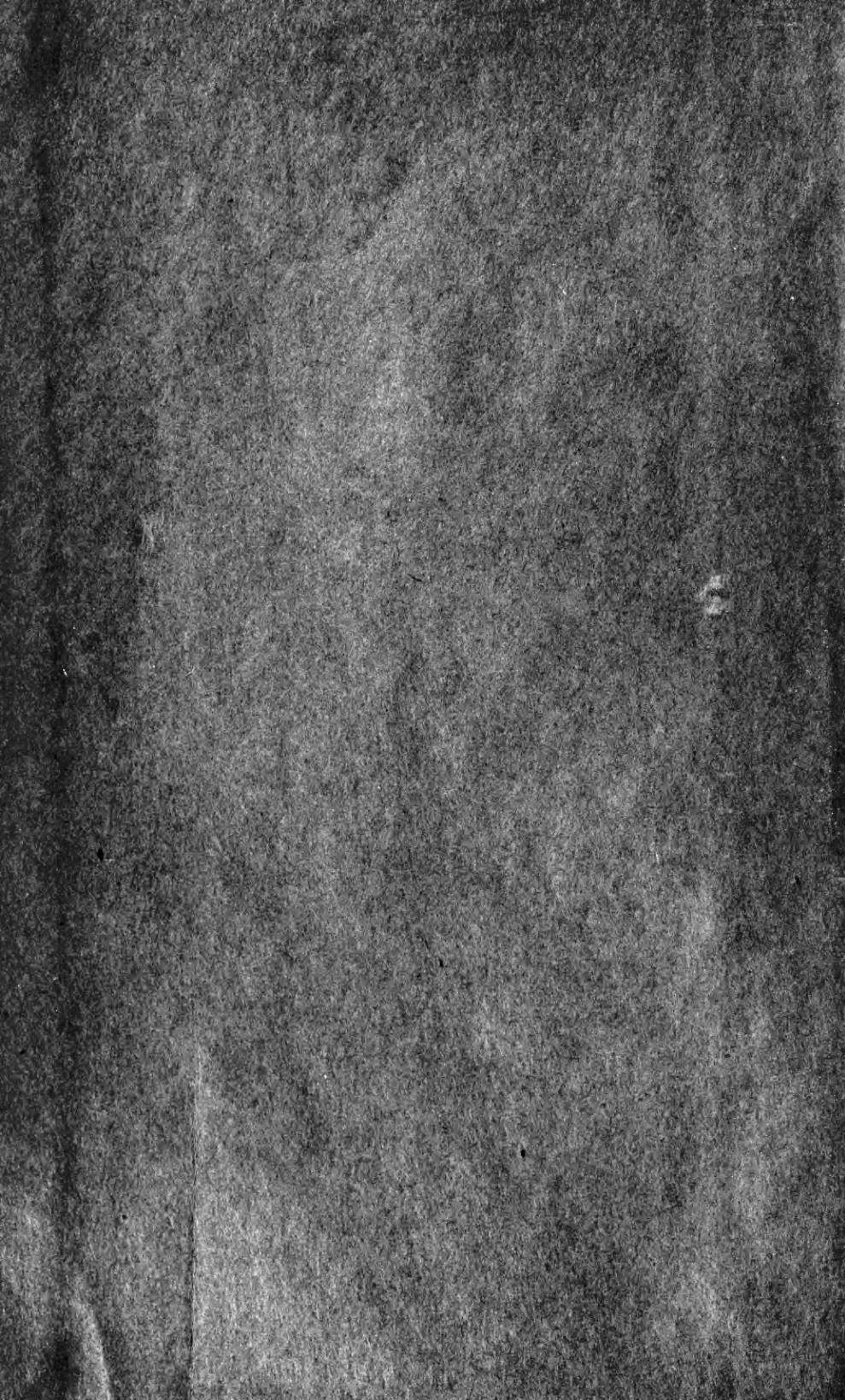


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VOL. XXI, No. 3

CULTURE AREAS OF NIGERIA

BY

WILFRID D. HAMBLY

ASSISTANT CURATOR OF AFRICAN ETHNOLOGY

FREDERICK H. RAWSON-FIELD MUSEUM ETHNOLOGICAL EXPEDITION
TO WEST AFRICA, 1929-30

68 Plates in Photogravure and 1 Map

PAUL S. MARTIN

ACTING CURATOR, DEPARTMENT OF ANTHROPOLOGY
EDITOR

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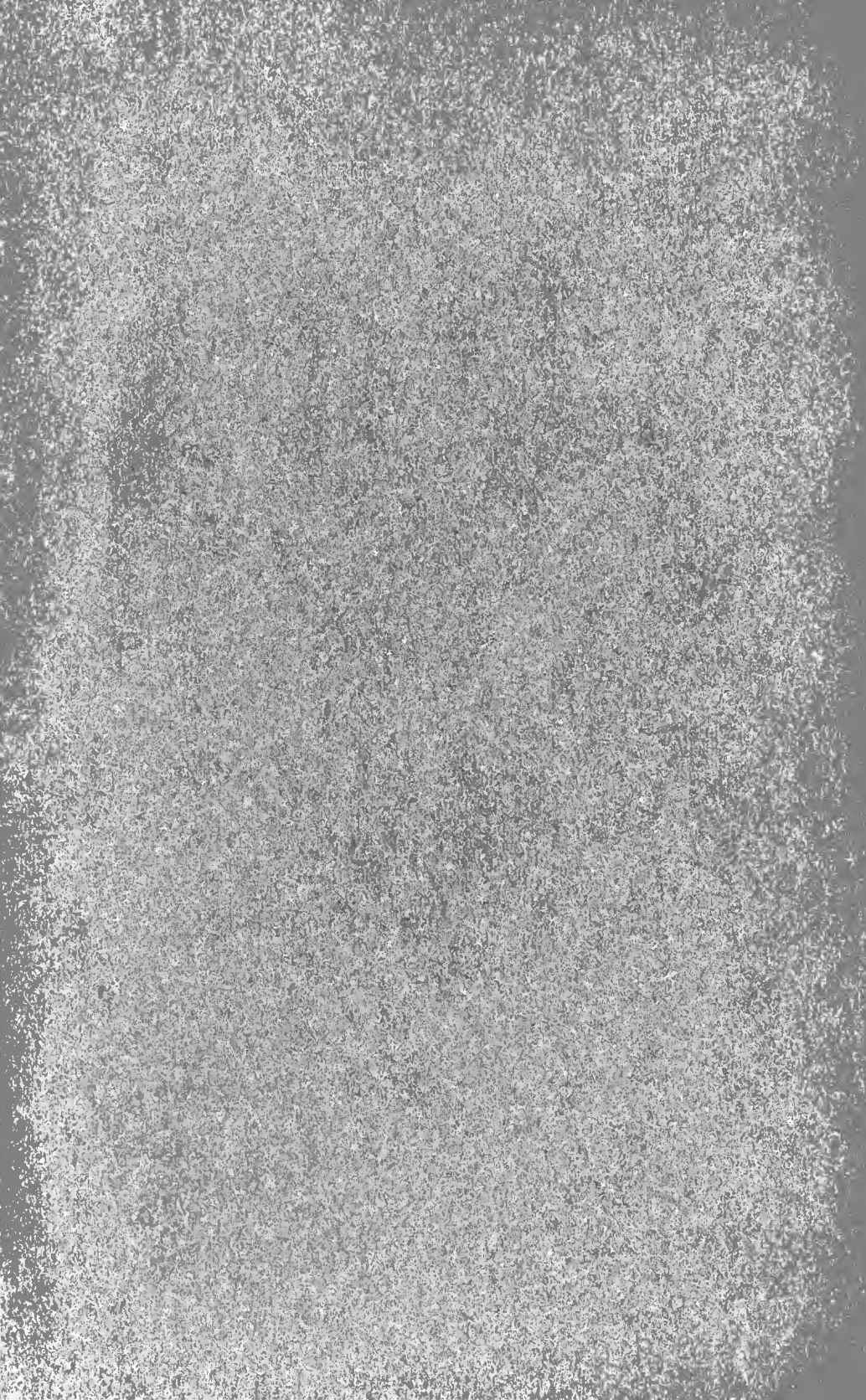
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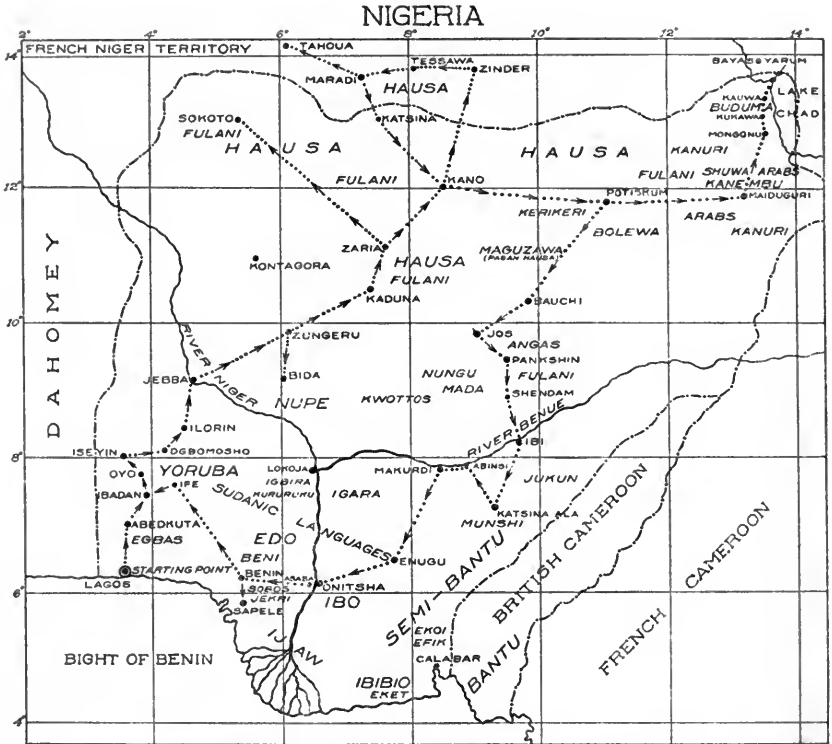


CHICAGO, U. S. A.

1935







MAP SHOWING ROUTE OF EXPEDITION
 Scale: 1 inch = 260 miles; arrow indicates route

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PREFACE

Owing to the generosity of Mr. Frederick H. Rawson, of Chicago, Field Museum of Natural History was able to organize the Frederick H. Rawson-Field Museum Ethnological Expedition to West Africa, 1929-30. I was appointed as leader.

The former part of the expeditionary work was carried out in Angola (Portuguese West Africa). The expedition in Angola has formed the subject of a separate report (The Ovimbundu of Angola, No. 2 of this volume, 1934); therefore this monograph relates only to Nigeria.

The results of the Nigerian journey of 5,000 miles are due largely to the hearty cooperation of the British Colonial and Foreign offices. Sir Frank M. Baddeley, Chief Secretary to the Government, received me at the Secretariat in Lagos where the assistance of the Under Secretary for Native Affairs and of the officers of the Public Works Department was secured.

Sir Richmond Palmer, K.C.M.G., C.B.E., Lieutenant-Governor of Nigeria, took a close personal interest in the expedition. Expert assistance in transportation was given by officers of the Niger Company and the Barber West Africa Line. Thanks are due to Residents, District Officers, and other officials of Nigeria and French Niger Territory.

Mr. T. C. Bramley deserves the hearty thanks of the expedition for his skill and interest in mechanical transport, in which he is adept, and for his general enthusiasm and reliability. Drawings of objects collected have been prepared by Mr. Carl F. Gronemann, Staff Illustrator of Field Museum. A note of appreciation would be incomplete without recognition of the services of three Hausa servants engaged at Sokoto. These men accompanied me into French Niger Territory, eastward to Lake Chad, and back to Lagos. Their capacity for work, general interest, and sense of humor contributed to the success and pleasant recollections of the expedition.

The object of this report is an examination of the distribution of cultures in Nigeria. In a preliminary chapter these are shown to depend to a great extent on geographical and climatic factors. Archaeological and historical chapters describe racial movements, the founding of centers of culture, the influence of these on surrounding areas, and the blending of cultures as a result of migrations and warfare.

The chapter describing industries is primarily intended to be of service to museum curators who are concerned with technology. But in conclusion the information relating to industries is combined with geographical and historical data in order to make a study of the distributions of various types of culture, including those of the southern forests, the central plateau, and the northern savannas.

Sociological and psychological studies are admittedly desirable in making ethnology a science of practical importance, since such inquiries show the functioning of a culture, together with the problems and adjustments that are necessitated by a conflict of social forces. Yet it seems undeniable that history, geography, and pure ethnology must be regarded as fundamental. For although technical knowledge will not make a successful administrator or teacher, yet a broad background is the logical approach to studies of behavior on which educators and administrators increasingly rely. With this idea in mind I have endeavored to give an analysis of data which will provide an introduction to more detailed social studies.

WILFRID DYSON HAMBLY

CULTURE AREAS OF NIGERIA

I. GEOGRAPHY

Nigeria has an area of about 363,625 square miles situated between 4° and 14° N. Lat., and 3° and 14° E. Long. On the west is the French possession of Dahomey, while French territory extends along the northern border through the region from Lake Chad to Timbuktu and from that point to the river Gambia. On the east of Nigeria lies the Cameroon. The south of Nigeria is bounded by the Bight of Benin and the Bight of Biafra. It is evident, therefore, that the south coast is close to the equator, being only 4° north of that line, while the whole country is within the northern tropic.

The two chief rivers are the Niger and its tributary, the Benue. The former, which is a great commercial highway, enters Nigeria on the northwestern frontier, continues in a southeasterly direction, then flows due south to the Atlantic Ocean, which it enters by innumerable mouths that form a vast, swampy delta. The Benue, which has considerable seasonal variation in depth, is a great natural highway from Yola in the far east of Nigeria to Lokoja, the point of its confluence with the Niger.

Lake Chad is an extensive stretch of water receiving the drainage system of northeast Nigeria. The shallowness of the lake, which permits easy poling of canoes, has led to an exchange of peoples and products in this region. Within the memory of men now living on the western shore of the lake, the water stretched farther to the west. The nature of the black mud surrounding the western shore for many miles suggests that a deep deposit was laid down by the retreating waters.

The elevation of Nigeria increases from the coast northward. Sokoto, in the far northwest, is about 1,100 feet above sea level. Kano has an elevation of 1,500 feet. Maiduguri is situated on the contour 1,180 feet. Lake Chad is about 800 feet above the sea, but Ibi occupies a low elevation of only 350 feet. The greatest elevation is attained in the Bauchi plateau, an extensive, rugged region having a mean altitude of 4,000 feet.

Influential as these differences may be in considering culture patterns and contacts, climate and its attendant zones of vegetation are still more important in determining such occupations as agriculture, cattle-keeping, horse-breeding, and the use of camels.

When making the expeditionary journey from Lagos northward to Tahoua on the border of the Sahara Desert, four distinct areas of rainfall and vegetation were crossed. The coastal portion of Nigeria is part of a more extensive region of heavy rainfall and dense tropical bush, stretching from the Gambia River eastward along the coast of the Gulf of Guinea. This area fills a large part of Cameroon, then extends over the whole of the Congo basin. The whole coastal belt of Nigeria for a distance of about two hundred miles inland is but a section of this extensive region whose cultures, following the determining and limiting climatic factors, show many resemblances.

As one travels northward from Ibadan, considerable thinning of the bush is observed until at Bida many extensive stretches of magnificent undulating country are seen. The most correct impression of the coastal jungle belt is obtained by sailing along the creeks near Sapele and Benin, or by observing the mud-flat vegetation and island dwellings when proceeding up the Bonny River to Port Harcourt.

By the time Kaduna is reached a representative sample of the open savanna country is seen. This grassland, sometimes named parkland, stretches across Africa in a broad belt from the west coast to the region of the Great Lakes in east Africa.

Gradually the vegetation becomes more sparse as the journey proceeds northward, dense clusters of trees are less frequently seen, and by the time Zinder is reached a semi-desert type of vegetation including euphorbias, baobabs, and prickly acacias is observed. The semi-desert belt has an extent corresponding to that of the parkland; that is to say, it lies across Africa from the Senegal to the Nile.

The grassland and semi-desert belts have been of the greatest importance in mass migrations across Africa from east to west, while at the present time there is constant communication along this route by oxen, camels, and horses. Into this grassland and semi-desert extend the routes of the trans-Saharan caravans.

At Tahoua, in French Niger Territory, about 15° north of the equator, the true desert begins. Oxen are still employed for transport, but Tahoua is the northerly limit of their use for long distance trekking. From Tahoua a camel track stretches northward to Agades near the mountains of Asben. The Sahara, with its alternating sand dunes, stony desert, and rocky hills, merges gradually into semi-desert on the northern extremity. This almost imperceptibly changes to the warm temperate hilly regions of Algeria and Morocco.

Nigeria has three distinct ecological regions: the densely forested coastal region, a median parkland section, and a northern region of semi-desert. These areas of characteristic flora have closely correlated rainfalls. The wooded coastal region has an annual fall of one hundred inches or more. Gradually this supply decreases in a northward direction, with attendant thinning of vegetation and a gradual substitution of one type of flora for another. Between 8° and 14° N. Lat. the annual rainfall is forty-five inches or less.

The heaviest rainfall occurs from April to October when large quantities of moisture are brought by southwest winds which become dry as they proceed north. In this season tornadoes are prevalent. The harmattan is a dry wind from the northeast which affects the whole of Nigeria from Lake Chad to the coast. In the months of November and December this wind, which is hot by day and cold by night, sweeps the country from Kano to Lake Chad. The air is thick with particles of dust which in the morning give the appearance of a heavy mist, and sometimes this condition persists throughout the day (W. Fitzgerald, rainfall map, p. 358).

This brief survey of ecological regions serves as an introduction to the details of history, industrial life, and the distribution of types of culture, all of which have resulted in great measure from the geographical determinants.

The expeditionary route passed among tribes speaking the main African languages. Sudanic languages of an isolating character are spoken by the Yoruba, Nupe, Kanuri, Angas, Keri-Keri, and Buduma. Semitic in the form of Arabic is the tongue of the Shuwa Arabs near Lake Chad. Hausa is to some extent Hamitic, but tones of semantic value that are present in Sudanic and Bantu Negro languages are found also in Hausa. The Fulani language is classified by C. Meinhof as Proto-Hamitic.

The following geographical facts are of fundamental importance in the ensuing study of history and cultures of Nigeria:

(1) The open northern region allowed a free passage of people across Africa. This resulted in a mixture of physical types, cultures, and languages. Foci of culture were established in situations from which, owing to the nature of the country, influences could radiate in all directions.

(2) Warfare in the open northern spaces led to a segregation of tribes on the central plateau. Among the hills of this region are preserved cultural patterns differing notably from those to the north and south of them.

(3) Warfare and tribal movements in the north brought pressure to bear on tribes, which were gradually forced into the dense forest regions of the south. This process resulted in the intrusion of Mohammedanism and other factors of a north African culture into some Negro cultures of southern Nigeria.

(4) Rainfall, temperature, and the consequent types of flora have affected industries. Thus, wood-carving is present in many centers of the tropical forest, while leather work is characteristic of the north where cattle are kept. The distribution of camels, horses, and cattle is determined by humidity, the tsetse fly, and the density of vegetation. All these climatic, topographical, and biological factors are determinants of modes of life.

II. ARCHAEOLOGY

Although a considerable amount of systematic archaeological work has been accomplished in Algeria, Egypt, Kenya, and south Africa, the stone age of the continent as a whole has not been historically and culturally explained. Reports and articles have been written describing stone ruins and the discovery of stone implements in many parts of Africa, but there remains a stupendous task of excavating and correlating the data. Nigeria, and in fact the whole region from Gambia to Cameroon, has produced evidence of cultures in which stone circles, stone monuments, and stone implements played an important part (see Bibliography: C. Monteil; M. H. Labouret; H. Balfour; H. J. Brauholtz).

The archaeological evidence summarized by C. K. Meek (I, vol. I, pp. 51-56) relates to stone implements and stone circles. The Bauchi plateau has produced many examples of polished and unpolished celts, round hammer-stones, and arrowheads. The stone enclosures of Naraguta are similar to those in use by the Angas of the present day. Such structures are used as granaries and cattle kraals, and there is no reason to assume that disused stone buildings are the work of a people who were radically different from the tribes among whom such stone structures are found at present. Some stone circles at Naraguta may have been built by early Jukun invaders.

Near Potiskum Captain F. G. B. Reynolds called my attention to some pits, each having a main shaft about fifteen feet deep going down vertically through a matrix of rock. From the bottom of the main shafts there branched off at angles of 45° several narrow shafts each about two feet in diameter. The origin of these pits is unknown to the Fika and other present-day inhabitants; neither are the suggestions postulating mining operations, refuge from foes, or storage of grain, satisfactory explanations. In most instances the excavators have hewn a shaft downward into a homogeneous mass of rock. Possibly a need for storing water was the incentive to this arduous work (F. G. B. Reynolds, II).

Polished celts have formed the subject of several articles. After giving an account of the reverence paid to Shango throughout Yorubaland, P. M. Dwyer states that celts are worshipped under the name Adua. When the stones are first found they are said to be recent messengers from Shango, the thunder god. If a house

is destroyed by lightning the owner has to placate Shango, who has shown his displeasure in this way.

If no house is struck by lightning the priest arranges that a fire occurs so that he may have the opportunity of pretending to extract a celt, or "thunderbolt," from the ruins. After the celt has been carried away in a ceremonial manner the owner of the house pays a fine to the priest, who then intercedes with Shango on his behalf.

H. Balfour (I), in speaking of a ceremonial celt, or "thunderbolt," from Benin, says, "It seems evident that this was an object of a sacred character over which libations of blood, not necessarily human, have been poured, and it is fair to conjecture that the stone axe was primarily regarded as a 'thunderbolt' and as such was kept in a *juju* house or shrine as emblematic of the local thunder god."

F. W. H. Migeod (III, pp. 252-258) gives a description of thirty stone artifacts which he found between Victoria and Yola, also near the Benue and Cross rivers. The polished axes are noted for their great size and fine finish, which he states to be superior to the polishing of implements from the Gold Coast. Most of the stones were found in a thin superficial layer of soil resting either on granite rock or Eocene sandstone; consequently the depth of deposit does not aid inquiry into antiquity.

The Handbook to the ethnographical collections of the British Museum (p. 191) pictures stone mortars and rubbers which are associated in native legends with an extinct tribe formerly called Sau (or So) from the region south of Lake Chad. H. Gaden and R. Verneau found polished stone celts and three associated crania in this region. The authors express the opinion that discovery of a greater amount of osteological material in a better state of preservation would have confirmed their opinion respecting the former presence of a neolithic race differing from the present-day inhabitants in somatic traits.

Statuettes of stone and clay have been found and described by H. Neel, who gives particular attention to examples from Sherbro Island and Liberia. The *nomori* human figures of the Mende are said to be capable of giving fertility to the fields in which they are placed, often under a small shelter where offerings of food are made. If chastised, these figurines are said to go by night to steal rice from fields adjacent to those of their owner. Neel thinks that some of the statuettes are funerary figures because of the depression on the top of the head. This hollow he surmises to be a hole for the escape of a soul which had temporary residence in the stone figure. The

presence of an exaggerated phallus and Semitic features suggest to Neel a Phoenician origin.

According to T. A. Joyce (II) no information is available with regard to the makers of *nomori* figures, but assumption of great antiquity is not necessary. Joyce is convinced that some of the figurines are modern since they correspond closely with present-day wood-carvings. Constant tribal incursions into this region where *nomori* figurines are now found might account for a rapid disappearance of the art of making them. The softness of the stone from which the figures are shaped facilitates weathering, and for this reason the erosions and abrasions may erroneously suggest antiquity.

R. S. Rattray (III, pp. 322-331) discusses the antiquity of polished stone implements in Ashanti. These implements are associated with the cult of Nyame, the Sky God, from whom they are supposed to have originated, and many people believe that this divine origin gives the stones peculiar power. But some of the older inhabitants know that the stones are the work of human hands, and that they were used by former generations of the Ashanti at a fairly recent period. Rattray's informant stated that the long celts were used as hoes at a time when iron hoes were also employed.

Nevertheless, there exists a general belief that celts popularly thought to be thunderbolts may be fastened against the body to cure disease, or they may be ground to powder and drunk in water with beneficial effect. Rattray concludes by saying that in his opinion "transition from the neolithic to the iron age was not sudden. The stone implement and the iron one that was eventually to oust it must have been for a time used side by side in forest and field."

Stone circles of Gambia have been studied by both British and French investigators. H. Parker states that lithic remains in the Gambia Valley belong to two categories which are apparently unconnected. There are circles of worked stone pillars, and in addition to the circles occur menhirs, or single pillars, often erected far away from the circles. The rate at which the soil rises to cover the fallen pillars is not known, but some of the pillars may have been erected many centuries ago, for the accumulation of earth is considerable. Owing to a great difference between day and night temperatures, weathering and cracking of the stone is rapid, a fact that emphasizes the need for caution in estimating antiquity.

The earliest known inhabitants of the Gambia region are the Seres and the Jolas, two agricultural tribes which came from the east

along the Niger Valley; whether any earlier inhabitants were expelled is not known. At present the Yolofs associate these stone circles with the Earth Spirit, and a strong prejudice prevails against any attempt to make archaeological investigations.

After a detailed survey Parker suggests that a Phoenician origin of these two types of stone monuments is possible. Yet no great immigration need be assumed, since the arrival of a small number of Carthaginians would account for the artifacts. Such a theory explains the excellence of the workmanship, the elliptical and cartouche-shaped forms, and the cutting of holes for the oil and wick of lamps. Acceptance of a Carthaginian origin would require a date between 570 B.C. and 147 B.C. The statement that the country was in an iron age when the stone circles were first built rests on the evidence afforded by a barbed iron spearhead, which was discovered in undisturbed soil within a stone circle. The question of a Carthaginian influence in the region from Gambia to Nigeria will recur when the stone monuments of Ife are described (chapter V).

The archaeological work of L. Desplagnes leads him to agree with Rattray's opinion that stone implements are not necessarily of great antiquity. Desplagnes gives an account of the excavation of tumuli in which stone and iron implements occur together, and he has no doubt that the use of stone was prolonged into the age of iron.

Similarity in the forms of stone implements over widely separated areas of Africa and other parts of the world has given rise to hypotheses of extensive racial migrations in prehistoric times. The artifacts which are compared have, however, great simplicity of form, and this fact favors the possibility that round, lanceolate, and ovate types of instruments would be likely to occur independently because of the effectiveness of their shapes. Desplagnes attributes the stone implements of the Nigerian plateau to the earliest of the Hamitico-Libyan excursions, which extended from the east to the west of Africa. An article by P. Laforgue discusses several of the hypotheses mentioned in this chapter.

Only two points seem clear with regard to the stone monuments and stone implements of Nigeria. There is no necessity to assume great antiquity for stone implements since these probably were used along with iron implements, neither is there reason to postulate the intrusion and settlement of makers of stone implements who have no phylogenetic connection with present-day inhabitants.

Further, an inspection of the stone monuments at Ife, and a perusal of the literature describing stone circles and monoliths in

Gambia, leaves the impression that there is no reason for attributing all these works in stone to one people or to one period. On the contrary the regional differences of style suggest that lithic origins will have to be considered as a series of local problems.

Some correlation may be possible later; at present no justification exists for describing the human figure-stones of Ife, the stone circles of Gambia, and the stonework of the Bauchi plateau, as homogeneous evidence suggesting only one intrusion of builders. The whole of the archaeological evidence from west Africa is much too scanty to give definite information with regard to the physical types and cultures of prehistoric inhabitants of the region. But despite the inconclusive nature of the archaeological evidence some reliable information may be derived from a study of somatology, languages, and culture patterns.

III. HISTORY AND EXPLORATION

THE PREHISTORIC PERIOD

In his "Descent of Man" Charles Darwin favored Africa as the place of origin of the Negro, but a commonly accepted hypothesis has regarded southern Asia as the original home of mankind, where racial types began to differentiate and to spread, not only toward Africa but in several other directions. Yet the ultimate origin of Negroes remains unknown, and the phylogenetic relations of Negroes to Pygmies, Bushmen, and Hottentots is not understood.

But, as a working hypothesis which is consonant with the known facts of somatology, languages, and cultural patterns, ethnologists regard the region of northeast Africa near Lake Victoria Nyanza as a focus from which Negro tribes were forced westward. The probable line of migration was along the northern edge of the Congo basin, skirting the dense tropical forest and making use of the broad tract of parkland and semi-desert that extends across Africa from east to west. This route has long been accessible to migrants and armies who took advantage of the wet seasons and knew the locations of wells.

Westerly migrations of Negro tribes were probably due to the entry into northeast Africa of successive waves of Proto-Hamites who differed in physique, language, and culture from the Negro aboriginals. Archaeological and osteological evidence of these early arrivals has been excavated and discussed by L. S. B. Leakey. Hamites occupied the Nile Valley and linguistically as well as somatically became an important element in the formation of an Egyptian type. The modern Somali, also the Beja and the Hadendoa of Red Sea Province are eastern Hamitic types, while the Libyans (Berbers) and the Tuareg are typical of the northern Hamites. Hypothesis, which is extremely conjectural, suggests that Hamitic incursions have been taking place from 10,000 B.C. and even from more remote times up to datable periods. But the Asiatic origin of Hamites is not finally determined, and G. A. Barton, basing his views chiefly on linguistic evidence, favors an African origin of Hamites. The inferential testimony of the Hamitic languages has been examined by C. Meinhof, C. Brockelmann, and W. Vycichl.

The general opinion seems to be that these immigrants, who became linguistically, somatically, and culturally differentiated under several names in northern and eastern Africa, arrived in successive

waves. Gradually the most typical Negro tribes, with distinctive physique and languages, were forced into the least favorable situations of the coastal regions of Nigeria and farther west Africa. The Kru of Liberia, also the Ibo and the Ijaw of Nigeria, are typical Negroes, thick set, prognathous, and having thick everted lips and a high nasal index (Plates CXX, CXXI).

Bantu-speaking Negroes are usually thought to have had their origin in the region of Lake Victoria, whence they spread westward into the central Congo region and Cameroon. Such migrations have caused a mixture of Bantu and Negro tongues, which in eastern Nigeria and the adjacent Cameroon are known as the Semi-Bantu languages. The evidence for Bantu migrations, some of which have occurred within recent centuries, rests on native traditions, mythology, somatological traits, the structure of languages, and comparison of cultural traits.

The prehistory and early datable history of west Africa, from the seventh century onward, is complicated by the intrusion of Semitic elements. Before the Islamic period Semites from Arabia entered northeast Africa, spread into the Nile Valley, and extended westward along the whole length of north Africa. Semitic influence, both Islamic and pre-Islamic, has determined the culture of the Kababish of Kordofan, while Semitic influences have affected Nigeria, on which they have converged from the eastern Sudan and Lake Chad. Semitic migrations and cultural influences from north Africa have passed across the Sahara to Timbuktu, Kano, and the province of Bornu.

The most penetrating Islamic migrations have been those of the seventh and the eleventh centuries of the Christian era, and of these the conquests of the latter period are the more important. Apart from great movements of historical note, Arabs have traveled widely over north and east Africa as merchants and slave raiders. The evidence for Semitic movements from the seventh century onward is adduced from written documents prepared by Arabian geographers and travelers whose contributions are discussed later. The somatic influence of Semitic intrusions has been estimated by C. G. Seligman (II, pp. 213-237) who thinks the cultural impact of Arabs far more important than the physical admixture.

These racial movements have to be taken into account when considering the physique, languages, and industries of Nigeria. In addition to these main movements there is, especially among the Yoruba, what appears to be an intrusive non-Negro culture; this

pattern has features of a Phoenician and Greco-Roman type, and among the Jukun rites pertaining to kingship are of an ancient Egyptian pattern.

From east to west along the coast of Nigeria the occurrence of several linguistic groups may be noted. To the southwest of Cross River live tribes of Bantu speech, while west of these extends an area of Semi-Bantu speech. P. A. Talbot regards the Ijaw tribe, which is situated on each side of the Niger Delta, as typical Negroes who have preserved a pure Negro speech that has existed from ancient times. He states that "Ijaw is the earliest of all the Nigerian languages." This evidence agrees with the postulated forcing of early Negro inhabitants toward the coast.

The Niger divides the Ibo to the east of the river from the Edo on the western bank, and still farther west are the Yoruba. The languages of these tribes are not yet studied in detail but the knowledge that is available supports the theory that the earliest Negro inhabitants are now represented by the maritime tribes.

