upon the difficulties surrounding Gath, that a temporary divergence to the explanation of them from the more direct consideration of Gath, seems desirable. The first form conveys the idea of "sending away" in the plural number; that is, in two directions; or across a frontier from either side. When the idea is applied to a source of water, the singular number is used, as in Shiloah. It is a most apt name, and the first applied to this frontier station of Judah, in Joshua xv, 32. Davidson gives to Shilhim the meaning of "armed men," which may fairly be derived from the root, and is not inappropriate to a frontier station between nomad Avites or Hivites, and settled agricultural Philistines.

Then follows quickly in Joshua xix, 6, the same place with the name of Sharuben, the identity being indicated at least, if not fully proved, by the substitution of it for Shilhim in the second of the parallel lists already mentioned. This change is made in the transfer of the town from Judah to Simeon, and as if to take it from the idea of being "sent away," as inappropriate to the place of passage between two brotherly tribes. Shilhim is therefore called Sharuben, which Davidson treats as an abbreviation of Sharuthhen, and interprets as a "pleasant lodging." Davidson's "Analytical Hebrew and Chaldee Lexicon." In other words, when the town was transferred from Judah to Simeon, the place was regarded as no longer associated with the idea of exilation, but rather with that of relaxation and rest.

Finally in Chronicles (1, iv, 31), in the list of Simeonite cities brought up to the time of David, Shaaraim has taken the place of Sharuben. Shaaraim means "gates," and the root signifies to cleave or part. An explanation of the change of name is found in verse 27, where it is recorded that the Simeonites had not multiplied like the children of Judah, and further on, in verses 39-43, it is intimated that the nomadic character of the south country or Negeb, had survived the failure of the

Simeonite occupation. The new name retains the plural number as an indication of the double aspect of a frontier town, and the survey appears to confirm abundantly Dr. Knobel's identification of the site with Tell esh Sheriah. This modern name is the last variation of its form, and it is quite in accordance with that connection of sound and idea that appears to regulate these changes. It is now "the mound of the watering place." An accumulation of broken pottery on its summit is one of the obvious marks of the antiquity of the site, which is further indicated by the veneration attached to it, and by its continuing to be the burial place of the Hanajereh tribe. Guerin, "Judée," ii, 288.

After this it seems easier to understand how Gath may have become Gheith, even with Abu prefixed to it. Again, is the change greater than that of Goliath to Jalut in the Koran? see art. "Goliath," Smith's "Bib. Dict.," and why is the Arabic Jett preferred? Does Jett ever mean a wine press? Accepting Lieutenant Conder's interpretation of Abu Gheith as the Father of Rain, the designation suggests an attribute of mystic power, and so may be carried back to some incoherent traditional remembrance of Goliath. Here too Lieutenant Conder, unassailable, appears to be in conflict with Professor Palmer on a philological point.

Turning now to Lieutenant Conder's archaeological argument, it may be asked, if anything more could be expected to appear at the remains of Gath, at first sight, and on the surface, than the "heaps of fallen masonry," which the surveyors found at Abu Gheith. To understand the position of Abu Gheith the sheets 19, 20, 23, 24, should be put together, and then it will be seen by experienced eyes, that the valley in which Abu Gheith is found, lies close under the mountainous region indicated by heights above 1,000 feet. As the flight of the Philistines was not to Gaza, they must have kept close under the mountains by Summeil and Arak el Menshiyih, and on by the valleys coming down to that place from the south; and still skirting the mountains on the east, they strike the valleys coming from the south by Abu Gheith, "on the way to Shaaraim," or Tell esh Sheriah. Now, it will be admitted that the fugitive Philistines fled from the valley of Elah, through the Wady es Sunt, to the plain at Tell es Safi. Here undoubtedly a part of them turned northward to Ekron, and it is contended that another part turned southward to Gath. But must Gath be looked for in the south? The affirmative answer is found in 1 Sam. vii, 14, where it is recorded that the cities taken by the Philistines from Israel were restored to Israel, "from Ekron even unto Gath." Here there is exactly that kind of juxta-position, by which the northern and southern limits of the Land of Israel are defined in the familiar reference to Dan and Beersheba. The full extent of Philistia is thus expressed, "from Ekron even unto Gath," and to mark still more emphatically the completeness of the subjugation of Philistia under the divine inspiration of Samuel, it is added "and the coasts thereof did Israel deliver out of the hands of the Philistines." 1 Sam. vii, 5 to 14.

This testimony to the southerly position of Gath seems undeniable. That being granted, it may be affirmed that no passage from south to north

between the mountainous heights exceeding 1,000 feet, and the Gaza route can be found to facilitate a flight southward so much as the line between Arak el Menshiyeh and Abu Gheith, this line being also on the way to Shaaraim or Tell esh Sheriah.

As it is in this part of his discourse that Lieutenant Conder adopts Monsieur Ganneau's identification of Shaaraim with Saireh, the objections to that site are made here instead of being connected with the foregoing notes on Shaaraim. Kh. es Saireh is only about four miles distant on the north from the field of battle, which took place in the Valley of Elah, below Shuweikeh or Shocho. The Philistines came up from the west, the Israelites from the east; and Saireh was probably in the rear of the Israelite camp, and on one of the roads by which they had gathered together, while the gorge of es Sunt would have been in the rear of the Philistine position. Is it likely then, that the Philistines would have fled northward by way of the Wady en Najil, and across the Israelite lines, when the Wady es Sunt was entirely in their own hands and open to them?

Again Saireh is close to the northern border of the tribe of Judah; whereas Shaaraim was in the allotment of Simeon, certainly on the south of Judah.

It is wrong for Lieutenant Conder to lead his readers to conclude, that I have supposed the flight of the Philistines to have passed over the mountains between Shuweikeh and Abu Gheith, for I carefully took them through the Wady es Sunt into the plain, before dividing them right and left to Ekron on the north, and Gath on the south. It also appears to be a strange mistake to speak of that pursuit as "short," which was "until thou come to the valley (Wady es Sunt) and to the gates of Ekron" (Akir); a distance of 15 miles as the crow flies, and 20 miles by way of Wady es Sunt.

I believe that I have now said enough to justify my adherence to Kh. Abu Gheith as the recovered site of long lost Gath.

TRELAWNEY SAUNDERS.

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## THE SITE OF MEGIDDO.

### I.

In the modern name of the River Kishon, Nahr el Mukutta, may there not be a trace of the ancient Megiddo, which no doubt stood on its banks. It is true that the meaning of the modern name is the River of Slaughter, and the fitness of that meaning to the history connected with the ancient name, may account for the substitution. There are numerous instances of alterations of the same kind, as Cape Sanjak, for Cape St. Jacques.

Dr. Robinson identified Megiddo with Lejjun, the ancient Legio. In all

probability the remarkable Tell el Mutsellim, or Mutasellim, was the ark or fortress of both cities, but while Lejjun on the south of the Tell, doubtless represents Legio, it may be suggested that the site of the City of Megiddo is indicated by the remains extending northward and westward from the Tell, including el-Medineh, or "the City." Lieutenant Van de Velde places Megiddo on the Tell itself, but Robinson affirms that there is no trace of any kind to show that a city ever stood there. It appears to be quite impossible to separate Megiddo from the Kishon or Mukutta as Lieutenant Conder proposes. The alluring resemblance to the ancient name in Khurbet el Mujedda, is too heavily counterpoised by its situation in the Jordan Valley, at the eastern foot of Mount Gilboa, and south of Beisan; a situation not only too far apart from Taanach and the Kishon, but also divided from them by the bold Heights of Gilboa.

In connection with Megiddo, Dr. Robinson has contended against identifying Legio with Maximianopolis, which was said by Jerome to be a later name of Hadad-rimmon. In Dr. Robinson's opinion, this place had a more southerly site, and the suggestion has been confirmed by Lieutenant Van de Velde (i, 355), who claims Rummaneh near Tannuk as still retaining the essential part of the old name Hadad-rimmon; but he agrees with Van Rourmer against Robinson in connecting Legio with Maximianopolis.

10th July, 1880.

TRELAWNEY SAUNDERS.

## II.

LIEUTENANT CONDER proposes to locate Megiddo by the Jordan in the plain of Beisan, where the name *Mujedda* yet remains. In his "*Handbook*" he says "Egyptian and Assyrian records do not as yet cast much light on the subject." There is one passage of interest which confirms his conjecture. It is given in *Beugsch's Egypt* (English edition) ii, p. 106, in a poem of Pentaur, of the time of Ramses II. It reads as there given, "Describe Bethsheal, Thargual, the Ford of Jirduma how it is cursed. Teach me to know the passage in order to enter into the city of Makitha, which lies in front of it." This, if correctly rendered, seems conclusive.

ARCH. HENDERSON.

## ON THE RIVER KANAH, THE BOUNDARY BETWEEN EPIRAIM AND MANASSEH.

THE River Kanah\* was identified by Dr. Robinson† with the present Wady Kanah, a name applied to a part of the main channel of the system of watercourses which has its outfall through the Nahr el Auja. The main channel begins near Yamm, 7 miles south-east of

\* Joshua xvi, 8; xvii, 9.

† Robinson's "Bib. Researches," iii. 135; "Phys. Geog. Holy Land," 100.



Nablus (Shechem) on the edge of the Jordan Valley, and at an altitude of 2,700 feet above the sea. It passes through the Plain (Sahel) of Muknah, and between Ain Abûs and Kuzah; descending from the mountains into the Plain of Jaffa at a place called es-Zakur, on the south of Hableh. The highland here has a height of 469 feet, while the plain at its foot is only 125 feet at Jiljulieh. Beyond Jiljulieh the Wady has a permanent stream and turns abruptly, running to the southwest for about 4 miles as far as Tell (Mount) el Mukhmar, where it receives three large tributaries, and continues to the sea as the Nahr-el Anja (Crooked River). The outlet into the Mediterranean is nearly 4 miles north of Jaffa.

Stretching across the country from the edge of the Jordan Valley to the sea-shore, the Wady Kanah appears to be well fitted on that account to mark the boundary between Ephraim and Manasseh. But two objections have been made to it. The first, because it excludes the important city of Shechem (Nablûs) from the territory of Ephraim; and the second, because it reduces Ephraim to a width which is deemed to be unequal to the importance of that dominating tribe. Hence attempts have been made to identify the River Kanah with other watercourses further north.

The Palestine Exploration Map throws new light on the identification of the River Kanah with Wady Kanah, through its exposition of the places which are connected with the River,\* in the biblical record of the boundary. In Joshua xvi, 6-8, it is written :

“And the border went out toward the sea to Micmethah on the north side and the border went about eastward unto Taanath-Shiloh, and passed by it on the east to Janohah; and it went down from Janohah to Ataroth, and to Naarath and came to Jericho, and went out at Jordan. The border went out from Tappuah westward unto the river Kanah: and the goings out thereof were at the sea.”

Joshua xvii, 7-9, contains a parallel passage, much amplified, with reference to Tappuah, which it will save repetition to quote further on.

