SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

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[With Plates XXV—XXXVIII.]

In the following paper I have attempted to weave together a number of strands of evidence that have only one feature in common, viz., they apply to people whom we regard as Hamites, or at least as having Hamitic blood in their veins.

The first portion of the paper dealing with the anatomical evidence was, in an abbreviated form, the subject of an Arris and Gale lecture at the Royal College of Surgeons during the spring of 1913. It was my intention at first to deal with the physical side of the problem only, but as I came to examine the material collected by Mrs. Seligmann and myself during two expeditions on behalf of the Sudan Government in the winters of 1909–10 and 1911–12, the belief underlying much of my recent work, that many of the customs and ideas which exist in the Sudan are not Negro, Arab or even Islamic as they appear at first sight, became strengthened, and I then decided to collect and publish as much as possible of the cultural evidence bearing upon the subject. In doing this I have made use in the first place of the material recorded in my own and Mrs. Seligmann's notebooks, and have supplemented this with an examination of a considerable number of modern authors, of ancient Egyptian records and mediæval Arabic writers. Comparison of this material leads me to believe that among the culture strata lying buried beneath the present day cultures of North-Eastern and Eastern Africa there are remains of one which presents such substantial affinities with that of ancient Egypt that there can be no legitimate objection to speaking of it as Hamitic. There is indeed some reason to believe that this stratum goes back to the times of an undifferentiated Hamito-Semitic culture, but whether this be so or not the idea of an underlying Hamitic culture layer is not only entirely consistent with the physical evidence but is supported in a remarkable way by Westermann's recent researches on the Shilluk and other Nilotic languages.

In view of the wide area from which the facts recorded in this paper have been gathered, I have been led to consult a number of friends and colleagues, to whom I am greatly indebted for ungrudging assistance. Foremost among them I would number Miss M. A. Murray and Professor T. W. Arnold, both of whom have given me information of the greatest value. Mr. C. M. Doughty has given me the benefit of his unique experience of Arabia. To Professor Westermarck, as also to Major A. J. Tremearne, I am indebted for information concerning the Berbers and West African Arabs, which, although not quoted here, has been of considerable assistance. On the physical side I have been guided by the methods elaborated by Professor Elliot Smith, and applied by him and his assistants, Drs. D. E. Derry and F. Wood Jones, to the anatomical material excavated by the Archæological Survey of Nubia. I am further indebted to all these gentlemen for advice on special points, while the comparative material in the Reports of the Survey has been of constant assistance. Professor Waterston has courteously placed at my disposal his manuscript record of the measurements of Nilotes taken by the late Dr. Pirrie on the expedition which cost him his life, and some of the measurements printed in this paper will serve as a supplement to those published by Professor Waterston in his account of Pirrie's work.[1] I have also made use of a number of measurements taken by other investigators and would specially refer to the work of Drs. A. Mochi and C. S. Myers.

On the linguistic side I am greatly indebted to Mr. S. H. Ray; but for his help and advice I should scarcely have ventured to use linguistic evidence as freely as I have done, though he must not be held responsible for what I have written. Dr. B. Malinowski has greatly assisted me by the skill and care with which he has followed up a number of obscure references. I hope and believe that I have acknowledged in the text my indebtedness to all other authorities upon whom I have drawn. But above all I would acknowledge the assistance I have received from my wife, both by her constant help in the field while the observations which form the basis of this paper were being made and from the use of her notes and journal.

To introduce my subject I cannot do better than refer to any map which shows the distribution of languages in Africa at the present day.[2] It will be seen that Hamitic languages are spoken by peoples spread over perhaps one-fifth of Africa, and omitting Hottentot, which contains a Hamitic element, Bernhard Struck has been able to classify them into forty-seven stock languages and seventy-one dialects. The area inhabited by people regarded as Hamitic is even larger, including, as it does, many tribes superficially semiticized under the influence of Islam, for before the Arab expansion Hamitic languages must have been spoken over by far the greater part of the northern half of the continent.

[1] "Report upon the Physical Characters of Some of the Nilotic Negroid Tribes," *Third Report of the Wellcome Research Laboratories* (1908).

[2] Such, for instance, as that given by Meinhof in *Die moderne Sprachforschung in Afrika.* Berlin, 1910.