According to C. K. Meek (I, vol. II, pp. 132-137) there exist more than two hundred and thirty different languages in the Northern Provinces, and of these less than ten are adequately represented in grammars and dictionaries. This statement explains our present difficulty in classifying the languages and using the linguistic groups to support a hypothesis of prehistoric migrations.

In turning to the evidence afforded by physical anthropology the paucity of anthropometric data has to be admitted, yet the photographs show certain fundamental types and their blendings (Plates CXVII-CXLI). These will be more fully discussed in succeeding chapters. Cultural differences, together with the geographical and historical determinants of these, will be examined in chapter V.

A method of culture analysis which showed the existence of several well-defined modes of life in Africa was used by A. de Préville in 1894. Since that time the method has been used by Clark Wissler in delimiting North American Indian cultures, while African modes of life have been classified and examined by M. J. Herskovits and by R. Thurnwald.

The technique of delimiting culture areas and the fallacies that may arise from a too rigid application of the method have been discussed by Carter A. Woods (*Amer. Anthr.*, XXXVI, 1934, pp. 517-523). R. Benedict (*Patterns of Culture*, Philadelphia, 1934, p. 46) likewise cautions that "the significance of culture behavior

is not exhausted when we have clearly understood that it is local, man made, and hugely variable. . . . It tends also to be integrated. Cultures are more than the sum of their traits."

Admittedly, analyses of cultures may give rise to generalizations of dubious value, and the method may be too static. Moreover, human nature, considered both individually and collectively, is determined by many variables, some of which, for example, those concerned with motivation, conflict, and adjustment, are not well understood socially or psychologically. Therefore, the geographical and historical method used here for Nigeria as a whole is no more than a preliminary approach to future research concerning the tribal behavior and the social institutions of smaller geographical and ethnic units.

HISTORY OF THE NORTHERN PROVINCES

Ethnologists are not entirely dependent on the inferential testimony of languages, somatic traits, and culture distributions. The Arabic manuscripts of Ibn Edrisi, Ibn Batuta, Ibn Khaldun, and Leo Africanus give valuable evidence respecting conflicts, the rise and decline of Sudanic empires, trade routes, and migrations. These data have been critically examined by Sir H. R. Palmer, M. Delafosse, and E. W. Bovill, whose work entitled "Caravans of the Old Sahara," is an excellent summary of historical facts from the seventh century onward. C. Monteil has examined the archaeological and historical evidence connected with Djenné, an ancient Sudanese city.

Ghana (Kumbi) appears to have been the most ancient political center of the western Sudan. Founded about the third century of the Christian era, the state owed its power to non-Negro tribes who flourished until the middle of the thirteenth century, when Ghana was razed by Mandingo conquerors.

The state of Songhai in the bend of the Niger had as principal towns Kukia, and later Gās. During several centuries the states of Ghana and Songhai flourished simultaneously, with the latter in a secondary position of strength and political influence. The rulers of Songhai are thought to have been of Himyaritic, Libyan, or Nilotic extraction. Much of the history of Songhai is intimately connected with the powerful kingdom of Melle built up by the Mandingo. Melle reached an acme of power in the period 1308-31, at which time the empire covered the whole of the western Sudan including the state of Songhai and the Tuareg town of Timbuktu.

Ibn Batuta, who visited Melle in 1352, makes clear that the Melle empire was the most important political, religious, and commercial center in the Sudan. Even today some settlements of Kano, Katsina, Zaria, and Bauchi, all of which are in Nigeria, are traceable to the influence of Melle, which was an unrivaled stronghold of the Mohammedan faith.

By the end of the fifteenth century Melle had been overthrown and had been succeeded by Songhai, which in turn was devastated in 1591 by a large army from Morocco. E. W. Bovill's account (I) of the Moorish invasion describes the way in which El Mansur set out from north Africa in the year 1581. The great wealth of the western Sudan was well known to Mediterranean peoples, but the Sahara Desert was a natural barrier separating the two regions. Between Morocco and Songhai keen rivalry existed for the salt mines of Teghaza. Of the march of Mansur's army across the desert details are lacking, but the enterprise must be classed with the great military achievements of history. Bovill's summary of events describes the attack on Songhai, the defeat, and partial recovery of the Songhai empire; also the final overthrow.

The struggles of these rival kingdoms of the western Sudan emphasize the importance of geographical factors in the building of empires. From the bend of the Niger to Lake Chad no obstacles prevent a free movement of horse and foot soldiers, camel corps, and transport by oxen; therefore, military operations were not impeded except by intermittent drought.

Synchronizing with this rise and fall of empires in the western Sudan, similar political, racial, and cultural movements occurred far to the east, in the neighborhood of Lake Chad. At one time Kanem was a center of political power which later became known as Bornu. Probably Kanem was an incipient kingdom in the period A.D. 800-1100. El Bekri had heard of Kanem in the middle of the eleventh century, and in the thirteenth century Ibn Said refers to Bornu as forming part of the Kanem empire. The empire of Bornu was engaged in combat with the So, a tall race of Nilotic invaders possibly having some resemblance to the present Jukun.

The rise, consolidation, and expansion of Bornu have formed one of the most important chapters of Nigerian history. Gradually Kanem became a subject province, and following this, expeditions were successfully launched against the Tuareg of Asben, likewise against Hausa strongholds in Kano, Sokoto, Katsina, and Daura.

After discussing the evidence afforded by the Asben Chronicle and the Katsina Manuscript, with due regard to equivocal evidence respecting dates, and the names of people and places, Palmer (V, vol. III, p. 95) states: "The central fact is that about A.D. 1000 the Hausa states were occupied by Barbar races (Beri-Beri) coming from the east and the north. These races ruled, though at different periods, and as tributaries to Songhai and Bornu, until displaced by the Fulani in 1807. . . . The name Hausa is the one by which the Barbar of the Sahara, who were the conquering races possibly under Egyptian, and later Arab influence, knew the Sudanese Negroes."

At the beginning of the nineteenth century Bornu was a well-organized and powerful state which maintained prestige notwithstanding a temporary conquest by the Wadaians, who were eventually defeated. Omar ruled as Shehu of Bornu until his death in 1880; consequently, he became acquainted with the explorers Barth, Vogel, Rohlfs, Richardson, and Nachtigal. The origin of the present-day Kanuri tribes of Bornu is not known, though they probably entered Bornu in the fourteenth century. The Keri-Keri are a modern branch of the tribes who developed into the Kanuri, while the Bolewa, a ruling tribe near Potiskum, arrived with the pre-Kanuri (Plates CXXVII, CXXXIV).

The date 1814 is important because of the founding of Kukawa, the new capital of Bornu, a city which was later (1893) destroyed by Rabeh, a conqueror from Kordofan. Rabeh made his new capital at Dikwa, where he continued to rule and pillage until defeated and killed by French forces in the year 1900. The political significance of Rabeh's exploits has been described by M. F. von Oppenheim.

The Fulani, who are known in various parts of west Africa as Fulas, Fulbe, Fellata, and Peule, have played an important part in the history of Bornu and other parts of Nigeria. The ethnological affinities of the Fulani are undecided. They appear (Plates CXXXV, CXXXVI) to have a distinctly Berber-like appearance, and the features of some individuals are of an Armenoid type. Palmer favors the hypothesis of an origin which includes a mingling of Jewish, Arab, and Zaghawa (Cushite) blood. C. K. Meek believes that the Fulani may be an ancient Libyan (northern Hamitic) tribe. Delafosse has a theory of Judaeo-Syrian origin, but most ethnologists agree on the Hamitic affinities of the Fulani, both somatically and linguistically, though the speech is probably an early form of Hamitic.

Despite the doubtful origin of the Fulani, their function as makers of Nigerian history is clear in outline. The Fulani penetrated Nigeria peacefully and gradually from the thirteenth century onward. But this settlement as pastoral people was followed by a demand for political power. To a great extent the Fulani are nomads, yet they settled and concentrated their forces sufficiently to establish their foci by conquest.

In 1808 the Fulani subdued the Hausa states, after which they unsuccessfully assailed Bornu. The nineteenth century history of the Yoruba and the Nupe of southern Nigeria is concerned with their struggle to keep out Fulani assailants. Between 1817 and 1823 Ilorin was added to the Fulani empire, which comprised several loosely confederated states, all of which paid tribute to the Fulani of Sokoto. The Fulani empire experienced internal rebellions, civil wars, decline of the Islamic fervor that had been an incentive to conquest, and a breaking down of military organization. The final overthrow of the Fulani states was effected by the British Government, which took action in the period 1900-1903, after the Royal Niger Company had defeated the Fulani rulers of Bida and Ilorin.

This outline of historical events emphasizes the importance of the following facts:

(1) There was a constant drift of Hamiticized peoples from the east of Africa to the province of Bornu in northeast Nigeria.

(2) Invasions from the Sahara occurred. The intruders came from Barbar and Semitic tribes of Morocco, Air (Asben), Tibesti, and Bilma.

(3) The invaders established great empires in the western Sudan, and from the eighth century onward Mohammedanism became a political and social factor that stimulated warlike enterprises.

(4) The rivalry of the empires of the western Sudan led to fluctuations of population, establishment of foci of culture, and migration of religious, social, and economic cultural traits.

(5) Great cultural and political pressure was exerted from the north of Nigeria on the southern provinces.

HISTORY OF THE SOUTHERN PROVINCES

The migration of Negroes from east to west Africa has, according to hypothesis, formed a physical, linguistic, and cultural foundation best seen in the Ijaw, Ibibio, Ibo, Munshi, and Ekoi. On this

substratum of Negro culture new physical, linguistic, and cultural elements have been imposed. These traits, added to the basic layer of Negro culture, are most clearly seen when studying the Yoruba, Nupe, and Jukun tribes. Furthermore, within the Yoruba culture, highly specialized local cultures such as those of Benin, Ife, and Oyo have developed. The city of Bida represents a cultural focus of this kind which is typical of the Nupe civilization. Wukari is a center of Jukun culture, which according to the views of C. K. Meek has borrowed cultural elements from Egyptian civilization. However, the borrowed elements may be generically Hamitic and not specifically Egyptian.

Although the civilization of the Yoruba has its distinguishing marks there would be no difficulty in showing well-defined cultural relationships between Ashanti, Dahomey, and Yorubaland, whose cultures have had their foci at Kumasi, Abomey, and Benin respectively. Such relationships are made clear by comparative study of Rattray's "Ashanti"; Dalzel's "History of Dahomey"; Skertchly's "Dahomey as It Is"; Le Hérisse's "L'ancien royaume du Dahomey"; Johnson's "History of the Yorubas"; and Herskovits' "Outline of Dahomean Religious Belief."

The history of the Yoruba is a long and complicated story having three main aspects; namely, warfare with Dahomey, civil warfare among the main centers of Yoruban power and culture, and strife against northern Mohammedan invasions. To these events might be added resistance to European intrusion.

An examination of cultural traits which give the Yoruba civilization a distinctive pattern is made in chapter V. Talbot (I, vol. I, p. 19) attributes the features which distinguish Yoruban culture from that of other west African Negroes to the influence of racial and cultural elements from the Nile Valley. A succession of migrations from the northeast appears probable, the hypothetical sequence being early Yoruban, Nupe, and Jukun at undated periods. The cultural and racial intrusions of a non-Negro character are attributed by Talbot to disturbances in Egypt at the time of the Hyksos invasion, about 1800 B.C.

S. Johnson outlines four periods of Yoruba history. A long mythological period is represented in oral traditions kept by the king's officials who have charge of genealogies and historical records. These data comprise an almost inextricable confusion of fact and fable. There exist in the records accounts of different persons with the same or similar names, and different names are given to one

person. Neither can place names be satisfactorily identified with present-day localities. The mythological period was succeeded by one of growth, prosperity, and consolidation. Then came a long political decline marked by internal strife, revolution, and disruption. This desiccation of tribal life was at times relieved by partial recovery, and finally a period of European conquest prevailed.

The cultural significance of historical events is clear, though only the main outline of events is beyond dispute. Cultural contacts have been those of intermittent warfare with the Fulani, with Dahomey, and against Europeans; and as a result of these activities centers of culture and political administration were established. Benin at one time extended a cultural and military control from the region of Kotonu in Dahomey to the Bonny River. S. Johnson states (p. 15) that Yoruban control formerly extended as far as the Gās-speaking people of Accra. The Gās state that their ancestors came from Ife in southwest Nigeria, and in support of this statement it may be said that the structure of the Gā language is more like Yoruba than Fanti. Until recent times Popos and Dahomeans paid tribute to Oyo as a suzerain town, and there is no doubt that the Yoruban king Oranyan pushed his conquests far beyond the present limits of Yoruban territory.

The establishment of new kingdoms from strong foci is illustrated by the founding of the Jekri kingdom in 1480, when a son of the Obba of Benin took refuge in a part of the delta region which he and his descendants subsequently ruled. Therefore, according to historical evidence, the sequence of events in southern Nigeria was analogous to the processes noted for the Northern Provinces. Foreign intrusion of non-Negro elements stimulated growth of some Negro communities and forced others into a state of isolation. Those who absorbed the new blood and culture were consolidated both politically and culturally. Then followed the rise of political foci from which military and cultural conquests were made. Meanwhile from the fifteenth century onward European influence was gaining ground in a manner that will be realized from consideration of the main facts of European exploration, the founding of trading companies, and finally a formal assumption of European control.

EXPLORATION

Reference has been made to the writings of early travelers of Arab and Berber extraction, and to the works of Arab historians and geographers who compiled and summarized the contributions

of their predecessors. The observations of Leo Africanus, correctly named Al-Hassan Ibn Mohammed Al-Wezaz Al-Fasi, are very important in relation to the history of the great kingdoms of the Niger and Nigeria. But earlier accounts of Ibn Batuta (1325-54) and his precursors of the period A.D. 700-1300 help to show the cultural and historical significance of the towns of Agades, Timbuktu, Gao, Kano, and Katsina, and the province of Bornu.

Leo Africanus was born in Granada about the year 1494, and for three centuries his writings endured as the principal authority on north and west-central Africa. Leo Africanus traveled extensively in Morocco, Algeria, and the Rio de Oro. Even today the Rio de Oro is imperfectly explored owing to marauding bands, drought, and paucity of population. Africanus crossed the Sahara from the north and reached Timbuktu at the bend of the Niger, whose course was then unknown. He traversed an easterly route through Kano to Bornu, then continued to the south of Lake Chad. Despite the value of the records of Leo Africanus he made the serious error of stating that the Niger flowed from east to west.

Exploration of Nigeria has been made from three main directions, north from across the Sahara, west by way of the Niger, and south up the creeks of the Niger Delta. In 1799 Hornemann, who was sent from Tripoli by the British African Association, succeeded in crossing the Sahara, but later lost his life in the desert. From Tripoli (1821), Denham, Clapperton, and Oudney crossed the Sahara between Murzuk and Bornu on the line 15° E. Long., a route that led through the salt-producing oasis of Bilma to Kuka on the western shore of Lake Chad. Denham explored the Shari River and Lake Chad region, while Clapperton visited Sokoto, an excursion that cost the life of Oudney. Ensign Toole, who accompanied Denham on his journey near Lake Chad, succumbed to fever, but the survivors, Clapperton, Denham, and Hillman reached Tripoli in 1825. Their diaries have contributed historical and ethnological facts concerning the Hausa kingdom of Sokoto, the rising power of Bornu, the Baghirmi, the Fulani, and the desert routes passing through Bilma and Tibesti.

After severe hardships and a narrow escape from death at the hands of robbers, Major Laing succeeded in reaching Timbuktu in 1826, where he was followed two years later by René Caillié. The former explorer lost his life at the hands of desert marauders, but the latter returned safely to France.

In the year 1850 Richardson, Barth, and Overweg left Tripoli to travel southward through Murzuk, from which point they crossed the desert to Asben, where valuable notes were made in the city of Agades. The scientific observations made during this expedition, which cost the lives of Richardson and Overweg, are contained in James Richardson's "Narrative of a Mission to Central Africa, in 1850-51," and Barth's "Travels and Discoveries in North and Central Africa." Barth's command of Arabic and Hausa, combined with his incomparable courage, physical strength, and persistence, resulted in the publication of five volumes dealing with the history, languages, cultures, and biology of the French Sudan, northern Nigeria, and the trans-Saharan route. At Kuka near Lake Chad, and elsewhere, Barth came into contact with Vogel, who had been sent from England in charge of a relief expedition. Barth himself penetrated to the province of Yola in eastern Nigeria.

F. G. Rohlfs was prepared for his arduous desert journeys by service in the French Foreign Legion, in which he enlisted in 1855. He was the second European to reach Tafilet, where he was robbed, but although left as dead he revived and traveled to Algeria. In 1865 Rohlfs left Tripoli, journeyed through Ghadames and Murzuk, thence to Bornu. He reached the Benue by the Bauchi highlands and followed the course of that river to its junction with the Niger, which he ascended to Rabba. From that point he journeyed to Lagos, passing through Ilorin in 1867.

Two years later (1869) Gustav Nachtigal set out from Tripoli, visited Tibesti and Borku, then continued to Baghirmi south of Lake Chad. From that region he turned east and, after traversing Wadai and Kordofan, reached Khartum (1874). The record of this journey is contained in "Sahara und Sudan." For political reasons Nachtigal crossed the Sahara a second time to undertake a mission which resulted in the addition of Togoland and Cameroon to the German empire (1884). Nachtigal died near Cape Palmas on his return journey by sea. To this period of exploration belongs the journey of Oscar Lenz (1879-80) who crossed the western Sahara from Morocco to Timbuktu by a route little known to ethnologists and geographers at the present day.

The Foureau-Lamy French expedition across the Sahara to Lake Chad opened a new era of modern enterprise. To this recent period belong the journeys of H. Vischer (1908), A. H. W. Hayward (1909), Angus Buchanan (1922), Haardt and Dubreuil (1924), and Lieutenant Cameron (1926). Such crossings have made contributions

to botany, zoology, and ethnology. F. R. Rodd, who accompanied Buchanan, remained in Air for ethnological work among the Tuareg, whose culture he describes in "People of the Veil." Two noted recorders of Tuareg life are C. de Foucauld and H. Duveyrier. The ethnology of Tibesti, Bilma, and Fachi has been inadequately described. But an article by P. Noel is a valuable though brief outline of the social life and physical anthropology of the Teda and the Tibbu of Tibesti.

The most important journeys of exploration toward Nigeria from the west of Africa were those of Mungo Park, whose expeditions were sponsored by the British African Association formed in 1788. After suffering great hardships between Gambia and Segou, on the Niger, Park returned to England in 1797 leaving the course and outlet of the Niger an unsolved problem. A second expedition in 1805 ended in the death of Park and his companions at the Bussa Rapids. Peddie (1816), Major Gray, together with Dochart (1818), and Park's son, who went in quest of his father, laid down their lives in some unknown way while following the western approach to the Niger.

The earliest contacts of Europeans with southern Nigeria were made by the Portuguese toward the close of the fifteenth century. Sequira visited Benin in 1472, but not until 1553 did the British make contact with this city through the enterprise of Windham and Pinteals. About ten years later Sir John Hawkins was engaged in the slave trade near the Nigerian coast. Then followed a great expansion of coastal and hinterland trade in which English, Portuguese, French, and Dutch vessels took part. Reports concerning this early stage of European trade have been made by Dapper (1688), van Nyendael (1702), Landolphe (1778), Fawckner (1825), Beecroft (1851), and Burton (1862). These accounts have been summarized, and a bibliography has been provided in H. Ling Roth's "Great Benin."

In 1896 Acting Consul-General Phillips decided on a mission to Benin, although advised by both Europeans and the Obba of Benin not to enter the town because important festivals were in progress. The Consul left Sapele in January, 1897, and within two days the expedition was ambushed and annihilated with the exception of two Europeans, Locke and Boisragon, along with some native followers. The punitive expedition which sacked Benin thirty-four days later brought away treasures of ivory, bronze, and wood-carving, unfortunately with only a meager account of their ethnological importance.

Commander Clapperton, who had accompanied Denham and Oudney on the north Nigerian and trans-Saharan expedition of 1821, reached the Bight of Benin in 1825 accompanied by Pearce, Morrison, Dickson, and Richard Lander. The only survivor of this expedition was Lander, personal servant of Clapperton. To Lander fell the honor of discovering the outlet of the Niger on a later expedition. On landing in 1825 Clapperton was disappointed when he failed to meet an escort promised by Sultan Bello of Sokoto, who was too busily engaged in warfare to fulfil his promise. Clapperton proceeded north from Badagry through Oyo and Yauri to Kano and from there to Sokoto, where he died in 1827.

Lander returned to England, where he obtained a small grant from the British Government. Then again he sailed for Nigeria, where he landed in 1830 accompanied by his brother John. The brothers set out on foot for Yauri, and the chief of that place provided dugout canoes for their journey down the Niger to its estuary. Without remarkable adventures they passed the junction of the Benue and the Niger, then continued south, finally landing at the port of Brass. This river voyage solved the problem that had exercised the minds of geographers from the time of Herodotus (500 B.C.).

The ill-fated Nigerian expedition of 1841 has been described by W. Allen and T. R. H. Thomson, who were accompanied by 145 scientists, missionaries, and commercial men. Of these, one-third fell victims to malaria fever. Mr. McGregor Laird, who had led an expedition to the lower Niger in 1830, opposed the venture of 1841 and foretold disaster. The failure and distress of this expedition discouraged further attempts until 1854, when Laird organized an investigation which yielded commercial and scientific results without loss of life. Under the command of W. B. Baikie the *Pleiad* ascended the Niger as far as the junction of the Benue, which was explored for a distance of two hundred and fifty miles. Governor John Beecroft of Fernando Po, who had labored incessantly in exploring the Nigerian coast and the hinterland, died at the time he was commissioned to take charge of Laird's expedition of 1854.

From this time onward the history of exploration and development is concerned with the rise, competition, and amalgamation of trading companies, to which administrative functions were delegated. Apathy of the British Government, combined with jealousies, political and commercial, between England, Germany, France, and Holland,

added to the dangers and uncertainties caused by warfare among rival Nigerian chiefs.

Despite political duties,¹ adverse climate, and the hostility of natives, some British officers were able to make exploratory journeys that were of geographical and ethnological value. In 1879 J. Milum described the industries and customs of the Nupe of Bida. In these early journals no complete ethnological study is given. On the contrary, information has to be gleaned from many articles, each of which gives miscellaneous items of anthropological interest. Sir A. Moloney made notes on the Yoruba. R. B. Batty described sacred groves and the ceremonial use of bull-roarers. Further information respecting Nigerian towns that had made few contacts with Europeans is recorded by Alvan Millson.

Diaries of traders may furnish ethnological notes, which, in the absence of systematic research, are useful additions to our knowledge of indigenous customs. "Life on the Niger," a diary of W. Cole, calls attention to social and religious customs of Onitsha. Conclusion of peace between native rulers was marked by the slaying of an albino (p. 14). The manufacture of palm-oil, human sacrifice, the use of a slave as a seat, and the observance of a food taboo against eggs are mentioned. Decorating a woman's back with painted patterns that were later incised, the wearing of large ivory anklets, each weighing twenty-two pounds, making cakes of potash, ceremonies observed at the birth of twins, and the treatment of boys at initiation, are described.

The journey of Lieutenant Boyd Alexander in 1904 was of a general exploratory nature, yet he passed through large tracts of unknown country and amassed information respecting many tribes which have not been thoroughly studied even at the present day. His route was up the Niger to Lokoja, situated at the junction of that river and its main tributary, the Benue. Boyd Alexander then passed through the Munshi country, the land of the Jukun near Wukari, and the Bauchi plateau, whose tribes are still imperfectly known. This explorer described Bornu and the region of Lake Chad with special reference to the Buduma. He continued through French Equatorial Africa to the Nile.

This brief summary of historical events and inferential testimony derived from physical anthropology, archaeology, and languages, establishes certain basic facts which require further comment.

Geographical determinants have played an important part in historical developments, including migrations, warfare, and types

of culture, but archaeological data are too fragmentary to do more than suggest that foreign intrusion affected Negro culture locally. Various types of stone buildings and artifacts are not yet historically explained.

The study of languages and physical traits supports a current hypothesis of Hamitic and Semitic invasions from the north and northeast of Africa. These incursions always tended to sequestration of pristine Negro tribes, either in inaccessible plateau regions or in dense tropical forest, both of which situations were less favorable than the open parklands.

Mohammedan influences, social, religious, political, and economic, have been profound. European exploration has led to a situation in which foreign control of indigenous institutions has raised problems relating to general administration. These problems include questions of health, education, native labor for Europeans, and the general adjustment of indigenous cultures to European requirements.

In the following chapter a detailed account of Nigerian industries is given with a view to showing the relationship of these to an aboriginal Negro culture, Mohammedan invasions from north Africa, and European intervention.

IV. INDUSTRIES

INTRODUCTION

At the beginning of the journey into Nigeria discouraging accounts were given with regard to the influence of European importations on native crafts; and to some extent indigenous industries *are* affected by European contacts. But, notwithstanding imitation of European objects, and a growing importation of manufactured and raw materials, the native industries of Nigeria repay the effort of collecting and study. The innate skill of Negroes and the advanced development of native crafts have an important bearing on the founding of industrial schools and the nature of the training given there.

In addition to the interest that centers in technical processes, problems of invention and diffusion are closely associated with a study of handicrafts. Some forms of art, for example, the decoration of gourds, are of local and perhaps independent invention, but other artifacts have a wider range which depends on culture contacts, migrations, the presence of raw materials, and the needs of the inhabitants.

Elaborate wood-carving is typical of forest regions where various timbers are plentiful, as, for example, in the Southern Provinces. Here religion, with its demand for masks and figurines, has proved an incentive to the wood-carver's art. In the Northern Provinces, on the contrary, absence of timber, combined with Mohammedan influences that discountenance the carving of wooden figures, has rendered the wood-carver's occupation unimportant. But use of horses and camels in northern regions has stimulated the crafts of blacksmiths and leather workers. Determining factors of this kind will be recognized in describing Nigerian industries and in studying culture patterns.

The industries of Benin have been of such importance as to require description apart from Nigerian handicrafts in general. The arts of the city, chiefly casting in bronze, wood-carving, and ivory-carving, had reached their zenith when Europeans arrived, at the end of the fifteenth century. Fostered by the king himself, who retained workers in the royal compound, and closely associated with religious observances, several handicrafts had attained a degree of excellence which has not been surpassed in any part of the world. The growth and decline of Benin illustrate the operation of several cultural processes, including the formation of craft guilds, the

founding of foci from which cultural influences spread, and the decadence that begins under an unsympathetic foreign intrusion which interferes with the liaison between art and religion.

Bronze-casting is of exceptional interest because of the unknown origin of the lost-wax process. There is a definite west African distribution of this technique on the Ivory Coast, in Dahomey, Ashanti, Nigeria, and the Bagam area of the Cameroon. The method of work is essentially the same in all these centers, though the products of each locality are distinguishable by their forms. L. W. G. Malcolm's statement (III), that the chief of Bamum described the art as an adoption from an invading people from the northeast, agrees with all that is known and surmised about the drift of tribes and cultural traits in north and west Africa.

The hypothesis that bronze-casting was introduced into Benin by the Portuguese now finds no supporters, though some years ago G. H. Pitt-Rivers (Introduction, p. iv) said that "the works represent a phase of art of which there is no actual record, although no doubt we cannot be far wrong in attributing it to European influence, probably that of the Portuguese somewhere in the sixteenth century."

Bronze staffs pictured by Pitt-Rivers (Plate XI, Figs. 66-72) establish a point of cultural resemblance between Benin and Ife. The staffs illustrated by Pitt-Rivers are like those now in use by priests who are custodians of a sacred grove at Ife (Plate CLIV, Fig. 1). P. A. Talbot (IV, vol. I, p. 157) states that up to the time of Portuguese intrusion most of the Benin bronze-casting came from Ife, but from that time, and owing to the large quantity of metal provided by the Portuguese, the greater part of the work was done in Benin. This sudden European impetus to the casting process at Benin may have given rise to the hypothesis that casting owed its beginning to the Portuguese.

The west African distribution of the lost-wax process renders a number of independent origins unlikely, since the places of occurrence lie on a line of racial migrations that are more than a conjecture. Flinders Petrie (p. 98) calls attention to the beating of copper vessels in predynastic Egypt. A life-size statue of King Pepy, with hands and feet cast by the lost-wax process, provides an example of casting in the ninth dynasty, and archaeological evidence indicates that bronze was cast by the lost-wax process in dynasty XVIII, about 1600 B.C.

Copper and tin are found in Nigeria; therefore immigrants had the raw material for continuing their craft. And even if a knowledge

of casting were introduced into west Africa by Arabs as late as the eleventh century, ample time for perfecting the industry would have been available before the arrival of Europeans.

The studies of F. von Luschan (I) and E. von Sydow, based on a stylistic and chronological classification of objects from Benin, lead to the conclusion that the art of casting bronze had attained its zenith before the arrival of Europeans. Luschan calls the period from 1500 to 1600 the Great Age. It was mainly concerned with the casting of bronze heads, though the molding of bas-reliefs had begun. In the second half of the seventeenth century the art had passed its prime, but the output was varied and of good quality; the cast objects of this period include snakes and cocks. By the eighteenth century the casting showed insufficient technique and "a meaningless lack of expression. The actual type was not changed but the work lost its inherent power."

Brass-casting of the year 1930 as carried out by boys of the trade school, which is supervised by the Obba of Benin, represents the latest stage in a decline of the art of casting, which has now lost almost all the former social and religious incentive. Yet the technique is creditable, and I was able to obtain a series of objects illustrating the processes of modeling in wax, the use of molds, and the finishing of objects by filing. The articles were chiefly of European form, though the brass bell is of the type used on the ancient altar (Plate XCIX, Figs. 1-10).

I was received by the Obba of Benin near the courtyard in which the altar is erected. The photograph (Plate CXV, Fig. 2) shows a retention of rites and objects that are mentioned in reports of early European visitors to Benin. The Obba advanced under a large colored umbrella carried by a servant, while seven naked boys acted as an escort. One of these boys bore a large scimitar held upright in his right hand, while his left arm was bent across his body to support the arm that was holding the sword. The executioner's sword was photographed by Punch in 1892, and his picture is reproduced in Ling Roth's "Great Benin" (Fig. 165, p. 168). The corps of naked boys (*Ohunuse*), some of whom are in attendance either by day or night, is chosen from the Ibiwe and Iwegwe societies (P. A. Talbot, IV, vol. III, p. 546).

The Obba led the way to the altar, for the description of which I am indebted to the Resident in Benin City. The account was prepared in the year 1924 by Mr. H. N. Nevins, District Officer of

Benin Division. The data are valuable as a record with which future observations can be compared. Mr. Nevins reports as follows:

"The shrine is situated in a courtyard measuring 51.85 x 30 m. This courtyard is surrounded by a red mud wall approximately 4.6 m. in height. The wall is roofed all round with galvanized sheets, forming on three sides a verandah about 1.8 m. deep, which is provided with a mud seat about 30 cm. high and 60 cm. wide. The fourth side has a wider roof and the verandah is 3.10 m. deep, the floor being built up 40 cm. above the level of the courtyard and cemented.

"In the center is a slightly raised platform of cement 8 m. long, 3.15 m. wide, and 10 cm. high. In the middle of this is erected the pedestal which accommodates the various objects. This pedestal is of red beaten clay, and is in shape roughly half an oval; it is 45 cm. high in front, and slopes down to a height of 40 cm. at the back, where it is built against the carved Iroko plank which stands at a slight slope against the back wall of the yard. This wall, like the other walls, is of red mud 4.6 m. in height, and ribbed with parallel, horizontal grooves about 4 cm. deep and 5 cm. apart. Two steps extending the length of the raised platform lead up to the shrine; they are of cement, 25 cm. high, and 8.2 m. long."

According to Ling Roth (III) the ditch around Benin was the work of Oguola, the fourth king. The ditch was not made for defense, but as a monument that should remind the people of the king, after his death. The density of vegetation now filling the moat is shown in Plate CLIV, Fig. 2. The city wall has been built of earth from the moat. The height of the wall is about 9 m., with a breadth of 21 m. at the base.

The contents of the altar, which is difficult to photograph because of its situation in deep shade, are but a remnant of its former equipment, which has been described by several visitors of the eighteenth and nineteenth centuries. The observations of these explorers have been summarized by Ling Roth (I, p. 236, and III, p. 79).