The interpretation of the passages receives fresh light and remarkable distinctness from the Palestine Exploration Map. Micmethah in Joshua xvi, is connected with Asher in Joshua xvii, Micmethah is the starting point eastward in chapter xvi, and westward in chapter xvii. In the latter, “Asher-ham-Micmethah in the Hebrew is rendered in the authorised version “Asher to Micmethah,” but some critics consider that the Hebrew relates to one place, and for this view there will be seen to be some foundation. Asher means “happy,” Micmethah means to sink, perhaps together the words may be translated—the happy depression or valley. On turning to the new map to discover “Asher-ham-Micmethah that lieth before Shechem,” there will be found the ruin El-Azeir (Asher) in the Plain of Muknah (Micmethah,) just outside

\* In Hebrew *Nachal*, which like the Arabic “Wady” signifies a torrent bed or watercourse

Shechem, on the high road to Jerusalem, and on the south side of Wady Kanah. The identification of Micmethah with the Plain of Muknah is suggested by Lieutenant Conder, R.E., in his "Handbook to the Bible," page 264; but he takes no notice of El-Azeir, except to insert it on the map. Following up the text eastward, Taanath-Shiloh was identified by Dr. Robinson\* with Tana, a ruined site on the edge of the eastward arm of the Plain of Muknah. From Tana, the border "passed by on the east to Janohah," which has been identified with Yanun,† a village and ruined site on the mountain which lies on the south of Tana, and close to the easternmost head of Wady Kanah. From Yanun (Janohah,) the eastern boundary of Ephraim is carried on in Joshua xvi to Jericho and the Jordan, but its discussion is deferred, for the sake of pursuing the identification of the northern boundary from Asher-ham-Micmethah (el-Azeir in the Muknah) westward. The text of Joshua xvii, 7, 8, 9, is as follows:

"And the coast of Manasseh was from Asher to Micmethah, that lieth before Shechem; and the border went along on the right hand unto the inhabitants of En-tappuah. *Now* Manasseh had the land of Tappuah; but Tappuah on the border of Manasseh *belonged* to the children of Ephraim; and the coast descended unto the river Kanah, southward of the river. These cities of Ephraim *are* among the cities of Manasseh. The coast of Manasseh also *was* on the north side of the river, and the outgoings of it were at the sea."

Turning now to the Palestine Exploration Map, it will be found that between Ain Abus and the confluence of Wady Yasuf the Wady Kanah, here named Wady Jerrä, makes a long bend to the north, and in the bend is situated Khurbet (ruin) Tafсах. This name is taken to be a corruption of the Hebrew "Tappuah;" and the Biblical record appears to mean that the boundary, after following the Kanah from El-Azeir (Asher) to Ain Abus, instead of going along the arc formed by the northward deflection of the Wady, strikes a chord-line across from east to west, leaving the land of Tappuah (Tafсах) "on the right hand," so that "Manasseh had the land of Tappuah;" although if the line of the Wady Kanah had been followed strictly, Tappuah would have belonged to Ephraim. Thus in agreement with the sacred text, the coast here "descended southward of the river," and these cities on the Ephraimite side, became "among the cities of Manasseh." Still the text maintains, that, "the coast of Manasseh also (or nevertheless) was (that is as a rule) on the north side of the river, and the outgoings of it were at the sea."

Lieutenant Conder, following names in the "Samaritan Chronicle" and the "Septuagint" places Tappuah at the village of Yasuf, which he says, is at the head of the Wady Kanah; ("Handbook to the Bible," p. 263). But Yasuf is really at the head of the small branch named Wady Yasuf, which joins Wady Kanah near the western end of the

\* "Bib. Res." iii, 295.

† Van de Velde's "Travels," ii, 303. Robinson's "Bib. Res." iii, 297.

Tappuah chord-line. After the foregoing explanation, it seems unnecessary to carry the boundary so far south of the Kanah.

Regarding "the outgoings at the sea" Dr. Robinson has expressed the opinion that instead of the boundary of Manasseh following the river as the text implies, it proceeds probably from the point where the watercourse leaves the highland in a direct line to the sea, at or near Arsáf. (Robinson's "Phys. Geog. Holy Land," p. 100.) If this were not the case before the tribe of Dan received its allotment, there is evidence that it was so afterwards, for the Palestine Exploration Survey has discovered on the north of the Nahr-el-Auja (River Kanah) an ancient site, which is now named Tell er Rakeit, with which the Danite town of Har-Rakon or Rakkon is identified. Dr. Robinson's proposal is thus confirmed.

In support of the objections to the identification of Wady Kanah with the biblical River Kanah, two other Wadys have been proposed.

The southernmost is the Wady esh Shair, in connection with 'Ain-el-Kusab (Khassab), at its source on the north-western outskirts of Shechem, at the foot of Jebel Eslamiyeh (Mount Ebal). The meaning of Kanah is "reedy," and Kusab is held to mean the same.\* The Wady esh Shair, called also Wady Zeimer, was supposed to reach the Mediterranean through Nahr-el-Falik (Falaik). But the Palestine Exploration Survey has rectified this error, and shows that the outfall is really through Nahr Iskanderuneh, formerly named Nahr Abu Zabura.

The northern competitor is Nahr-el-Akhdar, called Nahr-el-Mefjir in the Palestine Exploration Map. This outlet is the recipient of three main channels, viz: (1) Wady Abu Kaslan, rising near Yasid, six miles north of Shechem; (2) Wadyes Selhab, rising near Akabeh, 12 miles north-east of Shechem; and (3) Wady Arak, rising near Umm el Fahm, 25 miles north-west of Shechem. Both (2) and (3) may be dismissed as untenable, because they take Ephraim so far north as to leave no room for Manasseh between Ephraim and Issachar. Dothan is on the south of Wady Selhab.

In connection with both of the proposals to find the River Kanah on the north of Shechem, Yasir (Teiasir in the P.E. Map) has been taken as the probable site of Asher. See Dr. Grove's note on Asher, art. Manasseh, "Smith, Bib. Dict." ii, 520. But Yasir (Teiasir) is more than 12 miles from Shechem, and separated from it by three mountain ranges; whereas el Azeir is at the foot of Mount Gerizim (Jebel et Tor), and thus more truly "lieth before Shechem." It is, however, a curious circumstance that Teiasir is found on a Wady Mukhnawy, just as el-Azeir is on the Sahel Mukhna. The advocates of the Wady esh Shair, have, however, a much better Asher for their purpose in Asiret el Hatab, lying at the northern base of Mount Ebal (Jebel Eslamiyeh), and in a Wady connected with Wady esh Shair. As no Tappuah, however, can be found anywhere

\* This identification was proposed by Rabbi Schwarz, and Dr. Grove seems to prefer it in his article "Kanah," and also in the article "Manasseh," in Smith's "Diet. of the Bible."

north of Wady Kanah, the conclusion is in favour of that line, where it is found with the rest of the points identified. With regard to the Ephraimite city of Shechem, being found within the tribal limits of Manasseh, it may be remarked, that the parcel of land which Jacob bought at Shechem was bequeathed to Joseph, and although Manasseh was his eldest son, the patriarch Jacob's blessing fell upon Ephraim, taking effect in the elevation of Joshua, who appears to have recovered possession of Jacob's land at Shechem without a struggle; and having made the place his capital, and the gathering place of all the tribes, it probably became a seat of his own immediate family and followers. Perhaps the extension of Manasseh south of the Kanah was a compensation to Manasseh for the Ephraimite possession of Shechem, and it may have been for the more complete satisfaction of Manasseh, that Shechem was surrendered by Ephraim, first as a city of refuge and afterwards to the Kohathite Levites. Nothing in subsequent events serves to throw any light on the Kanah as a boundary.

TRELAWNEY SAUNDERS.

## NOTES ON DISPUTED POINTS.

MR. BIRCH'S papers must be regarded as of great interest to the subscribers of the Palestine Exploration Fund. I would, however, venture to defend myself against some of the objections which he has raised in the previous *Quarterly Statement*.

*Tombs of the Kings* (*Quarterly Statement*, 1880, p. 167). Mr. Birch objects that the site I have proposed is beyond the limits of Zion. I am, however, not aware of any direct statement in the Bible to the effect that the Kings were buried on Zion.

The Kings were buried *in* the City of David, which Mr. Birch places on Ophel. This identification appears to me improbable for several reasons. 1st. It is contrary to the account of Josephus (whose authority Mr. Birch however denies). 2nd. The wall on Ophel was not one *enclosing*, but one *outside* the City of David (2 Chronicles xxxiii, 14). 3rd. Milo was according to the LXX, the same as Akra, and was *in* the City of David. Mr. Birch must, it would seem, either remove Akra to the Ophel ridge, or must discard this ancient identification of Milo.

This question is one which of course presents difficulties or it would not have been a matter of dispute for the last half century. Theories however, which discard the evidence of Josephus and other ancient authorities may perhaps be thought to be less satisfactory than those which aim at reconciling every ancient account.

The reason why I have supposed Asa and Ahaziah not to have been buried in the tomb of David is that each is recorded to have been buried in his own sepulchre (2 Chronicles xvi, 14; 2 Kings ix, 28). It is

possible, however, that Mr. Birch's view is more correct, and it is also not improbable that the tomb which I have supposed to be that of the Kings contained 11 or 12 *Kokin*, as will be seen by consulting the plan published in the *Quarterly Statement* (April, 1877, p. 78).

The strength of Mr. Birch's argument lies in his appeal to the fact that Royal tombs existed on Ophel (Nehemiah iii, 16), called "the sepulchres of David." This fact cannot be denied, but as the word is used in the plural (רַבְרָיִם), and as David himself can only have occupied one sepulchre, we are forced to understand this expression as elliptical, and as meaning "sepulchres of the House of David." I have endeavoured (though perhaps too briefly) to explain in the "Handbook to the Bible" (p. 341), that these Royal sepulchres on Ophel are identical with the "field of burial of the Kings" (2 Chronicles xxvi, 23), where Uzziah was buried—a place distinct from the Royal cemetery in the City of David, and probably the same as the "garden of Uzzah" (2 Kings xxi, 18), where also Manasseh and Amon (verse 26) were buried.

This Royal Cemetery in a garden belonging to the King's house may naturally be placed on Ophel, where was the Royal garden (Nehemiah iii, 15), and the King's high house. Josephus makes the same distinction in speaking of Manasseh as having been buried in his own garden (Ant. X 3, 2), and states that, as a leper, Uzziah was excluded from the city (Ant. IX, 10-4).

That Solomon's palace stood on Ophel, is I believe, generally understood, and is rendered very clear by several passages in the Bible. To this palace the Royal garden naturally belonged, but it is equally clear from other passages that this palace was not in the City of David (1 Kings ix, 24; 2 Chronicles viii, 11). The tombs in the City of David cannot therefore, it would seem, have existed on the Ophel spur. The Royal palace seems still to have existed in the time of Nehemiah (Nehemiah iii, 25), but the usual explanation of the expression "House of David" (Nehemiah xii, 37) is, as Mr. Birch admits, that it refers to the tombs on Ophel already noticed in the same place. David probably never built any palace, but lived in the Fort of Zion, in the City of David, which according to Josephus, was the Upper City or Market.

As regards the translation "westwards to the City of David" we have the authority of Keil, and of Dr. Davidson, that this is the natural and correct rendering. I do not think that its occurrence in another passage (2 Chronicles xxii, 14), creates any serious difficulty, although in both passages, the direction is, if we speak with the precision of modern times, "south-westwards" rather than westwards.

As to the difficulty which Mr. Birch finds with regard to the procession passing from the Fountain Gate (Nehemiah xii, 37), there is little to be said. The passage is not very clear because it is so concisely worded. The general course is sufficiently certain from Siloam towards the south-east angle of the Haram, but whether the course was above the house (or tomb) of David, or whether the "going up" of the wall only were above the same, I must leave to better scholars to determine.