Considering these facts it might seem reasonable to expect that no insuperable difficulty should exist in tracing the migrations and defining the home of the stock which has given rise to so many peoples spread over so vast an area, but, in fact, the very reverse is the case, the cradle-land of the Hamites, though generally considered to be Arabia, is unknown.[1] It cannot be said that a uniform physical type exists; little is known of the migrations of this widely civilizing people, so little indeed, that anthropologists have as yet scarcely sought to define them. Yet lest it should be thought that the Hamites are but a rude and insignificant folk, concerning whom there is little to be discovered, let me once more repeat what many others have said, namely, that even now, after years of controversy, we have no direct knowledge of the home of the Aryans and that there is every reason to believe we shall never know the physical characters of the primitive "Aryan" race.

I do not propose to deal with such high matters, and shall be content if I can throw some added light on the Hamites of the Anglo-Egyptian Sudan and show that the least modified of these are physically identical with the predynastic Egyptians. I shall also indicate that just as the Zulu-Kaffirs contain a strong Hamitic element, so the Nilotic Negroids of the Sudan contain a varying, and in some tribes considerable, amount of Hamitic blood. I shall also try to demonstrate that among the Hamites of the Anglo-Egyptian Sudan and those tribes of mixed Negro and Hamitic origin, the Nilotes and their congeners inhabiting British and German East Africa and the neighbourhood of the Great Lakes, there exist certain non-Negro and non-Semitic customs which, though possibly not characteristic of all Hamites, may be regarded as characteristic of a great group of Hamitic peoples and therefore diagnostic of Hamitic influence.

It is usual to recognize two main divisions of the Hamitic stock which, following Sergi, may be called (i) The Northern Hamites (or Mediterranean race); (ii) The Eastern Hamites or Ethiopians. These two groups shade into each other, and in many parts a Negro admixture has taken place, nevertheless, culturally if not always physically, either division stands apart from its fellow.

In this paper I deal with the members of the eastern division only, and with some of the mixed peoples who have sprung from its contact with other races.

The Beja.

Excluding Abyssinia, eastern tropical Africa north of the equator is divided by the Nile into two great ethnological provinces, an eastern province, inhabited almost entirely by Hamitic peoples who do not speak Arabic and such "half-Hamitic"[2] tribes as the Masai, Nandi, etc., and a western, occupied by nomad and

[1] Sergi suggests Africa (*Antropologia della Stirpe Camitica*); Stuhlmann looks to Asia, perhaps in the neighbourhood of the Persian Gulf (*Handwerk und Industrie in Ostafrika*).

[2] I propose to use the term half-Hamite as a convenient, if not very exact, synonym for those predominantly pastoral peoples of East Africa who, having arisen as the result of the admixture of Hamite with Negro, retain many Hamitic traits and do not speak Bantu dialects. Though illogical the latter limitation is, I think, convenient in the present stage of our knowledge, if necessary it can be ignored later.

sedentary Arabic-speaking "Arab" tribes, the result of the fusion of Arab invaders with the previous inhabitants of the country, the whole well tinctured with black blood. The admixture of much Negro blood becomes less surprising when it is remembered that west of the Nile the Nilotic Negroids occupy the country north of the Nile-Congo watershed, extending in a compact mass to about 9° N. lat. and beyond this occupying the banks of the White Nile to within about 300 miles of Khartum.

At the present day the true Hamitic area of the Anglo-Egyptian Sudan extends from the Red Sea to the Nile, from the Egyptian boundary in the north to the neighbourhood of the junction of the Atbara with the Nile. South of this there are no easily defined natural boundaries, but the tribes do not come west of the Atbara in any strength, so that, roughly speaking, this river may be considered their western limit until it reaches the Abyssinian boundary between 15° and 14° N. The area so defined embraces the Red Sea coastal plain and the whole of the Eastern Desert which, south of Tokar (about 18° 30′ N.), gives place to hills and irregular much dissected plateaux, grass covered and well watered for a considerable part of the year. Clouds and heavy dews are common on these hills and the traveller from the Eastern Desert or the arid steppes of Kordofan is surprised to find, even as late as March, an abundant crop of yellow trefoil, scarcely differing from our own *Lotus corniculatus*, and flowers of such homely genera as *Mentha*, *Geranium*, and *Saxifraga*.