In the year 1702 van Nyendaël observed eleven tusks on the altar, a number which had slightly diminished by 1820, when the altar was described by Lieutenant King. In the year 1930 no tusks remained on the altar, and the total equipment of the structure consisted of seven long wooden staffs centrally placed at the back, so that they leaned against the wall; six cast-brass bells; two heads of brass or bronze, apparently recently made; and a central human

figure of brass or bronze. This central figure was supported in the traditional way by two smaller figures, one on each side.

Ling Roth discusses the question of sacrifice and sprinkling the altar with blood, a custom about which the evidence is conflicting. Animals are killed at the base of the altar at the present time. The steps are spotted with blood, and the objects on the shrine are sprinkled.

In the crafts school (Plate CXV, Fig. 1) only two tusks were being carved. The artisans were boys who carefully cut the surfaces with sharp knives, so making the designs which are familiar on old tusks; as, for example, the *Obba* supported by two attendants. These well-known designs were carved on wooden plaques. A boy trained in this school carved a kneeling human figure (Plate XCIV, Fig. 5).

Innate manual dexterity is present, but old forms of art cannot be revived in the absence of the religious ideas and ritual which formerly proved an incentive. In addition to this the old craftsmen formed guilds in which industrial technique was conserved and transmitted from father to son. But such guilds are either absent or they now lack their former pride and exclusiveness.

METAL WORK

The casting of objects in brass was mentioned in connection with present-day industries of Benin, whose degenerated products of the lost-wax process, together with similar articles from Kano, form the stock-in-trade of many Hausa traders.

Although beaten brass work is made at Old Calabar, perhaps Bida should be regarded as the principal center for this kind of work. The tools used are of a simple kind, including punches and files of native make fitted into wooden handles. The bellows consist of a hide bag having a tapering wooden nozzle, and a pumping arrangement made by alternately opening and closing two slats of wood at the wide end of the bag. According to Frobenius (III, Heft 1, Blatt 4) this type of bellows has a distribution over the whole of east Africa, Algeria, Morocco, and the western Sahara.

The engraving tool is an iron instrument 8 cm. long, of slender construction, tapering to a point only 0.2 cm. across. With this implement and a small hammer for tapping it, objects of beaten brass are remarkably well decorated with punched designs of complicated but symmetrical geometrical figures. Brass is obtained in some measure from cartridge cases, but probably the greater quantity is bought from traders' stores.

For making trays sheet brass is imported from Birmingham, England. Yet this importation does not render the craft uninteresting, and the native designs are worth recording (Plate XCVIII, Figs. 1-7). The brass that was beaten for demonstration was cold; consequently, the work of the two smiths who hammered the metal was arduous.

Brass artifacts of Nupe workmanship from Bida are readily classified into two groups; namely, articles made for native use, and those made for Europeans. Among the former may be mentioned brass-hilted arm daggers; in some examples the whole scabbard is of brass, which is well decorated with punched designs. A spouted vessel, somewhat like a coffee pot, is used by a servant who pours water over his master's hands before prayer. The receptacle for kola nuts, which are of considerable importance in hospitality and ritual, is an object of native conception and execution. Brass ladles appear to be an imitation in metal work of the gourd ladles ordinarily used. Brass instruments employed by Yoruba and other women when dressing one another's hair, are restricted to native use.

Brass trays of various shapes and sizes are probably the most numerous of articles made for Europeans. Oval and round forms predominate, the depths vary considerably, and in some instances the descent from the edge of the tray to the bottom of the well is beaten out with great skill in three ledges.

Punched designs comprising ovals, circles, floral motifs, and an overlapping pattern like a figure eight are all of excellent technique. The decorations show careful planning of the parts in relation to the area to be covered, and there is no confusion in the intricate overlapping designs.

Brass bowls, each made from a single sheet of metal, are a special feature of the craft. Among these objects the octagonal bowls, with sides sharply demarcated, and of equal dimensions, are of exceptional merit. The making of brass needles in imitation of European forms is a modern development of the brass worker's art. Spouted vessels indicate a knowledge of soldering since they are made in four pieces which are later soldered together, after which the handle and spout are welded to the body.

A study of iron-working in Nigeria raises problems of origin, diffusion of technique, and ritual, in connection with which an extensive bibliography exists, but unfortunately the question of origins, whether single or multiple, and the routes of diffusion has so far proved indeterminable. Smelting and working of iron may

have been indigenous to African Negroes, from whom a knowledge spread to the Nile Valley. But the contrary has been argued; namely, an origin in Egypt and a diffusion over the remainder of the African continent. The evidence of iron-working in various parts of Asia, and the introduction into Africa by the agency of Egyptians and Hamitic immigrants has likewise been considered. The claims of these theories may now be summarized.

In western Asia are situated two districts where iron ores are found, and here may be seen the remains of an early iron-working industry. These areas are near the southeast of the Black Sea and the Taurus Mountains. It is recorded that Ashur-nasir-pal, 860 B.C., obtained iron ore in the neighborhood of Carchemish. In the ruins of the Palace of Sargon, dated 710 B.C., Victor Place found iron bars and finished articles such as chains and bits for horses. Since the manufacture of these articles implies considerable practice, there may be reason for assuming that the Assyrians were familiar with the forging of iron as early as 2000 B.C.

- Metallurgy of iron was known in southern India by 1000 B.C. and at an earlier date in the Punjab. The smelting furnace used by hill tribes of the Ghats is analogous to prehistoric furnaces of the upper basin of the Danube. The furnace consists of a cylindrical shaft of clay with blast holes at the base, and smelting is accomplished by laying in this clay furnace alternate layers of iron ore and charcoal. This is also the African method (W. Gowland, pp. 281-282).

- In Egypt iron was scarce up to 800 B.C. and to infer an early knowledge of working in iron because of the mere presence of iron objects in dynasty VI may be unwarranted. Iron was introduced into the south of Palestine about 1350 B.C. and furnaces were made about a hundred and fifty years later. Not until Coptic times in Egypt (A.D. 100-300) was there a free use of iron for making knives, chisels, hooks, hoes, and other objects of daily use (W. M. F. Petrie, p. 104, and *Ancient Egypt*, 1927, p. 5).

Diffusion is simpler than independent invention. Africa is easily accessible from Asia, and immigrations into Africa by way of the Sinai peninsula have been frequent. Therefore there are grounds for favoring an Asiatic origin of the iron-working industry. But on the contrary, if one should agree with Luschan (II) that Negro tribes of Africa originated the iron industry, which then spread through Egyptian agency to Europe and Asia, one would have to admit the diffusion of a cultural trait running counter to known lines of racial movement, since immigration has been principally

from Asia into northeast Africa. This may be possible, but usually a drift of traits is in the direction of human migration.

In view of the evidence for an early Asiatic knowledge of iron-working, and the late appearance of the craft in Egypt, one might more reasonably ascribe the introduction of iron-working to Hamitic immigrants, but the objection is that these pastoral tribes despise handicrafts. The Hamitic theory suggests that iron-working may have spread in three main directions; namely, up the Nile Valley, down the east side of Africa, and westward across Africa over the open tract to the north of the Congo forests. Consideration of ritual in connection with the blacksmith's craft in Africa, combined with a comparative study of the tools and methods of smelting and forging, favors the idea of diffusion rather than independent origin in a number of African centers.

If the late date at which iron was commonly manufactured and used in Egypt is taken as a criterion for the entry of the craft into Africa, there can be no difficulty on the grounds that the industry could not have diffused and developed to the high standard found by the first Europeans who entered Africa.

One of the fundamental points in studying any diffusion is the usefulness of the particular trait under consideration, while another is the presence or absence of the raw materials needed for developing the trait. A diffusion of iron-working in Africa would naturally be hastened by the desirability of assimilating the new craft, which harmonized with human needs in general. Iron ore is accessible near the surface in many areas; moreover, frequent migrations of people have descended the eastern side of the continent and have crossed from east to west.

The fact that Andrew Battell recorded a well-developed iron technique in northern Angola in the sixteenth century, and that Mungo Park described the iron smelting of Kamalia as a flourishing industry in 1795, does not preclude the possibility of a late introduction of the blacksmith's craft into Africa. If iron-working were not known to Negroes until as late as the beginning of the Christian era, it is possible that the craft might have diffused over the whole African continent before European exploration among Negroes began.

My inclination is toward a theory of Negro origin because of the innate industrial skill of the Negro. It is difficult to believe that the Negro, with his aptitude for art and handicraft, could have taken the most important branch of manual work from Hamites, who despise manual labor and treat blacksmiths as a submerged class.

In the discussion of this problem of the origin of the blacksmith's craft (W. Belck, I-IV) insufficient attention has been paid to the possibilities of independent invention. There is no reason why the Negro could not have made primary inventions, including the smelting of iron in a hole in the ground, and the use of a type of wooden bellows with two or four chambers, such as those now used in the Congo area. There is the possibility, however, that Asiatic intrusions brought a new type of conical or cylindrical furnace in which the ore is smelted in layers. And of non-Negro introduction may be the goatskin bag-bellows used in north Africa by the Tuareg of Asben and by some tribes of Nigeria.

A point in favor of the independent origin of iron-working among Negroes is the nature of the ritual, and the similarity of rites in widely separated areas of Negro culture. If it is possible to believe that the Negro received his first knowledge of iron-working from pastoral Hamites of Asiatic extraction, either by way of the Nile Valley or some other route, to whom is he indebted for the ritual which is typically Negro in character? Separation of blacksmiths into closed guilds, initiation, taboos, and the entire setting of the craft is in keeping with the general psychology of Negro art and handicraft, which is described in Rattray's "Religion and Art in Ashanti."

The presence of ritual and prohibition in connection with the blacksmith's craft is too well known to require corroboration by extensive quotation of references. Literature dealing with tribes south of the Sahara seldom fails to mention the special treatment accorded to workers in iron. Frequently the blacksmiths form a caste which does not intermarry with other people, and initiation ceremonies for apprentices are observed. Usually the language spoken by blacksmiths differs from that of surrounding people of the same tribe. Ritual centers in building the furnace, smelting the iron, and consecrating the tools.

Among the Ovimbundu of Angola I recorded that a youth has to serve an apprenticeship of two years, at the end of which time he is made to stand on the anvil during a ceremony for the consecration of tools. All implements presented to the novice are made by the master blacksmith after they have been consecrated by killing a dog and chickens, whose blood is sprinkled on them (No. 2, this volume, 1934, pp. 158-161).

In Nigeria evidence of ritual exists in connection with the blacksmith's craft. At Ife I was taken to a sacred grove in which lie two large stones said to be the hammer and anvil of the first black-

smith, Ogun, who is patron of the craft and at the same time is god of war. Over the anvil were stretched the remains of a dog which had been sacrificed to Ogun; I was informed that such a sacrifice is made twice a year (Plate CLV, Fig. 2). Sacrifice of a dog is the chief ritual act among the Ovimbundu, who kill the animal with the large hammer made by the master for presentation to his pupil; consequently, I found great difficulty in purchasing this tool. A. B. Ellis (p. 68) states that the usual sacrifice to Ogun is a dog, and a dog's head, which is emblematic of this sacrifice, is always to be seen fastened up in some conspicuous part of the workshop of a blacksmith.

When among the Angas tribe near Pankshin I observed that the blacksmith's forge was not in use, and that the thatched hut which was open at the sides appeared to have been unoccupied for a long time. Inquiry shows that the craft in this locality is both seasonal and ceremonial (C. K. Meek, I, vol. I, p. 150).

A Yoruba blacksmith at Iseyin worked in a large hut having six separate fires around each of which several workers were employed. The establishment was under the direction of a master blacksmith who had to be present before any of the tools might be sold.

In this forge the anvil was a square-topped piece of iron provided with a point to be driven into the ground. There were hammers of two kinds, tongs, and fire-rakes. The manufactured objects included broad oval hoe-blades for hafting in wood, razors, and metal instruments used by women for hairdressing. The bellows were of a pattern having a distribution over a considerable part of the Congo region and Angola. Two connected wooden chambers terminated in a narrow wooden nozzle which led into a pipe of clay. Each of two long thin sticks was attached to the goat-hide covering of each of the wooden chambers. The sticks served as handles for pumping air to the fire with a vigorous up-and-down motion (Plates CI, Figs. 4, 8; CL, Fig. 2).

A forge visited at Maiduguri was remarkable for the variety of its products. These included iron shackles, bits, and stirrups for horses; also scissors, tweezers, and iron needles. In addition to these articles the needs of agriculturists and craftsmen were not forgotten. The smith made socketed hoe blades into which wooden handles were fitted; curved and socketed knives for cutting grass; and ax-heads which could be reversed in their shafts so as to be used as adzes. From the Angas of Pankshin I obtained an iron tobacco pipe, 52 cm. long, which had been made at a local forge.

EQUIPMENT FOR WAR AND HUNTING

Of all weapons, swords and knives involve the greatest amount of skilled labor. The cross-hilted sword measuring a meter in length, and the short knife having a leather sheath and arm-band, have a wide distribution from the country of the Yoruba northward to Kano and Sokoto, and across the Sahara. Veiled Buzu of French Niger Territory invariably carry these weapons, which are also common along the eastern road from Kano to Lake Chad, thence across Africa through the eastern Sudan, and as far as the Hadendoa of the Red Sea Province.

Among the industries of Bida the making of swords with silver scabbards is prominent. The weapon could be used since the edges are sharply ground, but the silver scabbards, which are ornamented with punched geometric designs and large, colored, woolen tassels, serve mainly as ceremonial equipment for wealthy men. In Kano market sword makers (Plate CXIV, Fig. 2) carry on their craft apart from the general work of the blacksmith's forge, but at Maiduguri ordinary blacksmiths of the market place were making well-tempered short knives for wearing on the arm. The blades are decorated with punched geometric designs of an elaborate kind, while the making of sheaths of red and white leather is part of the leather worker's occupation. These arm-daggers are extensively used by the Hausa, and by the Buduma of Lake Chad.

The throwing-iron carried by men observed along the road from Kano to Maiduguri, and by the Buduma of Baya Seyarum, has a length of 85 cm. and is of the well-known Baghirimi type used to the south of Lake Chad. Passarge (p. 440) illustrates thirteen types of this weapon. The types of throwing-knives and their distribution in Africa have formed the subject of several important articles quoted in the bibliography. E. S. Thomas has sketched the forms, discussed the line of evolution of one form from another, and mapped the distribution of each type. The F-shaped knife which I acquired is said to be the most prevalent form among the tribes of the Shari region; it is found sparsely in Nubia and among some tribes of the White Nile. This F pattern is used as far north as Tibesti, and Thomas favors a Libyan origin.

Experiments on deal boards prove that the weapon has remarkable cutting power, and it was no doubt effective when hurled at the fetlocks of a horse. Thomas states (p. 129) that the F-shaped knife should perhaps be regarded as an iron form of the throwing-stick. P. Germann deals in detail with the theory of the evolution of throw-

ing-knives from wooden prototypes, and supports his thesis by illustrating forms of wooden throwing-clubs together with iron throwing-knives of like pattern occurring in the same areas.

Only two examples of shields were collected. One shield of the type pictured by Meek (I, vol. I, p. 301, Fig. 83) was said by the donor, Mr. L. S. Price of Maiduguri, to be in use among the Gwozo, who live in the Mandara Hills to the south of Bornu. The photograph given by Meek indicates that this type of shield is used by the Borom of Bauchi Province. The shield, which is U-shaped, is covered with bosses made by indenting the inner side, which has a centrally placed wooden grip. Meek states that the shield is made from the ear of an elephant, a statement which the general shape of the weapon tends to corroborate. Passarge (p. 70) pictures the same object under the name of the *Fullaschild* as used in Adamaua.

My photograph shows two Buduma men of Baya Seyarum fighting behind their large curved shields of ambach wood. The men approached from a distance stealthily, then rushed one upon the other jabbing over and round the sides of their shields. They parted in order to carry out this maneuver several times, then crouched facing each other (Plate CXLIII, Fig. 2).

The Buduma shield is a large structure (85 x 93 cm.) but easily portable owing to the lightness of the wood. In the village of Baya Seyarum an old man was engaged in making shields, first soaking the planks in water then bending them while soft. He bored holes and used thin strips of hide to fasten the planks together. Pieces of black hide cut into diamond-shaped patterns were employed to ornament the outer surface, and an inside grip was made by strong, crossed cords made from papyrus-reed fiber.

Use of muzzle-loading guns which natives purchase from traders' stores naturally cause bows and arrows to fall into desuetude. I did not see crossbows in use but they have been described by several writers (H. Balfour, II, and A. Moloney). The illustrations shown in these articles, if compared with those given by P. H. G. Powell-Cotton (Man, 1929, No. 1), support the generally accepted hypothesis of a European introduction of crossbows into west Africa, where similar forms can be observed in Nigeria, Cameroon, and French Equatorial Africa, especially in the region of the Ogowe River.

The Angas of Pankshin use a wooden bow, round in cross section and bound with strips of snake skin. The bowstring was made of thin twisted hide. One end of the shaft was shouldered to prevent slipping of the cord and there was a simple slip loop for unstringing

the bow when not in use. The quiver used with this bow was made from a monocotyledonous wood which was ornamented with incised triangular patterns. The quiver held five tanged, barbed, poisoned, unfeathered arrows, each 52 cm. long. The nocks were rectangular and bound to prevent splitting of the shaft. The shaft of the arrow was a hollow reed into which the tang of the head was tightly bound with vegetable fiber. The number of barbs on the arrowheads varied from one to three, and these were always on one side only.

From a Hausa in Sokoto a quiver of dark brown monocotyledonous wood was purchased. This wood is suitable for making quivers because of its nodal structure. The iron arrowheads are tanged into reed shafts and bound there. The points are thickly smeared with poison at the junctions of the head and the shaft. The arrowheads are of a broad leaf shape with two downward barbs at the base of each. The round-shafted bow which is bound at intervals with antelope hide has a length of 131 cm. One end of the shaft is deeply nocked to prevent slipping of the loop, which can be easily removed to unstring the bow. In the market place at Maiduguri a blacksmith was making tanged arrowheads, which probably find a sale among the varied tribes seen in this large native market.

A Hausa spear 175 cm. long was obtained at Sokoto. The iron head is socketed and elaborately barbed. Among the Buduma remarkably well-made socketed spearheads were obtainable, but these were not locally made; they were the work of an itinerant blacksmith. There were two main types: one flat, broad, and leaf-shaped; the other square in cross section and elaborately cut into a large number of small barbs. The flat spearhead was decorated with punched geometrical designs. Iron harpoon-heads, which are attached to wooden shafts by cords, are common among the Buduma. Some excellent examples of harpoons were also obtained from the Munshi of Katsina Ala (Plate CI, Figs. 6, 7).

Oric Bates (Ancient Egyptian Fishing, Harvard African Studies, I, 1917, pp. 200-221) calls attention to forms of canoes and harpoons which may be prototypes of those used by the Buduma, though independent invention may have occurred. Bates refers to tomb paintings showing a hippopotamus being hunted with harpoons having detachable heads; such implements were also used for spearing fish. K. G. Lindblom's contribution (*Jakt-Och Fangsmetoder*, Stockholm, 1925, p. 33) pictures a harpoon used for killing crocodiles. This implement has a distribution which includes the Turkana, the Egyptians, the Shilluk, and the Buduma of Lake Chad.

The papyrus-reed canoe of Lake Chad is made by lashing bundles of reeds together. Such a canoe was known in pre-dynastic Egypt (O. Bates, *op. cit.*, pp. 219, 222) and the idea may have been diffused. But the need for easily constructed boats, combined with the presence of only one material well suited for the purpose, may have led to convergences of form in canoe types on the River Nile and Lake Chad. That such a convergence is possible may be seen by comparing the reed canoes of the Buduma with those on Lake Titicaca. There is likeness of form and construction, but the remoteness of the places and the absence of known connection makes independent origin of the canoes almost certain.

The most interesting hunter's device observed was that of a Munshi near Ibi. This man placed on his head a model of the head of a hornbill, made from wood and covered with leather which was decorated with red beads. The hunter crawled on hands and knees, imitating the pecking of a bird; meanwhile he trailed his bow and arrows in his hands. Presumably the device is effective in long grass where only the head of the bird can be seen. Boyd Alexander noted this device (I, p. 32) but J. du Plessis, who traveled through the Munshi country, is skeptical. He says (Thrice through the Dark Continent, p. 72), "It is somewhat of a strain on our faith to be told that a well set up Munshi nearly six feet high can conceal himself under the plumage of a diminutive bird like the hornbill. It must be either a very gullible antelope or a very gullible reader that can be so easily deceived." My photograph (Plate CLI, Fig. 1) shows the method employed, and so corroborates the accuracy of Boyd Alexander's observation. Precisely the same decoy has been photographed by G. Haardt at Dosso on the River Niger, six hundred miles from the Munshi country (National Geographic Magazine, XLIX, 1926, p. 673).

SPINNING, WEAVING, AND DYEING

These industries were seen among the Yoruba population of Iseyin, Ogbomoshó, and Ilorin, also at Kano in the hands of Hausa workers.

The history and technology of weaving have been described by W. M. F. Petrie (pp. 147-148) and by Ling Roth (V, pp. 113-150). Petrie states that, by the time of the first dynasty, weaving had become fine and regular, especially in the working of mummy wrappings. The coarser work was done on horizontal looms close to the ground, but fine work was executed on vertical looms.

The map prepared by Ling Roth (V, p. 150) shows the vertical mat loom to have a distribution all over Nigeria. For working on this loom, which is the most primitive of all the types, filament from the leaves of *Raphia vinifera* is used. The outer cuticle is removed, after which the lower fiber is cut into thin shreds by a leaf splitter made from strips of pointed cane. Small mats made in this way were obtained at Ibadan; the inwoven red and black triangles are very neatly executed (Plate C, Figs. 3, 6). The usual measurements of these mats are 35 x 21 cm. In the central and southwest Congo region the technique of mat-making has attained a high degree of refinement (T. A. Joyce, II, and J. Maes).

The vertical cotton loom is shown by Ling Roth to occur in Nigeria at Abeokuta and Opobo, and across the Sahara into Algeria. The horizontal, narrow-band, treadle loom such as that used in Iseyin has a west African distribution from Gambia to Lake Chad. The tripod form of this loom occurs in Sierra Leone, and the Iseyin type is shown by Passarge (Adamaua, p. 85) to exist at Garua.

Male weavers of Iseyin sat under a long shed, each at his horizontal loom, from which the warp stretched far away into the courtyard. The narrow strips woven in this way were green and white or blue and white in alternate bands. The breadth of each strip was 9 cm. Both the hands and the feet of the weaver are used to operate the loom. The feet move alternately on two pedals that open and close the threads of the warp. Meanwhile, in synchronism with this opening and closing of the warp, the weft is introduced by a shuttle which is passed laterally by hand. In the cloth purchased, strips about 9 cm. wide had been sewn together to make a piece 203 cm. wide (Plates CVII, CVIII).

The loom worked by women is of a kind quite different from the men's loom on which the narrow strips are woven. The vertical loom for use by the women is set up near the entrance to an apartment within the house. The worker sits on the ground with her feet in a hole. The strips of cloth woven on this loom were about 48 cm. wide and these were later sewn together to form broad pieces of cloth.

The horizontal, narrow-band, treadle loom used at Kano by an old man (Plate CXI, Fig. 1) appears to be the same as that pictured by C. K. Meek (I, vol. I, Fig. 62) in use by a male Jukun weaver of Muri Province. A large amount of cotton is native grown and ginning is performed by women, who roll the cotton on a block of wood. The iron rod used as the roller is 35 cm. long and 2 cm. thick in the middle, with considerable tapering at each end.

For teasing out the fluffy cotton into a long thread, and winding this, several methods are available. At Maradi in French Niger Territory women held in one hand a stick passed through the mass of cotton. The thumb and forefinger of the other hand were used rapidly to draw out the thread and roll it, after which it was wound on a bobbin. Yoruba men at Iseyin had cotton thread in long rectangles on the ground. The operators walked up and down the lines of thread, which was wound by passing it through an iron loop at the end of a long stick. At Iseyin a different method was also in use; the operator worked by stretching the cotton between upright projections based on heavy blocks of wood. A third method noted at Iseyin is described by Meek (I, vol. I, p. 166, Fig. 58) who states that this is the Hausa technique, which is also practiced in India. The operator sits close to a conical framework of thin cane strips around which the thread is wound (Plates CVII, CVIII).

In addition to weaving cotton on a loom, other methods of work are of importance. These methods include knotting, embroidery, and knitting. At Iseyin and elsewhere in Yoruba country strands of cotton are netted to form large, wide-meshed bags which are used for holding together the articles of a head-load.

From a Hausa in Sokoto a portable knitting outfit was obtained. This consisted of two sticks kept in position with a cross-bar. The sticks were placed upright in a small bag containing purple yarn imported from Tripoli. Knitting is done by using a wooden needle to pass loops over the upright pieces of the framework. The Hausa name for this apparatus is *sakan siliya* (*saka*, to weave or make nets; *siliya*, silk cord).

In the market place at Ogbomosho, and at Ilorin and Ibadan, balls of indigo were offered for sale. The making of these is an important industry for women, who gather the native plants. Dyeing in large jars was in progress at Iseyin, but at Kano the dye was in deep pits in the ground. At the former place both men and women were employed, but at Kano there was a preponderance of male dyers. The color is a deep indigo which is used for dyeing yarn or for coloring turbans and strips of cloth. At Kano two men were beating damp, dyed cloth over a log. In this way the shining blue turban *rewani* is made by pounding finely powdered malachite into the damp fabric (Plates CIX-CXI).

Making of clothing for men and women is the work of males at both Kano and Ilorin, where complete outfits for men and women were purchased. The upper and exterior garment known as a *riga*

is often elaborately embroidered with colored silk; so also are the pants named *wando*. These wide trousers become narrow at the knees where they are richly ornamented with the green, red, and yellow silk. Despite the heat, heavy clothing is worn, and in some instances a man wears several unnecessary garments as an indication of wealth.

Part of a man's clothing is a brown under-vest cut square, with a V-shaped neck having a decoration of yellow silk. Each kind of cloth has a distinguishing name. Thus blue cloth for winding round a woman's body is *zane*, her blue cloth with white stripes is *mayafi*, and her head cloth is *fatala*. In the market place at Kano men were decorating white caps by biting them to form ridged patterns in neat geometrical designs. These ridges were then stitched on the inside of the cap to make them permanent (Plates CXXXI, CXXXII).

Mrs. V. W. Quigley, a teacher of weaving in Cleveland, Ohio, who examined several specimens of west African clothing, reports that the embroidery is made as follows: punchwork, eyelet, chain stitch, and couching are commonly employed. Some patterns, which look like double buttonholing, are chain stitches sewn closely together. In some instances an overcasting stitch is placed round the edge of the fabric in such a way as to make a scallop. The overcasting stitch and the satin stitch are also used. So far as I know, the embroideries of west Africa have not been examined in such detail as to show the history and distribution of various types of work. Presumably some of the stitches are of European introduction, but possibly some of them are of far eastern origin and others may be of local invention. A "Dictionary of Embroidery Stitches" by M. Thomas, London, 1934, is of service in research connected with textiles and embroidery.

Mrs. Quigley counted the number of warps and wefts to an inch in order to give some idea of the fineness of the work. On six fabrics from Ibadan and Kano the results of this counting are as follows:

Number of fabric	Warps	Wefts	Number of fabric	Warps	Wefts
1 . . (double)	11	56	4	90	28
2	20	23	5	68	36
3	128	30	6	46	20

A quotation from W. M. F. Petrie (p. 147) gives figures for comparison: "On reaching the first dynasty the weaving is seen to be very fine and regular. The threads are very uniform, and there are 160 to the inch in the warp and 120 in the woof. Modern fine

cambric has 140 threads to the inch." West African weaving is, according to these standards, somewhat coarse in texture.

Study of the history and distribution of these occupations of spinning, weaving, and dyeing is assisted by reference to some of the older works of exploration. J. Matthews (p. 52) refers to the indigo of Sierra Leone, which is of a deep indelible blue. Evidently the industry of gathering plants and extracting the dye was older than the period of Matthews' visit, for he remarks on the remains of indigo works left by the Portuguese. The natives of Sierra Leone are said to have "the art of dyeing scarlet and black in the most effective manner."

Matthews (p. 53) reports: "Cotton is cultivated by the natives but in no greater quantity than they can manufacture for themselves. There are several kinds of it which materially differ not only in quality but color; particularly three kinds, one perfectly white, one of a tawny or nankeen color, and one of a pale red or pink color."

Mungo Park observes (p. 281) that women of the Mandingo tribes living along the route he followed from Gambia to Segou on the Niger, prepared cotton for spinning by laying it on a block of wood or on a smooth stone. They then exerted rolling pressure with a thick iron spindle to remove the seeds. The cotton yarn was afterwards spun with a distaff. The method of ginning observed by Park in 1796 was the same as that followed in Iseyin at present.

Park reports that weaving was performed by men on small narrow looms having a web seldom more than four inches broad. Women dyed cloth a rich lasting blue with color made from leaves freshly gathered from the indigo plant. The leaves were pounded in a wooden mortar, then mixed with a strong lye in an earthen jar. The lye consisted of wood ashes to which urine was sometimes added. The cloth was steeped in this mixture until it acquired the desired color and a beautiful purple gloss. W. Bosman (p. 459) calls attention to the skill of the people of Benin in making blue dye from locally grown indigo plants about the year 1700. René Caillié (I, 359) describes the manufacture of indigo dye in Sierra Leone and elsewhere. H. Barth mentions the cultivation of indigo plants in Baghirmi and gives a list of villages most famous for the production of this dye (III, pp. 356-359). He notes the high quality of dyeing in Kano (II, p. 129).

During his travels in Adamaua Passarge observed the use of indigo pits for dyeing (p. 82). He says that leaves and twigs are taken from plants which are cultivated. After the leaves and twigs

have been dried and pounded they are added to water. The dye is allowed to remain in the pit for twenty-four hours before use. Cloth is beaten over a log with wooden mallets like those used at Kano. Passarge (p. 84) gives an outline drawing of a loom and shuttle of the pattern observed at Iseyin.

In describing his travels through Ashanti R. A. Freeman states (p. 223) that dye pits existed at Bontuku. Each pit consisted of a well five feet across, surrounded by a coping of sun-dried clay nearly three feet high. In the pits was a dark blue fluid having an iridescent scum which gave off an offensive odor when stirred. After the leaves had been pounded in large wooden mortars they were dried and pressed into balls six inches in diameter. The balls were burnt to ashes, which were then mixed with ashes of shea-butter trees and other plants. The fluid in the pits was not considered fit for use until it had been stirred and allowed to ferment for ten days. The colors obtained varied from a pale blue to a blue black, and these pigments were sometimes used for dyeing yarn before it was woven. Near Baya Seyarum on the western shore of Lake Chad, Boyd Alexander saw slaves picking the leaves of the creeping plant from which blue dye was made (II, p. 88).

T. J. Alldridge, who reports on weaving and dyeing in Sierra Leone in 1910, gives information (pp. 244, 344, 353) which is in agreement with that supplied by Matthews in 1788. Indigo dye is still used for coloring native cloths which have served as currency for a long period. Alldridge states that growing of cotton by natives is ceasing because of the importation of colored yarns.

The researches of B. Laufer (I, pp. 370-371) suggest that the vegetable commodity known as indigo originated in India. The word indigo is a "generalized commercial label for a blue dye-stuff, but without botanical value."

In summarizing the evidence for the origin and diffusion of textile processes the conclusions of Ling Roth are important. At the end of extensive studies he states that the horizontal, narrow-band, treadle loom possibly came from Portugal. The distribution along the coast of west Africa and the hinterland supports this theory; moreover, this loom is not used in other parts of Africa. The vertical mat loom is thought by Ling Roth to be "possibly indigenous to the heart of Africa." The third form of loom, namely, the vertical cotton loom, is shown by Ling Roth to occur in Nigeria as already noted. The distribution passes in a narrow track across the Sahara, along north Africa, and into Egypt, which Ling Roth

suggests as the place of origin. This distribution of the vertical cotton loom, as plotted by Ling Roth, when considered in conjunction with the notes of Petrie on the existence of such a loom in pre-dynastic Egypt, lends support to the theory of an Egyptian origin. The other looms discussed by Ling Roth are not found in the area now under discussion.

With regard to cotton ginning, spinning, weaving on the vertical cotton loom, and dyeing, the historical evidence strongly favors a single origin and wide diffusion rather than independent invention. The details of technique also support this view.