The questions here raised have been disputed ever since the time of Thrupp and Williams, and are of peculiar difficulty. The argument which I wish to bring forward as clearly as I am able is this:—

1. Solomon's palace was on Ophel. It was not in the City of David. Therefore the City of David was not on Ophel; or again
2. Manasseh built a wall on Ophel. This wall was not in the City of David. Therefore the City of David was not on Ophel; or again
3. Millo was in the City of David. Millo, according to the Jews was Akra. Therefore Millo was not Ophel.

Ingenuous as is Mr. Birch's theory, it is hard to believe that the names Sion, Moriah, Akra, Ophel and Millo, all applied to the one narrow ridge, and that the larger hills of the city are not mentioned in the Bible by any distinctive name.

C. R. C.

## NEW IDENTIFICATIONS.

*Chophar Haammonai* (Joshua xviii, 24). I have hesitated to identify this site with the ruin of *Kefr 'Ana*, north of Bethel, but when the boundary of Benjamin is laid down on the map it appears that the situation of the ruin in question agrees well with the description of the border descending southwards to Bethel (verse 13), and we thus obtain another point on a part of the line which was before not well indicated.

*Jezeel* (of Judah). The situation of the ancient ruin called *Sirreh* would agree well with the probable position of this town. (Joshua xv, 56.) The name is not very close, though the loss of the final L, and the change of *Zain* to *Sad* are of occasional occurrence. The ruin lies west of *Juttah*, (*Yuttah*), the name preceding Jezeel on the list. We may also compare the form *Izar* which Josephus gives for Jezeel (Ant. VIII, 13-8) in speaking of the capital of Ahab.

*The Negeb*. Many of the towns of Simeon may be identified with cities north of Beersheba and west of the Debir hills. The following occur close together in this district, being newly identified from the Survey Sheets with exception of the first:—

- |               |                        |
|---------------|------------------------|
| 1. En Rimmon  | <i>Umm er Rumâmîn.</i> |
| 2. Ashau      | <i>'Aseileh.</i>       |
| 3. Hormah     | <i>Horân.</i>          |
| 4. Beth Birei | <i>Bîrch.</i>          |
| 5. Baalah     | <i>Umm Baghleh.</i>    |
| 6. Etam       | <i>'Aitân.</i>         |
| 7. Madmannah  | <i>Umm Deimneh.</i>    |
| 8. Sharthen   | <i>Tell Sheriâ'h.</i>  |
| 9. Bethul     | <i>Beit Leyî.</i>      |

Some of these I have already proposed in former numbers of the

*Quarterly*, but a comparison of the above list with the map will serve to show that they all belong to one district—the rolling chalk downs of the Negeb north of Beersheba.

C. R. C.

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## TOPOGRAPHY OF THE EXODUS.

THE valuable and interesting paper contributed to the last number of the *Quarterly Statement* has, we may perhaps feel justified in saying, entirely destroyed the basis on which Brugsch's theory of the topography of the Exodus is founded. The following notes may, it is hoped, prove of use in connection with this important question.

### I.

An important element in the consideration of the subject to which Mr. Greville Chester does not seem to allude, is the rapid formation of land, and advance of the shore line, due to the annual deposit of the Nile mud on the Mediterranean coast. The shore in the Pelusiæc Bay has been proved by actual observation to be advancing seawards at the rate of 52 yards per annum, and according to the observations of Mr. Fowler, C.E., the Nile deposits no less than three millions of cubic yards of mud annually, or an area of 4 square miles added to the Delta of the river, and to the Levantine shore line. A strong current sets from the Nile mouths eastwards, and as the prevailing winds are from the north, a series of bars are formed, behind which the mud gradually consolidates into an alluvial tract, and this especially in the Pelusiæc Bay, and in the vicinity of Port Saïd, where the shoaling is a constant source of danger and expense.

Herodotus tells us that in his opinion (II, 5), all Egypt except the Theban Nome was at the time of the founding of Memphis (or some 30 centuries before the Exodus), a marshy tract, and that none of those districts which afterwards existed south of Lake Moeris (which was near Memphis) were then above water. He considers that the Nile Delta was originally a bay of the Mediterranean (II, 11), and he remarks that if the Nile had flowed into the Red Sea nothing could have prevented its being entirely filled up by the mud brought down by the river. Herodotus was apparently unaware that the Pelusiæc branch of the Nile, which in his time was silted up, had in all probability actually done what he suggests, and had formed an isthmus of marshy ground with lakes dividing the Red Sea from the Mediterranean.

In the Geography of Ptolemy (about 147 A.D.), degrees of latitude are marked, and no part of the Delta is shown as being north of  $31^{\circ}$  N. Lat. whereas the land now extends 40 minutes further north. The central part of the Delta is that which appears to have formed latest, and thus while the sites of Zoan and Bubastis are found on the east, no ancient cities (so far as the map informs us) existed in the lower part of the Delta between the branches of the river.

From these considerations it becomes apparent that, in addition to the very cogent objections which Mr. Greville Chester has stated to the identification of the Yâm Sûph with the great lagoon near el Gelseh, and the narrow bar which contains it with the path of the Israelites, there is this further objection--that in all probability neither the bar nor the lagoon existed at all at the early historic period of the Exodus. The old Serbonian bog has no doubt long since become dry, as the present lagoon appears also likely in time to become, and the fact pointed out by Mr. Greville Chester that the Gelseh is merely a great sand-dune is of considerable importance in confirmation of this view.

It would seem probable for the same reason that the marshes at the head of the Red Sea, now represented by the Bitter Lakes and Birket Balah, and Birket Timsah, were more extensive formerly than after the silting up of the Pelusiæ branch of the Nile. It would seem strange if no account of the crossing of these marshes were traceable in the Biblical account of the Exodus.

## II.

Dr. Brugsch has made out a strong case for the identification of the Land of Goshen with the Arabian Nome of Lower Egypt, south of the great city of Zoan or Tanis. But whether the Rameses of the Book of Exodus were in reality the same city as Zoan appears to be open to question. It has indeed been proposed to bring down the date of the Exodus to the time of Rameses II (Miamun), for the very reason that the city Rameses is mentioned in the Book of Exodus, and that Zoan was only known as the City of Rameses from the time of Rameses II, but this theory fails altogether to account for the fact that the "Land of Rameses" is noticed in the Bible as early as the time of Joseph (Genesis xlvii, 11), for no chronologist has endeavoured as yet to prove that the date of Jacob's descent into Egypt can have been as late as the time of Rameses II. The LXX translators, and Josephus believed the starting-point of the Exodus to have been much further south-west, and nearer to Memphis than to Zoan, and an element of uncertainty is thus introduced into the strongest part of Dr. Brugsch's theory.

Admitting however, that the identification of Zoan with the city Rameses is probable, several grave practical difficulties still remain. Dr. Brugsch has assumed that the Israelites' journey thence to Etham occupied a single day, whereas we may gather from the Bible that it took two days to reach the latter place (Exodus xii, 37, and xiii, 20), which cannot be considered absolutely identified with the site of Tell Dufneh. The third day's march (or the second according to Brugsch, who makes the first day's journey extend over 20 miles), was, he supposes, from Etham to the hill of el Gelseh, a total distance of 40 miles.

It is impossible to suppose that even when hastening from their enemies, the Israelites, with women, children, flocks and herds can have gone more than about 10 miles in a day's march, and Mr. Greville Chester, while considering the supposed Etham to have been within two days' easy



journey of Sîn (or Zoan) appears to have occupied three days in travelling over the route which Brugsch supposes the Israelites to have passed over in one.

### III.

If then the distances implied by Brugsch, are impossible, and if the supposed route along the sandspit was not only an unnecessary détour, but was also impossible, because no such spit then existed, it remains to inquire where did the passage of the Red Sea really occur.

The name Yam Suph, or "sea of rushes" is applied in several passages of the Bible to the Red Sea, including both the Gulf of Suez, and that of Akabah (Numbers xxxiii, 10; 1 Kings ix, 26), but the meaning of the word Suph (used elsewhere to signify the rushes of which Moses' ark was made, Exodus ii, 3), suggests that the name originally applied to a lacustrine region, or freshwater marsh, and was gradually extended to include the whole Sea.

A difficulty has arisen in explaining by natural causes the driving back of the waters of the Gulf of Suez, through the agency of an east wind, and this has furnished Dr. Brugsch with an argument in favour of his supposed identification of the "Sea of Rushes" with a lagoon where no rushes it now appears, can ever have grown. It is not, however, clear that the word used in the Hebrew (*Kadim*) is correctly rendered. It may mean simply "contrary" without reference to direction. The LXX translate it "south," and Jerome gives *urens*, or "burning," as his interpretation. An east wind would, however, affect the marshes north of the Gulf of Suez equally with the lagoon indicated by Dr. Brugsch.

If we accept the identification of Etham with Tell Dufneh as probable, the site of Migdol should be sought within 10 miles of that place, and the natural reading of the scriptural narrative (Exodus xiv, 2) would place Pi-ha-hiroth not far off, and Baalzephon within view. The words of the Biblical passage seem according to our version, and also according to the LXX rendering, to imply a change of direction or a return march, which is not easily explained, but I would venture to suggest that the word used (יִשְׁבֹּר) might perhaps be better rendered *abide*, (from the root יִשְׁבֹּר), and in this case the topography becomes at once very easily explicable.

Pi-ha-hiroth is rendered "Entrance to the Gulfs" by Brugsch, but Gesenius derives the name from a Coptic word signifying "pastures," and this agrees well with the translation given by the LXX, *επαυλωσ*, "farms" or "pastures."

Thus modified, the command to the Israelites would stand as follows:—

"Speak to the children of Israel that they abide and encamp before the pastures between Migdol (the watch-tower), and the sea over against Baalzephon ("the northern ridge").

The site of Migdol is as yet not well fixed. Mr. Greville Chester considers that the remains at Tell es Samût ("hillock of acacias") are too insignificant to allow of Brugsch's doubtful identification, and the site of Tell

el Hîr seems too near to Pelusium to satisfy the requirements of the Antonine Itinerary. The Baalzephon of Brugsch has also been proved an impossible identification, and no certain recovery of the name has been suggested, although the title occurs as distinguishing the god Amon in the Egyptian inscriptions. Nevertheless, there appears to be many circumstances which favour the site proposed below for the crossing of the so-called Red Sea, near the present ruin of el Kantarah.

1st. The lakes and marshes must here have presented a formidable obstacle before the silting up of the Pelusiatic branch of the Nile, and must have been crossed by the Israelites, of which crossing we have no account, unless it be the passage of the Yam Sûph, or Sea of Rushes, rendered Red Sea in the English Version.

2nd. The scene of the supposed crossing is within a few miles of the last station of the Israelites at Etham, agreeing with the view that the site of Pi-ha-hiroth was to be sought in this vicinity. While the fresh water of the Nile was carried down towards this district it may probably have presented good pasture land, and the rushes which grew in the Nile and formed the ark of Moses (Sûph) would also no doubt be found in the swampy marshes near the Pelusiatic Mouth.

3rd. The driving back of the waters of the Mediterranean near the mouth of the river would have probably formed a shallow bar at its mouth, and rendered possible the crossing of the swamps or lakes, which on this theory are supposed to have then occupied the part of the isthmus between the Mediterranean and the Gulf of Suez; and when we reflect on the account which Herodotus gives of Necho's Canal, in W. Tameilât, we are led to conclude that even in his time (11 centuries after the Exodus), the head of the Gulf of Suez was further north than it now is.

I would suggest then for the consideration of students, that the passage of the Red Sea may be supposed to have been that of the lakes near the Mediterranean, and the mouth of the Pelusiatic branch of the Nile somewhere between Birket Balah and Lake Menzaleh, near the ruin of el Kantarah ("the arch").