Though not richly vegetated from a European point of view, the comparative fertility of these hills affects the entire family and tribal life of the Beja in a manner difficult to realize before experiencing the sun-parched steppes of Kordofan, where surface water does not exist in the dry season and where wells are few and far between. Rocky hill-sides and arid peaks often hide pleasant valleys clothed with fresh green-leaved trees and shrubs that afford fair pasturage for camels and goats. Where the vegetation looks brightest a hole dug a few feet in the shingly soil will assuredly yield water, and places where the water lies on the surface throughout the year are not unknown. One such *fula* was described in glowing terms by an inhabitant of Sinkat as holding enough water for the whole world to drink from. It was a pretty enough little pool under the shadow of a great rock. Instead of the number of people and cattle who might have been expected to have gathered there by anyone who had seen the people collected around similar surface pools in northern Kordofan, only three or four men and women were found watering their goats and sheep and filling skins with drinking water with which they loaded their camels and donkeys. To obtain this it was only necessary to dig about a foot deep in the shingle by the side of the pool, and although the dry season was half over it was evident that numerous other wadies were still yielding water. Stonecrops, salvia and a plant resembling sea-holly grew in scattered clumps. Higher up were wide plains where the ariel fed on the dry grass that grew among the thorn bushes and liliaceous plants bearing clusters of red waxy flowers. Here stiff, candelabra-like euphorbias characterized the scene. Riding

along stony passes, valleys and hill-sides clothed with soft green grass may be seen now and again. Further south the pasturage is more luxuriant, indeed, in March, 1911, the hills round Khor Gamarota were all covered with fine sweet grass, the music of running water (due, it was said, to an unusually large rainfall on the Abyssinian slopes) was heard in the *kheiran*, and at Asserama Derheib the ground was carpeted with trefoil and sweet-scented heliotrope. Between the hills and the sea lies the maritime plain, in places bare salt marshes, but more generally covered with coarse grass making a good grazing ground for camels. As a rule in the Sudan pastoral tribes and even clans with territory of their own may not stray beyond their own borders, but in this part the knowledge that water may be found nearly everywhere allows a certain freedom of movement. For instance, Gebel Erkowit is in the territory of the Sherab division of the Hadendoa, but owing to the extremely cold weather the Sherab descended with their camels to the coastal plain in the spring of 1911, and another section, whose grass had been exhausted, came to Erkowit to graze their cattle, the Sherab making no objection. Thus, inter-tribal strife on account of wells and grazing grounds is not at all common, nor do the people need to move in large numbers in order that the women, cows, and goats may be within reasonable distance of the known water supply of the district. On the coastal plain the water is brackish, hence women who do not like camel's milk usually stay on the hills.

Except at places like Sinkat, where the inhabitants have almost given up their nomad life, tents are usually seen in groups of three or four. In the dry season some of the men must take the camel herds to the best and widest pastures, many of the herdsmen of the Hadendoa (especially of the Sherab and Bishariab divisions) going to the coastal plain, and the Ashraf and the Artega to the green hills south of the Khor Baraka, while their families move about in small groups, erecting tents that vary in size according to the length of their proposed sojourn, which, of course, is regulated by the amount of pasturage for their cattle. Where the halt is likely to be for a few days only a tent of three or four mats is enough, or even a ruder shelter may suffice. There will be a rough zariba for the young goats and sheep, or they must be brought inside the tent at night. Dead euphorbia stems afford excellent protection when driven into the earth in a semi-circle and slanted so that their light wood forms both walls and a half-dome roof. Such shelters are built wide for the cattle and are further strengthened at night with thorn. Smaller circles, forming real huts in which the people live, are sometimes seen, and in these cases tents are dispensed with altogether. Many such encampments wherein the people were likely to stay till the end of the dry season were seen on the Erkowit slopes.

Further south in a dry river bed the Beni Amer had taken advantage of a place where the wet season torrent had cut a bay, leaving a cliff-like bank some 10 feet high; this natural shelter was improved with mats, wood and thorn, and three families had settled there for the dry season. The pasturage in this neighbourhood was unusually good, and though this particular *khor* was no longer yielding water, there was a plentiful supply in another valley not more than

5 miles distant. In the same locality those who possessed sufficient mats had erected fairly commodious tents.

The tribes inhabiting the area under consideration may be divided into three groups:—

(i) The Bisharin, extending for some 80 miles south of the Egyptian boundary, and occupying a strip of territory stretching along the right bank of the Atbara.