Movements of people from the Mediterranean seaboard to northern Nigeria and the western Sudan, and along the whole area from Gambia to Lake Chad, have been continuous through warfare and trade. Moreover, the historical evidence made clear that for perhaps a thousand years great emporia of manufacture and trade have existed in west Africa, notably at Ghana, Timbuktu, Kano, Sokoto, Katsina, and in Bornu. On these focal points trade from the Mediterranean converged, and from such centers extended a southward distribution of traits that gradually penetrated the Negro culture of the southern forest regions.

BASKETRY

The market places of Ibadan and Ilorin display a great variety of baskets, mats, and other products of the plaiting industry in which fiber of palm leaves is used, and in addition to this material, grasses and millet stalks are utilized. Dyes are of native make. Black pigment is obtained by steeping fiber in black mud, washing it, then soaking it in a solution made from sorghum stalks. Yellow dye is made from ripe fruits of the *Borassus* palm.

The Yoruba of Ilorin make coiled basketry in which each coil is from half an inch to two inches in diameter, and of loose foundation. The coils are usually bound together with strips of yellow, green, purple, and red bast in order to form checkered and triangular patterns. The form of the largest baskets is square or round, and their height frequently attains 70 cm. (Plate C, Fig. 5).

Mat-making is also important. The colors and patterns are the same as those used for baskets and the size often reaches 180 x 200 cm. Miscellaneous plaiting made and sold by the Yoruba includes small containers for salt, coarse baskets for straining the mush of yams, large covers for head-loads, sifters for meal of manioc, and

shallow round trays which are used on market booths for displaying small commodities.

The Nupe of Bida specialize in plaiting large oval sleeping mats which are rolled to contain the personal baggage of native travelers; some of these mats are almost 200 cm. long and 100 cm. broad. Conical hats made from palm fiber are a noted product of the Nupe (Plate CXIII, Fig. 2).

In the markets of Kano the products of Ilorin and Bida are seen for sale, and in addition to these many distinctive local manufactures flourish. Round baskets covered with as many as eight hundred cowrie shells are artistic and attractive. The baskets are made of small coils so tightly sewn as to make the weaving almost water-tight, and the stitching of the cowries is neatly done (Plate C, Fig. 2). A product of Kano is a specialized form of basketry decorated with colored leather stretched tightly over the outside of the basket. In some examples the basketry is ornamented with cowrie shells and leather work. Colored wools may be arranged in tassels which are sewn on the edges of the baskets. The booth of a basket maker is shown in Plate CXII, Figs. 1, 2.

In the Hausa center of Sokoto mats are made by plaiting long strips of fiber then sewing them together with an iron needle. Large panniers are made by bending four pliant sticks into rounded arches. These form the sides of a basket which is then covered with hide.

The finest weaving of basket trays is shown in some examples from Potiskum, though they were not made there, and their place of origin is doubtful. The Bolewa of Potiskum use a long oval basket of yellow fiber covered with a wide-meshed cotton netting for suspension. This is a container in which a bride takes her wardrobe to her new home.

The most neatly made baskets, which are absolutely water-tight, are woven by the Buduma of Lake Chad. The general form of these baskets is oval with a narrowing toward the top, which is provided with a conical lid and a handle. There is a splitting of the stitching which O. T. Mason describes as the furcate coil (Report, U. S. Nat. Mus., Washington, 1902, p. 244, Plate 23). The Buduma are skilled in weaving patterns in red and black fiber; these include conventionalized forms of men on horseback (Plate C, Fig. 1). Among the Buduma, and in Maiduguri, basket work of the Sara is in use. The distinguishing feature of these baskets is the employment of bright-green, yellow, and red colors in the weaving.

The most ancient African basketry which is datable is that of Egypt about the third millennium B.C. At this time shallow platters were made by sewing together coils of loose foundation; that is to say, each coil consists of many fine stalks of grass bound together. The probability that this Egyptian work is a prototype of modern African basketry is shown by M. Schmidal, after a detailed examination of technique, including forms of stitches (*Altägyptische Techniken an afrikanischen Spiralwulstkörben*. *Festschrift P. W. Schmidt*, Vienna, 1928, pp. 645-654).

LEATHER WORK

Working in leather may be regarded as a distinctive trait of the Northern Provinces if comparison is made between the manufactures of northern and southern Nigeria. Of leather-working in the south S. Johnson says (p. 120): "The Yoruba were formerly their own tanners and each one learned to prepare for himself whatever leather he wanted to use. Black, white, green, brown, and yellow are the prevailing colors but these materials are now largely imported from Hausaland, principally from Kano."

The leather work of northern Nigeria is only a specialized local form of a trait which is found in northern Africa, across the Sahara, and through the western Sudan. The principal centers are Morocco, Hoggar, Agades, Timbuktu, Kano, Sokoto, Yola, Adamaua, and Maiduguri.

A. van Gennep has written a complete description of the styles of work, which are distinctive each for its own locality. He distinguishes nine processes, including cutting, scratching, stamping, embroidering, and combinations of two or more of these techniques. The variety of styles calls attention to two points of importance in connection with handicrafts: firstly, the diversity of technique which artisans may develop when dealing with a tractable material; and secondly, the tendency for cultural foci to develop. Each center has its distinctive methods, though these local styles form but one cultural trait that has spread by diffusion over ancient trade routes.

Leather work was of great excellence and antiquity in Egypt, and Petrie (pp. 147-150) states that the leather workers' craft was of great importance in Egypt in all ages. The two principal aspects of the technique were appliqué work in colors, and the cutting of fine strips, both of which are well-known processes at the present time. The leather industry of Agades is today characterized by cutting a fine network of leather strips, and by removing portions

of the surface to form a pattern by contrast with those parts that are allowed to remain uncut.

The leather industry did not escape the observation of Mungo Park (1795) who reports (p. 282) that "leather work is in the hands of specialists who travel. They can tan and dress leather with very great expedition by steeping the hide first in a mixture of wood-ashes and water until it parts with the hair, and afterwards using leaves of a tree as an astringent. They are at great pains to render the hide as soft and pliant as possible by rubbing it frequently between their hands and beating it upon a stone. Bullock hide is made into sandals, while sheep- and goatskins are used for making sheaths for swords and knives. Red dye is made from millet stalks, and yellow coloring is extracted from the roots of a plant."

Of this industry at Agades Barth states that all leather work with the exception of saddles is carried on by women. Saddlebags are mentioned as being particularly well made, though Barth thinks that the work of Agades is surpassed by that of Timbuktu (I, p. 454). At Kano in the year 1850 sandals were the principal manufacture in leather, and today they are of great importance. Barth mentions that sandals were exported to great distances from Kano. He further notes the dyeing of tanned hides and their export across the Sahara to Tripoli (II, p. 130). The bags and cushions of Sokoto are very beautiful (IV, p. 180). At Timbuktu bags, cushions, and leather pouches were neatly made, especially by Tuareg women (V, p. 18). The industry thrives in that town today (Dupuis-Yakouba, II, pp. 61-78).

Cutting sandals is one of the most ancient forms of leather work. In Egypt sandals were used as early as 3500 B.C., and by 1500 B.C. they were the usual footwear, which had to be removed in the presence of superiors. Removal of sandals is a mark of respect in north Africa at the present day.

B. Meakin's description of tanning, dyeing, and making articles of leather in Moorish towns indicates that the technique of north Africa, the Sahara, and northern Nigeria is of a common origin from which local methods and styles have evolved. The black dye used in Morocco is made from indigo, gall, and sulphate of iron, the mixture employed at Kano today. J. Büttikofer's colored pictures of Liberian leather work show it to be the same kind as types already mentioned (II, Plates XXVI, XXVII, pp. 277-279).

The best collection of leather work, including sandals, was made in Kano, and although foreign contacts have stimulated the manu-

facture of cushions and bags for Europeans, the tanning, dyeing, and ornamenting of these are native industries which are still carried out in the old-time way. A series of tools together with sandals at all stages of manufacture (Field Museum, Hall D) illustrates this ancient and well-developed technique.

The principal tools were a scraper, a small, sharp knife, and an awl, which are products of a native forge. Before beginning work the sandal maker selected paper patterns according to which he cut out the bases of the sandals in oxhide. Over the thick soles thin red leather was first pasted, then sewn by hand. An awl was used during the sewing process, and a small knife was used for cutting out the ankle straps in thin red, and yellow leather.

Among a number of miscellaneous objects made by the leather workers of Kano are tobacco horns covered with red leather; leather pouches for carrying a barber's outfit consisting of bleeding cups, tweezers, and razors; also covers for loose leaves of the Koran. The making of charms encased in leather appears to be in the hands of specialists, one of whom was seen at work in Mongonu near Lake Chad. In addition to the usual flat pouches containing extracts from the Koran the artisan encased pointed pieces of wood in red leather as charms against snake-bite.

I was able to obtain in Kano a few round ottoman covers made in Agades. One side was plain red without any kind of decoration, while the other side was finely cut into strips forming triangular patterns. The excision of parts of the surface leather, while leaving other parts uncut, is cleverly done so as to form checkered designs. At Maiduguri strips of hide were twisted to form hobbles for camels and horses, and along with these there was a sale for leather buckets which are used for lowering into wells. Cutting long tapering whips from hide was the work of a Buduma specialist at Baya Seyarum.

The only people observed with leather clothing were males of the Keri-Keri at Potiskum, and some Gwozo hill men in the market at Maiduguri. The latter wore caps and loin coverings of undressed hide (Plates CXXVII, CXXIX, Fig. 1). The Angas women of Pankshin carried young babies in rawhide pouches on their backs.

On sale in Kano, Sokoto, and as far south as Ibadan are skin bottles having the outside covered with natural hair while the inside is smooth. C. K. Meek (I, vol. I, p. 161) gives the following description of these skin vessels: "A clay mould of the shape required is first made. The worker then takes a piece of hide which has been soaked in water and shaves off the hairy outer covering, using for

this purpose a knife with a crescent-shaped blade. The moist inner skin is then cut into a series of thin strips, and with these the mould is encircled. These strips knit together when left to dry in the sun, and the mould inside is removed by being gently tapped with a piece of bone until it breaks. Skin vessels made of strips of skin in this way will open up if exposed to wet. They are usually decorated on the outside with strips of hairy hide." This kind of work has recently been described and illustrated by F. de Zeltner (II, 1932, pp. 23-34) and by H. Balfour (VII).

The smallest of these vessels, not more than 7 cm. long, are made for holding powdered malachite, which is used by women for darkening their eyelashes and eyelids. Vessels a little larger are used as snuff containers. The largest receptacle of this kind in Field Museum collection was obtained at Maradi in French Niger Territory. The height is about 70 cm. Around the top of the vessel are three small receptacles for condiments, while the larger container is used for holding butter or honey (Plate XCVII, Fig. 1).

Such a container is made and used by the Tuareg of Asben (F. R. Rodd, Plate XXIV, Fig. 9). A. van Gennep (II, vol. II, Plate I, Fig. 5) pictures a pottery vessel of the kind, made of skin, obtained at Maradi. The correspondence is exact even to the three small cups at the top of the large vessel. This pottery vessel was obtained by van Gennep at Beni Daula, Algeria. It is made of red earth which is decorated with black and red designs. The whole surface has been covered with a slip of resin that has turned yellow after burning. This is not a mold, for according to Meek the mold is broken, which must necessarily be the procedure in order to remove it.

Presumably the pottery vessel pictured by van Gennep is the prototype which later suggested the idea of making the same form in skin by molding this material over the earthenware. This is an instructive example of the transference of design and technique from one medium to another. An account of Nigerian leather work and the manufacture of dyes from indigenous plants is given by C. K. Meek (I, vol. I, pp. 160-163).

POTTERY

Pottery is still made generally throughout the Northern and Southern Provinces of Nigeria, but C. K. Meek and P. A. Talbot are agreed on the decadence of manufacture and design when modern examples are compared with those of a former period whose date is

unknown. Although this is true, there yet remain several centers remarkable for the abundance of locally made pots showing great variety of shape, and decoration with slips of several colors.

At Ogbomosho pottery-making was carried out by elderly women whose work was distinguished by size, strength, and symmetry, rather than decorative effect. Some of the pots were half an inch thick and three feet high, and without decoration except for a polished, reddened rim. The methods of firing, first by hardening the pots by lighting fires within them, and later by baking in a large kiln of grass, likewise the process of applying a slip and polishing with a stone, are shown in Plates CIII and CIV.

The market place of Ilorin presented two main classes of ware having similar forms produced in each of the colors, red and black, which are native-made pigments applied as thin slips after baking. In addition to large coarse pots for storing grain, a great variety of pots and dishes for palm-oil stew was displayed. Large, rounded, perforated pots were said to be used for drying and smoking meat. These were coarsely made without polish or decoration.

Large circular bowls with lids were black in color and highly polished. On a surface of this kind scratched, geometrical patterns showed distinctly. Some of the vessels were ornamented when soft by pressing around them a cord that left symmetrical designs on the wet clay.

Lamps were of three distinct forms, which were produced in both the red and black ware, and the market place at Ilorin presented a remarkable sight when hundreds of these lamps were lit. In each form of lamp is a receptacle for oil, from which reservoir the wick hangs over the edge of the lamp. These lamps show an Egyptian and Mediterranean influence. Among the black pottery were small vessels for ink which is used by *mallams* when writing Koranic texts on smooth boards (Plates XCV, Figs. 4, 5; XCVI, Figs. 4, 6).

The Yoruba near Ilorin make one variety of pottery that is distinct in style from all others, and I know of nothing resembling it except examples from north Africa. Three vessels of unusual merit were a round long-necked water cooler having a handle; a water cooler with a handle, spout, and stoppered opening; and a short, round form of the second example. The vessels are made of a light brown, micaceous clay, ornamented with a red slip painted in designs which include geometrical patterns and human figures (Plate XCVI, Figs. 1, 2).

Near the market place at Kano the making of pottery was observed. The female potter, who made use of the punching and coiling process, relied for molding on the use of a stone pounder with a hand-grip, a flat piece of board, and her hands. The three stages of the work, from the first punching of the mass of clay to the firing, are shown on Plates CV and CVI. The products of the potter's craft at Kano were remarkable for the glittering micaceous clay that was used. I was taken a few miles from the potter's home to a dry, shallow water-course, whose bed seemed to be largely composed of this material, which occurs only locally. The largest vessels made at Kano were water jars 71 cm. high, each of which was built up in three sections. The base was punched to shape and allowed to dry, then a middle section was coiled and molded. When this was dry a third and final section was coiled and pressed into the form of a neck. Ornament was added by pressing a cord on the wet clay.

In Sokoto market place were several distinct kinds of pottery, all of which were of local manufacture and distribution. Round water pots on clay pedestals are peculiar, not only in form but in the method of decoration. Round the rim of the pot a broad area is marked into diamond-shaped triangular patterns which are painted with vivid colors including red, white, green, and yellow.

Water jars and clay jugs with handles are made in Sokoto from micaceous clay which is bright yellow before baking, but a dull bronze color after firing. The most peculiar vessels are jugs constricted by deep grooves extending around the middle (Plate XCV, Fig. 2). Minor products of the potter's art at Sokoto are clay camels conventionally made with three legs; small dolls; and tobacco pipes.

The potter's art at Sokoto has been described in detail by W. E. Nicholson (I). The chief potters are the Adarawa of Berber extraction, whose country is north of Sokoto, and the Zorumawa, a people of hybrid extraction physically related to the Fulani and Mandingo. Owing to a trade convention, and not because of religious taboo, certain articles are made by men and others by women only. Nicholson gives a detailed account of the technique comprising four stages of building, and from this account the process appears to be almost identical with the one seen at Kano. Other articles describing Nigerian pottery are to be found in the writings of N. W. Thomas (I) and A. J. N. Tremearne (I). Outside of Egypt the potter's wheel is not used in Africa with the exception of an occasional occurrence along the northern coast.

Consideration of old types of pottery obtained from the Bolewa of Potiskum lends further support to the statement that technique is declining, for undoubtedly the old forms are better than the new in design and execution. A large jug and round pots for beer are the finest examples of old work (Plate XCV, Figs. 1, 3). The pots, which are black inside and red outside, have been polished both internally and externally. Decoration has been added by scratching straight lines, triangles, and lozenge-shaped patterns after burning; these incisions have been filled with white clay. One special development of the potter's art at Potiskum is the making of drain pipes for roofs of houses. The whole surface of the pipe is covered with a red slip on which patterns are painted in white. The paint used appears to be a kind of gypsum.

Near Medowa, in French Niger Territory, native pottery bears no resemblance to that of the neighboring towns of Sokoto and Kano in Nigeria. In the region of Medowa large jars for water and round cups with handles are made of coarse red clay, which is unsmoothed, unpolished, and without incised decorations. The whole surface of the large water jars is covered with alternate bands of white and brown on which zigzag lines are crudely painted. The height of these vessels is 63 cm. The smaller vessels are slightly ornamented, each with a band of purple stain which is made from a ferruginous earth. A stain similar in color is used for ornamenting the necks of the pots made at Sokoto, but apart from this decoration the types of pottery from Sokoto and adjacent French territory are distinct.

The pottery from Sokoto is highly specialized in form, color, and decorations, while that from French Niger Territory is extremely crude. Probably the explanation is to be found in the fact that potters of Medowa lacked suitable clay. Examination of their work shows that the earth used has been liberally mixed with coarse chaff as a binding substance, and even with this aid the material is friable.

WOOD-CARVING, GOURDS, AND MUSICAL INSTRUMENTS

The Yoruba and Bini were formerly noted for their wood-carving, which now shows great decline in technique, though several classes of objects are still worth acquiring. At Benin a few human figures and plaques are carved under the direction of the Obba at the craft's school. The few modern examples obtained prove that the ancient ability is not yet defunct.

From the compound of the Bologun (war chief) of Ilorin two wooden posts were obtained. Each of the chief's drummers regards a post of this kind as his own emblem and he stands before the post when playing on public occasions. One of the posts is carved in imitation of the links of a chain.

At Ife two carefully carved wooden masks and one wooden effigy were purchased. These are valuable because of their ritualistic significance for they are worn at the Egungun festival, when masked, robed figures parade the streets, purporting to be deceased persons of importance. One of the masks (Plate CII, Fig. 2) represents Jogbo, a small man who had a reputation for skill in spear-throwing. Details such as scarification on his cheeks and ornamentation on his cap are clearly shown. The figure of Elebiti, who was a warrior and magician, is carved in a seated position (Plate XCIV, Fig. 4). On his head he carries the sacred symbol of a ram's horns. A wooden mask represents Fopo (Plate CII, Fig. 1), who had the reputation of being a successful warrior and a harsh man. His idea of humor was expressed by entering the market place, where he amused himself by mixing the contents of food baskets.

Among the minor products of the wood-carver's art are wooden dolls, hair combs, and spoons, all of which are crudely made.

Nupe artisans of Bida are distinguished by the carving of wooden stools showing great originality of style, which is unlike any other carving in Africa. The worker uses only two tools, an adze for hacking out the form from a rough block of wood, and a small knife for carving geometrical patterns on the top (Plate XCIV, Figs. 1, 3). The stools vary in size from a height of 18 to 52 cm., and the number of legs ranges from four to eleven. Some of the stools are square, others round, but in no instance is there any joinery; all work is done by cutting from a block. Each leg tapers from the top to the bottom, and in the round stool with eleven symmetrically carved legs there is evidence of considerable control of a hard material. This hard wood is sometimes intractable because of the occurrence of knots and other flaws.

The geometrical patterns with which the tops of stools are carved indicate that the worker had a clear design and a correct knowledge of the way in which parts of a design should overlap. Apart from the stools, which illustrate the development of a unique technique in one industrial center, the wood-carving of Bida is not of exceptional merit. The creation of local types of industry is aptly illustrated by comparative study of wooden stools of the Ivory Coast, Ashanti,

Nigeria, Bamenda in Cameroon, and the regions of the southwest Congo and central Angola. And within Nigeria itself are many local patterns.

Round wooden bowls of hard black material, carved on the outside and smooth inside, are made near Potiskum by one man only. No examples of this kind were seen elsewhere, and the instance appears to be a creation of technique by one person. The carving on these food bowls is remarkably well executed, and division of the whole surface to accommodate the designs indicates precise coordination of hand and eye (Plate XCIII, Fig. 3).

Ceremonial paddles carved by the Jekri were obtained near Sapele, and one of antiquity and artistic merit was purchased from the leader of a troupe of Ibo dancers at Onitsha (Plate CI, Figs. 1, 9). The ornamental paddle is used as a baton for controlling movement and rhythm. Patterns on the paddles of the Jekri are chiefly geometrical but the crocodile is often represented. H. Balfour (V) calls attention to a ceremonial paddle having a figure representing the hippopotamus spirit, and there is a probability that the object formed part of the cult equipment of a sacred serpent.

From Zinder in French Niger Territory a wooden snake carved in hard black wood was obtained. Spots on the reptile are made with inlaid ivory, while the fangs are of the same material. Serpent cults and beliefs have had a great stronghold in southern Nigeria and many survivals of these ancient ideas occur in both the Southern and Northern Provinces, but the origin and use of this serpent are unknown at the present day.

Wooden sandals three inches high, decorated with burnt patterns, were obtained from the women of the Buduma, and the Shuwa Arabs. The former live at Baya Seyarum, on the shore of Lake Chad, and the latter at Maiduguri (Plate XCIV, Fig. 7).

Cutting and staining gourds (Plate XCIII) is probably the most artistic branch of the carver's art, which is usually found in the hands of a male specialist. In each district occur one or more types of gourd decoration which have only a restricted distribution. These distinctive techniques again illustrate the tendency toward local developments that do not diffuse far outside the areas of their origin. In addition to the variety of colors, including indigo, red, and yellow, there are distinct methods of cutting and burning. These processes afford illustration of the variety of products that result from local ingenuity.

Yoruba workers of Ogbomosho devote most of their time to the production of gourd receptacles which are made by bisecting a round fruit so that the upper half forms a lid for the lower. The brown outer surface of the gourd is scraped away, leaving a white surface which is decorated with deeply incised patterns of geometrical figures. A second technique involves no cutting of patterns, but these are made prominent by scraping away the brown surface of the gourd in such a way that the remaining cuticle forms symmetrical designs. Ladles and spoons are made by cutting long-necked gourds lengthwise into two equal parts; the tool used is a saw of native make. In addition to this tool, the carver uses a small adze and three knives of different sizes and curvatures (Plate CI, Figs. 3, 5).

In the town of Bida, where people of the Nupe tribe predominate, there are three distinct processes producing ornamented types of gourds that are not found elsewhere. The most attractive of these methods depends on an initial staining of the entire surface of the gourd with indigo. When the coloring is dry the worker deeply carves geometrical patterns which stand out boldly in white on the blue background. The same process is followed with gourds which are stained red before the incisions are made. A third technique retains the yellow surface of the gourd, on which patterns are burned.

Hausa workers of Sokoto use tools that were not observed in other centers. One of these is an iron hook at the end of a long wooden handle; this tool is used for scraping out the contents of a long narrow gourd. The other implements are a curved knife and a double-edged saw (Plate CI, Figs. 2, 3, 5). The principal technique is a staining of the gourd with red coloring before the patterns are carved. A feature of Hausa work in Kano is the making of long narrow gourds into which henna stain is poured. Women wear such gourds on their arms so that their finger nails dip into the stain. The entire outer surface of the gourd is finely carved with geometrical designs colored red, green, and purple.

In the market of Maiduguri the three processes just noted are employed, though the final products are distinctive. One effective method consists of reddening the entire surface of the gourd, then rubbing and scraping away parts of the red coloring so that the original yellow surface stands out as patterns on a red background. Other processes are the burning of finely incised lines and the burning of surface designs without any preliminary cutting. The most artistic effect is produced by incising the lines closely together and then burning them carefully ((Plate XCIII, Figs. 4, 5).

After examining Nigerian calabashes from an esthetic point of view, Miss Conover, of the Art Institute, Chicago, said, "The calabash designs are bold and startling in their effect. Spontaneity and freedom are their dominating characteristics. The lines employed analyze into the simplest of basic structures, as if nature herself grew painted and carved calabashes."

The art of making musical instruments is closely connected with wood-carving and the decoration of gourds. The *algaita* is a trumpet-like instrument which may be seen in everyday use at Ilorin, Kano, Sokoto, and Maiduguri. The body of the instrument is of wood covered with hide. The mouthpiece is of brass, and there are four stop holes. Among the Yoruba of Ibadan and Ilorin this instrument is played by a musician, who is accompanied by a drummer using a drum of hourglass form decorated with brass ornaments. The drum is played with a curved wooden stick (Plate CXLIX, Fig. 2). The Yoruba name for such a drum is *bembe*.

The largest collection of musical instruments was made at Maiduguri where a single orchestra used the following instruments (Plate XCVII, Figs. 2, 3, 5):

(1) An oval gourd rattle containing seeds.

(2) Stringed musical instruments made from round calabashes to which long wooden handles are attached. The calabashes are ornamented either by burning designs, or by covering the gourd with snake skin. Cowrie shells are also used with decorative effect. Usually such an instrument has two strings of coarse black hair, probably from the tail of a horse. A small wooden bow, also strung with hair, is used for rubbing the strings of the instrument.

(3) A small barrel-shaped drum 43 cm. long has a membrane at each end. This instrument is struck with a curved stick.

(4) A rounded pottery drum, made from an earthenware pot 22 cm. high and 16 cm. broad, has a skin top that the performer taps with his fingers.

At Maiduguri traveling bands of musicians included female performers who beat time with wooden clappers. Pottery drums were used, and the two principal male dancers wore heavy, iron, ankle rattles. In the market at Maiduguri a long, narrow gourd 71 x 8 cm., ornamented with burnt patterns, is sold. The use of this is not obvious, but a demonstration shows that it is used to produce a booming sound. The female performer sat cross-legged, placed one hand over the upper end intermittently, and tapped the other end of the instrument on the inner side of her thigh. The

form of the instrument suggests a trumpet but this appearance is quite misleading.

The instruments *garayah* and a similar form *molo* (Plate XCVII, Fig. 4) have a wide distribution in northern Nigeria and French Niger Territory. The body of the instrument is a small, oval gourd covered with hide, and to this sound-box a wooden handle is attached. The two strings are made of horsehair. In the market at Sokoto an itinerant musician was seen with an iron hoop 35 cm. in diameter on which some jingling iron rings were fastened. A small ring was used for striking the larger ring (Plate CLII, Fig. 2).

Fulani musicians near Pankshin played small drums of the hour-glass pattern. These were held under the arms of the performers, who struck them with curved drumsticks. The Munshi of Katsina Ala had the hourglass drum, a cylindrical wooden drum with a tympanum at each end, and the stringed instrument *molo*.

The Angas tribe near Pankshin used the following musical instruments (Plate CXXX, Figs. 1, 2):

(1) A rectangular baseboard of reeds, from the outer cuticle of which thin strips had been cut, but not severed, so as to form rattan strings that were elevated on bridges. Each of the rattan strings had a binding of fiber in the middle of its length. The amount of fiber used on the string was not the same in each instance; consequently, some strings were thicker than others, with a resultant difference in the frequency of vibration when plucked. Those strings which were thickly bound with fiber produced the low notes. In the baseboard one soundless reed was inserted between each set of three musical reeds. C. K. Meek (I, vol. II, p. 158) says that this instrument is found in many parts of the world and is probably Malayan in origin.

(2) Two reed pipes which were bound together and blown by dancers.

(3) Curved horns 36 cm. in length which were held sideways while blown through oval apertures cut for that purpose.

(4) Heavy iron leg rattles which were used during dancing.

(5) Two drums that were played in unison while lying on their sides. The larger of these had been hewn from a single block of wood so as to produce a barrel-shaped body standing on three legs. Over the round opening at the top of the instrument a membrane was pegged. The smaller instrument was made in the same way. In the hills near Pankshin was a hut in which several of the larger drums

were seen. These were not purchasable because they were regarded as sacred objects into which the spirits of dead chiefs entered on ceremonial occasions. This is but one of many instances of the sacredness of drums in African tribal life, and as Rattray has shown in detail (III, IV *passim*) sacred drums are among the most important cult objects used in Ashanti worship of ancestors. In fact, sacred drums which are temporary shrines, also drum-houses, are known from Sierra Leone to Uganda. Musicians interested in the technique, the history, and the social and magical significance of instruments, will find a valuable contribution to this subject by P. G. Harris (III).

PERSONAL ORNAMENTS

Important among skilled crafts is the manufacture of beads at Ilorin by the Yoruba, whose methods and materials were studied. The most essential part of the equipment is a large slab of marble-like stone measuring 52 x 31 x 2 cm. This slab is worn into deep crescentic grooves owing to the continual rubbing of the hard stone beads. Slender iron punches about 6 cm. long are used in conjunction with a small, flat hammer. The processes are chipping the beads to the approximate shape, drilling, and rubbing to shape on the stone slab. Cylindrical beads having a length of 4 cm. and a diameter of 1 cm. are the best examples of this craft. The Hausa word for such beads is *lentana*; the Yoruba name is *ileke*.

In addition to these long cylindrical beads, short, thick, barrel-shaped beads are made, and less commonly triangular ornaments for necklaces are rubbed down and perforated at the apex. The drilling of long beads is carried out while the stone is still rough; consequently, it can be held firmly between the great toe and the next. The fine drill, after being dipped in palm oil, is tapped repeatedly with the hammer; meanwhile it is revolved between the operator's thumb and finger.

One ornament used by the Yoruba consists of a collar made of a large number of strong black hairs, probably from the manes and tails of horses. Two black leather tips are formed as button and buttonhole, respectively. For women there are long belts made from the hard exteriors of oil-palm nuts. Each disk is rounded, perforated, and smoothed by rubbing on a stone covered with sand and water. Such a belt of almost a meter in length is worn next to the body.

At Bida a company of glass workers forms an exclusive guild which has existed there since the year 1850, though the origin and

history of the trade is not known. At the present day beads and glass bangles are made by melting bottles and imported beads. The craft may have had an Egyptian origin, since cultural and racial drifts have originated from the direction of the Nile Valley. Yet, Meek's statement (I, vol. I, p. 160) that "the Egyptians knew how to make glass by at least 3500 B.C." is questionable. Petrie says (p. 119) that there has been much misunderstanding about the age of glass in Egypt. No blown glass is known in Egypt before Roman times and "there does not appear to have been any working of glassy material by itself, apart from a base of stone or pottery, until after 1600 B.C." But even a much later date than 1600 B.C. would give ample time for the establishment of the glass-workers' craft in Nigeria as a result of Egyptian influences. Yet there is no reason to assume great antiquity for the craft at Bida, and it may have arrived from north Africa in the last century.

At one time I was under the impression that glass-working was carried on at Bida only. This may have been so for many years, and the occurrence of glass-making at Bontuku in Ashanti may perhaps be regarded as a diffusion of a cultural trait from Bida, notwithstanding the secrecy of the glass-workers' guild. On the contrary, the craft may have traveled from Bontuku to Bida, or the two centers may have derived their craft from a common source which is now no longer functioning. But however this may be, the description of glass-making given by R. A. Freeman (p. 229) agrees so well with my notes made at Bida, and with the account of Meek (I, vol. I, p. 158), that a connection between the two centers can be assumed.

Freeman's account states that the glass workers carry on their occupation in a dark hut having a furnace in a large water jar buried in the floor with its mouth at ground level. The bellows, tongs, and thin iron rods for manipulating the glowing mass of glass are of the same type as those used at Bida, but the furnace at Bida is built in the form of a clay cone standing above floor level. At Bida white beads from European sources are melted and drawn out into thin wisps of glass which are added to the molten mass of bottle glass. When the bangles and beads are completed they clearly show streaks of white on the blue or green background. Freeman says that at Bontuku the mass of hot glass is rolled on white beads, which then melt.

The tools purchased at Bida are tongs that are quite different from those used by brass workers and blacksmiths; a file of native make for trimming the rough edges of glass; iron rods on whose ends

the mass of viscid glass is twisted; an implement with a flat iron blade and a wooden handle, for rounding glass bangles; and scales in which glass is balanced with a counterpoise of stone.

Carefully made stone arm-rings of greenish color are worn by the veiled Buzu of French Niger Territory. Such ornaments are purchasable in Kano, but I have not seen them south of that area. One example obtained in Kano had been repaired with small metal rivets. F. R. Rodd (p. 285) gives information respecting armlets and other personal ornaments of the Tuareg of Air.