A reference to the map published with Mr. Greville Chester's paper will show that this passage is within a day's march (10 or 12 miles) of the probable site of Etham (Tell Defneh), where presumably the Pelusiatic branch formerly discharged into the Mediterranean before forming the marshy ground which now surrounds Lake Menzaleh (see *Palestine Exploration Fund Quarterly Statement*, July, 1880, p. 145.) On this map also, the spits and bars which now form the shore line of the Pelusiatic Bay are clearly shown, while a comparison of various recent surveys would convince the inquirer that these shoals are ever steadily moving northwards as the Nile annually brings down the African soil to form a semi-consolidated delta, of which in the time of Moses, not a trace was as yet visible.

## HIDING PLACES IN CANAAN.

## I.—JEREMIAH'S GIRDLE AND FARAII.

IN order that the prophet might wear a new girdle (Jer. xiii, 1—11), does it not really seem a needless expenditure of time and strength for him to go twice to Euphrates when the nearest point of the river is about 400 miles distant from Jerusalem?

But how otherwise is the difficulty to be explained? "It was done only in a vision" say some; but this is most unsatisfactory, as nothing of the kind is stated in the narrative. The Speaker's Commentary, not liking the vision nor yet the long journey, states that internal evidence allows of its transporting Jeremiah for 7 years for safety to the neighbourhood of the Euphrates, so that the prophet has the long journey only at the beginning and end of his stay. An *unmentioned* visit to—with a sojourn at—the Euphrates seems however to me, as great a difficulty as the one it is meant to solve.

Grotius thinks that the girdle hidden at Euphrates represented Judah in exile at Babylon: if the Bible said so, the question, of course, would be at once settled, but as it does not, it is simply a conjecture to be taken on its own merits.

What then are we to do? Look closely at the narrative. "Take the girdle . . . and arise, go to Euphrates, and hide it there in a hole of the rock." The Hebrew word for *rock* (*Sela*) always means a *cliff*, and the Speaker's Commentary adds that there are no cliffs by the Euphrates near Babylon. Accordingly if it were admitted that Jeremiah might have gone to that city, he would still have to ascend the river as far as Pylé (a hundred miles distant) in order to find a *cliff*.

Then it has been proposed to read Ephrath or Ephrata (*i.e.*, Bethlehem) instead of Euphrates, but this requires the Hebrew letter *aleph* to have been omitted four times in this passage, a *serious* alteration in the original text, so that Gesenius rejects the suggestion.

Besides a "Sela" or cliff is not (so far as I know) to be found *quite close* to Bethlehem.

The true explanation seems to me to be simplicity itself. First, the Hebrew letters making the word "Phrath" (translated Euphrates) cannot in this case consistently with Biblical usage, mean the well known river. In addition to this passage, the word occurs just 15 times in the Bible and refers in every case to the River Euphrates, but then (be it observed) the word "river" is added in 13 instances, and in the two remaining cases the expressions are "Carchemish by Euphrates" (2 Chron. xxxv, 20), and "When thou comest to Babylon . . . cast it into the midst of Euphrates" (Jer. li, 61—63). Thus the two places specified define what is meant by "Phrath," but in this passage we have *simply* the expression "to Euphrates" (thrice) and "by Euphrates" (once), and no mention of "the river" or of *any place*.

About 3 miles N.E. of Anathoth is a most picturesque spot,—a gorge between savage rocks, frequented by wild pigeons. Here a copious stream, abounding with fish, gushes forth :—altogether it is the very place for a picnic. It is called Fârah, and represents the ancient Parah of Benjamin (Josh. xviii, 23). This is undoubtedly the place to which Jeremiah was sent.

Here in the rocks we have *the cliff* required, and the identical Hebrew letters thrice translated “to Euphrates” mean also (when the points are omitted) “to Parah.” The only alteration in the text needed in order to avoid the difficulties of this passage, is that to read “at Parah” instead of “by Euphrates” we must *just once* change the letter *Tau* into *He*, a very slight correction indeed.

It seems to me therefore that as Euphrates was a world-wide known name and Parah only an obscure place, accidentally or intentionally the He was by some one altered into a Tau, so that the passage became more intelligible to the ancient scribe, but most difficult to the modern critic.

W. F. BIRCH.

## THE ROCK RIMMON AND GIBEAH.

IN favour of the site *east* of Jeb'a, and in reply to Lieutenant Conder's further objection on p. 173, it may be added :

I. That the direction of the Flight was apparently *eastward*, “They chased them and trode them down with ease (unto) over against Gibeah *toward the sun-rising*.” Judges xx, 43.

II. A wrong identification must not be used as an argument, and it seems to me a groundless mistake to put the battle-field at Jeb'a (Geba) “only *a mile and a-half*” or two miles from the cave, since “the men of Israel rose up out of their place and put themselves in array at Baaltamar” (Judges xx, 33), “which Jewish tradition identifies with the large ruin 'Attâra” (“Handbook,” 404), three miles north-west of Jeb'a, and nearly five miles from the cave.

The question about Geba and Gibeah, names often confused or interchanged in the Hebrew, requires notice :

(A) Geba, the priestly city (Joshua xxi, 17 ; Isaiah x, 29), apparently called Gaba in Joshua xviii, 24, and “Gibeah in the field” in Judges xx, 31, and “Geba of Benjamin,” 1 Kings xv, 22, may be recognised with certainty in the present Jeb'a.

(B) Gibeah (Judges xix, 13, etc.) must have been close to the great north road, for the Levite on his way from Bethlehem to the house of God (!at Shiloh or Bethel), proposed to lodge “in Gibeah or in Ramah” (Er Ram), and “the sun went down upon them when they were by (=close by) Gibeah . . . and they turned aside thither” (Judges xix,

13-15). It is absurd to suppose that he went to Gebe (Jeb'a), quite out of his way, whose inhabitants ought to have been priests and not Benjamites (Judges xix, 16).

A mile beyond Tuleil el Fûl the road divides, leading in one direction towards Bethel, in the other towards Jeb'a. This is in striking agreement with Judges xx, 31, "The children of Benjamin went out against the people, and were drawn away from the city; and they began to smite of the people, and kill, as at other times, in *the highways of which one goeth up to the house of God* (i.e., *Beth-el*), and the other to *Gibeah in the field*." This statement seems to me to utterly preclude Jeb'a from being the Gibeah in question, and to require us to place the latter at or quite close to Tuleil el Fûl, independently of the favourable but unreliable statements of Josephus and Jerome. That the ambush was concealed in a cave as stated in *Quarterly Statement*, 1877, pp. 104, 105, is quite out of the question, as "Israel set liers in wait *round about* Gibeah. These could easily conceal themselves in "the meadows" (i.e., open plain) among the corn, four months before "the dance in the vineyards" (Judges xxi, 21). The expression "*turned aside*" (xix, 15) applies as well to Tuleil el Fûl as to Jeb'a, being in Hebrew identical with "*turned in*" (xviii, 3; xix, 11).

(C) *Gibeah of Saul* cannot be identical with Geba, being named along with it in Isaiah x, 29. At it there occurs among a number of cities, Lieutenant Conder's conjecture that it was a *district* and *not a city* seems to me inadmissible.

Its mention between Ramah and Gallim appears further to require it to have been visible between these two places in the panorama as seen from Geba (*Quarterly Statement*, 1878, p. 133). Thus we may identify it: (1) with *Gibeah* at Tuleil el Fûl, or (2), possibly with the hill-top south-west of Jeb'a, as there is some reason for thinking that it still bears the name of "the King's ruin."

On the assumption that "*the city*" (1 Samuel xx, 42) was the residence of both Jonathan and Saul, (2) seems to me to agree best with the story and with the mention of "*the mountain*" (Hebr. *Har*. A. V. hill) in 2 Samuel xxi, 9.

III. I certainly do understand Mr. Kerr to place Naarath on the *northern* boundary of Ephraim, and therefore must object to its being described: (1), as "the border town of Benjamin and Ephraim," and (2), as affording an indication of the line of the *northern* boundary of *Benjamin*. If I am mistaken, I shall be glad for my error to be *clearly* pointed out, as the point seems to affect the border of Benjamin.

W. F. BIRCH.

## PHENICIAN INSCRIPTION IN THE POOL OF SILOAM.

A GREAT deal has been written about the Pool of Siloam, and all kinds of hypotheses have been propounded about the canal by which the water is carried from the Virgin's Fountain to the Pool of Siloam. All investigators are agreed in maintaining that it is a piece of very ancient workmanship, and many of them try to prove its connection with the waterworks made by King Hezekiah—but every theory that has hitherto been put forward regarding it has been founded on guesswork, and I had very little hope that we should ever arrive at any certainty respecting its age. An accidental occurrence has, however, led me to believe that we shall in course of time learn something definite about this aqueduct. A short time ago, one of my pupils, when climbing down the southern side of it, stumbled over the broken bits of rock and fell into the water. On rising to the surface, he discovered some marks like letters on the wall of rock. I set off with the necessary things to examine his discovery, and on thoroughly investigating the place I found beside the eastern wall of rock a very smooth level about 25 feet distant from the (southern) entrance, round which the rock stood up like a kind of frame surrounding a tablet sunk about half-an-inch below it. It appeared to be smooth and polished, whilst the rest of the rock was left quite rough. This tablet is about 2 ft. 2 ins. broad and high, but as it goes right down into the water I could not measure the height exactly. The rock rises quite 7 ft. above the tablet to the top, and opposite it, on the western side, is a niche hewn in the rock, where the maker of the tablet must have placed his lamp.

There is an inscription on the tablet consisting of 8 or 10 lines; *the letters are very small* indeed; unfortunately they are not very deeply engraved, and have become more indistinct because of a deposit of silicate that has gradually covered them in course of time; a squeeze of them on paper was therefore very inadequate: many of the letters, being somewhat different in colour, are still quite recognisable, but are not sharply enough cut to admit of an impression of them being taken. As far as I could judge the letters are Phœnician, but you must judge for yourself on that point from the squeeze.

Before we can have an exact copy, a perfect squeeze, the following measures must be resorted to. In Colonel Wilson's "Ordnance Survey Plan of Jerusalem," the depth of the Virgin's Fountain is given as 2'087 ft., and that of the present bottom of the western end of the Pool of Siloam, where the spring flows out, is also put down as 2'087 ft. This shows that the water merely flows through the canal with what it has gained from the Virgin's Fountain which generally rises to 3 ft. In Dr. Tobler's opinion, and in that of Colonel Warren ("Recovery of Jerusalem," p. 238), the canal is so low in several places (especially in the middle), that one can see that it used to be higher. "Sand, rolling stones, and mud," are to be found there. See what Colonel Warren says of his investigation of the place in the middle of the 240th page of his book. Thus one sees that the canal

has got not a little choked up with rubbish in the course of years, and that its bed is rather higher than it used to be. As the tablet with the inscription is now partially sunk in the water, which could not have been the case in the old time, it is apparent that the canal is very much filled up with broken rock, etc., in this place also. This is assuredly the case with the Pool of Siloam, through which the little stream flows. In order to lay bare the tablet with the inscription and thus get at it properly it would be necessary to employ workmen to make a ditch through the pool (so as to lower the water), either to bring it to its former level, or at any rate to make its bed 2 or 3 ft. deeper. This could easily be done, and then it might go through the dam, and by this means the canal would be emptied 10 ft. further up than where the table is. There would also be no further stoppage of the water, which would have a free course through the canal down which it would run in a stream of about an inch deep, and over it a board might be laid on which one could stand and work comfortably. Perhaps the silicate might be removed by a chemical process, and then a perfect impression could be taken of the inscription.