(ii) The Hadendoa, comprising a number of closely allied tribes of which the Hadendoa is the strongest and best known. Including the Amara, the Nurab, the Ashraf and the Artega, the country of the Hadendoa extends south and east of the Bisharin territory as far as Tokar and the Khor Baraka. Scattered groups of Hadendoa are found among the hills to the south of this *khor*, though here the Beni Amer so predominate that the country must be considered to belong to them. East of the Khor Baraka and its main tributary the Khor Langeb the country belongs to the Hadendoa, who stretch south-west to the Abyssinian border in the neighbourhood of Kassala.

(iii) The Beni Amer, who occupy the country south of the Khor Baraka and extend into Eritrea, where they are one of the most important elements in the population.

The Bisharin and Hadendoa (and allied tribes) speak a Hamitic language called To Bedawi, the Beni Amer speak a Semitic language known as Tigre. Except for a few hours spent in the company of some Bisharin sailors from the neighbourhood of Donqonab[1] I have no first-hand knowledge of this tribe, but my conversation with these men, supplemented by information given me by Mr. C. Crossland, enables me to state confidently that the social organization and general culture of the Bisharin and Hadendoa are identical in all essentials. Further, in spite of the difference in language, the habits of the Beni Amer and Hadendoa are practically identical, although the latter are, on the whole, a fiercer, wilder people than the Beni Amer, whose manners appear to have been softened by the same Semitic cultural influence that has given them a Semitic language.

The Bisharin and tribes of the Hadendoa group are extremely democratic, and this, no doubt, is fostered by the independence resulting from their mode of life, as well as from their consciousness of a common origin.[2] By all accounts the

[1] Donqonab is on the Red Sea coast, in the neighbourhood of Mahommed Gul.

[2] It is said that the nation is descended from one Hadat, whose grave on the bank of the Khor Amet is still recognized. Her husband was one Mohammed Barakwin, from the other side of the Red Sea, and a descendant of Abbas, Mahommed's uncle. Her seven sons gave rise to seven of the divisions of the Hadendoa, namely, Gamilab, Gurhabab, Hamdab, Amirab, Wellaliab, Samaraidoab and Shebodinab. The sons of the founders of these divisions married the daughters of the land and from these unions sprang the Hadendoa nation. This legend illustrates two interesting points; the traditional origin of the tribe from a woman agrees with

Hadendoa would, if the necessity arose, yield ready obedience to the head of the Wellaliab division in the neighbourhood of Kassala, who is recognized as the old hereditary paramount sheykh of the Hadendoa. But the local sheykhs who, in some cases at least, owe their position to the Government, do not seem to be greatly reverenced, unless they are also men of distinction in religious matters, when they may wield very real influence, as in the case of Sidi Hassan of Tokar, who is looked up to as a fiki and whose invocations, when muttered over a knot he is tying, are believed to be of undoubted efficacy. The social organization of the tribes consists of a number of divisions (called by the Hadendoa *bedana*) with patrilineal descent and with territorial limits more or less strictly fixed. In spite of the latter there is a very considerable degree of give and take in the arrangements made for the pasturage and watering of the flocks, and while the boundaries of each division are known, they are by no means strictly adhered to in practice. This applies even to such large units as tribes, for the Hadendoa allow the Amara to graze their beasts freely over their lands for no other reason than that the territory of the Amara is inconveniently small in relation to the number of their flocks and herds. The Amara and the Hadendoa divisions in the neighbourhood of Sinkat and those around Suakim, in other words the strongest and most advanced divisions of the tribe who have long been subject to foreign influence, practise some cultivation, using the land at the edge of the *khor*, or even within it when no other is available; on the other hand, some of the more isolated and backward divisions living among the hills inland in the neighbourhood of the Italian frontier have absolutely no cultivated land. Such divisions, of which the Bedawib and Sinkatkenab may be taken as examples, are in many respects far more backward and uncontaminated by foreign (Arabic) cultural influence than the condition of the mass of the tribe would *à priori* suggest.

The Bedawib do not cultivate at all and it is said that they would not touch grain even if it were given to them so that they live almost entirely on milk and meat. They have no camels,[1] their tents are small, poor and rough, and their weapons are the spear, curved dagger and circular shield. The sword, which under Arab influence has penetrated everywhere throughout the non-Negro portion of the Sudan, is scarcely known among them.