In Air stone arm-rings are of two types, the cylindrical and the flattened. The second type is more important because of the traditional significance attached to the number of rings worn and their position on the arms. These rings are first worn when a sword is adopted in early manhood. Boys and women are not allowed to wear arm-rings. The rings are cut by hand, without a lathe, from a lump of stone about an inch thick. The rough ring is smoothed and worn down with rasps and files, then finally cleaned with sand and water. At the completion of this process the rings are dipped in fat and baked to give the slightly porous stone a deep black color and a polished surface. The flat rings, which taper from the inner to the outer aspect, are passed from father to son. They are often riveted with brass plates if they happen to be broken, and in some instances the rings bear a name written in Tifinagh.

Making of stone arm-rings is an ancient African process which was known in predynastic Egypt. Of the Egyptian technique Petrie says (p. 81), "Flint armlets were made, chipped out of a solid block, yet no thicker than a straw. Finally these were ground with emery to smooth them for wearing."

Among archaeological finds from Kordofan H. A. MacMichael (I, Plate XIX) shows stone rings of unknown ages which suggest Egyptian influence. Stone armlets are worn by most of the natives of the Northern Territory of Ashanti. These ornaments, according to A. W. Cardinall, have the appearance of black marble veined with white. Similar rings are made by the natives themselves in the hilly country of north Mamprussi, though a number are imported by traders from the French Sudan. The edges of a stone disk are rubbed away on the harder rocks until the object assumes the size and shape intended. The central portion of stone is abraded with an iron instrument, first on one side, then on the other. The armlet is tapped to chip out the attenuated central portion, after which further rubbing gives smoothness.

Among the ornaments obtainable in Kano and French Niger Territory are small brass crosses for wearing as neck pendants and small triangular glass ornaments, each having a round opening for threading a cord. Rodd (p. 282) states that the latter are known to the Tuareg as *talhakim*. The material used is red agate, white soapstone, or turquoise-blue glass. These ornaments are so prized in the Sahara and Sudan that cheaper varieties made from red and white porcelain or glass are manufactured in Germany for trade purposes. The brass cross mentioned is described by Rodd as the Agades Cross. The Hausa of Medowa in French Niger Territory call the ornament *couli*.

As early as 500 B.C. Phoenician traders visited the northwest coast of Africa where they went ashore and deposited articles manufactured at Carthage. Natives left gold dust in exchange for these things, but in this silent trade no direct communication was made. Mungo Park makes clear that washing for gold was a native industry in the hilly country of Manding, far west Africa, in the year 1795. He states (p. 285) that most of the blacksmiths were acquainted with the method of smelting gold, in which process they used an alkaline salt obtained from a lye of burnt maize-stalks. The blacksmiths drew the gold into fine wire from which ornaments were fashioned with great taste and ingenuity. Gold was also used to pay for salt.

The work of washing for alluvial gold was carried out by women who carried spades for digging and calabashes for washing the soil. The gold dust obtained was stored in quills. On the first day of washing for gold a bullock was killed, while prayers were offered and charms were used to ensure success, since failure to find gold on the first day of digging was regarded as a bad omen (pp. 299-304).

With regard to working in silver there is definite and detailed evidence respecting the technique of Nigerian silversmiths. The most complete account of working in the precious metals is given by J. W. Scott Macfie, who observed a silversmith of Bida working at Zungeru. Although the Hausa follow this profession occasionally, the Nupe are perhaps the most skillful.

The bellows used are of the goatskin bag type, having two wooden slats at the wider end, and a wooden nozzle. This is the usual type of bellows in northern Nigeria and Algeria, and in the region of Air (Rodd, p. 299). The silversmith observed by Scott Macfie had a knowledge of casting silver by the *cire perdue* (lost wax) process in which a mold of clay with a core of rubber was used. This worker

also made a gold ring from metal supplied by Scott Macfie. This observation was made in the year 1912 before the scarcity of gold.

At the time of my visit (1930) I saw silversmiths of Bida making silver sword-scabbards, small flat lockets for holding talismanic verses, and silver rings. In Kano the Hausa smiths beat out French five-franc pieces into thin sheets which were made into silver bowls. Meek (I, vol. I, p. 156) describes the drawing out of silver wire by Hausa smiths of Bauchi, who are then able to make slender chains from the wire.

Silversmith's work is skillfully carried out in the Aurès Mountains of Algeria, where slender silver chains are made. Flat rectangular boxes of silver ornamented with embossed designs are made for holding talismans. These boxes are the same in form and function as those made at Bida. But the inlaying of silver with enamel, which is a technique of the silversmiths in the Aurès Mountains, has not extended to Nigeria so far as my observation goes. As in Algeria, the Nigerian silversmiths are able to make bracelets either from bars or by beating the metal into thin sheets. The details of Algerian work are given by Hilton-Simpson (*Among the Hill-Folk of Algeria*, pp. 83-84), and Meakin (p. 201) mentions the decoration of scabbards with silver. These writers give information which shows a close similarity between the technique and products of silversmiths in north Africa and Nigeria.

Of the antiquity of working in precious metals in Africa there is no doubt. Petrie (p. 83) states that Asiatic gold was used in Egypt in the first dynasty, though a probability exists that Nubia was the first source from which the Egyptians obtained this metal. So general was the use of gold for necklaces that a picture of a collar of beads became the hieroglyph for gold. Gold was cast by the lost-wax process in the twelfth dynasty.

The making of objects of silver in Egypt appears to be less ancient than working in gold. From prehistoric sites in Egypt a spoon of silver and the top of a jar have been obtained, but these are not known to be of Egyptian workmanship. Silver came commonly into use and manufacture in Egypt about the eighteenth dynasty. Inlay work was made about 700 B.C. by beating lines of gold and silver into copper (Petrie, pp. 96-103).

The antiquity of silver work in Africa, the known migrations across the Sahara, and the similarity of silver objects made at the present day in Algeria and Bida support the hypothesis that Nigeria may be regarded as the terminus of a line of diffusion from Egypt,

along north Africa, across the Sahara, and into the Nigerian localities where silver work is now extant. Rodd (pp. 229-231, 283) states that the Agades blacksmith-jewelers melt down silver coins by heating them in small clay crucibles; and although much silver is lost by oxidation, the work is remarkably well finished considering the primitive nature of the tools. Ornaments for saddles and bracelets for women are two products of a Tuareg smith. This evidence of silver-working in the Sahara is important for establishing continuity in a supposed migration of the silversmith's craft.

In Sokoto, through northern Nigeria, and among the Buduma of Lake Chad heavy metal bracelets and anklets are worn (Plate XCVIII, Fig. 4). These are made from bars of brass and copper which are purchasable from trader's stores. In the technique there is a design which I believe to be no chance resemblance to forms described by Rodd (p. 284). On bracelets made by Tuareg smiths of Air (Asben) the knobs are accurate cubes with the eight corners hammered flat, forming a figure having six square and eight triangular facets. This description also applies to similar ornaments from Sokoto and the country eastward as far as Lake Chad. The use of a small iron punch is general for making either indented designs or repoussé patterns on brass and silver ware at Bida and Kano. The heaviest of all metal ornaments acquired were coils of brass and copper wire used for decorating the arms and legs of Munshi women at Katsina Ala (Plate CXXVI, Fig. 1).

Ivory-carving in Nigeria is not a common craft. From a Hausa trader two neatly carved tusks were obtained; these, however, had been brought from Cameroon. Each tusk was 50 cm. long, and though possibly made for Europeans, the design of a serpent climbing a tree to catch a bird is well executed and of undoubted African workmanship. In former years large ivory anklets were worn by women of Onitsha, but in 1930 I saw only one old woman with decoration of this kind. From the Munshi some small ivory anklets were obtained. These were old, and such ornaments are not commonly used at the present time. At Kano a Hausa man makes ivory beads and cigarette holders on a lathe; but this is a modern development in response to European stimulus.

The technique of ivory-working in Africa has been by no means adequately described, and even in discussing the work of Benin most writers have confined themselves to cataloguing the objects. H. Lang (pp. 527-552) has described the ivory work of the Mangbetu tribe in the northeast Congo region where ancient skill

is now directed toward making spoons and cups of European form, though the ability to carve human figurines is still extant. The tools used are an adze and a sharp knife.

A description of working in ivory is given by E. W. Smith and A. M. Dale (*The Ila-speaking Peoples of Northern Rhodesia*, vol. I, pp. 180-182). The lathe and its parts are well described and illustrated and in addition to this an account of the making of ivory bangles is given. The ceremonial side of the craft is not neglected. The Ba-ila regard ivory-turning as being controlled by magic rather than by skill; therefore the ivory worker has to wash his face in certain decoctions to keep his eyes true, so that he may not run his chisels awry.

The foregoing details relating to industries establish a number of facts and principles which will be of service in discussing the culture areas of Nigeria in the final chapter. The most important generalizations are as follows:

(1) There has been a diffusion of cultural factors from the north of Africa across the Sahara to northern Nigeria, and in some instances the traits have entered the Southern Provinces. The most important of these traits are the vertical cotton loom; leather work, including sandals; skin bottles; silver work; working in brass by beating and casting; possibly coiled basketry; types of pottery, especially lamps and water coolers; some forms of musical instruments; satchel charms and some kinds of ornaments; and glass-working.

(2) Indigenous to the Southern Provinces are forms of wood-carving which depend on the presence of forests and a religious incentive for the making of masks, human effigies, decorated doors for temples, and sacred drums. Absence of raw material, combined with Mohammedan injunctions against certain forms of art, has checked the northward spread of this trait. Ivory-carving was fostered in the south of Nigeria because of the presence of elephants and the incentive of religion. Bronze-casting thrived because it centered in powerful guilds attached to the royal compound, where religious and social influences were strongly operative.

(3) From the north and east came cultures centering round camels and horses. The latter were bred and used in warfare from Sokoto to Bornu, with a resulting stimulus to the trades of the leather worker and the blacksmith. The throwing-knife probably came from the eastern Sudan. The detailed studies of this weapon illustrate the probability of the transference of design from wood

to iron. The tendency for prototypes to throw off more specialized forms, and the probability that each of these new forms will have its characteristic area of distribution, are principles illustrated by study of throwing-knives. The idea of making harpoons having detachable heads, and the building of canoes of reeds, possibly migrated from the Nile region across the Sudan.

(4) Beliefs associated with the blacksmith's craft are typical of those found everywhere south of the Sahara. There are two principal types of Nigerian bellows. One form is characteristic of northern Africa and the Sahara, while the other is of a pattern widely distributed in the Congo region.

(5) Sequestered plateau and mountain regions preserve artifacts that are probably representative of an older culture that was forced into shelter by the pressure of intruders.

(6) There is a tendency for styles to develop locally, possibly as a result of individual genius. This trend is particularly well illustrated by the details given with regard to decoration of gourds, and the occurrence of carved wooden bowls in an area near Potiskum.

(7) Divisions of labor between the sexes exist. Thus there is one type of loom worked by women and another by men. The division is not necessarily based on any rational principle, for at Kano men make all the clothing for women, neither is there an implication of sex inferiority in these instances of specialization.

(8) European influences indicate that native craftsmen are ingenious and adaptable in imitating new forms, also in grafting new elements of technique and design on older patterns.

(9) An extended study along these lines would be a useful practical approach to the establishment and management of schools. Such centers exist at Bida, Benin, Maiduguri, and other places where the innate skill of young pupils is encouraged. Native handicrafts call forth admiration, and though there are advantages in teaching European methods and designs, these should not be allowed to displace what is indigenous. The ritual of religious belief, and social customs connected with occupations should always be recognized as necessary motivating forces.

The data so far discussed have included geographical, archaeological, and historical facts, to which have been added descriptions relating to the technique and distribution of industries. In a final chapter an effort is made to coordinate this information in such a way as to present a picture of the cultural patterns of Nigerian life, and to explain their probable origin and development.

V. TRIBES AND THEIR CULTURES

THE PROBLEM

The main facts of geography, archaeology, and history have been supplemented by a detailed account of Nigerian industries and their distribution, but so far no attempt has been made to coordinate these data. C. K. Meek has said, "When we come to draw together the cultural threads with a view to arriving at definite ethnological conclusions we are involved in a tangle of difficulties." (I, vol. II, p. 160). At the outset this statement is discouraging since it was expressed by an anthropologist of wide knowledge and long experience in Nigeria; but the truth of it depends, I believe, on the nature of the explanation demanded.

Some ethnological works describing Nigeria do not sufficiently summarize the ethnological data. A student feels that he has reliable information from ethnologists of long experience; but, on completion of several tomes, there is a sense of being confused with factual material. What does it all mean historically, geographically, and functionally?

Should an attempt be made to map out Nigeria into well-defined areas of typical somatic traits, languages, and industries the result would be artificial and inaccurate, for no system of boundary lines could give a truthful indication of the overlapping that occurs. There would be no more than a partial coincidence of areas demarcating physical types, languages, and customs. Yet, despite an apparent confusion, it may be possible at least to make clear a connection between the main facts of geography, history, and the distribution of physical types, languages, and other cultural elements.

The problem of dividing Nigeria into culture areas by means of lines definitely marking off divisions with distinctive characters is impossible for the following reasons:

Before the period of historical records, which began in the eighth century of the Christian era, there was a long and complicated history that has determined physical types, languages, and cultures as they are found today. In other words a time-depth scheme exists, and this, if fully known, would explain the order in which the somatic, linguistic, and cultural elements arrived.

In addition to the difficulty of disentangling cultural and physical elements with a view to classifying them chronologically, there is the effect of ecological factors to be considered with reference to the present-day surface distribution of traits.

Cultural strata may in the first instance be laid with some uniformity. But later, there are changes comparable to the warpings and intrusions with which a geologist has to deal. The distribution of cultures in depth and surface area, resulting from the operation of historical and geographical factors, may be illustrated as follows:

To represent the cultures of Nigeria diagrammatically the usual linear diagram would have to be replaced by a series of colors, each of which would represent a cultural pattern. Thus the artist might select the color red to represent all the traits that are characteristic of Negro culture, and this tint he would lay over the whole of the Northern and Southern Provinces. A blue color might then be chosen to represent the elements of Mohammedan culture. This pigment would have to be thickly laid over the Northern Provinces, but in such a way that streaks of the blue ran into the red coloration of the Southern Provinces. In the Northern Provinces the predominating color would be blue (Mohammedan) with here and there patches of red (Negro culture) showing plainly through the blue. If the colors were laid on while wet, the streaking at the junction of the pigments would represent an irregular margin of cultures where there is an exchange of cultural elements. To represent a blending of cultures correctly there should be here and there purple patches indicating that red and blue have so mixed that the patch cannot be said to represent one culture or the other, but an inextricable mingling of the two.

At least one other color would have to be used to show those indeterminable cultural elements that have affected the Jukun, the Yoruba, and the Nupe. This is necessary, because, in addition to elements of Negro and Mohammedan culture, there are traits that some ethnologists ascribe to a Hamitic intrusion from the Nile Valley, across the provinces of Kordofan and Darfur, through Bornu, and into the areas occupied by the tribes mentioned.

Such an inartistic map, with its blotches, streaks, and minglings, in which one color or another might predominate, would be a diagram more correct than one in which lines were used to delineate culture areas.

The foregoing paragraphs indicate that the following points, which have already been briefly mentioned, have to be considered more fully in attempting to explain the cultures of Nigeria:

(1) The physical features of the tribes which have entered Nigeria.

(2) The languages of the immigrants.

(3) The type of culture brought by each arrival.

(4) The chronological order of entry.

(5) Historical and geographical factors that have affected the distribution of cultures. These determinants are comparable to forces of nature which distort and redistribute the original stratification of the earth's crust. To continue the analogy, there are in cultural history human controls and physical forces working incessantly to disturb both the depth and the surface distribution of what were at one time distinctive cultural strata.

SOMATIC CHARACTERS

Reference to Plates CXVII-CXLI will show that there are many physical types in Nigeria. These differ with regard to pigmentation of the skin, stature, sturdiness of build, shape of face, hair, thickness of lips, eversion of lips, and nasal width. Physical measurements do not exist in sufficient quantity to allow a statistical comparison of all the physical types, but general observation and photography clearly indicate that the somatic characters involved are not the result of local environmental influences. The differences of the traits mentioned are too great to be explained by reference to local disparities of temperature, elevation of the land, humidity, and food, within Nigeria itself.

It is true that physical anthropology does not at present profess to determine the extent to which environment can generate and change somatic character, neither are physical anthropologists agreed with regard to the characters which are the best criteria of a race, though certain entrenched features of the Negro are recognized. No satisfactory definition of a "race" has been formed, and the causes that have led to differentiation of even the main somatic divisions of mankind are a disputed biological problem. The mechanism of heredity as applied to human beings is imperfectly understood because of lack of controlled experiment and paucity of research along lines of descent in families. Furthermore, the variability of somatic characters as a result of miscegenation still offers a wide field of investigation.

Despite these deficiencies of knowledge there is the possibility of having a clear concept of the physical traits which are implied by the use of the word Negro. If one thinks of the Kru of Liberia, or the Ibo of Nigeria there come to mind such characteristics as a thick heavy build with a well-developed torso, a medium stature, prominent heels, curved shin bones, prognathic jaws, a rounded

face with considerable bizygomatic breadth, a broad nose, and thick everted lips; also woolly hair. A difference of opinion exists with regard to the continent in which the Negro originated, and the rival claims of Africa and Asia have been advanced. But such a question, leading as it does to hypotheses respecting the primary origin and dispersal of man, or even to the possibility of polygenesis, is too speculative and theoretical to account for the present distribution of physical traits of Nigerian tribes.

Everywhere along the expeditionary route evidence of Negro traits was apparent, but at no place do all the traits appear; neither do they show the same degree of development in any two areas, or among any two tribes. When among Hausa-speaking peoples of northern Nigeria one might observe in certain individuals a strong development of traits that are associated with the word Negro, but on the contrary one would repeatedly admit that in other Hausa-speaking people Negro traits were strongly overlaid (Plate CXXXIII, Fig. 2).

The reason for this admission would be a tall stature, a slimness of build, and a refinement of lips and nose. The same observation of overlaid Negro traits would be made with regard to some Shuwa Arabs, Keri-Keri, Bolewa, Jukun, Kanuri, and Fulani. For example, the Fulani chiefs who presided at the whipping contest (Plate CXXXV, Fig. 1) had a light brown skin, a tall slim build, a narrow hawk-like nose, and an oval face. Fulani girls (Plates CXXXV, Fig. 2; CXXXVI, Fig. 2) have a physique in which Negro characters are deeply overlaid by somatic traits of a kind differing in noticeable degree from those of the typical Negro. The hair of these girls was long and slightly wavy, and the woolly character of Negro hair was absent.

In contrast with these northern tribes, who show a modification of typical Negro physique, should be mentioned the southern forest tribes who are predominately of Negro pattern. Such tribes are the Ibo, Yoruba, Egba, Jekri, Bini, and Sobo. But the Nupe show a modification of Negro traits in the direction of increased height, more slender build, and a refined physiognomy. The Nupe of Bida are, geographically, intermediate between northern and southern Nigeria, and this fact has had its anatomical results.

The general impression left by the journey is the prevalence of Negro somatic traits south of the line 9° N. Lat., and the predominance of modifying physical characters to the north of that line. The farther one proceeds to the north of 9° N. Lat. the more strongly

are Negro features overlaid, until at Tahoua on the border of the Sahara Desert, the general type should be definitely described as a non-Negro population.

Such observation raises the question of the origin and nature of this non-Negro type, in connection with which the mention of the words Hamitic and Semitic leads to controversial opinions. In chapter II (Archaeology) it was necessary to admit that the relationship of stone-building and stone-using peoples to the present population of west Africa is undetermined. One might go further and say that in the present state of archaeology, including examination of human osteological remains, the ethnologist has a very imperfect reconstruction of the history of African peoples. Osteological evidence is too meagre to demonstrate the degree of generic relationship between people past and present. Neither do historical facts serve the inquiry until the written records of the eighth century give information concerning the intrusion of Semitic and Hamitic tribes into northern Nigeria.

Therefore, in order to account for the overlay of Negro somatic traits, an investigator is forced into a realm of hypothesis, and in particular he is concerned with the postulated intrusion of Hamites into east Africa. The use of the word Hamite is not consistent with all writers, though there is a preponderance of belief in a remote linguistic and probably a physical union of Hamites and Semites.

Despite the views of G. Sergi and G. A. Barton that Hamites originated in Africa, the general opinion of ethnologists relegates the original home of the Hamites to southwest Asia. From such a center they are thought to have spread along the north and down the east of Africa in many successive waves, from a period at least as early as 10,000 B.C. until recent centuries, though admittedly dates are mere guesswork (C. G. Seligman, I, pp. 593-705).

The word Hamite has three distinct connotations. The chief characteristics of Hamitic speech are well defined because they are distinctly different from the structural foundations of the isolating Sudanic languages, the click language of Bushmen, and the grammatical forms of Bantu. The physical characters of the Hamites are usually said to be a slim build and fairly tall stature, a skin color varying from light brown to very dark shades, a refinement of lips and nose as compared with those features in the Negro, the absence of everted lips, and a texture of hair that is not negroid. The cultural import of the word Hamite varies, but a usual connotation would include pastoral pursuits, a distaste for manual labor, and an avoid-

ance of agriculture and vegetable foods. Hamites created warlike organizations which imposed their social structure, their language, and, where possible, their pastoral culture, on a Negro people.

The debatable nature of Hamitic culture is illustrated by reference to the divergent views of C. G. Seligman and of E. Torday. In "Races of Africa" (p. 156) Seligman says, "We may believe that the Negro who is now an excellent iron worker learnt this art from the Hamite." On the contrary, E. Torday doubts whether typically pastoral Hamites, who show an aversion to handicraft and manual labor generally, could contribute such a factor as iron-working. Torday, I think rightly, believes in a self-evolved Negro culture whose strongest facet is an aptitude for arts and crafts. In a cultural sense, so Torday says, the Hamitic hypothesis can be dispensed with so far as Negro artifacts are concerned (Herbert Spencer, *Descriptive Sociology of African Races*, London, 1930, Preface, iii). Yet, despite different points of view, the connotation of the word Hamite, as generally accepted, has a value in explaining the modification of Negro physique, language, and cultural habits.

A consensus of opinion favors the theory that the intruding Hamites formed an aristocracy that displaced a large Negro population in northeast Africa, with the result that Negroes moved westward along the northern edge of the forest belt, also southwestward across the Congo basin. There is, however, the probability that Negroes inhabited all Africa south of the Sahara before the entry of Hamites, and the evidence does not make certain that southern Nigeria first received a Negro population because intrusive Hamites forced Negro tribes westward. Nevertheless, Hamitic pressure, and later a series of impacts from Semites, have pressed the Negro population of Nigeria southward until the most typical Negroes, the Ijaw, are to be found on both sides of the Niger Delta. Such hypotheses, though controversial, have the advantage of giving a working basis which explains some of the facts of linguistic, somatological, and cultural distribution in Nigeria.

Long before the well-known Arab invasions of the seventh and eleventh centuries, there came, probably from north Arabia, many waves of Semites into the Nile Valley and along northern Africa. For an unknown period Semitic blood, language, and customs have diffused into northern Nigeria from across the Sahara, also along the line from Lake Chad to the Nile Valley.

The details of these Semitic and Berber invasions through trade and warfare have been detailed in chapter III (History and Explora-

tion). The new arrivals were dominant in warfare, and the general tendency was to press the Negroes and Hamiticized Negroes into the forest belts of the south, while many tribes of strong Negro affinities took refuge in the plateau region that stretches across Nigeria from Yola, through Bauchi, Nassarawa, and Zaria.

When endeavoring to understand the physical foundation of Nigerian tribes the most helpful hypothesis is the one outlined. This assumes a possibly indigenous Negro population having certain definite somatic characters of the Negro which have been modified in such a way that a large number of physical types has been produced. These types differ in skin color, build, stature, shape of face, prognathism, nasal breadth, and thickness and eversion of the lips. The people whose physique effected these changes to varying degrees in different parts of Nigeria are conveniently known as Hamites. Semitic (Arab) intrusions have further tended to efface the typical characteristics of both Negroes and Hamites.

The Semitic (Arab) type has influenced somatic traits in the direction of light brown skin color, narrow oval face, thin lips, an aquiline nose, and straight hair. The cultural contributions of Arabs to Negro tribes have been more pronounced than the effects of racial miscegenation between Arabs and Negroes, but use of Negro slaves by Arabs has tended in some parts of north and west Africa to create a mixed population.

LANGUAGES

Instances in which physical types are definitely associated with well-defined languages have to be recognized. The Ijaw are a Negro people in a physical sense and they speak a Negro tongue. The Shuwa Arabs are of Semitic appearance with an obvious infusion of Negro blood, probably from slaves; yet among the Shuwa there is a definitely recognizable association of somatic traits of Arabs with a Semitic language. The Hausa-speaking people of northern Nigeria have the physique of Negroes modified by those characters which are generally accepted as Hamitic, while their speech is fundamentally Hamitic, with added elements of Sudanic (Negro) and Semitic languages.

These facts illustrate the general truth, that although physique and languages show some degree of local association it would not be possible to prepare two maps, one linguistic and the other somatological, in such a way that the divisions coincided when the maps were superimposed. A third map purporting to give the

distribution of associated cultural traits would make only an indifferent fit with the maps indicating distribution of languages and physical types.

In view of the statement that a language may be classified in one group or another according to the facet under examination, likewise in consideration of the number of unstudied dialects, maps showing quite different distributions of Hamitic, Semitic, and Sudanic (Negro) languages could be prepared. Meek and Talbot both recognize this, but nevertheless point out that a serviceable method of plotting linguistic distributions exists on the basis of main structural differences between Hamitic, Bantu, Sudanic, and Semitic tongues. Fundamental differences that are useful in making these broad divisions of linguistic families have been summarized by A. Werner, who quotes C. Meinhof, D. Westermann, M. Delafosse, and other linguists (*Language Families of Africa*, London, 1925, pp. 20-23; *Structure and Relationship of African Languages*, London, 1930).

There are two main linguistic divisions of Negroes; namely, Sudanic-speaking and Bantu-speaking. The former group has isolating languages depending for meaning on the position of words in the sentence, and the use of high, middle, and low tones. The latter has languages whose structural unity is shown by the alliterative concord, classes of nouns with prefixes, the position of the genitive, and other points of a fundamental kind. The Bantu languages have semantic tones, but these do not influence the meanings of words to the same extent as in Sudanic languages.

Differences between the physique of Sudanic and Bantu Negroes exist. The differences have sometimes been accounted for by stating that the Bantu-speaking Negro was produced by physical admixture with Hamites. But the main *cultural* elements of Negroes show impressive similarities despite the two main linguistic divisions (Bantu and Sudanic) and the physical differences that accompany them.

Such discussion leads to the recognition of the following linguistic divisions in Nigeria: Sudanic, Bantu, Semi-Bantu, Hamitic, and Semitic, each of which rests on basic structural characters. These, however, become merged, as do also vocabularies, so leading, as Meek says, to a linguistic confusion without parallel. Yet despite the confusion there is a general truth worth noting. If Hausa is classed as Hamitic, and many linguists would agree to this, the main languages north of 9° N. Lat. are firstly Hamitic and Semitic tongues supplemented by isolating Sudanic Negro languages. To the south

of this division there is a predominance of Sudanic languages which extend from the west to the east, where they merge into Semi-Bantu and Bantu at the border between Nigeria and Cameroon.

There is, however, only a general correspondence between the distribution of physical types and languages. With regard to each of these factors the dividing line is approximately 9° N. Lat. To the north of this there is a prevalence of non-Negro physique combined with a paramount importance of Hamitic and Semitic elements of speech. These are associated with intrusive Hamites and Semites, who possessed those physical traits that have modified the somatic characters of the true Negro. To the south of the ninth parallel Negro languages (Sudanic, Semi-Bantu, and Bantu) are of primary importance, and these are associated with a prevalent Negro physique.

These preliminary observations relating to types of physique and linguistic families lead to a dissection of cultural elements in the hope of associating these traits in a definite way with linguistic and somatological divisions. From the observations made respecting linguistic areas and those in which a type of physique predominates, it will be surmised that cultural diffusion has been extensive and that conclusions will be of a general kind. Yet the plotting of cultural areas, apart from language and physique, is favored by the fact that there are in Nigeria potent geographical determinants which tend to create patterns of culture according to rainfall, temperature, elevation of the land, and the resulting types of flora and fauna.

This truth could be expressed in a more general way by saying that cultural traits, which are primarily laid in a stratification corresponding with the time of their arrival or invention, are rearranged by geographical determinants. Consequently, a time-depth scheme of cultural elements tends to give place to a surface arrangement of the traits, because these are segregated and controlled by the geographical conditions mentioned in chapter I.

This physical check on the geographical distribution of tangible cultural traits, of which camel-rearing and horse-breeding are examples, contrasts sharply with the mobility of physical and linguistic traits. When one considers the extent and duration of warfare in Nigeria, with its concomitants of slavery and the transport of large numbers of slaves from one area to another, the wide mingling of physical traits is understandable; so also is the mixing of mobile linguistic elements.

In contrast with the ready mingling of languages and somatic traits there is the helpful fact that geographical conditions have

placed a check on diffusion of many important cultural elements. Consequently, it is possible to make a spatial grouping of these into cultural patterns that depend primarily on geographical conditions.

NEGRO CULTURE

When describing the somatic traits and languages of Nigerian tribes, attention was called to the importance of Negro characteristics of a physical kind, while the wide distribution of Negro languages, especially Sudanic, was also noted.

As a concomitant of these physical and linguistic traits of the Negro there is a type of culture which is fundamental to the whole of Nigeria, though the Negro elements are more deeply entrenched south of the line 9° N. Lat. than to the north of that parallel. The forest culture of Sudanic-speaking Negroes is in close correspondence with the culture of Bantu-speaking Negroes, who occupy the greater part of the Congo basin and Cameroon. In fact, if due allowance is made for special localizations of culture, there is predominating uniformity in the pattern of forest Negro culture from far west Africa through Liberia, the Ivory Coast, Ashanti, Dahomey, Nigeria, Cameroon, the Congo basin, and into the land occupied by the Ovimbundu of Angola.

In stating that the following elements are characteristic of southern Nigeria, and that the welding of these forms a pattern of Negro culture which is typical for a large area, it is recognized that not all the elements are to be found together in every part of the area under discussion.

In one area, or tribe, some features of Negro culture are emphasized, while others are obsolete or are overlaid and disguised by other elements. Yet the Negro factors mentioned in the following paragraphs are associated with sufficient frequency to give a clear general impression of a Negro culture which is basic throughout Nigeria. The question of traits that have intruded into the Negro culture of Nigeria is not considered here; therefore the list of traits is confined to those which are probably original and basic characteristics of Negro culture. The elements may be classified as religious, social, and industrial, though such divisions are not mutually exclusive because an element of religion enters into every department of the social and industrial life. But, so far as it is possible to separate the industrial traits, they are as follows for Negro culture:

(1) Skill in iron work, which is surrounded with ritual. The sacred grove of the patron god Ogun at Ife is but one instance of

the ideas which everywhere among Negroes surround the blacksmith's craft. The details have been given in chapter IV (Industries).

(2) Wood-carving, which finds its best expression in the making of wooden masks, human figures, stools, door posts, carved staffs of office, wooden combs, and many other objects. There are in Negro tribes many centers of wood-carving, each having a distinctive style of art. Thus stools of the Ivory Coast, Ashanti, Bida in Nigeria, and Bamenda in Cameroon are readily distinguishable.

(3) Ivory-carving is skillfully done by Negroes, and at Benin the finest carved tusks of Africa have been produced.

(4) According to Ling Roth (*Studies in Primitive Looms*) the vertical mat loom may be indigenous to Negro culture in the center of Africa. The other looms used in Nigeria are possibly non-Negro in origin, yet long association with Negroes makes these looms a typical part of Negro culture.

(5) Elaborate carving of calabashes is a highly specialized art among Negroes. The origin is unknown, but the craft with its many local styles is thoroughly characteristic of Negro culture.

(6) Making bark cloth is a typical Negro industry.

(7) Raffia work of all kinds is used in the making of mats, clothing, and baskets.

(8) The origin of coiled basketry is unknown, but examples in the Egyptological collection of Field Museum are dated 2000 B.C. It is possible that coiled basketry originated among Negroes and spread into Egypt, or the reverse may be true. But the construction and sewing of the coils suggests diffusion rather than independent invention.

(9) Making of pottery by the coiling and punching of clay is an art which finds expression among all Negroes, though the origin of the processes is unknown.