The work would be better done if it were done with the consent and under the direction of the municipality, and so far there are few difficulties in the way—but an outlay of about £25 (and perhaps more), would have to be made. I am quite willing to undertake the work if it is desired.

I told Dr. Chaplin about it and he told me that he would go and see it, so he will perhaps send an account of what he has seen.

As the paper used to take off the impression was partly in the water, it was quite wet, and tore in taking it off the stone.

If the surface of the water were lowered in the canal it must also be lowered in the Virgin's Fountain, and then we shall probably be able to find out where the water comes from, a matter that still remain unknown. Later on I shall send a short paper with drawings of the Pool.

C. SCHICK.

## ZELZAH.

THERE is some difficulty connected with this word. The fulfilment of predicted detail was to assure Saul of the truth of Samuel's words. Many particulars are given in 1 Samuel, x, 2-5. It is said, "thou shalt find (*lit.* come upon) two men by Rachel's Sepulchre in the border of Benjamin at *Zelzah*." No such place is named elsewhere, nor has any trace of the name been found, since Beit Jala is too far distant to satisfy the conditions.

The Sp. Comm. rightly observes that the mention of any place is unnecessary, since Rachel's Sepulchre would be sufficiently well known. Accordingly for כַּלְצָח it suggests reading כַּלְצָלִים (with cymbals). The Vulgate gives "in meridie" (towards the south), while the LXX

apparently fancying that the two men were taking severe exercise, translate the words by “ἀλλομένους μεγάλα” (leaping violently). *Overheating themselves* was, however (I think), just what they were *not* doing: rather were they studiously keeping themselves *cool*, if with a very slight alteration the true reading be **בצלצור** bizelzur (*under the shadow of a rock*).

Saul would easily reach Rachel's Sepulchre in an hour: in half the time, if he forced the pace to make Samuel's words untrue.

It was useless, however, to try to thwart prophecy (well for him if he had remembered it in dealing with David). Early though the hour was, he came upon the two men (1) near Rachel's Sepulchre (2), in the border of Benjamin, *i.e.*, on the *western* side of the watershed, *where in the morning there was some shade*, and (3) under the shadow of a *rock* (tzur) which probably could hardly have sheltered them later in the day.

W. F. BIRCH.

## THE NAMELESS CITY.

THE new map enables me to correct some errors in the description of the Bakoosh hill given in *Quarterly Statement*, 1879, p. 130. The hill is west-north-west, not south-west of Solomon's Pools, and is marked on the map as *wooded*. On the map “S” in “A-Sâleh” must, I believe, be close to the spot where Samuel anointed Saul.

Perhaps some one at Jerusalem will kindly test the view as to whether it takes in (1) Rachel's Sepulchre; (2), Jebel Deir Abu Thôr, or else the hill just above the Montefiore almshouses; (3), part of the “Upper City” of Jerusalem; and (4), the Mount of Olives.

It would be interesting also to learn whether the sepulchre (“Byeways,” p. 437) is *ancient Jewish*: if so, in case others can also be found, we certainly have here “*a nameless city*.”

“Dahar es Salâh” seems to be a name for the mountain ridge in general, and “Ras Sherifeh” (as the name shows) for the highest point.

I further find that Ain Kasees instead of being north or north-east of the hill, is at the head of a valley on the south side of it. About a quarter of a mile from the spring, and close to the top of the ridge, are ruins “distinguished by ponderous rabbeted stones” called “Khirbet el Kasees” (Finn) or “Kh. el Jâmia” (map). Assuming the hill to be Ramah, we perhaps ought to put “the high place” here instead of at Râs Sherifeh, only 21 feet higher, though half-a-mile further off, as the *Memoirs* seems to forbid our claiming a sufficiently high antiquity for the existing surface remains, so as to build any argument upon them.

W. F. B.



## RACHEL'S SEPULCHRE.

To avoid the difficulty about Ramah, one writer has placed Rachel's Sepulchre *north* of Jerusalem.

The site, however, at Kubbet Rahil marked out by common tradition agrees well with Genesis xxxv, 16. "They journeyed from Bethel, and there was but *a little way* (Chabrah) to come to Ephrath," which is Bethlehem. This term has been rated as high as *four miles*, but as (2 Kings v, 19) Gehazi being pressed for time, could hardly afford to give Naaman so much start, a mile is more than sufficient, so that the accepted site may be regarded as practically correct.

The punishment of Gehazi, as well as Elisha's death and tomb, ought (it seems to me) to be put at Abel-Meholah. Then "the Ophel" (A.V. tower, 2 Kings v, 24) would be one of the adjacent Tells in the Jordan Valley.

W. F. B.

## PALESTINE—AS IT IS, AND AS IT MIGHT BE.

## EXTRACTED FROM A LETTER TO THE "TIMES."

"1. Nothing can well exceed the desolateness of much of it. Trees it is for 20 or 30 miles together, forests which did exist 30 years ago (*e.g.* on Mount Carmel and Mount Tabor) fast disappearing, rich plains of the finest garden soil asking to be cultivated, at best but scratched up a few inches deep in patches, with no hedges or boundaries, mountain terraces natural, or artificially formed, ready to be planted with vines, as the German colony are doing at the foot of Mount Carmel; the villages nothing but mud huts, dust, dirt, and squalor; the inhabitants with scarce clothing enough for decency, their houses—ovens; large tracts without a horse or cow, sheep or dog; no pretence at roads except from Jaffa to Jerusalem, and this like a cart road over a ploughed field, the rest at best like sheep-walks on the Downs of Sussex, but for far the most part like the dry bed of the most rocky river, where amid blocks of stone each makes his way at a footpace as best he can, or on smooth, sloping rocks or over loose stones thrown down from the old walls on either side, which no one offers a finger to remove; nothing upon wheels, not so much as a barrow, to be met with in a ride of over 300 miles.

"2. Everything is taxed: every fruit-tree, so none now are planted; every cow or horse, &c.; every vegetable sold out of a private garden. Every eighth egg is not taxed but taken by the Government. In some places the taxes of the district are sold to the highest bidder. The farmer is unable to sell a measure of his corn till all has been collected into a

heap and the tax collector has set his sum upon it, from which there is no appeal. Double taxes are expected this year, because after three years of scarceness the harvest promises to be abundant.

“3. Nothing like a small farmhouse is to be found far or near. If there were, the owner is liable to have soldiers or revenue officers quartered upon him, to be boarded and lodged at his expense. The towns are filthy in the extreme, none more so than Jerusalem itself, where, however, taxes are levied from every house for lighting and cleaning the streets, while a sprained ankle or a splash into a hole of blackest dirt is sure to be the result of a momentary carelessness.

“4. Nothing is done for the good or improvement of the people, or the land, by the Government. Not only so, but every offer, and I heard of several made by private individuals or by companies, is at once refused, or refused unless a bribe be first given to the authorities.

“This is a picture, I believe, in no way overdrawn, of that land which was once “flowing with milk and honey.” What might it not become again with fair usage and good government? But there is no hope for Palestine while it remains in the hands of its present rulers.

“One result of the British occupation of Cyprus already is to make even Mahomedans, I was told, both in Egypt and in Palestine, hope that the same bright day of better things might dawn upon them.

“Palestine is worthless to the Turkish Government. The whole revenue is stated to amount only to £180,000 or £200,000 per annum. Capitalize this at 5 per cent., and it comes to but four millions of money. If it were six, or even 10 millions, what would that be for Europe to raise for the purchase of Palestine? A sum sure to be repaid a thousand-fold in a few years' time. And what would not 10 millions in hard cash be to the Turkish Government at this moment? For 150 years India was admirably governed by the Old East India Company. Palestine, compared with India, is as one of the smallest counties compared with the whole of England. Blessed indeed will that Power surely be which shall first move to establish some such international company for the purchase and government of Palestine—not seeking in anywise its own aggrandizement, but perhaps, thus fulfilling in a way beyond what is ordinary or common, our daily prayer, ‘Thy will be done in Earth as it is in Heaven,’ for ‘Jerusalem shall be trodden down of the Gentiles until the times of the Gentiles be fulfilled.’

“W. J. STRACEY.”

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## LIMITS OF ERROR IN LATITUDES AND LONGITUDES OF PLACES OBTAINED DURING THE RECON- NAISSANCES MADE IN PALESTINE.

By LIEUT.-COL. WARREN, R.E.

THE recent publication of the Trigonometrical Survey of Palestine affords an opportunity, which but rarely occurs, of rigidly testing the accuracy of a Reconnaissance of a district, previously made; and as the limit of error over extended areas, attainable under such circumstances, is a matter of general interest to persons interested in the mapping of the country around Palestine, I give a few notes I have made on the subject.

Previous to 1865 the maps of Palestine presented but a very inadequate idea of either the absolute or relative positions of places, and though several additions had been made from time to time very little apparent improvement was made in the maps until after that date.

In 1865-6 Major (then Lieutenant) Anderson, with a base, obtained astronomically, made a Reconnaissance of the watershed of Western Palestine and the district about the Sea of Galilee, giving a table of latitudes and longitudes of about 50 astronomical stations.

In 1867, I made a Reconnaissance of the plain of Philistia, valley of the Jordan and land of Gilead, giving a table of latitudes and longitudes of about 200 places in the plain of Philistia, of which about 20 were astronomical stations. In prosecuting this work, however, I came to the conclusion that a Reconnaissance, even of the most accurate description, would be insufficient for the wants of the biblical student, and I strongly urged the commencement of a trigonometrical survey—a work which has now been so successfully carried out and completed by Lieutenants Conder and Kitchener.

These tables of latitudes and longitudes as obtained by Lieutenant Anderson and myself (see P. E. F. Quarterlies, 1869, p. 74, 1871, p. 162) I have tested with those obtained from the Trigonometrical Survey sheets, but before giving the results it is necessary to point out that while I have assumed my longitude east of Greenwich from the same point as the Trigonometrical Survey, viz.:—point at Jaffa on Admiralty chart, Lieutenant Anderson takes his from the Dome of the Rock at Jerusalem, as obtained by Commander Maunsell from the said Admiralty point at Jaffa.

An analysis will therefore be useless unless it is ascertained whether there is any discrepancy between the longitude assumed by Lieutenant Anderson of the Dome of the Rock and that which I obtained myself from Jaffa.

The following comparison will show that there is a discrepancy between the longitudes of the Dome of the Rock as obtained by Commander Maunsell and myself (from the same point at Jaffa) and that while I only exceed the longitude given on the Trigonometrical Survey by 11 seconds, his observation exceeds it by 55 seconds.

## COMPARISON OF RESULTS.

	Latitude N.			Error.		Longitude E.			Error.	
	°	'	"	'	"	°	'	"	'	"
Admiralty—1855..	31	46	38	-	0 6	35	18	57	+	5 10
Doergens ..	31	46	56	+	0 12	35	18	30	+	4 43
Collier's Map ..	31	47	43	+	0 59	35	15	47	+	2 0
Vau de Velde ..	31	46	50	+	0 6	35	14	42	+	0 55
Maunsell—1862 ..	31	46	39	-	0 5	35	14	42	+	0 55
Anderson—1865 ..	31	46	47	+	0 3	35	14	37	+	0 50
Berghaus—1838 ..	31	46	45	+	0 1	35	14	8	+	0 21
Warren—1867 ..	31	46	41	-	0 3	35	13	58	+	0 11
Trig, Survey ..	31	46	44	..		35	13	47	..	
Captain Corry ..	31	46	49	+	0 5	35	13	18	-	0 29

I assume that the Trigonometrical Survey sheets must be rigidly correct to at least 2" of longitude, and therefore it appears that Maunsell's longitude is in excess by 55 seconds, and consequently Lieutenant Anderson's work about Galilee must be corrected to this extent throughout; when this is done I find a general agreement in the comparative accuracy of all the Reconnaissance sheets, the errors averaging closely the same in each, it will therefore suffice if I describe that of Philistia alone as an example.