Although I have written of the Bedawib as though they undoubtedly belonged to the Hadendoa group, their political position tends at first to make their relationship obscure. Thus, they speak both Tigre and To Bedawi, and both Hadendoa and Beni Amer unite in regarding them as their inferiors, though the latter

what is said by mediæval Arab historians concerning the matrilineal succession and matriarchal habits of the Beja, and the dragging in of a descendant of the prophet as ancestor illustrates the marked tendency which all these tribes exhibit to glorify everything Arabian, no matter how remotely connected with Mecca. I shall have occasion to refer to both these matters again in this paper, meanwhile, it is sufficient to note that the Hadendoa call themselves "Arabs" and speak of a number of Arab tribes by their tribal names or sometimes call them Bedu.

[1] Although the Bedawib live south of the desert zone, their country is well adapted to the camel, which is most highly valued by the surrounding tribes.

accentuate this far more than the former, calling them *tigri* and speaking of them almost as slaves, though they admit that they could never sell them.[1] Various accounts are given of the origin of the Bedawib. According to some they are degenerate Beni Amer who have learnt to speak Hadendoa by contact, often hostile, with the latter; other accounts speak of them as a people of composite origin formed largely by the fusion of broken men and escaped slaves. Another opinion is that they are a sort of inferior Hadendoa, and this was perhaps the general view taken by members of the most northern tribes, the Hadendoa and Artega, with whom the matter was discussed. I have little doubt that this view is, broadly speaking, correct; the build and physiognomy of those Bedawib with whom I came in contact convinced me that they belonged to the Hadendoa stock. It was admitted by my best informant[2] that at one time, long ago, the Bedawib had their own chief and were in an independent position, so that considering their appearance and language there is no reason why they should not be looked upon as outliers of the Hadendoa, who have acquired a knowledge of the Tigre language from contact with the Beni Amer. No doubt there has been considerable pressure from the south leading to the overlapping of the most northern Beni Amer and the most southern Hadendoa groups. My experience suggests that the greater part of the evidence for this must be sought among the Tigre-speaking tribes rather than among those speaking To Bedawi, for in the list of eighteen main divisions of the Beni Amer given me by Saleh Idris, seven are given as Tigre-speaking, six as speaking To Bedawi, and five as using both languages. This list includes Bedawib, the Sinkatkenab, and the Labèt; the first two being considered to belong to the Hadendoa group. This view is supported by a remark of Makrizi that Suakim was inhabited by Ḥasa, whom he calls Khasa just as the Arabs do at the present day.[3]

Democratic feeling, so strong among the Hadendoa, is weaker among the Beni Amer, who differ from their northern neighbours in that they are a nation that has arisen from a number of politically distinct elements, rather than a people formed by the cohesion of a number of closely related divisions. Thus from the national standpoint the Beni Amer are less homogeneous than the Hadendoa and kindred tribes, for they include a number of To Bedawi-speaking or bilingual communities, whose physique and appearance betoken northern rather than southern origin. These communities have, in fact, been subdued by the northward advance of the Tigre-speaking tribes[4] so that it is not surprising to find that among the Beni Amer

[1] Tigri is also the term applied by the nobility of the Bogos—a Hamitic people of Abyssinia—to the mass of the tribe, about double themselves in number, who stand to them somewhat in the position of vassals (*cf.* Munzinger, *Sitten und Recht der Bogos*, pp. 43–47).

[2] One Saleh Idris, an elderly man of Aqiq, closely connected with the ruling family of the Beni Amer.

[3] Quatremère, *Mémoires sur l'Égypte*, II, p. 155.

[4] The Beni Amer call their language Ḥasa, which is also the name of their strongest division. I have heard this term loosely applied to include the two numerically powerful divisions Beitmala and Aflenda.

certain divisions rank far above others, and it is no exaggeration to speak of the highest of these as forming an aristocracy.[1]

The following table shows some of the chief physical characters of these closely allied tribes which are capable of being expressed in figures :—

	No.	C.I.	N.I.	F.I.	Stature.
Bisharin[2] ...	78	79·00	76·08	104·12	1650
Hadendoa ...	54	76·39 ± ·26	71·58 ± ·67	92·78 ± ·56	1676 ± 5
Beni Amer[3] ...	51	74·70 ± ·32	70·52 ± ·63	92·12 ± ·49	1643 ± 5

The most striking feature of these figures is the steady rise in cephalic index from 74·7 in the south (Beni Amer) to 79 in the north (Bisharin).