(10) Hoe cultivation by women is basic in Negro society, though of course there are many types of hoes in use, and the part played by males in agriculture varies locally. In forest clearings extensive cultivation of root crops and maize is practiced. The latter becomes the main crop in country where the forest gives place to open regions, as in central Angola and on the plateau of Northern Rhodesia. Maize, yams, peanuts, manioc, and sweet potatoes are the principal crops of Negro agriculturalists. In southern Nigeria yam festivals and the worship of the yam spirit are traits which are not common to the whole of the Negro area under discussion. But some kind of

ceremony in connection with sowing, reaping, and offering the first fruits to ancestors is usual in Negro tribes. In the economic life of Negroes the oil palm, the raffia palm, and the wine palm are essential to several staple occupations.

(11) Animal husbandry is not a typical Negro trait, though Negroes in contact with pastoral tribes keep cattle when conditions permit. Avoidance of milk as food is a Negro trait, yet some Negro tribes use the milk of cattle and goats.

(12) Fishing by means of nets, spears, poisons, conical basket-traps, and weirs is a widely distributed Negro industry. Bows and arrows, blunt wooden bird-arrows, spears, shields, making fire by twirling, and the use of the long dugout canoe, are cultural traits found generally among forest Negroes.

All the foregoing cultural elements are characteristic of Negro life in southern Nigeria, which is but a geographical and cultural sample of the more extensive African area occupied by Negroes.

Negro architecture is confined to the building of huts of various types in which wattle walls plastered with mud are general. The roof is a thick thatch of grass, though leaves of palms and banana trees may be used. The shapes may be round, square, or rectangular, but wherever Negroes are known to build houses of clay with flat roofs an intrusive culture is certain.

So far as handicrafts are concerned the Negro is inclined to form himself into craft guilds, some of which center in the king's compound. The relationship between handicraft, religious beliefs, and ritual is best understood by reading Rattray's "Religion and Art in Ashanti," but everywhere among Negroes there is association of this kind to varying degree. The importance of division of labor on a sex basis has to be recognized, though the tasks thought to be appropriate for men and women respectively vary with locality.

Everywhere in Negro society social life has certain fundamental elements, among which definite types of musical instruments, songs, and dances are prominent; and despite diversity there is appreciable uniformity.

Almost everywhere among Negroes there flourish secret societies which exist for various purposes such as initiation of boys into the tribe; this is, however, only one aspect of the secret society. Initiation rites include seclusion, harsh treatment, circumcision of boys and frequently some corresponding operation for girls, use of masks and netted costumes, painting of the body, instruction, change of name, and ceremonial re-introduction to society with adult status.

From Sierra Leone to Cameroon a special form of secret society is one which constitutes a powerful political, legal, and economic unit. There are societies of this kind for men and others for women, who have special privileges according to the number of grades through which they have been initiated. Progress through various degrees may last a lifetime, and such advance is almost invariably accompanied by payment of fees to the society. The legal functions of such groups as the Leopard and Crocodile societies of Sierra Leone, and the Ogboni league of the Yoruba, have formed social controls, which, though despotic, have played a necessary part at the cultural levels in which they function.

Associated with such societies are age grades, a term which has been somewhat vaguely used to cover gradings in Africa, Melanesia, and among North American Indians. These gradings have, however, been shown to rest on concepts that are radically different (R. H. Lowie, *Plains Indian Age-Societies*, Amer. Mus. Nat. Hist., Anthropological Papers, No. II, pp. 883-951).

Lowie's research emphasizes the need for caution in using the term "age grade." Possibly the age grades of Nigerian Negroes may prove to be structurally and functionally different from those in other parts of Africa. Age grades among the Hamitic Galla and Masai are formed on a basis of contemporary circumcision, and at intervals of seven years government of the country is handed over to a new grade. These points constitute important differences between true Hamitic age grades and division according to age in some societies of west Africa, where passage from one grade to another depends as much on payment as on seniority.

In the social life of Negro tribes the classificatory system of relationship with cross-cousin marriage is a dominant feature. In some regions the system is not well defined, and there is evidence of its decline in the use of one term for a large number of relatives who used to be classed in small groups, each of which was distinguished by a special name. But in other regions the classificatory system is extant and vigorous, as among the Ovimbundu of Angola, among whom no difficulty was experienced in collecting the class names of grouped relatives.

Reckoning of descent through females is typical of the Negro social system, in which laws of succession and inheritance often function through the maternal uncle. This relative is responsible for his sister's children, even to the extent of paying their fines and debts, while he may go so far as to sell his sister's children or put them to

work in order to meet his own liabilities. Family life among Negroes has therefore a definite pattern in which the authority of a father is subordinate to that of a maternal uncle.

Warfare and its concomitant of slavery are institutions of Negro tribes. The former shows power of military organization as in Ashanti, Dahomey, among the Yoruba, in the old Kingdom of Kongo, and later in Lunda. But the Negro, with the exception of the Zulu, has not developed such a thorough, permanent, and detailed military system as that which is typical of the Hamitic Masai.

Everywhere among Negroes slavery has important domestic, economic, and social influences. Domestic slaves, that is, those who are pawned to redeem debts, are more favorably treated than those who are captured in war. But generally speaking, slaves in Negro society work with and not merely for their masters. The position of such slaves differs from that of Negroes captured by Arabs and taken away for sale to Morocco and Tripoli, where they dwell among another race to whom they are servile. In Negro society slaves were of ritual importance because they were sacrificed and eaten on such occasions as the death of a king and the accession of a new ruler. There is no part of Negro Africa where the ceremonial slaughter of slaves has been more prevalent than in Ashanti, Dahomey, and Benin.

Blood brotherhood by the mingling of blood from the bodies of those who make a covenant is a typically Negro custom with local variations. Among the Yoruba, for example, a kola nut may be smeared with the blood of the contracting parties, who then eat it. The blood compact by drinking milk and blood is of importance among pastoral tribes of east and northeast Africa. Robertson Smith (*Kinship and Marriage in Early Arabia*, Cambridge, 1885, pp. 47-49) comes to the conclusion that among early Semites an exchange of blood from the bodies of those who made an alliance was effected by drinking or tasting. The origin of blood exchange as now practiced among Negroes is unknown, though it may have been Semitic; but whatever the origin of the trait may have been, the custom can be added to those traits which are now characteristic of Negro culture.

Negroes display an aptitude for building up political organizations that differ from mere military systems. It is true, however, that political power of Negro states has rested on military strength with consequent warfare and disruption. This may be proved by following the history of Ashanti, Dahomey, the Yoruba of Nigeria, and the

kingdoms of Kongo and Lunda. Yet, despite the union between political power and militarism in Negro kingdoms, the Negro concept of a kingdom is something essentially different from the formation of a simple military aristocracy which lacks religious sanction and elaborate court ritual.

Negro kingdoms secure strength and cohesion through a religious organization. The kings of the Ashanti, the Dahomeans, and the Bini were the repositories of the soul of the nation, therefore prosperity of the land was closely bound up with the health, youth, and vigor of the king. This is as true of the kings of far west Africa as it was of rulers in Uganda and among the Nilotic Shilluk. To these regions the custom of strangling a decrepit king was common, and it was not unusual for the king to be asked to take his own life. During life the king's person was sacred. There are examples, notably from Benin, of the king having to remain inside his own compound which he might not leave except at night and in disguise. In some localities the king had to be carried so that his feet might not touch the ground.

The importance of women of the king's household may be seen from Rattray's "Ashanti," and "Religion and Art in Ashanti." The same is true of the Yoruba, among whom, notably at Oyo, there exist the king's court and the queen's court. Meek (I, vol. I, p. 256) calls attention to the importance of females in the royal household of the Jukun. The two most important women are the Atsukaka and the Ashumotsi. The former is one of the late chief's sisters in the classificatory sense, and her power is partly due to her supposed control of rain. Ashumotsi is the favorite wife of the deceased chief; she is the reigning chief's official mother and is consulted by the king on all important official matters. These two women mutually control the election of the chief's successor.

The importance of a Negro king is even greater after death than during his life. Among many Negro tribes the king's death is not announced during a period which varies from a few days to several months. There are means of drying and preserving the body, and parts of a corpse may be disinterred, decorated, and reburied, or possibly preserved in a sacred hut. Houses for stools of deceased chiefs of Ashanti are important, and on anniversary days the stools are anointed with blood from sacrificed goats. The preservation of parts of a king's body together with objects with which he was associated is a basic Negro custom. The Ovimbundu sew a king's head in oxhide and preserve it in a box. In times of drought, or

when setting out on a caravan journey, the head is taken from the box in the presence of the reigning king, for whom a medicine-man acts as priest. The head is questioned, sacrifice is made, and a new oxhide wrapping and box may be given. Such attentions after death are due to a belief that the prosperity of the kingdom is bound up with the spirit of the king, just as in his lifetime the welfare of the community depended on his vigor, personal safety, and the sanctity of his person.

This sanctity of the king and killing of decrepit kings in order to preserve the prosperity of the country may be Egyptian in its origin. Seligman (I) classes divinity of kings, rain makers, and killing of kings, with Hamitic traits. But whatever the truth of that may be, the point of greatest importance here is that a well-established kingship of great political power, backed by strong religious sanction and supported by ancestral cults, is now typical of Negro kingdoms. In this aggregate of traits surrounding kingship southern Nigeria has fully shared.

The strongest beliefs of a religious kind among Negroes are those relating to the spirits of ancestors and their power for working good or evil among the living. Ideas of a Supreme Being tend to be vague among Bantu Negroes; thus the Nzambi of the Congo region and the Suku of the Ovimbundu are powerful creators, but they are so far removed from contact with men that sacrifices to them are not usual. The god issues no commands and does not appear to be interested in the conduct of man, neither does the Supreme Being punish or reward men according to their conduct on earth.

On the contrary the spirits of ancestors are active in their interest. Some of them are jealous and easily offended by absence of sacrifice; they are therefore consulted by a medicine-man who induces them temporarily to enter a wooden figure whose body is filled with a concoction. The Ovimbundu have spirits who are classified into two main divisions, the *olosande* or good spirits, and the *olondele* or bad spirits. Spiritual life is concerned with the activities of these spirits, whose operations are known to the medicine-man. He makes his contacts by use of wooden images, a divination basket, and dances in which a small ax is carried. The Ovimbundu use the word *utima* (heart) for soul, and the western Bantu are shown by Torday to believe in a dual soul (Dualism in Western Bantu Religion and Social Organization, J.R.A.I., LVIII, pp. 225-245). H. Junod makes clear that the Bathonga have a multitude of ancestral spirits who are divided in their interest in the living. Thus there

are spirits who are concerned chiefly with the family, others are approached on tribal matters, and some are concerned chiefly with warfare. But the Supreme Being is not important or actively interested in the tribe (*Life of a South African Tribe*, Neuchâtel, 1912, vol. II, pp. 346-385).

These data relating to ideas of a supreme being, the existence of a soul or souls, and the importance of ancestral spirits, are typical of Bantu Negro and Sudanic Negro religion. But in southern Nigeria, especially among the Yoruba, exist theistic beliefs which cannot be regarded as having a general distribution among Negroes. A considerable part of the following statements, which are made in reference to the Yoruban deism and polytheistic beliefs, apply also to Dahomey and Ashanti.

In southern Nigeria, likewise in Ashanti, prevail definite concepts of a sky god and an earth mother. Such deities are named; moreover, they are active and therefore demand sacrifice and consultation. In this respect they are unlike the Nzambi, Suku, and Kalunga of the Congo and Angola. When one stands in the Temple of the God of Thunder at Ibadan (Plate CLVIII) or consults Johnson's "History of the Yorubas," it is evident that there is a Nigerian theistic element which cannot be said to form a general trait of Negro religion.

Among the Yoruba there is a rich mythology which is combined in a subtle and inextricable way with known facts of Yoruban history and theistic beliefs. This complexity of religious beliefs may be no more than a special local development among tribes of southern Nigeria, Dahomey, and Ashanti, yet an intrusive element of systematic polytheism, possibly from Egypt, is not unlikely. But it would be safer merely to say that in southern Nigeria, and particularly among the Yoruba, there exist theistic beliefs which are not typical of Negro religion. Meek (III, chapter III) definitely attributes certain aspects of Jukun religion to Egyptian influence. But perhaps the word Hamitic, rather than Egyptian, is preferable because of its broader connotation.

The following elements are typical of the spiritual beliefs of southern Nigeria, and to a great extent they may justly be said to form a general background of Negro religion.

Sacred groves, pools, and creeks having guardian animals are widespread. A grove may contain a variety of objects such as stones, living serpents, small houses sheltering clay figures, possibly also masks and costumes. Such groves have a wide distribution

among Sudanic and Bantu Negroes. The sacred grove is readily traced from Sierra Leone, through Liberia into Ashanti, and along southern Nigeria into Cameroon. There are many sacred groves in the region to the north of the Congo estuary, and they are common in Uganda. The use of sacred groves is a basic trait of Negro spiritual life, so also is the employment of shrines; that is, places which form temporary abodes of spirits who require sacrifices to be made in an appointed spot. A small hut, which shelters clay figures of animals and human beings to whom cowries and other offerings have been made, is one of the commonest elements of Negro religion in southern Nigeria and elsewhere. The bull-roarer is still in use, and in many places it is regarded as a sacred accessory of religious rites among Negroes.

Python worship reached its highest development in southern Nigeria and Dahomey, where the beliefs and rituals associated with pythons kept in huts in charge of priests and priestesses, constituted the most elaborate system of serpent worship in Africa. A similar series of beliefs and practices is reported by J. Roscoe from Uganda (Python Worship in Uganda, *Man*, 1909, No. 57). Research into African serpent worship, cults, and beliefs does not suggest that such aspects of religion can truly be regarded as generally characteristic of Negro religion. But in Nigeria, Dahomey, and Uganda one probably sees the remnant of a phase of religion which was formerly more common than it is today. The whole evidence relating to ophiolatry in Africa shows that beliefs in the magical power of snakes as guardians of sacred places, as reincarnated spirits, and as announcers of conception, is a widespread trait of Negro life which has extended to and survived to the present day among non-Negro tribes of northern Nigeria (No. 1, this volume, 1931).

Among Negroes of southern Nigeria beliefs often described as animistic are common. Many tribes revere genii of the rocks, trees, and streams, all of which require placation by sacrifice. There is no part of African territory occupied by Negroes which shows a more intense development of this aspect of religion. But some Negroes have entirely lost these animistic beliefs. For example, among the Ovimbundu, who are Bantu Negroes, I could find no trace of animism.

If totemism is regarded as being a sentimental bond between man and some plant or animal, one may say that totemic beliefs are typical of the religious ideas of Negroes in southern Nigeria. Together with these beliefs in a mystic alliance between a man and

his familiar animal, there exist many ideas concerning reincarnation and transformation. Such concepts occur sporadically among Negroes in all parts of Africa, and evidences of totemic clans are common.

Possibly serpent worship, animistic beliefs, and totemic concepts formed a primary series of allied beliefs which constituted early Negro religion. Whatever may be the truth of this suggestion, it is certain that such beliefs are still strongly entrenched among typical Negroes of west Africa.

One aspect of religious thought that is more prominent with Negroes of west Africa than among Bantu Negroes is the erection of stones representing the phallus; also the employment of eggs in sacrifice. In southern Nigeria are groves containing egg-shaped stones, while the breaking of eggs against sacred stones and trees is a common rite often mentioned by Rattray (IV, *passim*). This tendency to emphasize traits relating to fertility may, in my opinion, be added to python worship, totemism, animistic beliefs, and well-defined ideas of reincarnation, all of which are perhaps more pronounced among Sudanic than Bantu Negroes, though this generalization would require careful testing.

The medicine-man and his practices form a common element of Negro religion. Everywhere in Negro society the medicine-man is a medium for approaching a world of ancestral spirits. Most frequently this is accomplished by the use of human figures of wood, or other objects which may become temporary shrines of spirits, who can then be consulted. Other important functions of the medicine-man are rain-making, divination, and the conducting of trial by ordeal. In addition to these duties the legitimate medicine-man seeks to discover the wizards who are workers of anti-social magic. The Umbundu distinction between the legitimate practitioner (*ocimbanda*) and the evil magician (*nganga*) is one which holds among many Negro tribes.

Among the minor characteristics of Negro culture in southern Nigeria are the following traits, which might be accepted as fairly constant elements of Negro civilization.

Foremost among these is the making of drums, signaling, keeping sacred drums in special houses, belief in spirits living in drums, and association of drummers with the king's compound. Among games, string figures, mancala, and wrestling are common in Negro communities. The ceremonial use of kola nuts, scarification, tooth mutilation, the use of red camwood powder, and the wearing of

heavy collars, bracelets, and anklets are traits found to varying extent in Negro groups.

These traits comprising religious beliefs, social organization, and handicrafts, when massed together form a complex life which may be described as a Negro culture. Into this foundation of Nigerian Negro life, there have been many intrusions from other cultural patterns, which will now be considered.

FOREIGN ELEMENTS IN NEGRO CULTURE

The preceding pages have described a background of Negro culture in Nigeria, but the task of estimating the origin and strength of cultural intrusions is more difficult. The foreign elements in Nigerian Negro cultures are mainly Hamitic, Semitic, Mediterranean, and European. The word Semitic is here used to include, not merely pre-Koranic cultural elements from early Arabian life, but also those which are associated with Arab incursions and Mohammedanism. The Mediterranean culture includes traits of Egypt from 4000 B.C. onward, and perhaps elements from Cretan, Roman, and Phoenician civilizations.

Some Hamitic traits are now so well entrenched among Negroes as to form part of a Negro culture, and a possible instance of this was mentioned in connection with age grades. The fattening of girls before marriage is now a Negro custom of southern Nigeria, but dispersal of the rite along north Africa and in the Hamiticised area of northeast Africa suggests Hamitic origin.

Operations on the sexual organs of girls are frequent among Negro tribes, for example, among the Yoruba, the Ijaw, and the Bini, but there is evidence to indicate that the custom was originally Hamitic. The operation occurs in its most drastic form among the Kababish of Kordofan in whom there are Semitic and Hamitic elements of race and culture. The Galla and other tribes of the Hamitic area of northeast Africa perform clitoridectomy or some other operation on their females, and the observations of Seligman (I, III) indicate that these rites have a Semitico-Hamitic origin.

Circumcision of boys is now a strongly entrenched trait of Negro life, whether Mohammedan or not, but in all probability the practice did not originate with Negroes or with Mohammedan Arabs. The earliest evidence for circumcision of boys is derived from dissection of Egyptian mummies (G. Elliot Smith, *Ancient Egyptians and Origins of Civilization*, 1923, p. 62). The archaeological and anatomical evidence suggests 3600 B.C. as the earliest known period

for this rite, which may have been introduced into the Nile Valley by early Hamites.

In continuing to enumerate traits that have imposed themselves on the Negro culture of southern Nigeria the following are important not merely as an academic study, but in the practical aspects of administration and education.

Mohammedanism has entered into the tribal life of Nigeria, bringing with it influences affecting religion, family government, law, art, literature, and education. The general tenets of the Mohammedan faith are too well known to require detailed recapitulation. But they may be summarized in the briefest way by referring to the repetition of a creed, the saying of prayers five times a day, the erection of mosques, the keeping of the feast of Ramadan and other holy periods, the giving of alms, and the desirability of making a pilgrimage to Mecca.

Mohammedan law forbids trial by ordeal, but an oath is taken on the Koran, a legal procedure which has its analogue in the Negro custom of swearing at a sacred shrine. But despite differences between Mohammedan and Negro law a unity exists, since both are concerned with redress of private wrongs rather than maintenance of public order. This is true especially with regard to punishments for murder, theft, and adultery.

Mohammedan law introduces new elements into Negro concepts of family government and the institution of slavery. The relationship between master and slave receives a legal sanction based on Koranic teaching, and this relationship is reflected in laws regulating marriage of slaves, the status of children of slaves, and the legal rights of these offspring. Mohammedan religion and law have placed a check on cannibalism, trial by ordeal, and human sacrifice.

Under Mohammedan dominance a type of political organization different from that of the Negro prevails, especially north of 9° N. Lat. The Islamic type of government favors strong sultanates operating through an aristocracy under which farmers are both landowners and slaves.

Koranic injunction forbidding the use of human and animal forms in art stimulates the use of geometric design; such motifs may be seen in the brass work of Bida and in the leather work of Kano. The religious influence of Islam leads to the founding of schools where the *mallam* sits with his pupils teaching them to write Koranic texts on smooth boards. And along with Mohammedan religion and education are found the rosary and the use of leather

charms containing Koranic texts. Bori dancing to cast out demons of sickness is a spiritual factor of unknown history. Possibly it is of Negro origin, though now practiced in Mohammedan communities.

Elements of Arabian folklore are sometimes grafted on Negro tales.

A northern Mohammedan culture has brought with it the use of clay houses of the type seen at Kano, at Bida, and among the Yoruba. Such dwellings are quite distinct from houses of typical Negro construction (Plate CXLII). The use of an impluvium in Yoruban yards is possibly a cultural trait of Roman origin.

The turban, a *riga* or gown, and wide trousers are elements foreign to Negro culture (Plate CXXXII); so also are sandals, but these date back far beyond the introduction of Mohammedan culture. In Egypt (1500 B.C.) sandals were commonly worn, and two thousand years before that date they were known. Materials used in their construction were leather, papyrus reeds, and palm fiber.

In a journey northward from Lagos horses were observed in Ilorin, but few were seen until Bida, which is on the ninth parallel, was reached. The occurrence of horses at this place along with their accoutrements, which are products of the leather workers' and blacksmiths' crafts, is an intrusion of cultural importance because of its stimulation to industry.

The use of cross-hilted swords, and knives with scabbards of brass or silver, is a northern trait which is traceable across the Sahara to Morocco, as may be seen in Meakin's "The Moors" (p. 201). The styles of beaten brass work in Bida undoubtedly owe much to Moroccan influence (Meakin, pp. 82-85, and my Plate XCVIII).

With this northern Mohammedan culture are associated itinerant barbers whose outfit includes cupping horns, razors, knives for circumcising children, possibly also henna stain and instruments for tattooing designs in indigo.

In Kano henna stain was placed at the bottom of narrow decorated gourds which were worn on the arms of women. Tattooing is done in Kano, but not in Ramadan. I observed women as far south as Ogbomosho who had intricate, incised, geometrical designs on their backs, and into these a blue coloring matter had been rubbed; the process has been described by J. W. Scott Macfie. The use of henna, tattooing, and kohl under the eyes are non-Negro traits which have penetrated from Egypt along the Mediterranean littoral

into a Negro population such as the Yoruba, in whose market places the accessories of these traits were purchased. Wearing a silver or wooden plug in the side of the nostril is another form of personal ornament not indigenous to the Negro, though it is common in north Africa, Egypt, and India (Plate CXXXIX, Figs. 1, 2).

The large market places of Nigeria are not a typical Negro trait; they resemble the large bazaars of north African and Egyptian towns. There is nothing in the general style and organization of the extensive markets at Ibadan and Ilorin to justify their inclusion with the unpretentious trade of typical Negroes. A large bazaar does not seem compatible with the typical forest culture of the Negro, and the trait is probably derived from a northern Arab culture. In close association with these markets are entertainers, including snake charmers, wrestlers, professional singers, players of the *algaita*, water carriers, troupes of dancers, barber surgeons, and showmen who work marionettes (Plates CXLVII-CXLIX, CLII). All of these elements one associates with north Africa, Egypt, and farther east, but not with the typical Negro.

Several musical instruments which are made and used in Morocco (Meakin, pp. 202-203) are foreign to Negro culture. These forms include the *algaita*, which is known in Morocco as the *ghaitah*; also the pottery drum and the *ginbiri*. The last instrument is known to the Hausa as *molo*. This is a small wooden instrument covered with leather, and it is played by twanging two strings. In the Northern Provinces occurs the long trumpet such as is used by horse-men of Bornu, who form the household guard of the Shehu. In addition to these instruments of non-Negro origin and use, are several musical instruments strung with horsehair and played with a bow strung with the same material. These stringed instruments which were used at Maiduguri are undoubtedly an intrusion, possibly from western Asia.

If one reflects on the duration and force of Arab culture in northern Africa there is no difficulty in assessing the importance of a Semitic and Mohammedan Arab culture that has permeated, and in places almost obliterated that of the Negro. Arab dynasties ruled Egypt from the seventh to the fifteenth centuries, and one must remember that the Arabs have, in addition to traits that accompany Mohammedanism, a strong foundation of Semitic culture traceable to Arabia in pre-Koranic times.

Moreover, the Arab dynasties of Egypt were in touch with those of Baghdad and Persia, and an extension of Arab power is indicated

by the founding of dynasties in Sennar, Kordofan, and Darfur. In addition to the line of migration along the north of Africa, there was a steady intrusion of Mohammedan and pre-Mohammedan traits across the Sudan.

The importance of Arabs as culture carriers can scarcely be overestimated. It is not improbable that the drawing of silver wire and the making of beaten brass work as practiced in Nigeria, together with the use of wooden blocks for stamping designs on cloth, as in Ashanti, may be traceable through Arab agency to Persia and India, where such cultural traits are ancient and well established.

An examination of typical Negro traits has left no ground for supposing that such technique might have evolved independently among west African Negroes. In conjunction with intrusive elements may be mentioned the use of chain armor and helmets for riders; also thick, quilted armor for horses. Photographs of these non-Negro traits were made at Potiskum in the courtyard of the Emir of Fika (Plate CLIII). Associated with horsemen are the use of greaves of metal, a two-edged short sword of Roman pattern, and a throwing-iron. This weapon has been described in detail and its types, distribution, and possible evolution from ancient and modern throwing-clubs have been discussed (chapter IV, pp. 409, 438).

Throwing-knives of iron are used in the neighborhood of Lake Chad and along the route from Kano to Maiduguri. But the weapons have not penetrated the southern Negro culture because they are typically associated with warfare in which horses are used. The same may be said of armor, a trait that is linked with horses and warfare as practiced in the north of Nigeria.

There is no possibility of tracing to its source every element of culture which has intruded into Negro life, but armor for men and horses may, I think, be definitely ascribed to Persian origin, with Arabs as the carriers of the trait to Africa (B. Laufer, *History of Chain Mail*, *Field Mus. Nat. Hist., Anthr. Ser.*, XIII, No. 2, 1914, pp. 237-257).

In the markets of Ibadan and Ilorin are water coolers and pottery lamps (Plate XCVI, Figs. 1, 2, 4, 6) which are derived from a northern Mediterranean culture, since they resemble forms used in Algeria, Malta, Egypt, and Crete. Such objects may be seen for sale in those regions today, and they are among the finds of archaeologists in the places mentioned. When dealing with industries (chapter IV, p. 411) attention was called to harpoons with detachable iron heads and floats; such fishing apparatus was collected from the

Munshi and the Buduma, and there is some reason for linking these cultural elements with Egypt.

Among cultural traits that have invaded Nigeria from the north and east, either by way of the Mediterranean coast or the Sudan, is the use of shafted and tunnelled graves, as among the Bolewa and the Yergum (C. K. Meek, I, vol. I, p. 60). Meek also attributes to Egypt high-withered cattle, pumpkins, cowpeas, and rice. Mummification (*loc. cit.*) has been included among cultural traits from Egypt, but the mere drying and preservation of corpses has no necessary connection with Egyptian methods, and drying and preserving a king's body is a common and possibly an indigenous Negro custom. The soul is thought to be in the blood, and its liberation is secured by slowly drying the corpse over a fire. Preservation of parts of the royal corpse for future ceremonies has been described in enumerating traits of Negro culture in general, and no reason can be adduced for attributing these customs to an ancient Egyptian origin unless the details of technique can be shown to be Egyptian.

On the contrary, use of a funeral boat in which a chief of the Jukun is buried is probably traceable to the Egyptian custom as described by James J. Breasted (*A History of Egypt*, New York, 1910, p. 176). In a prefatory note to R. S. Seton's article (I) Sir H. R. Palmer states that several aspects of the present Jukun religion and culture suggest an influence from the Nile Valley. The Attah of Idah (south of Lokoja and north of Onitsha) are still buried in a funeral boat, a custom which has survived in Bornu even among the Moslem Kanembu, whose sheikh is carried to burial in a boat.

As a non-Negro trait of southern Nigeria, Talbot (IV, vol. II, p. 142) calls attention to double ax worship among the Yoruba, Bini, Ekoi, and other tribes, and suggests that the cult-axes which he illustrates may be related to similar forms of Cretan origin.

A visit to Ife is convincing of the intrusion of a foreign element into Yoruban culture, but to speak of that element as Etruscan is assuming what is far from demonstrable; neither is hypothesis assisted by postulating a culture derived from the lost Atlantis (L. Frobenius, II). For the present, ethnologists will have to be content with calling this unknown culture a Mediterranean influence, a term which would include cultural traits from Egypt, Carthage, Crete, and Rome. This generalizing of traits is more prudent than the use of specific terms.

The existence of sacred groves has been noted as a trait that is characteristic of Negro culture; consequently, one cannot claim the

sacred groves of Ife as an intrusive element. Secretion of objects in the bush near Ife is merely part of the general Negro culture of southern Nigeria. But, on the contrary, the objects within the groves and the equipment of the priests in charge of these sacred symbols are distinctly non-Negro in their appearance. This will be conceded after inspection of the three priests in their official dress (Plate CLIV, Fig. 1); the pictures of terra cotta heads taken in the sacred grove (Plate CLVII, Figs. 1, 2); and the finely modeled head of Lajawa, the messenger of Onis (Plate CLVI, Fig. 1).

The first shrine visited at Ife was that of Obalufon, first son of Oduduwa, the creator. In the shrine, which was a small hut, was a clay figure of Obalufon about 50 cm. high, and before this effigy were spread small offerings of palm wine, kola nuts, and cowrie shells. In the Awni's (ruler's) palace I inspected a cast bronze head of Obalufon which was the most remarkable casting seen, not excepting the best work from Benin.

I was not allowed to touch this head, but noted a preponderance of copper in what is presumably an alloy. In this palace was preserved the terra cotta head of Lajawa which bears a distinct resemblance to plaster masks from Greco-Egyptian burials of the first and third centuries of the Christian era (Field Museum Collection, Nos. 88902 and 88904). H. J. Braunholtz and R. P. Wild have described terra cotta heads found in Ashanti. These heads are also suggestive of a foreign intrusion into Negro culture.

The grove of Ogun, patron of the blacksmith's craft, contains a large pear-shaped object of ironstone, said to be the hammer of the first blacksmith, and near-by is a cylindrical stone called the anvil. Over this the remains of a dog were stretched, and I was informed that a dog is sacrificed to Ogun twice a year (Plate CLV, Fig. 2). Association of ritual with the blacksmith's craft is a common feature of Negro culture, but this instance at Ife is peculiar in the employment of a special grove and the preservation of tools said to belong to the first blacksmith. The groves at Ife are a Negro trait with the addition of aspects of a civilization whose intrusion has given a well-developed mythology and deism to Yoruban culture. In another grove are an anvil-stone and two stone crocodiles. Eshu, the devil-stone, is in a densely wooded grove. The figure, which is about three feet high, is within a clay wall of about the same height. In the Idena grove is the stone statue of Olofe-finra wearing a stone collar (Plate CLVI, Fig. 2). The Opa Oranyan, that is, the staff of Oranyan the first Alafin or ruler of

Oyo, is a rounded, tapering column of stone 3 meters 35 cm. high and 100 cm. in girth. In this stone are inserted forty-five copper rivets. The origin of this stone column, like that of the other stone figures, is unknown.

One of the interesting sights of Ife is a pond covered with duckweed. This water was said to be deep and connected underground with a similar pond a few hundred feet away. The guide ruffled the surface of the water with his fingers and threw in a little meal paste. Immediately, the water became agitated with small and large catfish that fed greedily. The catfish is a sacred animal of west Africa which was frequently cast in bronze at Benin; neither is the pool for sacred catfish the only one of its kind. J. L. Sibley and D. Westermann mention such pools in Liberia (Liberia, New and Old, London, 1929, p. 76). The catfish pool at Ife is said to have been created by Oduduwa, who brought a cock and a calabash of sand in order to make dry land in the sea. When the cock scratched, he spread the sand, which multiplied until only the pool at Ife was left as a remnant of a primordial ocean.

About a mile from Ife, and on the main road from that town to Ibadan, three priests led the way into the bush. The path became narrower and the bush more dense until only patches of sunlight filtered through the leaves. As we neared the sacred grove the priests began a chant that continued until the narrow path led into a circular clearing, in the middle of which was a large wooden box.