This work extended from Jaffa on the north to Gaza on the south, about 38 miles; from Gaza on the west to Jerusalem on the east, about 45 miles.

I was occupied from 1st to 26th June, 1867; and in addition to the topographical details and observations for latitude and longitude, had to arrange for the taking of about 30 photographs of ancient sites, to examine the architectural remains, measure the ruins, and search out biblical sites.

My instruments consisted of an 8-inch sextant and artificial horizon, 5-inch theodolite, 3 pocket chronometers, pocket compass and aneroid barometers.

The system was briefly as follows, in principle:—To ascertain latitude at each camp by observation of the stars, and to obtain a true azimuthal angle from camp to camp. This would fix each camp on the earth's surface, and the distance from camp to camp was used as a base line from which points on each side would be obtained.

In practice the work was not quite so simple, for the camp could never be placed on the positions from whence azimuth angles would be taken with the theodolite, and neither of the observations would be taken very close to the villages.

The extreme limit of error in latitude as obtained by the 8-inch sextant I consider to be 10 seconds of arc, and in longitude as obtained by azimuth angles with 5-inch theodolite about 10 seconds in 60 miles: but though the positions from whence observations on hill tops could be taken should be thus close I do not think that the villages themselves, which are often 10 seconds in extent, could be fixed within 20 seconds of this correct position.

I have therefore taken 20 seconds of arc both of latitude and longitude to be the limit of error within which the *principal* towns should be fixed, and in order to facilitate a comparison I have classified the results and find that out of 134 stations and conspicuous points, of which I have given the latitudes and longitudes (obtained from about 20 astronomical observations),

60 (containing all the principal points except four) are within the limits of 20 seconds latitude and longitude.

29 are within 35 seconds.

45 minor points are beyond this.

Now on looking at these minor points I find that they are for the most part small villages lying in hollows in the plains, which cannot be recognised or seen from the surrounding hills, and could only be fixed by a series of compass observations, on the other hand I find that all the principal points are well placed, as will be seen by the accompanying list marked A.

## COMPARISON. (A)

	Latitudes.						Error.		Longitudes.						Error.			
	°	'	"	°	'	"	'	"	°	'	"	°	'	"	'	"		
El Muntâr ..	31	29	25	31	29	17	-0	8	34	28	5	34	28	19	+0	14		
Gaza (highest minaret) ..	31	30	15	31	30	18	+0	3	34	27	37	34	27	51	+0	14		
Sheikh Ali ..		32	10		32	33	+0	23		52	50		53	20	+0	30		
Tel ed Dewar..		33	53		33	56	+0	3		50	40		50	25	-0	15		
Kubeibeh ..		34	20		34	18	-0	2		51	0		50	52	-0	8		
Mar Hanneh ..		35	33		35	48	+0	5		53	35		53	50	+0	15		
Arak Menshiyeh		36	45		36	59	+0	15		46	50		47	32	+0	42		
Beit Jibrin ..		36	25		36	44	+0	19		53	35		54	15	+0	40		
Tel Bulnard ..		37	50		38	3	+0	13		52	27		52	28	+0	1		
Askulan ..		39	50		39	53	+0	3		32	20		32	38	+0	18		
Berkusia ..		40	33		40	49	+0	16		49	12		49	40	+0	28		
D. Dubban ..		40	25		40	34	+0	9		53	15		53	35	+0	20		
Shuwaikheh ..		40	50		41	3	+0	13		58	23		58	5	-0	18		
Beit Netîf ..		41	46		41	40	-0	6		59	25		59	40	+0	15		
Tibneh..		44	38		44	34	-0	4		55	50		55	30	-0	20		
Deir Aban ..		44	36		44	32	+0	4		35	0	22		35	0	28	+0	6
Beit Atab ..		44	0		44	4	+0	4			2	55		3	4	+0	9	
Esdûd ..		45	20		45	18	+0	2		34	39	20		34	39	41	+0	21
Deir el Howa ..		45	6		45	10	+0	4			1	55		35	2	7	+0	12
Dome of Rock		46	44		46	41	-0	3		35	13	47			13	58	+0	11
Surah ..		46	34		46	36	+0	2		34	58	44		34	59	3	+0	19
Beshîh ..		49	20		49	25	..			44	45			44	20	-0	25	
Kutreh ..		49	20		44	32	+0	12		46	20			46	38	-0	18	
Saidan ..		50	35		50	30	-0	5		54	0			54	12	+0	12	
Musa Thalia ..		50	33		50	28	+0	5		55	33			55	45	+0	12	
Akir ..		51	33		51	27	-0	6		48	56			49	18	+0	22	
Abu Shusheh ..		51	28		51	35	+0	7		54	40			55	2	+0	22	
Yebneh ..		52	0		52	14	+0	14		44	30			44	32	+0	2	
Nianeh ..		52	10		52	12	+0	2		52	15			52	23	+0	8	
Zernuka ..		52	49		53	11	+0	22		47	0			46	55	-0	5	
Yebneh port ..		55	15		54	45	-0	3		41	50			41	32	-0	18	
Ramleh ..		55	35		55	21	+0	14		52	0			52	1	+0	1	
Nely Samwil ..		50	3		49	50	-0	13		35	10	28		35	10	45	+0	17
Tuliel el Ful ..		49	27		49	15	-0	12			13	30			13	50	-0	20

I am doubtful whether the great accuracy and rapidity of this class of work has yet been recognised by any section of thinking men. The best features of the work are that it cannot get out to any great extent, so that it may be carried for hundreds of miles with the same limit of error. For example, the extreme points in this Reconnaissance are Jerusalem and Gaza. In each of these cases the limit of error in latitude is 3 seconds, and in longitude respectively 11 and 13 seconds. I am not aware that there is any record of so large a number of points being accurately fixed over so extended a tract in so short a time; the average day's work included the surveying from 50 to 70 square miles, and fixing the latitude and longitude of eight places.

The accuracy of this Reconnaissance was so little comprehended ten years ago that when I brought it forward it was distrusted because it was so unlike all the work that had been done before. At that time I asserted positively that Maunsell's longitude of the Dome of the Rock was nearly a minute too far to the west, and published my longitude in the P.E.F. Quarterly, 1871, p. 162, but finding that the former longitude was preferred to mine, I said I should be content to wait for the Trigonometrical Survey to decide between us, which it has now done in my favour.

## THE SULPHUR OF THE VALLEY OF THE JORDAN.

*(From the Zeitschrift of the German Palestine Association.)*

By DR. OSCAR FRAAS.

SOME time ago I received an account from Herr Charles Paulus, sen., of the sulphur found in the Jordan Valley, which confirmed the result of observations previously made. Herr Paulus writes that some young men of the Temple Colony in Jerusalem made an excursion to the Dead Sea in the spring, and brought back with them "some specimens of a mineral substance they had found there. These specimens consist of a fine grey clay containing sulphur. The clay itself is good pottery clay, such as is found, not only in the neighbourhood of the Dead Sea, but which also exists in great quantities all over the chalk mountains of Palestine. . . .

"This sulphur consists for the most part of roundish lumps varying from the size of a pea to that of a walnut; it is of a whitey yellow colour, earthy, very brittle and apt to lose its colour. Each of these sulphur balls is enclosed in a larger kidney-shaped lump of clay that forms as it were the shell containing the sulphur kernel. The clay in which small crystals are to be found, dissolves in water. Sulphur was also discovered in the cracks in the larger crystals (calcareous spar *l*).

"The sulphur ground lies from 1 to 2 km. distant from the right bank of the Jordan, and a short German mile from the Dead Sea; its surface is in some places flat and in others hilly. Several of these heights rise 100 feet above the level of the plain. The sulphur ground stretches out towards

the north, but how far is as yet unknown. The travellers thought it extended as far as they could see. The air is pervaded by a sulphurous smell, which indeed clung to the specimens brought to me. All vegetation ceases in this ground. A slow combustion is apparently going on in the air during the normal state of the temperature, and is betrayed by the smell. The friable earthy character of the mineral forbids the assumption that it had been brought down by means of water from some distant place as for instance, from the volcanic region of Hawrah; it is far more probable that the sulphur was thrown up in the very spot where it now lies, or, at least, was brought from somewhere in the immediate neighbourhood by an irruption of mud."

Robinson mentions the sulphur collected by the Jehalin Bedaween, for the purpose of making gunpowder at the northern end of the Dead Sea in his *Palestine II*, pp. 454, 469, and *III*, p. 8. Herr Schick, to whom I applied for further information on the subject in 1865, wrote that Herr Palmer and Schneller were of opinion that no real sulphur was to be found at the Dead Sea, but that they had picked up some whitey coloured sulphur amongst the hills to the north of the sea which surround the bed of the Jordan and lie at a good quarter of an hour's distance from the bank. They considered that these hills were raised by the action of water, and left it an open question where the sulphur came from and how it got there. Herr Schick went on to say that the hills seemed to him like the bank of an old lake or river, for the ground below them was 30 or more feet lower than the terrace on the other, or western side of the hills. Thus the hills were hills when regarded from the east, while, when seen from the west they were on a level with the plain. The sulphur was formed at the edge of the dried up watercourse.

Ten years later, in December, 1875, I received a box from Herr O. Kersten containing, amongst other things, some specimens of oolitic sulphur from "Khan Hadjla." Now as "Kalaat Hadjla" is placed by Lortet in his map half way between Riha and the northern end of the sea, it must undoubtedly be the same place as that described by Herr Schick and Herr Paulus.

Herr Paulus maintains that this sulphur cannot have originated in sulphur springs, because each lump is enclosed in a shell of clay, and because there are no sulphur springs on the right bank of the Jordan. There are such springs on the left side of the river, but he does not see how the sulphur could get across the water to the right side; unless, indeed, it be maintained that the Jordan ran formerly in a more westerly direction, which is not impossible, but then, in that case more sulphur would have been found on the right bank, and also near the springs where it is unknown. Herr Paulus goes on to connect the presence of the sulphur with a volcanic irruption in the Jordan Valley, and ascribes it to that convulsion of nature which caused the destruction of Sodom and Gomorrah.

I have geological reasons for denying the volcanic origin of the sulphur most emphatically. It is true that there is a volcanic sulphur generated

in the craters of volcanoes and by subterranean fire. But such sulphur can only be regarded as the direct or indirect sublimate of pure sulphur already in existence, or of such combinations as decompose thereinto at a high temperature. Sulphur, like phosphorus, is a *product of the organic world*, of the vegetable as well as the animal world. Still plants do not possess nearly so much sulphur as animals. Wherever organic bodies have been decomposed in great numbers, as for instance in old sewers and such like excavations, sulphur crystals have been found. Sulphur chiefly appears in the later formations of the earth, viz., in the tertiary, because there was a greater mass of organic remains during that period than before. It is there found in combination with clay and gypsum. Gergenti in Sicily, Conil near Cadiz and Ternel in Aragon are rich in sulphur. The tertiary slime of Radoboj in Croatia, celebrated for its fossil plants, insects, and snails, is full of yellow and brown sulphur. In other places where sulphur is found, as for example, in the neighbourhood of Jebel Zeit, there is in addition to decomposed animal and vegetable matter, bitumen, rock oil, and asphalt, or again in contact a decomposition of gypsum and other salts of sulphuric acid.