Before this the three priests knelt, bowed their heads, and clapped their hands five times. The oldest of the priests knelt between the two younger ones, who were his sons. The official priesthood of this grove is hereditary and distinct from the priest-hoods of other groves, each of which has its own acolytes. After clapping hands the priests bowed to the ground, cupped their hands, and blew into them. They then straightened their bodies, clapped hands four times, bent low, and again blew into their hands.

The oldest priest unfastened a key from his belt from which hung a number of leather charms. The lock yielded with difficulty and the lid was raised, revealing a number of terra cotta heads which the priests took from the bottom of the box and set out for photographing (Plate CLVII, Figs. 1, 2). The heads were six in number as the picture shows, and at the left end of the row were two terra cotta pieces that resembled fragments in the bottom of the box.

Mr. Adejumo, a native pastor, recalls that thirty years ago complete terra cotta figures stood upright in the grove. Inspection of

fragments in the box supports this statement, and the picture shows a broken torso. P. A. Talbot (IV, vol. I, p. 277) calls attention to Petrie's impression that no bodies are known in connection with the heads found by Frobenius (II, vol. I, Plate VII). But my observation and the testimony of Adejumo show that bodies have existed. There were certainly fragments of arms, legs, and trunks in the box.

The third and sixth heads from the right probably represent Lajawa and Obalufon, because they closely resemble heads so named which I photographed in the palace at Ife. The most Negroid head is the fourth from the right, and on this the grooves represent a scarification similar to certain tribal marks seen today. The face of one of my servants, a man of the Bema tribe, near Gombe, was cut in this way during infancy (Plate CXIX, Fig. 2). The most non-Negroid face is the third from the right, and this object supports the view of Petrie (Ancient Egypt, 1914, p. 84) that terra cotta heads of Ife "are in every respect close to the pottery heads from the foreign quarter at Memphis."

The dress of the priests is certainly not of Negro origin. The miters, the method of wearing white clothing, and the bronze staffs, together with the ceremony and the terra cotta heads, all represent an intrusive element that has been grafted on the Negro custom of guarding sacred objects in forest groves.

The culture at Ife becomes more understandable when reference is made to reports on excavations at Carthage. R. P. Delattre describes and illustrates several objects which suggest the origin of some non-Negro elements in southern Nigerian religion.

Delattre shows what he calls "Tête de dieu Carthaginois" (p. 6, Fig. 3; p. 24, Fig. 8) in which the miter is like those worn by the priests at Ife. This miter closely resembles the *atef* or crown of Osiris. The funerary stelae and statues might well be parental forms of those at Ife (p. 21). The sacred ax is shown by Delattre (*Deuxième Semestre des Fouilles*, Paris, 1898, Figs. 20, 21). P. A. Talbot's references to the ax as a cult object in Nigeria have previously been noted, and Delattre's picture of such an ax at Carthage supports Talbot's suggestion of a connection between ax-worship in Nigeria and Crete.

Although at present there is no possibility of proving generic relationship between the archaeological finds at Carthage and those of Ife, one feels that this northern influence may account for the lamps, terra cotta heads, pottery vessels, and stelae of the Yoruba. Carthage was founded in the latter part of the ninth century B.C.

on the site of an older Phoenician colony, and in consideration of the constant traffic from north Africa to west Africa by land and sea it would be surprising if some cultural influence were not transmitted.

Reference to R. Cagnat's "Carthage, Timgad, and Tébessa" and to the illustrations in F. W. Kelsey's "Excavations at Carthage," will indicate the general resemblances between Carthaginian and Yoruban culture with respect to the objects mentioned.

Among the Nigerian traits that are foreign to Negro culture are some of European introduction. The brass work of Bida includes trays and vessels that are copies of European forms; European dyes are used in some places for cloth and baskets; and objects made in leather are in many instances imitations of European patterns. Sewing machines are sometimes used for stitching cotton clothing and articles of leather.

Ling Roth (V) thinks, as previously noted, that whereas the vertical cotton loom may have originated in Egypt in ancient times, the horizontal, narrow-band, treadle loom is of Portuguese introduction.

Gathering indigo plants and extracting dyes therefrom, I have shown to have a distribution from Sierra Leone to Lake Chad, and references from the works of early explorers were given in chapter IV. Dyeing of cloth is not a typical Negro trait, though now so widespread among west African Negroes. The evidences favor a hypothesis of the introduction of indigo dyeing from India to north Africa and from Tripoli by caravan trade across the Sahara. Such a view is, I think, supported by historical facts, and by botanical evidence respecting distribution of the indigo plant (B. Laufer, I).

The crossbow is usually accepted as a cultural element of southern Nigeria which is traceable to Portuguese origin. On the contrary a consensus of opinion is against the suggestion that the Portuguese introduced casting of bronze and brass. Casting by the lost-wax method is not a typical Negro trait and the evidence reviewed in chapter IV left the impression that this process might have migrated from Egypt. The manufacture of glass is certainly not a trait of Negro culture and the isolation of the centers, one at Bida and one in Ashanti, suggests introduction from an extraneous source.

Use of a state umbrella is not an original and typical Negro trait, yet among the Yoruba the craft of umbrella-making is in the hands of an exclusive guild of workers employed at Oyo (S. Johnson, p. 52). Possibly umbrellas were first introduced by Europeans in early days of contact, but some evidence is against this theory.

J. A. Skertchly and A. le Hérissé emphasize the importance of state umbrellas having heraldic devices and pictures of the kings' exploits emblazoned on the covers. R. S. Rattray (IV) repeatedly refers to umbrellas as part of the regalia of kings and the rites of ancestor worship. Figures representing gods have umbrellas, and the sacred stools of priests and priestesses are carried each under its own umbrella. There is little probability that so much ritual and belief have developed in connection with an object of European introduction.

The use of fans of leather and ostrich plumes suggests an Egyptian origin, possibly from the Nile Valley, through north Africa, and across the Sahara. Adolf Erman (H. M. Tirard's translation of "Life in Ancient Egypt," p. 490) calls attention to the use of fans in association with umbrellas in Egypt during the Middle Empire. Therefore the possibility must be recognized and the fan and the umbrella are factors derived from Egypt and possibly from farther east.

The cultural traits discussed under the heading "Foreign Elements in Negro Culture" have included:

(1) Factors from Hamitic culture.

(2) Semitic traits associated with Arab invasions and with Mohammedanism.

(3) Elements from the civilization of ancient Egypt and Carthage. The term used to describe a culture of Egypt and north Africa is "Mediterranean." This term is found to be sufficiently broad to designate a large number of traits whose exact origin is unknown.

(4) Cultural influence of Europeans.

The inquiry now turns from the southern Negro culture and its intrusive elements to a consideration of the cultural pattern of Nigeria, north of 9° N. Lat. The types of life and the elements involved in cultures between 9° and 14° N. Lat. constitute what is described in the next section as the Northern Culture.

THE NORTHERN CULTURE

This culture, which extends from the ninth to the fourteenth parallels, contains many of the traits that have been discussed under the heading "Foreign Elements in Negro Culture." These traits are divisible into those closely associated with Mohammedanism, and others conveniently gathered under the name "Mediterranean."

There is this clear difference between the cultural patterns north and south of 9° N. Lat. respectively. South of 9° a Negro culture

predominates, but north of 9° the prevailing cultural elements are associated with Mohammedanism, the Mediterranean culture, and occupations centering in the keeping of camels, horses, and cattle.

So far, description has been concerned with a basic Negro culture, chiefly of southern Nigeria, into which intrusions have entered. Now, when approaching a study of cultures in the Northern Provinces, it is necessary to note a reversal in the importance of the cultural elements. North of 9° the importance of Negro traits declines while non-Negro cultures predominate. The inquiry is therefore concerned with the extent to which a forest culture of Negroes has survived in a northward direction, and the manner in which the forest culture of the south is gradually attenuated with every advance toward the border of the Sahara.

When proceeding from south to north a traveler has to note that the hoe culture of the Negro still persists. But root crops, though important, are supplemented by millet, maize, rice, and wheat in quantities greater than those existing in a system of Negro cultivation, which is usually carried on in forest clearings. Meek notes the use of the *shaduf* in Bornu (I, vol. I, p. 128), a means of irrigation which is characteristic of north Africa and the Nile Valley. Terraced cultivation is an essential feature of agriculture in the rugged central plateau region. But such methods are not known in the forest regions occupied by Negroes.

Among the Hausa, who have considerable Negro blood, there are many elements of Negro culture, including alliances between human and animal life, together with beliefs in the residence of human spirits in plants, animals, and inanimate objects. The combination of Negro culture with Mohammedan faith is well illustrated by Tremearne's "The Ban of the Bori," while the predominance of Negro culture among non-Moslem Hausa such as the Maguzawa is appreciated by reference to an article by P. Krusius.

Meek notes the existence of terms of the Negro classificatory system of relationship among the Hausa and the Gwari (I, vol. I, p. 237); the blood covenant by sucking blood or by eating a kola nut on which the blood of the contracting parties has been smeared (*op. cit.*, p. 211); also the power of the mother's brother; all of which occur in typical Negro society (*op. cit.*, pp. 219-225). These factors reported by Meek exemplify the persistence of traits of Negro culture in a northward direction, but gradually the establishment of a true northern type of culture is observed. The northern patterns include elements comprised under Mediterranean, Mohammedan, and Arab

culture, but in addition some factors not hitherto mentioned have to be recorded.

Northern Nigeria has not a typical camel culture such as that possessed by the Tuareg of Asben, the Kababish of Kordofan, the Tibbu of Tibesti, and the dwellers in such oases as Fashi and Bilma. In Kordofan, for example, the breeding and rearing of camels, together with seasonal migrations, are fundamental elements of the life of the Kababish. Milk of camels is an important item of diet, and the flesh resulting from ceremonial slaughter is eaten at weddings, at funerals, and on other ritual occasions. A great industry centers in the making of accoutrements, and the hair of camels is used for weaving tents and rugs. The branding of camels has an important social significance since the marks denoting family ownership are combined when union of two families is effected by marriage. Important references to the camel culture are as follows: C. G. Seligman (III), H. A. MacMichael (I, II), and F. R. Rodd.

All these ethnologists describe a camel culture which is more highly developed than that of northern Nigeria. But between the fourteenth and twelfth parallels caravans are of great importance in the economic life of tribes of the French Niger Territory, from Zinder to Tahoua, also along the line from Kano to Maiduguri, and up to Kukawa near Lake Chad. Kukawa is a terminus of caravan trade by way of Bilma across the Sahara to Tripoli.

Northern Nigeria has a camel culture which might be described as an intrusion of the true Saharan camel culture, and there is interest in noting a seasonal distribution of this intrusive culture, which advances southward with the dry season and retreats at the onset of rains. Notwithstanding the importance of the present camel culture of the Sahara the use of camels for transport probably does not antedate the year 200 A.D. F. R. Rodd (pp. 206-208) gives a summary of the historical evidence bearing on this subject.

With the camel culture is a horse culture which has important foci at Sokoto and in Bornu. These provinces are centers of horse-breeding, and horses are of importance between the tenth and fourteenth parallels of latitude. In former days horses were even more numerous because of warfare in the Northern Provinces. Every Sultan had large cavalry regiments and bodyguards, which were the chief units used in combat. With horses are associated the occupations of the blacksmith and the leather worker.

Horses were represented for the first time on Egyptian monuments of the eighteenth dynasty, and they are said to have been

introduced between the Middle and the New Empires. Primarily horses were used for drawing chariots and not for riding (A. Erman, *Life in Ancient Egypt*, London, 1894, p. 490), but Hannibal used Numidian cavalry in 217 B.C. These facts, combined with movements of Arabs along north Africa and the Sudan, make the presence and importance of horses in Nigeria understandable.

A journey along the twelfth parallel from Lake Chad to Kano, and from that town northward to Zinder, then westward along the fourteenth parallel, shows the importance of transport by oxen (Plate CXLV, Figs. 1, 2). In fact, a route exists along which camels, horses, and oxen may be seen in the course of a day; but climatic factors, especially rainfall, have a limiting influence.

Camels cannot thrive too far south because of increasing moisture. Furthermore, horses and oxen are restricted to areas where water can be obtained, though these animals show remarkable adaption to drought. The southern expansion of the horse culture is checked by two factors: firstly, the existence of dense forests in which horses would be useless; and secondly, the presence of the tsetse fly. Therefore, there exists a spatial distribution of those traits which are associated with camels, oxen, and horses, and this distribution is determined by climatic and biological factors.

Important changes are to be noted in connection with the keeping of cattle from the fourteenth parallel southward. Use of oxen for transport gradually merges into a pastoral culture, such as that of the migratory Fulani, who drive their animals from one region to another. Meek (I, vol. I, p. 118) distinguishes five breeds of cattle and ascribes the high-withered animals to an Egyptian origin. The animal shown in Plate CXLIV, Fig. 2, resembles those of Egyptian paintings. Among the Fulani the keeping of cattle is not merely an occupation without ceremonial importance. Cattle are said to be a gift of the water spirit, and at the death of the owner division is made according to rules. Elder brothers receive the black cattle and younger brothers take the white animals (Wilson-Haffenden, I).

E. A. Brackenbury gives some details of the ceremonial element connected with cattle-keeping. Milk is used and butter is made, but cattle are seldom eaten. Slaughter of cattle and eating of meat occur on such ceremonial occasions as weddings, naming children, and Mohammedan festivals. Only males herd cattle, with which they are very intimate, calling the animals by name and showing the affection which is characteristic of some Nilotic tribes; also the Bahima and the Masai.

If rain is needed the headman in charge of a Fulani kraal strips himself naked and stands among the cattle, whose horns he anoints with milk. Sometimes a *mallam* is employed to walk seven times round the kraal repeating texts from the Koran. This pastoral culture is evidently different from the mere use of oxen for transport. The Fulani employ young bulls as transport animals, yet some of the ceremonial aspects of a typical cattle culture are operative.

The flogging ceremony witnessed near Shendam (Plate CXXXVI, Fig. 1) has been photographed by G. M. Haardt (National Geographic Magazine, XLIX, p. 679) at Zinder, four hundred miles north of Shendam, and further evidence shows the rite to have been adopted by various Fulani tribes as part of initiation ceremonies for boys, as a test of competitive endurance between two different Fulani tribes, and as part of the dancing and games of a religious festival. A similar ceremony is practiced in the Province of Sennar, eastern Sudan. The rite seen near Shendam is one which qualifies youths for marriage, and the girls who are seen standing near are the prospective brides of the competitors. Further information relating to this whipping ceremony and other Fulani customs may be found in several books and articles, noted in the bibliography under the names of L. N. Reed, E. A. Brackenbury, J. R. Wilson-Haffenden, H. R. Palmer, G. Vieillard, and G. W. Webster.

In the northern culture a sporadic occurrence of Negro traits which are characteristic of the southern forest culture is noticeable, but these elements are overlaid by a Mohammedan Arab culture. And in addition we have to note for the northern regions the importance of camels, cattle, and horses.

There yet remains for study a plateau region whose culture has not been considered. This elevation stretches along the ninth parallel, forming a barrier between the northern and the southern culture areas.

THE PLATEAU BARRIER

Stretching across Nigeria between the parallels 9° and 10° N. Lat. is a plateau region that extends from Yola in the east, through Bauchi, Nassarawa, Zaria, and Kontagora. Elevations rise in some places to a height of six thousand feet, while the general character is one of ruggedness and inaccessibility. Consequently, in this region exist many cultural pockets, which preserve modes of life showing traits that are probably of an early Negro character.

There are in the plateau region few intrusive factors from Mohammedanism or from any other source. The so-called pagan

tribes, a name which has no ethnological connotation beyond denoting the absence of Mohammedanism and Christianity, have for long periods taken refuge in these sequestered highlands, where they have been free from the domination of Negro kingdoms of the south and Mohammedan aggression from the north. Probably this plateau region of Nigeria is culturally and historically a part of a similar belt extending westward into the Northern Provinces of the Gold Coast (R. S. Rattray, VI), and eastward to the Nuba of Kordofan.

My only personal contact with plateau tribes was among the Angas who inhabit hillside villages near Pankshin (Plates CXXIV, Fig. 2; CXXVIII; CXXIX, Fig. 2). At Maiduguri I photographed a man from Gwozo (Plate CXXIX, Fig. 1), and at Potiskum, north of the plateau, two men of the Keri-Keri tribe (Plate CXXVII).

In most of these plateau tribes there is a dominant proportion of Negro blood, but the Gwozo and Keri-Keri, and to a lesser extent the Angas, show physical elements which modify the coarser Negro features. Thus, modification of the physical traits of the Negro occurs in the direction of more slender build, reduction of the breadth of the nose, and modification of the thickness and eversion of the lips.

The difficulty of classifying the languages of the plateau tribes is realized from Meek's statements, yet the majority of the tongues spoken in the high plateau are included in one or another of the divisions named western, middle, or central Sudanic. Like many other plateau languages, that of the Angas is an isolating tongue, but its precise relationships to other tongues are not known (Meek, I, vol. I, pp. 137-139).

The clothing of plateau tribes is either absent or scanty. The dress of the Gwozo man photographed at Maiduguri consisted solely of a loin covering and a cap of hide. The Keri-Keri men of Potiskum wore no more than loin coverings of leather, so resembling plateau tribes. Women of the Angas tribe wore leaves before and behind if married, but if unmarried the leaves were worn only on the buttocks. Most of the Angas men had some clothing, if only a few fragments of trade cloth. The tribal scar of Angas males is a raised, broad cicatrice which extends from the zygomatic arch to the chin on both sides of the face (Plate CXXIV, Fig. 2).

Tremearne (III, p. 104) further illustrates the scanty dress of plateau tribes. His photograph shows a Kagoro woman and an Attakka woman each wearing an appendage of palm fiber on the buttocks. "When a girl is married, her mother removes her girdle

and a small branch or bunch of leaves is hung in front." Tremearne also shows the wearing of a lip disk by an Attakka woman (p. 110). In the region of Jos I saw several men who were naked except for the penis sheath, which is worn by the Berom and many other tribes listed by Meek (I, vol. I, p. 41). Oric Bates (pp. 113, 119, 122, 148) proves that the penis sheath was worn by predynastic Egyptians and Libyans.

Scarification is a typically Negro trait which is shared by the plateau tribes, who have their own distinctive patterns. But other forms of decoration, such as nose pins, lip disks, bunches of leaves, and penis sheaths, are not typically Nigerian. To these traits of the plateau region may be added the use of the sling as a weapon.

Probably traits which are found among a sequestered people who have been isolated for a long time are remnants of an old culture, and if this is true the plateau tribes preserve those traits, which, though formerly important in pre-Negro and Negro culture, are now obsolete or are tending to become so.

The approach to villages of the Angas tribe led up steep narrow paths. There was, however, nothing but the assurance of the guide that human habitations would be reached, for not a sign of dwellings could be seen. The hillsides were terraced for cultivation, and on the broad ledges, which were supported by stones, millet was grown. The Angas also cultivate tobacco; this they smoke in large pipes, some of which are made entirely of iron forged by local blacksmiths of the tribe. No poultry or pigs, but only sheep, goats, and cattle were observed. I was informed that the Fulani sometimes employ the Angas as herdsmen. Among the hills were ponies, but I am not sure that their riders were of the Angas tribe.

An Angas village consists of a small group of cylindrical clay huts placed close together (Plate CXXVIII, Figs. 1, 2). Women wear aprons of leaves and use red coloring matter on their own bodies and those of their children. When meeting men of their tribe, women and girls crouch to the ground.

A forge was seen, but apparently it had not been used recently, though the long-handled bellows was present. The apparent disuse of the forge is explained by Meek (I, vol. I, p. 149). Iron-working among the Angas is a seasonal craft, and in this occupation occurs considerable ceremonial of a kind which is in keeping with that of the blacksmith's craft among Negroes generally.

At one point a warning was given against entering a hut containing several large wooden drums, and an explanation was supplied

to the effect that spirits of dead chiefs lived in the drums. I obtained without difficulty a drum of the same kind which was owned by a living person, and apparently the drum of a chief becomes sacred only after his death, at which time the instrument is preserved in a hut for drums.

The dances in progress among the Angas, but not necessarily performed entirely by Angas men, are illustrated (Plate CXXX, Figs. 1, 2). The chief instruments used were side-blown horns, which gave deep mellow tones, reed pipes, and for the principal dancers skin-covered drums.

We may now assemble additional data relating to some of the plateau tribes, whose cultural traits can be compared with those of other tribes to the north and south of the plateau region.

The government of the Angas, and of plateau tribes in general, is of the unconsolidated type, and in normal times the headman of a village is of primary importance, though in warfare there may be a leader who, after hostilities, retains at least a nominal headship of the tribe. Meek says of the head of the Angas tribe, that as president of local groups he has few prerogatives, and that his duties as head of a village are more important. There is no doubt that the plateau tribes have not shared in the elaborate political organization of the Negro, with its ideas of exalted kingship, supported by a political organization of chiefs and military leaders. There are, however, among plateau tribes, chiefs who are endowed with autocratic powers which make them more than nominal rulers (Meek, I, vol. I, p. 250).

Meek notes among the Angas tribe ceremonial cannibalism, divination, beliefs in omens, collective responsibility whereby a relative may be tried instead of the accused, rain-making, and swearing an oath on a sacred object. In addition to these Negro traits, all of which are common in southern Nigeria, Meek says (I, vol. I, p. 193), "Among the pagan tribes first cousin marriage would be regarded as an incestuous union, the cousins being classified in the relationship system as brothers and sisters." The Angas used to have head-hunting customs which were associated with preparation for marriage, and a youth had to prove his manhood by taking a head. The details of head-hunting among the plateau tribes, also the occurrence of cannibalism and head-hunting, separately, or conjointly, are noted by Meek (I, vol. II, p. 48).

The Angas have initiation rites for boys, but these ceremonies do not necessarily coincide with puberty. The plateau tribes practice

circumcision as a principal rite in initiation ceremonies; these rites require that boys shall be secluded in a sacred spot where they have to endure beatings and privation (Meek, I, vol. II, p. 86).

In religion the plateau tribes show deification of natural phenomena, animistic beliefs, reliance on prayers made to ancestral spirits, belief in reincarnation of dead ancestors in infants, and credence in the reappearance of Dodo, a spirit of the founder of the tribe, who appears as a masked figure at the initiation of boys.

Additional light is thrown on the cultural traits of the plateau tribes by perusal of H. F. Mathews' article. Of the language of the Nungu, Mathews says that a native traveling twenty miles from his own village would have difficulty in making himself understood, a statement which again emphasizes the complexity of the linguistic problem.

Women of the Nungu tribe are unclothed, and Mathews (Plate I, Fig. 2) shows a Nungu woman wearing a nose pin, and a plug in her lower lip. The rawhide pouch for carrying a baby on the mother's back is like that worn by women of the Angas tribe. Mathews notes the use of sacred groves for head-hunting trophies, the presence of cannibalism, scarification, the use of bows and poisoned arrows, an iron knife with a ring-grip, the employment of the bull-roarer, side-blown horns of antelopes, reed pipes, and end flutes. Dancers wear coarse netting costumes.

Meek's article (II) deals with a group of plateau tribes near Zaria and among these are the Katab, the Ataka, and the Kagoro. He notes the following traits: a definite classificatory system of relationships, with class names; agriculture but no industries; and ideas of reincarnation with private and public cults of ancestors. He further observes the presence of head-hunting and the depositing of heads in the house of skulls, wearing of a buttock ornament by women, four patrilineal clans each of which is exogamous, and a territorial grouping that corresponds with the clan grouping; also taboos on certain animals and plants, but these do not appear to be closely connected with clan exogamy. Members of the crocodile clan regard the animal as a brother with whom they can play unharmed. Clan members have to bury a dead crocodile, and a taboo against their touching a piece of crocodile skin is operative.

This collection of evidence bearing on the culture of plateau tribes indicates that the main traits are those of the Negro culture of southern Nigeria, but without the elaborate development of Negro political organization. Among the plateau tribes the classificatory

system of relationships is used, there are initiation rites, ancestor worship, animism, and many more traits that are closely associated with Negro culture, but there is an absence of those elements that are typical of Mohammedan and Mediterranean influences.

Peculiar and distinctive traits of the plateau tribes are the types of genital covering, ornaments, head-hunting, terraced cultivation, methods of carrying infants, and other customs that are at once noticeable as aberrations from those traits which at present are widely characteristic of Negro culture. But fundamentally the culture of the plateau tribes is that of Negroes with the existence of peculiar traits, some of which, for example, terraced cultivation, are special adaptations to plateau conditions, while others possibly represent old elements of pre-Negro or early Negro culture.

GEOGRAPHICAL AND HISTORICAL DETERMINANTS

The map showing my expeditionary route indicates that the area visited was situated between the coastal region (4° N. Lat.) and Tahoua in the southern Sahara (14° N. Lat.).

Chapter I described the gradual transitions from dense forests of the south, through parkland country to semi-desert, and finally to true desert at the northward limit of the journey. It is also clear that these regions of Nigeria are only a part of ecological zones, with corresponding cultures, which stretch east and west of Nigeria itself.

Between 4° and 6° N. Lat. is situated the densest of the forest regions, a land of creeks and deltas where heat and moisture combine to form a congested forest growth. This is the home of the true Negro and his culture, the traits of which have been analyzed.

After 8° has been passed on the northern journey a noticeable change occurs in the character of the country, which, in the region of Bida, for example, is of the parkland variety.

The culture of the Negro gradually gives place to the typical northern culture comprising all those elements that are grouped under Mohammedanism, along with many factors of the Mediterranean type, and the addition of traits that are associated with camels, horses, and oxen. But through this northern culture plainly runs the Negro substratum.

Between the cultures of the north and the south, which are divided at 9° N. Lat., extends the plateau region, which passes out of Nigeria westward into northern Dahomey, Togoland, and Ashanti, and eastward into Cameroon. In the plateau are certain traits not associated with the Negro culture of southern Nigeria.

Between 10° and 12° N. Lat. is a cultural belt characterized by employment of horses, camels, and oxen. This region extends westward into the French Sudan and continues to the coast; while the easterly extension passes across Darfur and Kordofan, thence through Sennar to the Red Sea.

North of 12° occurs a noticeable thinning of the bush, which has almost ceased to exist at 14° N. Lat., where only a few prickly acacias and some coarse grass may be seen. This borderland of the Sahara stretches through the northern sections of Wadai and Darfur.

Although there is reason to believe that the theories of geographical determinism have been overemphasized when used to explain all the cultures of the world, a strong argument exists in favor of geographical determinism so far as Nigeria is concerned. The nature of the ecological regions indicates that these have determined the extent of country over which certain traits could survive.

Each trait has extended and forced its way into a cultural matrix to which it was a foreign element, neither has the trait ceased to penetrate until geographical conditions have become prohibitive. Climatic conditions have determined the possible aspects of a trait; for example, the gradual transitions from mere transportation by oxen in the semi-desert to a well-developed pastoral trait, as among the nomadic Fulani of the parklands.

Geographical determinism has played an important part, not only in selecting traits and delimiting them, but also in influencing the historical processes themselves (chapter III). The track across Africa along the line of Kordofan, Darfur, and the French Sudan has undoubtedly been a corridor for mass movements, some of which were probably early Hamitic migrations from the northeast of Africa.

Some incursions have brought cultural and somatic influences from the civilization of the Nile Valley, while there has been a constant impact of cultural elements and racial characteristics from Egypt and farther east, along north Africa and across the Sahara.

In the open spaces of northern Nigeria and its lateral extensions great foci of culture have been established, notably in the bend of the Niger, also at Sokoto, Katsina, Kano, Zaria, and in Bornu. In such centers have developed religious creeds, laws, political organizations, and handicrafts, all of which have ceaselessly spread to the limits of their adaptability.

The open country of the north has allowed a free movement of warriors and peaceful immigrants alike, and this northern pressure,

combined with the natural advantages of the forest for the elements of Negro culture, has tended to restrict the most characteristic traits of this culture to the densely wooded regions of the south. Moreover, the topography of the plateau belt lying between the forests of the south and the open parkland and semi-desert of the north, has preserved early types of Negro culture.

For four centuries European influences have intruded, especially from the coast, until all native tribes are under political control to varying degrees. Such native institutions as head-hunting, cannibalism, secret societies, human sacrifice, and mutilations as punishment, have been prohibited, but not always with success.

Yet despite direct prohibition of some of the factors which are fundamental to the indigenous culture, there is on the part of the British government a sympathetic control of an indirect kind through native rulers and their legal codes, so far as these are compatible with justice and humanity. European cultural influences have expressed themselves in a modification of native arts and crafts. But beneath this veneer of European civilization survives an indigenous culture which still flourishes vigorously in many localities.

The collation of factual ethnological material relating to Nigeria has been considerable, and the importance of this in practical problems of education and administration is unquestionable. Yet a new method of approach is open, especially to those who have the advantage of long and intimate contact with Nigerians.

If anthropological ideals are to be completely fulfilled, inquiries in Nigeria will now take a closer psychological and social aspect. Of the structure and operation of ancient tribal standards of conduct much is known, and indigenous forms of social control are fairly well understood. But we have no adequate records actually to show the effect of European education and control on the thoughts and actions of individuals of various tribes, languages, and cultures within Nigeria.

The general effects of European contacts with Nigerian natives are observable in economic and social life; but a more intimate psychological study of case records is desirable to give point to general impressions, which by themselves may be misleading. What is the life history of individuals, male and female, who pass through school? Where do they go on leaving school? What have they learned, and in what way is the knowledge applied? How many who pass through schools play a useful part in their own society? And what number drift away to form cheap labor for Europeans?

Ethnologists who follow the pages of "Africa" will realize the importance of problems of adjustment. Administrative difficulties involve questions of the education of natives with a view to fostering self-government, the selection of a curriculum, and the adoption of a vernacular language, to be widely taught and used so as to make inter-tribal communication possible. Moreover, the problem of industrial education of a kind which will utilize natural aptitudes of the Negro is important.

In solving one social problem another of a more serious kind may be created. When education has been given and assimilated, and following the adoption of common languages to replace different dialects, problems of franchise and self-government will arise. Education and linguistic unity will give a sense of cohesion to tribes that are not now coordinated.

Welfare work and medical research will lower mortality and morbidity at all ages among African tribes, with whom Europeans can never compete numerically. The Nigerian census for 1931 indicates a 7 per cent increase in the native population since the year 1921. The standard of production will be raised through improved agriculture, animal husbandry, and industrial inventions, so that the increasing population will not unduly press on the means of subsistence.

Naturally, therefore, Nigerian administrators will be confronted with demands for wider political rights, and a claim to autonomous government will be advanced. The result of present racial contacts, politically, socially, and industrially, cannot be foreseen. The Negro is too adaptable and sturdy to decline from purely psychological causes; moreover, his services are indispensable for the economic development of tropical Africa. How then will the adjustment be made between the rival claims of Africans and intruding Europeans?

At present no answer is possible. But administrators know from experience that the efficiency of adjustment will depend on a sympathetic use of the data derived from historical and ethnological research. To understand the past is to explain the present, and pure ethnology will always be a desirable introduction to investigations of a psychological and sociological kind. Therefore, this report is presented in the hope that it will prove not only of academic interest but of practical value to those who are concerned with educational and administrative work in Nigeria.