The origin of the sulphur indigenous to Hadjla is the same as this. A few kilometers to the west of this place is Nebeg Musa with its well-known Moses Stone, a calcareo bituminous stone cut and carved by the Bethlehemites. Bitumen and asphalt extend from Mount Quanantanca to Rasel-Feshka into the old chalk strata, and the waters which have been and are collected there become, through the decomposition of the bitumen, sulphur springs, such as are of frequent occurrence on the eastern side. One will not be far from the truth if one concludes that the oolitic earthy sulphur of Hadjla originated in old dried-up sulphur springs. The theory just propounded by Herr Paulus, and then dismissed, in consequence of his prepossession in favour of the volcanic origin of the sulphur is certainly correct. The clay shell surrounding the sulphur is a proof of this origin, for the water that decomposed the bitumen washed the clay out of the bituminous chalky marl with which it was incorporated, after which it clung to the sulphur thrown off by the spring. The fact that there are no sulphur springs to the right of the Jordan at the present day is no disproof of this, nor yet that the springs on the left side of the river have not a sulphur deposit, such as is to be seen at Hadjla. The precipitates of springs and deposits they may form are in a great measure dependent on factors, such for example, as the presence of free carbonic acid in the water, which lying beyond human reckoning, are rooted in minute chemical processes.\*

\* While this paper was in the press, I received a small bag of the sulphur in question from Herr Chr. Paulus, an exact analysis of which proves the truth of my conjecture. Professor Bronner undertook to make a chemical analysis of one of these pieces of sulphur, and his report is as follows: "The substance does not consist simply of sulphur and gypsum as it appears to do. It is rather a combination of sulphur, carbonate of calcium and gypsum, with smaller quantities of sulphite of calcium, silicate of aluminium (clay) and boracic acid.



## NOTES ON A JOURNEY TO MOAB.

*(From the Zeitschrift of the German Palestine Association.)*

By the Rev. F. A. KLEIN.

*January 30th, 1872.*—After waiting in vain for Sma'in, Sheikh of the Ta'amireh Bedaween, who was to have been our guide to Kerek, we at length set out from Jerusalem without him. He did not overtake us until we had got beyond Bethlehem. We now refused to have anything to do with him, as we had determined to obtain an escort to Kerek from some other Sheikh. Sma'in and his people, however, followed at our heels in true Bedaway fashion, shouting and talking. They told us that they had a short time before guided a party of German travellers consisting of three persons, with their cook and servant, on a six days' excursion to Engedi, &c., for 500 piastres. Sheikh Hamza, a cunning old fellow, who usually negotiates all business arrangements between travellers and the Bedaween, came to see us at Hebron. He made himself extremely agreeable, as from the number of travellers, tents, and servants, and from the amount of luggage, he augured a rich harvest for his people. The Ta'amire Arabs had accompanied us in spite of our remonstrances, and were now encamped quite close to us in hopes of obtaining provisions. They received a satisfactory amount of food, and after getting a good backsheesh in return for having formed our guard of honour, a kindness we could have dispensed with, they withdrew muttering and shouting, but fortunately without having come to blows, a consummation we had greatly feared. As we had to pass through the country of the Jehalin, Hamza sent a messenger that very night to the chief of that tribe to engage him as our guide for the following day. The Jehalin encampment was not far from ours. A terrific storm arose during the night, which tore our flag to tatters, and threatened to blow down the tents.

*January 31st.*—Abu Dahuk did not appear. Hamza, who was half Bedawi, half Fellah, and possessed a touch of town breeding, tried all the morning to get the making of the contract for our guidance into his own hands. Our party numbered seven Europeans, an Arab dragoman, a cook, two servants and several muleteers. He promised to satisfy all the demands of the Bedaween, through whose territory we passed, for £10 a-day. Another negotiator appeared in the person of a son-in-law of the Sheikh of Kerak, Besides these, it contains iron, magnesia, soda and chlorine. It seems to me an undoubted fact that this sulphur *originated in a mineral water which contained a solution of sulphuretted hydrogen and bicarbonate of calcium.* When exposed to the air, deposits of sulphur and carbonate of calcium were formed. But as is well known, the former when thus exposed, gradually takes the form of flowers of sulphur and is dissipated as sulphuric acid. I have convinced myself that acidulated flowers of sulphur, together with sulphuric acid, contain some sulphurous acid. When carbonate of calcium is found mixed with sulphur, it is unnecessary to say that gypsum, and previously to that, sulphite of calcium, must have been formed. But as the last named salt represents the transition stage to gypsum, it is clear that it can only have been present in small quantities.

who offered to arrange everything for £5 a-day. Abu Dahuk joined us quietly in the afternoon. He was accompanied by his uncle, a pleasant-looking old man with a white beard. The nephew was a most extraordinary looking figure, and both were patriarchally naïf. After a long palaver, a contract was at length drawn up, sealed in all legal form with Hamza's signet, and given the proper finger pressure by old Abu Salame and Abu Dahuk. After a short hand-to-hand conflict between Sma'in's band and the Jehalin, all was settled, the conquered took their departure, and the conquerors encamped round us for our protection.

*February 1st.*—On leaving Hebron, we did not go past Kumul as we had at first intended, but struck into the direct road to Engedi. Barley patches were sown here and there on the hill sides, and the grain had begun to sprout. The road was rather muddy in consequence of the heavy rain that had fallen on the previous night. A village called Beny Na'im lay at a short distance to the left of our route. There is a Makam there, sacred to the Neby Sut. Farther on we passed a ruin, Khurbet Yakin. Besides this, the following ruins lay at a longer or shorter distance from our road: Zig, Umm Halaseh, Umm-ed-Dakakin (mother of shops), Zatut, and Umm Ghuzulat. We pitched our tents in a small plain sheltered by hills, close to the latter place, and about 15 minutes from an old tank called Serwal. During our journey, we had noticed a good many traces of former buildings, and a road marked out at each side with large rough stones (like the one at Amman). A little farther down the valley, the black tents of some Ka'abneh Bedaween were visible. We paid them a visit. According to the Bedaween, Ka'abneh is derived from "Ka'aba," and they got this name because their forefathers took a prominent part in building the Ka'aba (?). We also found some Ta'amire Bedaween, whom Sma'in had sent on here with provisions (small bags of flour), and who had now received counter-orders from him. It is really remarkable how quickly and securely the Bedawig Sheikhs can despatch messages, and carry out their plans in this uninhabited district, and also how the Bedaween can find their way through this labyrinth of hills and valleys.

*February 2nd.*—Dark storm-clouds announced a disagreeable day for travelling. Rain fell, but not heavily. We started at 10.15. The hills round about us were very striking in their fantastic shapes and colouring. A pointed hill we passed bears the name of Jebel-el-Bokrosiyeh. The road ran through a valley, narrow at first, but growing wider as we advanced, and called Wady Abu-l-Hargat (Valley of the Father of the Snakes); passed Jebel Muntar, and later on Jebel Dehiyeh. We passed in succession, Wady Mudabbah-el-Bakar (cattle slaughter valley), Wady el-Ghar, and Wady Dalal, and soon came to the romantically beautiful gathering of rocks, Nakl 'Ain-Jidy. We reached Engedi at 4.15, and pitched our tents there. We found some of the Rasha'ideh Bedaween watching their crops near the spring. Their camp was at Thekoa. Acacias covered the little plain, from which we had a splendid view of the Dead Sea and the Moabite mountains opposite. There were many caves

in the rocks. During the night the Jehalin and Rasha'ideh Bedaween performed a fantasia together. Abu Dahuk's people joined us in the Wady Abu-l-Hargat. They were wild-looking, poorly clothed, and small in stature, carried their provisions on their backs (small skins of flour), and were armed with matchlocks. They leaped from rock to rock with the agility of gazelles.

*February 3rd.*—The sky was very cloudy in the morning, and some rain fell. The name of the valley in which we had pitched our tents was Wady Sudeir. The mountain overhanging it was called Jebel Sudeir (probably from the Sudeir or thorn-trees that abound in this place). The Wady begins at the rising ground (tal'at), ed-Dawa'ireh, at Ras-el-Muchawwama. We resumed our journey at 12.30. At 12.37, we crossed the bed of the Wady-el-Ghar, the upper part of which the 'Oreijeh (not "Arayeh," as Van de Velde writes it), flows. At 2 o'clock, we passed the Khabra (not "Chuberah," as Van de Velde spells it), in a little plain covered with acacia-trees. At 2.40, we reached Wady Mahras. A large ruin, Keryatein, is said to be far up, at the entrance of this valley. We got to Wady Seyal at 3.20, and then went up Wady Nimriyeh (Valley of Leopards). About half-an-hour later, we saw opposite us the fortress of Sebbe, the ancient Masada. The tents were pitched here. The sky was cloudy, and there were showers now and then. The sea was somewhat rough. The songs of the Bedaween mingled with these sounds.

Our old Sheikh Salame told me, that when a young man, he had often gone on foot from Wady Mubagghek (s.p. 9), to Mazra'a, on the other side of the sea, and that the water only came up to his ankles; but it would be impossible for any one to cross now. The Jehalin often collect asphalt (hummer), at the Dead Sea, and afterwards sell it in Jerusalem for about 500 piastres per camel's load. Amongst the Jehalin, a bridegroom pays, according as he is rich or poor, from one to five camels (1,000—5,000 piastres), for his bride. The marriage customs are much the same amongst the Bedaween, as amongst the Fellaheen. Eight days before the wedding, the fantasia is performed. The Katib is present on the marriage evening to draw out the contract. At night, the bridegroom goes into the bride's tent. Then early next morning, as Salame told me, he rushes out of the tent ashamed (جباى) and hides himself behind a rock or a bush, until his friends come to fetch him. Names of the Bedaween, Mohammed, Suleiman, Mustafa, etc. Besides these, other names were given us to-day which commemorate some occurrence. For example, my young guide to Sebbeh was called Ghadir (pond), because he had been born beside a pond. As a proof of the inherent love of theft which obtains amongst the Bedaween, Salame told me that he and a number of his people had once gone on a 60 days' journey to Hejas, to steal camels, and that their raid was successful. Nothing makes a Bedawi so happy as the enjoyment of stolen goods.

*February 5th.*—We left our camping place at Seyal (opposite Sebbeh) at 7.35 in the morning. The sky was rather cloudy, the air pleasantly warm. At a quarter of an hour's distance further south we come to two distinct

water courses for carrying off the water which was collected at Sebbe during rain. A small treeless plain. The Bedaween get salt from here. 8.15. Wady el Kattar (or Kaddar?). 8.30. Wady Hafhaf. 9. Jebel Sinnin and Nakb Sinnin. In going up Wady Sinnin the following ruins are passed: Umm Rokba, Khurbet et-Tayib, Khurbet el Bayut, Kurbet el Keryatein, Kurbet el Jemby (written Jenby), el Mirkez. 9.15. Rabad el Janus (Buffalo camp). From here a pointed hill is to be seen far away to the south, on which is situated Neby Barun, a holy place to which pilgrimages are made. Any Bedawi who may see the sacred place from here lays a stone on some rock as a sign of his presence and of his respect. Thus we found quite a heap of stones. I found little cairns of this kind at Engedi; they were erected in honour of the Neby Dawa'irsh. There are many such on the Scopus, that have been heaped up by pilgrims when they first caught sight of Jerusalem. At 10, Wady el-Kedr. This valley is called Wady en-nusurah (vale of Eagles) farther on. From 10 to 10.40, we were climbing over Mersed (wait?) a steep, abrupt promontory whose sides often sank precipitously into the waters of the sea. An excellent place for robbers to lie in wait for travellers and cut off their escape. Immediately after we had crossed this promontory, we came to Wady Hatura, in which there is a little plain. At 11 o'clock Wady Mubagghek (also spelt Umm Bagghek), on each side of which are the remains of small forts. It is a romantic-looking valley with sparkling springs, trees and bushes. At 11.45 we left Mubagghek and got to Wady Nejd at 12.20., at 1 we reached Wady Zuweira and at 1.30, we came to the foot of the salt mountain, Jebel Uselum. We encamped there in a small plain covered with acacias.

*February 6th.*—We started at 6 in the morning and got to Rujm el-Muzoghal (stone-heaps of Muzoghal) at 6.30. A terrific storm of rain and thunder came on. At 7.20 we came to a large cave, in which we took refuge from the heavy rain. We were able to continue our ride at 8 o'clock. We reached the Sabsha, a dreadful morass at the southern end of the Dead Sea, through which the animals made their way with difficulty. There is no vegetation there, for the ground is impregnated with salt. To the south of Jebel Usdum is a pass, called by the Sheikb Nakb el-Am'az. We reached Wady-el-Milh (valley of salt) at 9.10. We had to wait there for a long time till the mules came up. Got to a stream with very little water in it in Wady-el-Ghor at 10.10. At 11 o'clock we reached Ghor-es-Safiyeh, "clear, bright," probably so called to show the contrast between its sweet waters and vegetation and the salt unfruitful ground near it. A troop of Bedaween armed with muskets, sabres, spears and clubs rushed out of the bushes and fell upon our people. One of our men was knocked down and wounded. Wild gesticulations and shouts ensued. The band, amongst whom we particularly noticed a strong, brown, naked fellow, was, as we were told, composed of Beny "Atiyeh and Beny Ma'az Bedaween from the neighbourhood of Hedjaz. After a long palaver we came to terms and resumed our journey, surrounded by the wild horde. We passed through a dense thicket and under great trees on our way to the camping place.

'Obeid, Sheikh of the Beny 'Atiyeh came to see us, he was very friendly and assured us that he would have guided us from Hebron himself if we had written to him. The guns that had been taken from our people were restored, but poor old Salame refused to be comforted regarding the indignity that had been put upon him.

At Ghor es-Safiyeh I was told of the following places which lie from west to east. Nakb el-Buweib, Wady el-Fikra, 'Ain-el-'Arus, Wady-el-Jeb, ed-Dabbeh, Hasal Madara. We found the stubble of the last harvest of dura (millet) in Ghores-Safügeh together with a little fresh green, and there were also a number of nice-looking cows, sheep, goats and lambs.

*February 7th.*—The Jahalin had kept up watch-fires round our camp all night and had remained awhile shouting at intervals to protect us from robbery. It was "a wall of fire round about" (Zechariah ii, 5).—After a long palaver, four men agreed to show us the country in the immediate neighbourhood for 109 piastres. We left our encampment at 10.10 and wandered amongst the brushwood and trees until we came to some fields in which the barley had begun to show green. The fields were irrigated by water brought from the Safiyeh. Half-an-hour later we reached the ruin of Sheikh 'Isa. We found the remains of walls, pillars and doorways, and many huge blocks of red sandstone, amongst which was a carved stone of about 2 feet long with a cross, &c., on it; besides these there were tubes for conducting water and the remains of a Khan, with a great gate. Within the Khan, several human skeletons and rags of clothing were lying on a heap of sand. This building was called Kasr-el-bushirra. Farther on, we climbed a gravelly hill on which was a ruined hut. El-Mashnaka, place of the gallows, was its name. From this hill, we had a splendid view of the mountains, which appear to surround the Sabeha, in the direction of Nehy Musa, over the Dead Sea towards the north. This would be the place of all others for a watch tower to overlook the whole Safiyeh. Excepting these ruins there are no other old remains in the Safiyeh, perhaps because the people used long ago, as they do now, to build their dwellings of clay or of sun-dried bricks. We also visited the brook Safiyeh, a good sized, clear stream that murmured as it flowed. It comes down from Wady Karachi. In the afternoon the son of the Sheikh of Kerek arrived from Kerek with 15 or 20 horsemen to welcome us and accompany us there.

*February 8th.*—After a long and angry discussion with the Ghawarneh Beny 'Atiyeh and Ma'az Bedaween and the people that Sheikh Mujelly of Kerek had sent, matters were at last so far arranged that we were able to start. At 8.15 we passed a small ruin called Kurbet el-Hashib; unhewn stones were scattered about. At 8.25 we crossed the Wady Karach, a rather rapid brawling stream. The Bedaween bring the water to irrigate the Ghor es-Safiyeh, which is very fruitful, from the Safiyeh and the Karachy. The little plain, Numeira, begins on the other side of the Miswaha, a sluggish, evil-smelling brook, marshy and difficult to cross. The Miswaha is said to rise on Jebel Tuma, a mountain at no great distance. At 10 o'clock we were opposite Wady Khuneizir, through which

the people of 'Orak were accustomed to come down by a steep and rough road ; at 11.10 we had Jebel Jedireh before us, where we discovered traces of wild swine. At 11.15 we reached a considerable plain, strewn with pebbles, Lajarat en-Numeira. Wady Numeira is a small but very full brook, at the upper part of which, we were told, that there were six or seven springs and well watered gardens. Wady Sarnuj was opposite us. We passed several hills and defiles on the peninsula, "Iisan." Of these hills, er-Rumeir, et-Tin, et-Tayan, er-Rasifeh were pointed out to us by name. At 2 o'clock we entered a wild romantic gorge, Wady ed-Dera'a. At half-past 2, Wady Weida, with its small palm-trees, lay before us. In Wady-el-Mantara, which we reached at 2.40, and Khurbet ed-Dera'a (3.15) we found traces of former cultivation ; the soil in both places is rich. The Bedaween only graze their cattle there now, the district is so insecure. At 3.30, we came to the little river Dera'a. We pitched our tents there. We found the ruins of 2 Kasr (towers) on a low hill. This point is of great importance as it defends the pass leading up to Kerak. There are no traces of any considerable ruins. Our Kerak Bedaween made a great noise late at night. Two nephews of the great Sheikh Mujelli demanded money from us. After that they quarrelled with each other and took to their pistols. I could not make out whether they were in earnest or only acting, hoping thereby to terrify us and so extort money. The robber horde talked, shouted and screamed all night long and we were thankful when daylight came.

*February 9th.*—After a long diplomatic discussion we were at length able to resume our journey at 8.20. The band demanded money and yet more money, refusing to wait until we got to Kerak. In comparison with this horde, the Ta'amin and Jehalin Bedaween were perfect gentlemen. Taking them all in all, the tribes on the eastern side of the Jordan are much wilder than those on the western side. It was so in the times of the Hebrews and it is so still. We went along Wadi Dera'a, the stream plashed merrily. What a pleasant sound it was in this waterless country ! its banks were fringed with different kinds of trees and oleander bushes ; we now came to a steep rocky pass Nakb el-Kharaza. There were about a dozen fine palms in the bed of the Wady. We passed two ruined buildings, called el-kabo (" vaults "). A Christian, Daghanjy by name, is said to have formerly levied tribute from travellers in this place. At 9.30 reached Nakb Umm Eshman (a height). The whole road is very wild and extremely romantic. There are many natural caves in the rocks.

The following names of valleys and peaks were given me in this district : El-Moghra, Umm Kith, Umm Habla el-Bassat, Ruweij, Khuneifes, Seiles-Sachel.

Herds of cattle graze on the steep sides of the mountain ; the people of Kerak, who, like the Bedaween, are herdsmen, live in black tents. At 11.15 we came to a spring Ruseis ; at 12 o'clock we caught sight of the Fort of Kerak. At 12.15 we came to a small rivulet, Sahur pomegranates and figs grew in the valley ; after we had passed another spring, 'Ainel-Bassas, we reached the Fort of Kerak at 1.30.

*February 12th.*—We started at 8.10 on an exploring expedition in the

neighbourhood. After a steep descent we went up Wady Zijatin, and reached the top of a hill opposite Kerak at 9.15. There was a splendid view of the whole town. It is said that Ibrahim Pacha bombarded the town from this place. The name of the hill is Jalamet es-Sabeha. We were shown several villages in ruins; Umm Hamed, Middin, Abu Hammor, Mugheira, el-Bathra, Nakkad. The country is of a hilly character, the soil is good and partly cultivated with barley and wheat. We reached Keryatein at 9.20, and found there a considerable area of ruins on two low hills facing each other; amongst other things were the remains of pillars and cisterns, but no buildings were standing. From there we saw a small ruin, Masateb. At 10.30 we came to Khurbet Nakkad situated on a hill, and then one after the other to Khurbet 'Azizeh, an old wine-press, Wady Sheily, where there is a well of water and a small ruin, Za'zu, and farther on Khurbet Hawiyeh. We saw Hulhul about half-an-hour away. Came to Malma at 11.5, where there are considerable ruins and old tanks. Besides this we had an excellent view of the surrounding country. We set out again at 11.40 and at 12.10 came to a stone pillar at Moteh. Here was a Roman milestone, whose inscription was partially defaced by the weather; other stones and pillars lay all around. About half-an-hour distant is Meshhed, where Abu Talib is said to have fallen (?). We left Moteh at 12.25 and saw Mirwad about half-an-hour farther on. At Middin, which is on a steep hill, we found extensive ruins, stones, broken pillars and sarcophagi. From here we saw Shihan, then reached Khurbet Ghuweir, and at 2.45 Khurbet Tatiyeh, where tanks and the remains of Roman roads are to be found.

There are said to be 270 Christians and 514 Muhammedan families in Kerak. The Christians have a church, a school, two priests and a schoolmaster. The inhabitants belong to a great variety of nations, such as Egypt, Petrea, Jerusalem, &c., have no chronicles, and know very little about their ancestors. Their condition is extremely primitive and rude. The Sheikh and his family have autocratic power, but are not quite so despotic as they used to be. In spite of all our inquiries we could find no Phœnician inscriptions, pots or antiquities of value. Here and there we discovered Greek inscriptions in stone houses, but none of any interest. A few good specimens of lamps and coins found in graves were brought to us. Much might have been brought to light by excavation.

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## ERRATA—"QUARTERLY STATEMENT," 1879.

- P. 173, line 32, *for* "pool that was made" *read* "two pools."  
 P. 174, ,, 1, *for* "for" *read* "and as."  
 P. ,, ,, 2, *after* "and" *read* "as."  
 P. ,, ,, 3, *for* "7." *read* "7,"  
 P. ,, ,, 4, *omit* "their."  
 P. ,, ,, 8, *after* "stairs" *read* "that go down from."  
 P. 176, ,, 13, *for* "it" *read* "the tomb of David."

## ERRATA—"QUARTERLY STATEMENT," 1880.

- P. 106, last line, *for* "at" *read* "of."  
 P. 167, line 12, *omit* "made."  
 P. 168, ,, 17, *for* "Begetha" *read* "Bezetha."  
 P. 169, ,, 10, *after* "dung" *read* "gate."  
 P. ,, ,, 12, *for* "Tyropæin" *read* "Tyropæon."  
 P. ,, ,, 13, *for* "both in" *read* "in both."  
 P. 170, ,, 1, *omit* "at."







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