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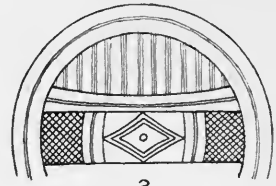
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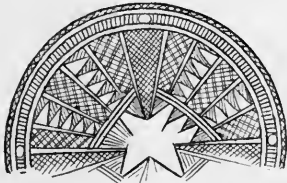
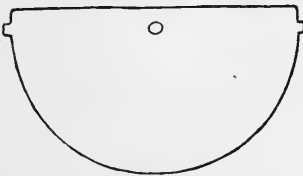
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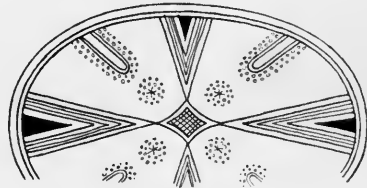
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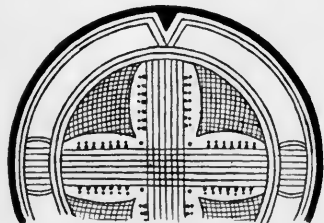
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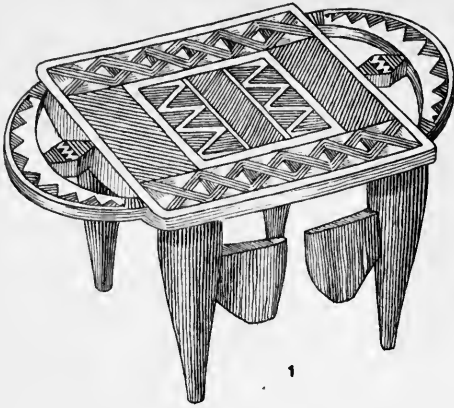


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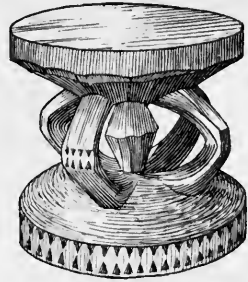


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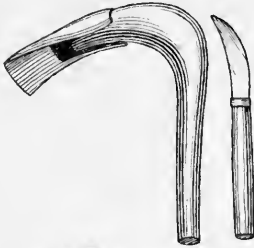
ORNAMENTED GOURDS



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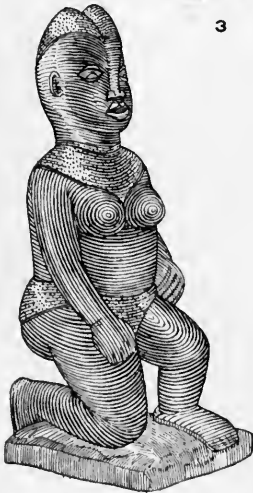
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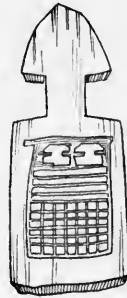
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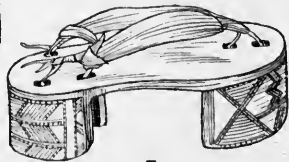
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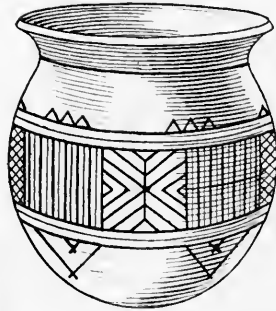
WOOD-CARVING



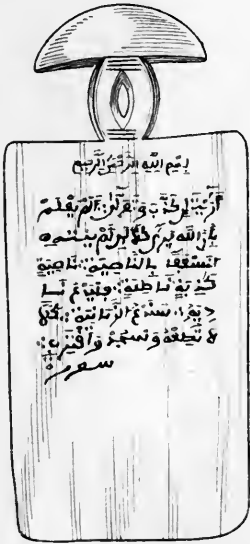
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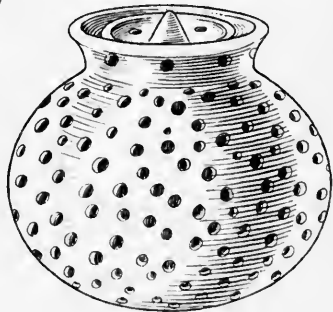
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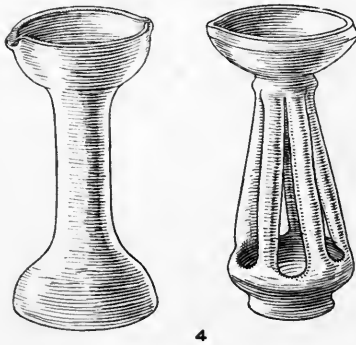
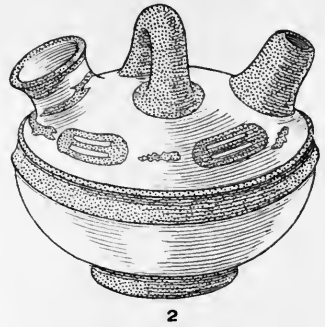
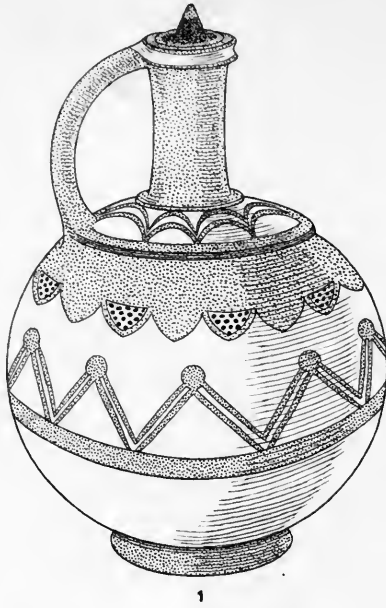


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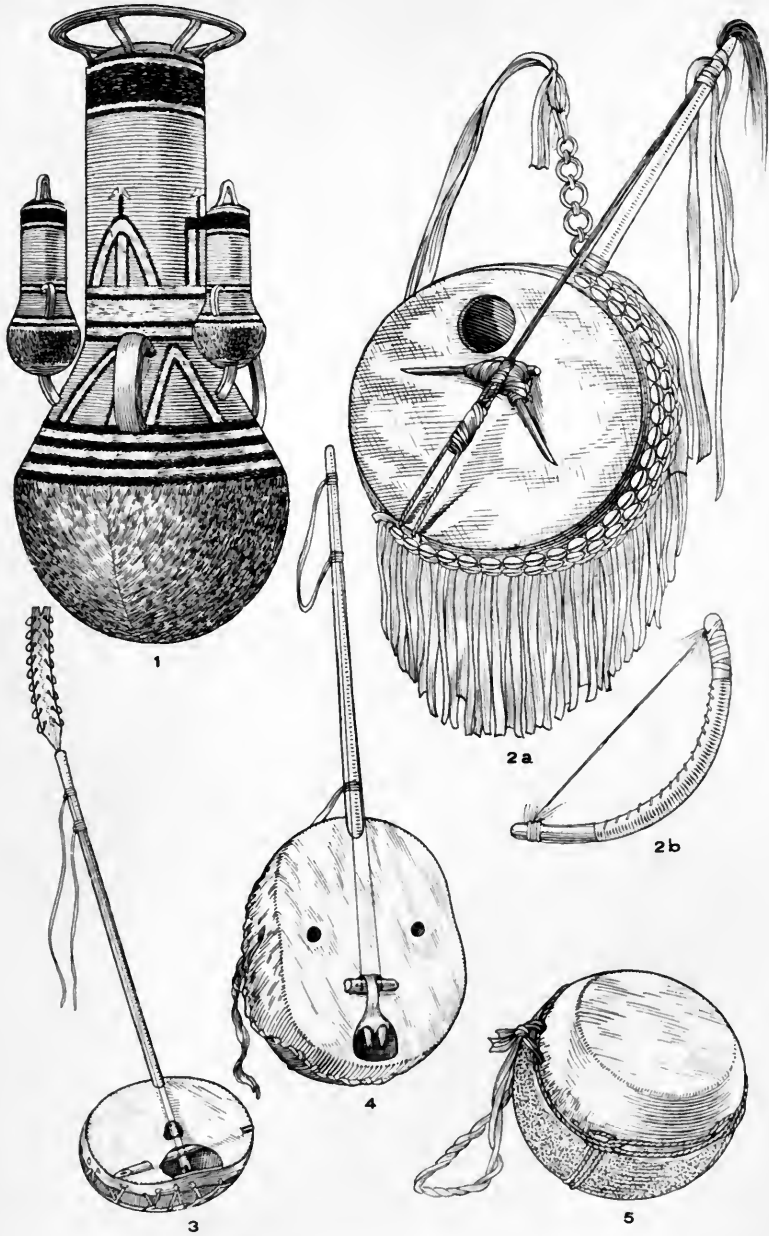


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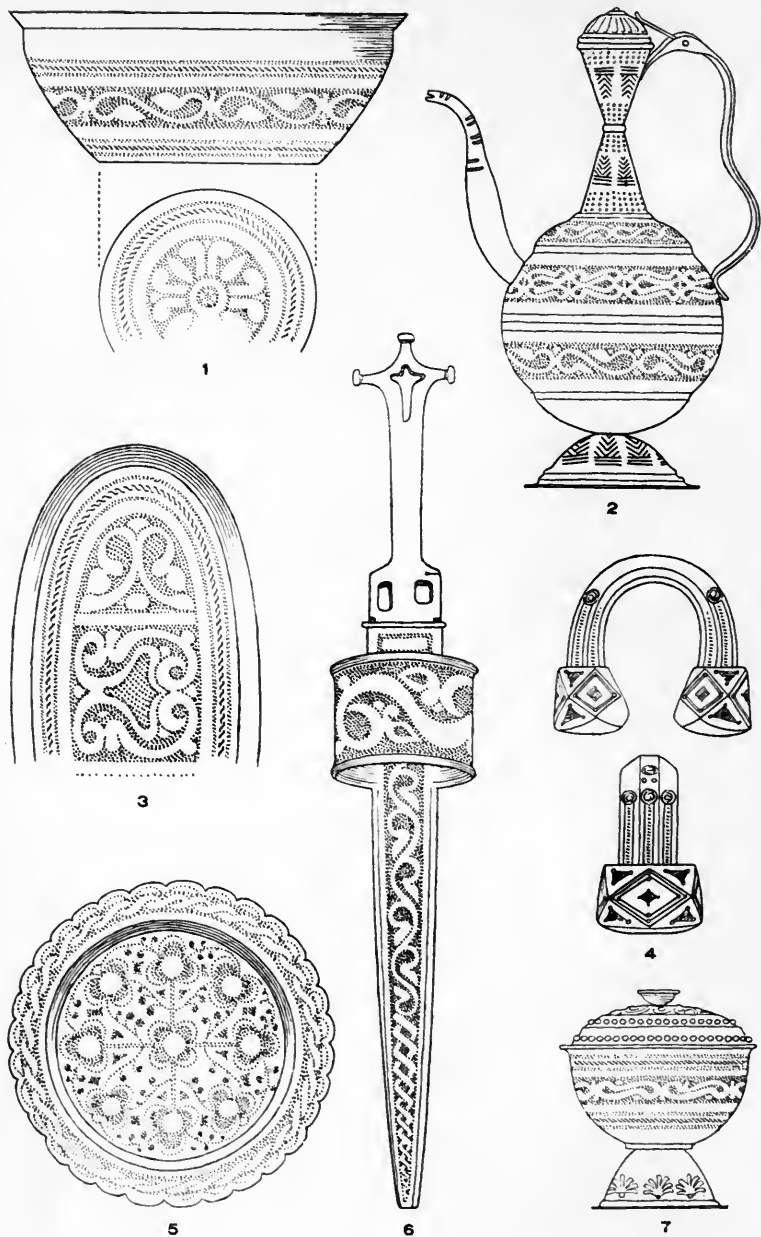
WRITING TABLET AND POTTERY



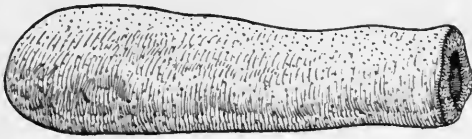
POTTERY OF THE YORUBA, ILORIN AND ISEYIN



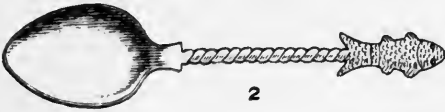
MUSICAL INSTRUMENTS AND FOOD VESSEL



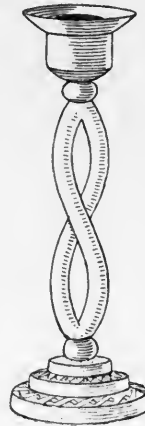
BEATEN BRASS WORK, NUPE TRIBE, BIDA, AND BUDUMA, LAKE CHAD



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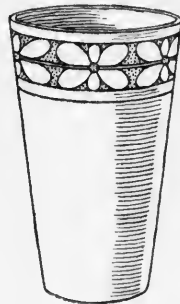
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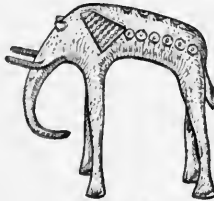
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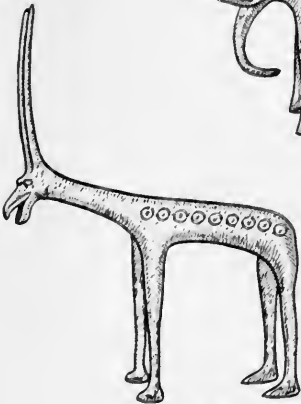
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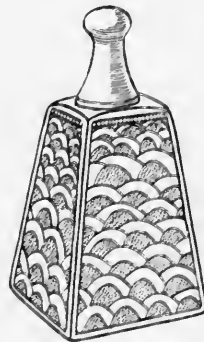
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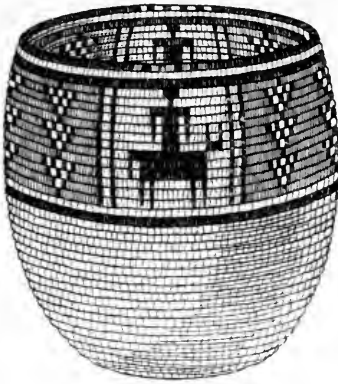


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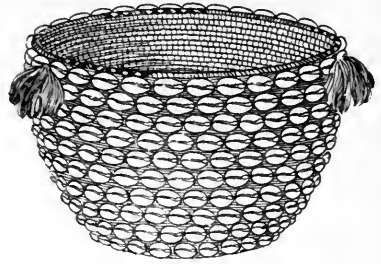


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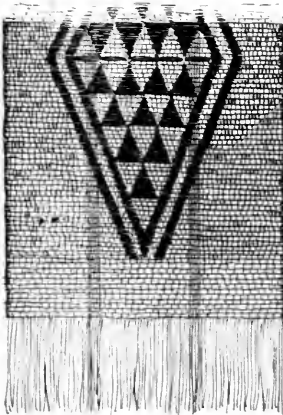
BRASS-CASTING



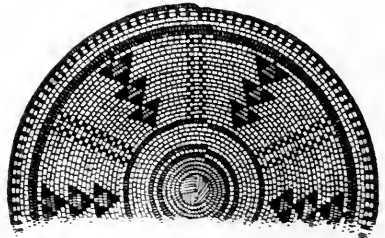
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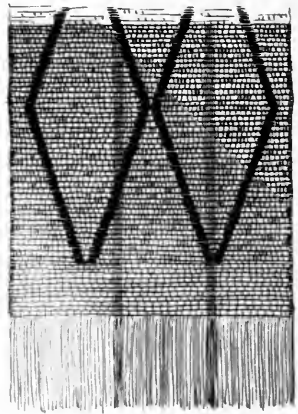
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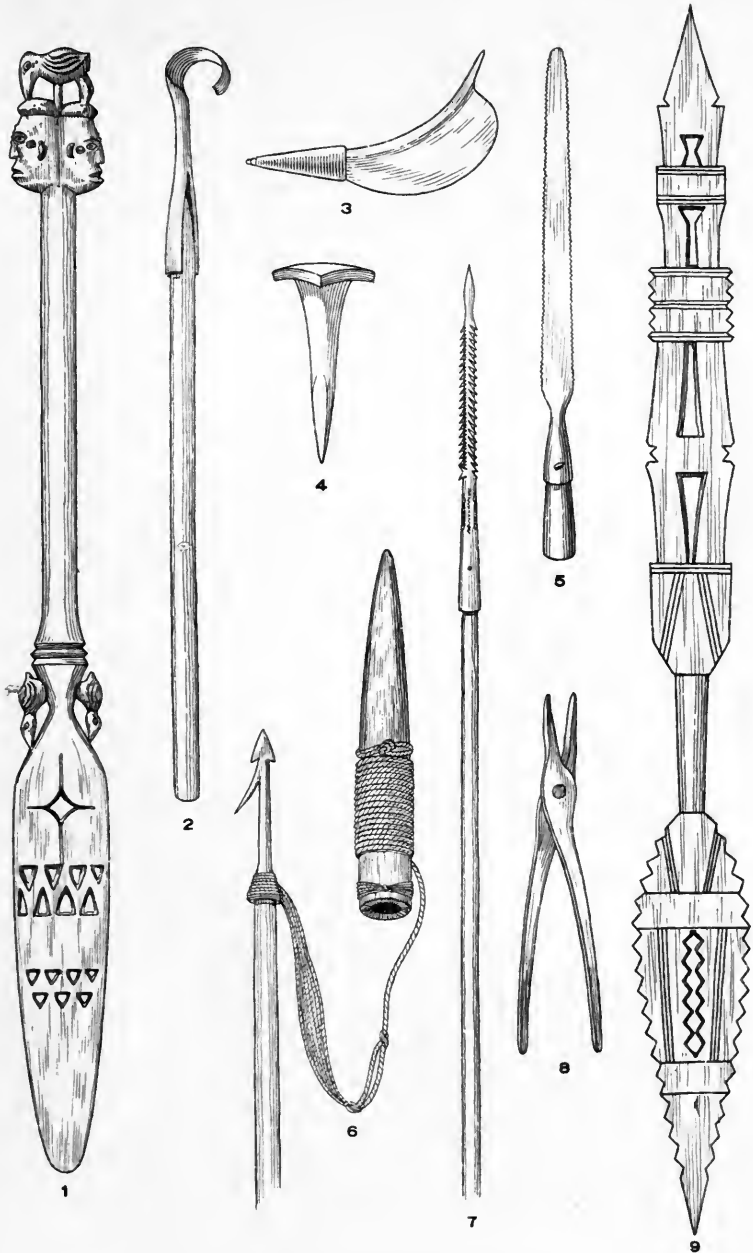


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6

BASKETRY



IMPLEMENTS, PADDLES, AND WEAPONS



1



2

WOODEN MASKS, IFE

Fig. 1. Fopo, a dead warrior of renown. Fig. 2. Jogbo, a famous spear-thrower, now dead



1

66710024



2

MAKING POTTERY, OGBOMOSHO

Fig. 1. Smoothing pots. Fig. 2. Kiln ready for firing

66710024

6671706

al. #1706
3x6



1



2

MAKING POTTERY, OGBOMOSHO

Fig. 1. Polishing pot with pebble. Fig. 2. Firing insides of pots



1

west 20/21/22



2

POTTERY INDUSTRY, KANO

Fig. 1. Pounder for beating clay. Fig. 2. Stick for molding pots

west 20/21/22

col. # 7000
326

col. # 75010



col. # 75010



2

POTTERY INDUSTRY, KANO

Fig. 1. Base of pot completed. Fig. 2. Baked pots



1

Wgt 127g



2

Wgt # 9.50g

SPINNING AND WINDING COTTON, ISEYIN

Fig. 1. Spinning. Fig. 2. Winding

al # 1700

n. # 75022



1

n. # 75023



2

WINDING AND WEAVING COTTON, ISEYIN

Fig. 1. Winding. Fig. 2. The weavers' shed



2

DYEING CLOTH, ISEYIN

Fig. 1. Old woman in charge of dye pots. Fig. 2. Finished cloth dyed with indigo



MAKING CLOTH, KANO

Fig. 1. Beating cloth on log. Fig. 2. Indigo dye pits in market

alt # 1706 693



2

MAKING CLOTH

Fig. 1. Male weaver, Kano. Fig. 2. Yoruba girls, Ilorin, wearing cloth made by natives

#170147



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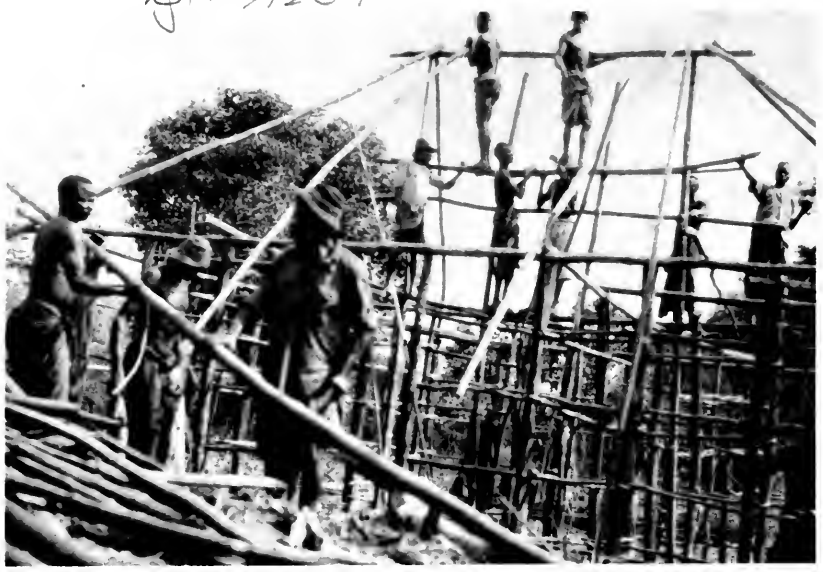
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MAKING BASKETS, KANO

Fig. 1. Basket-maker's booth. Fig. 2. Making coiled basketry

alt# 1706, 643

no# 71239



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no# 70083



2

NIGERIAN OCCUPATIONS

Fig. 1. Ibo men building house, Onitsha. Fig. 2. Mat made by Nupe, Bida

W.F. 70134



1

W.F. 70135



2

KANO MARKET

Fig. 1. Oven for roasting skewers of meat. Fig. 2. Sword-makers

no # 71258



no # 71235

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2

VIEWS, BENIN

Fig. 1. School of handicrafts. Fig. 2. Obba under state umbrella

no. 170076



1

NIGERIAN OCCUPATIONS

Fig. 1. Fishing with weir, Maiduguri. Fig. 2. Blind rope-maker, Nupe, Bida



2



10066



2

NUPE MAN, BIDA

Fig. 1. Front view. Fig. 2. Side view

10066



1

PHYSICAL TYPES

Fig. 1. Hairdressing of Bini woman, Benin. Fig. 2. Sobo man and woman, Sapele



2



1



2

PHYSICAL TYPES

Fig. 1. Bini man, Benin. Fig. 2. Man, Bema tribe, near Gombe

neg# 75032



1

neg# 75034



2

JEKRI MAN, SAPELE



neg# 20045 1



neg# 20047 2

BINI MAN, BENIN

Fig. 1. Front view. Fig. 2. Side view



1 70031 (3X5)

EGHA MAN, ABEOKUTA



2 70040 (3X5)

Fig. 1. Front view. Fig. 2. Side view



1 70032 (3x5)



2 70036 (3x5)



3 70030 (3x5)



4 70028 (3x5)

TWO YORUBA TYPES, OGBOMOSHO

neg# 71282



2

neg# 71283



1

SCARIFICATION

Fig. 1. Munshi man, Katsina Ala. Fig. 2. Angas man, Pankshin



1



2

SCARIFIED MUNSHI WOMEN, KATSINA ALA
Fig. 1. Successful scarification. Fig. 2. Septic scarification.

2071 11277



MUNSHI TRIBE, KATSINA ALA

Fig. 1. Woman displaying arm and leg ornaments. Fig. 2. Typical house



1



2

KERI-KERI MEN, POTISKUM

Fig. 1. Front view. Fig. 2. Back view



1



2

WOMEN, ANGAS TRIBE, PANKSHIN
Fig. 1. Front view. Fig. 2. Back view



2 ng# 71623

PLATEAU TRIBES



1 ng# 71466

Fig. 1. Gwozo man, Maiduguri. Fig. 2. Angas man and women, near Pankshin



1



2

MUSICIANS, PANKSHIN

Fig. 1. Two principal dancers. Fig. 2. Chief instrumentalists with drum and horns



170136 1



2

HAUSA WOMAN, KANO

Fig. 1. Head and shoulders. Fig. 2. Full-length portrait

al #1700, 376



1

MALE HAUSA, KANO

Fig. 1. Front view. Fig. 2. Side view



2

alt # 1706, 3x6



alt # 70146

1



2

VIEWS, KANO

Fig. 1. Dwarf, Kano market. Fig. 2. Hausa man



1

BOLEWA WOMAN OF EMIR'S HOUSE, POTISKUM

Fig. 1. Front view. Fig. 2. Side view



2



1
 nft/24290



2
 nft/71281

FULANI WHIPPING CEREMONY, NEAR SHENDAM
 Fig. 1. Chiefs. Fig. 2. Girls

neg # 71285



neg # 71288

1



2

FULANI, NEAR SHENDAM

Fig. 1. Flogging ceremony. Fig. 2. Female spectators of ceremony



71205 1



2 71207

MAN, SARA TRIBE, LAKE CHAD.
Fig. 1. Front view. Fig. 2. Side view

AK#1706, 374

wj 71210



1



2

TOOTH MUTILATION, NEAR LAKE CHAD

Fig. 1. Man, Banana tribe. Fig. 2. Man, Sara tribe



ng# 71217

1



ng# 71218

2

SHUWA ARAB GIRL, MAIDUGURI
Fig. 1. Front view. Fig. 2. Side view

22#1706, 3x6

ny #71380

ny #71216



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PHYSICAL TYPES, NEAR LAKE CHAD

Fig. 1. Buduma man, Baya Seyarum. Fig. 2. Shuwa Arab girl, Maiduguri



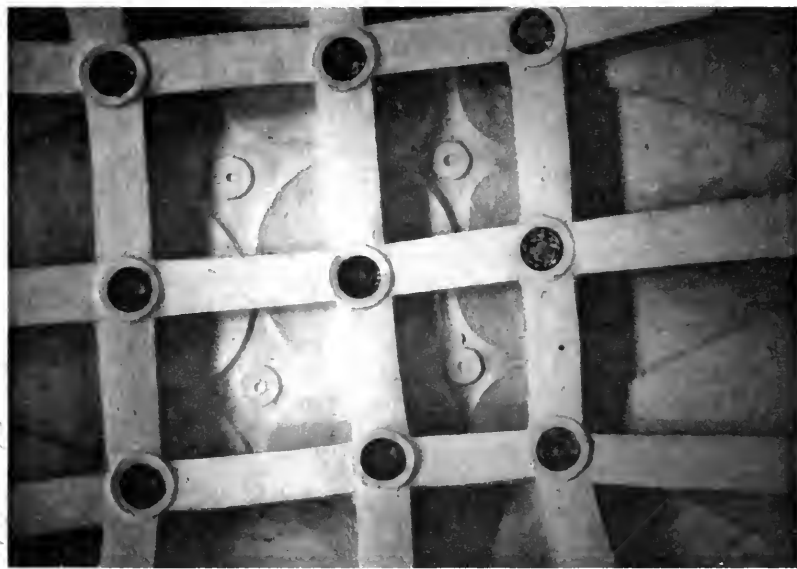
71389



BUDUMA WOMEN, BAYA SEYARUM, LAKE CHAD 71391



1



2

ARCHITECTURE, KANO

Fig. 1. External molding. Fig. 2. Molding of ceiling

W# 17370

W# 7000



1

W# 17370



2

BUDUMA TRIBE, BAYA SEYARUM, LAKE CHAD
Fig. 1. Papyrus reed canoe. Fig. 2. Fighting behind shields

ug# 71379



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ug# 71412



2

NEAR LAKE CHAD

Fig. 1. Buduma traders with natron, Baya Seyarum. Fig. 2. Ox of chief, Kukawa

alt # 1706, 643



Fig # 70 3 x



2

TRANSPORT BY OXEN

Fig. 1. In Kano market, Nigeria. Fig. 2. At Maradi, French Niger Territory

neg # 170193



neg # 170171

1



2

IN FRENCH NIGER TERRITORY

Fig. 1. Buzu, Maradi. Fig. 2. Building a house, Tahoua

al#1706, 673

wg#70174



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wg#70173

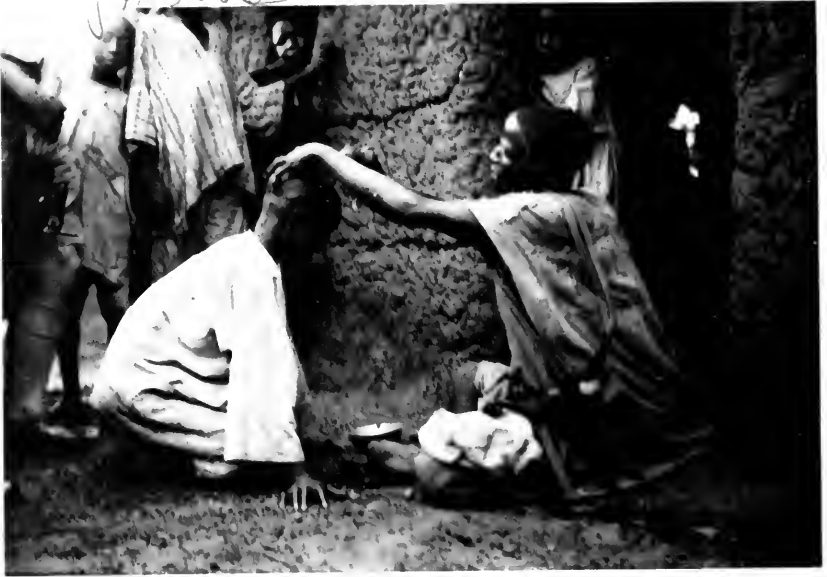


2

PROFESSIONAL WRESTLERS, TAHOUA

Fig. 1. The group. Fig. 2. The match

neg# 70033



2

YORUBA HAIRDRESSING

Fig. 1. Barber shaving boy's head, Ogbomoso. Fig. 2. Woman dressing hair, Iseyin



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Fig. 1



2

Fig. 2

YORUBA MUSICIANS

Fig. 1. Drummers, Ogbomosho. Fig. 2. Playing drum and *aligaita*, Ibadan.



1
MNH 75074



2
MNH 70005

SOUTHWEST NIGERIA

Fig. 1. Writing Koranic texts, Bida, Nupe tribe. Fig. 2. Yoruba blacksmith, Ogbomosho

alt #1700, 3+4

neg # 11291, 3-25



1

neg # 70172



2

HUNTING AND PERSONAL ORNAMENT

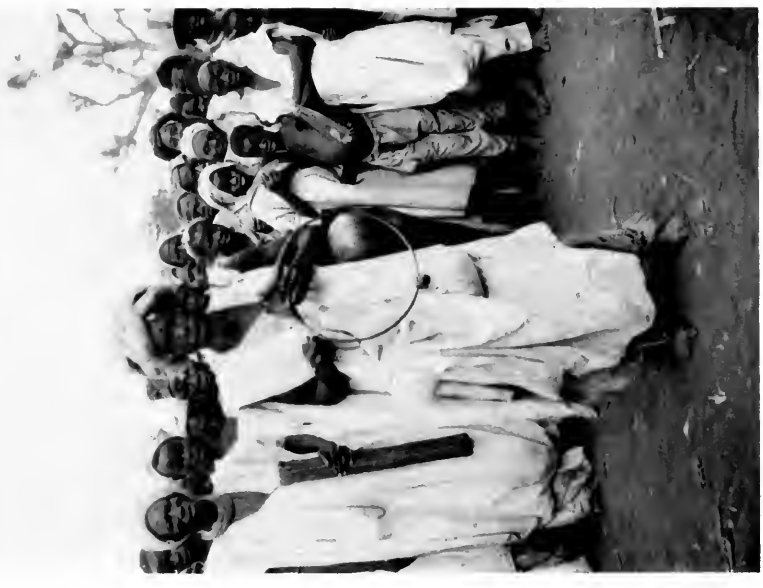
Fig. 1. Munshi hunter, Katsina Ala. Fig. 2. Woman, Tahoua, French Niger Territory

W.F. 10155



1

W.F. 10156



2

ENTERTAINERS, SOKOTO MARKET
Fig. 1. Dancing man. Fig. 2. Old musician



1

EMIR'S BODYGUARD, POTISKUM



2

Fig. 1. Soldier wearing padded armor. Fig. 2. Guardsman protected by chain mail



1



2

BENIN AND IFE

Fig. 1. Priests in charge of sacred grove, Ife. Fig. 2. Old moat, Benin



1



2

NIGERIAN CULTS

Fig. 1. Sacred white crocodile, Ibadan. Fig. 2. Grove, Ife, sacred to Ogun, patron of blacksmiths



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2

SACRED OBJECTS, IFE

Fig. 1. Terra cotta head of Lajawa. Fig. 2. Stone figure of Olofe-finra, Idena grove



1



2

SACRED GROVE, IFE

Fig. 1. Priests opening box of terra cotta heads. Fig. 2. Close view of heads



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2

INTERIOR OF TEMPLE OF GOD OF THUNDER, IBADAN

alt # 170b, 6 x 3

neg # 170140



1

neg # 170144



2

ARCHITECTURE, KANO

Fig. 1. General view. Fig. 2. Old city wall and gateway

alt # 1706

W# 70145 643



1

W# 71222 1346



2

NORTHERN NIGERIA

Fig. 1. School in market, Kano. Fig. 2. Emir of Fika with British staff of office