The absolute measurements afford valuable confirmatory evidence of the nature of the change, and show that whereas the length of the head in the Hadendoa is only slightly less than that of the Beni Amer, the breadth of the head is definitely increased.

	No.	H.L.	H.B.	N.L.	N.B.
Hadendoa ...	54	189·97 ± ·52	145·1 ± ·48	51·86	36·95
Beni Amer ...	51	190·49 ± ·58	142·25 ± ·49	51·96	36·57

The absolute length and breadth of the nasal measurements are given for the sake of completeness, though their close agreement is probably not specially significant, for, generally speaking, the noses of the two peoples are by no means similar in shape, and in some cases present such extremes of variation as are shown in Plate XXVII, Figures 1 and 2, and in Plate XXIX, Figures 3 and 4.

There are, in fact, so many more or less well-marked physical differences between Hadendoa and Beni Amer that it is not difficult, after a little experience, to pick out by their appearance only the majority of the members of the two tribes

[1] At the present time the Nabtab are the head of the Beni Amer (my information applies only to those in the territory of the Anglo-Egyptian Sudan), and in a loose way which implies little more than the collection of a certain amount of tribute, may be said, I believe, to rule the Beni Amer from Aqiq. According to local tradition, the Nabtab attained this position at the expense of the Bello, the former leaders of the Beni Amer, a people of uncertain origin, none of whom remain in British territory, though according to Munzinger (*Ostafrikanische Studien*, p. 287) they still ruled certain territory north of Massaua fifty years ago.

[2] Measured by M. E. Chantre, *cf. Recherches Anthropologiques en Égypte* p. 255, (Lyon, 1904).

[3] These were all genuine Beni Amer, *i.e.*, all belonged to old and important Tigre-speaking divisions.

in a mixed gathering. Broadly speaking, the Hadendoa are more strongly built than the Beni Amer, while a considerable number exhibit Negroid traits. Further, the "Armenoid" or so-called "Jewish" nose is by no means uncommon among them, though it is not usual to find it in so exaggerated a form as in the man shown in Plate XXIX, Fig. 4. In spite of these differences and the rise in cephalic index the general biological characters of the two peoples are so similar that there can be no doubt that the Hadendoa are representatives of the Beni Amer stock modified by foreign influence. In support of this view I would specially draw attention to the character of the hair, the colour of the skin, and the general conformation of the cranium and face.

No absolute measurements can be given for the Bisharin, as Chantre records only indices, but the rise of three or four units in the nasal index is probably of little significance.

Although the Beni Amer are shorter than their northern congeners there is no regular rise in stature as there is in cephalic index from south to north. The very considerable difference between Beni Amer and Hadendoa is no doubt to be explained as a result of miscegenation with the tall Negroes of the Nile Valley. It needs only a glance at any considerable gathering of Hadendoa to be convinced that as a people they have absorbed much Negro blood. My impression is that the Bisharin are less mixed, but I have seen so few that this must remain a conjecture.

The rise in cephalic index from 74·7 in the south (Beni Amer) to 79 in the north (Bisharin) can only be due to the intrusion of a foreign element. The most enthusiastic believer in the modifying effect of environment will scarcely claim effective influence for the slight change of climate between the south and north, indeed, what change there is seems to be in the wrong direction, for the inhabitants of the somewhat moister hills or hilly uplands are longer headed than those of the lower desert country to the north. This foreign element can scarcely be Negroid, for the tall, extremely dolichocephalic Negroids (Shilluk, Dinka, etc.) of the Nile Valley cannot be held responsible for the increased tendency to brachycephaly shown by the Hadendoa and Bisharin, although they probably are the cause of the increase in stature noted among the Hadendoa.[1]

[1] It is true that this argument does not suffice to negative influence exerted by the round-headed Burun occupying the country immediately north of the Sobat River, nor the mesaticephalic Nuba of Southern Kordofan, the two nearest populations showing any degree of round-headedness, but there is not the slightest reason to suppose that either of these people have affected the Beja, and it would be mere gratuitous assumption to bring them seriously into the argument. Indeed, the geographical difficulties in the way of any considerable contact between the two people seem to be insuperable. Further, there is no trace of any cultural drift from these western Negroids to the Beja in the east. Similar arguments serve to eliminate the possibility of the comparative round-headedness of the northern Beja tribes being due to influence exerted by the mesaticephalic brownish-skinned Negroes or Negroids now occupying the Nile-Congo watershed and its neighbourhood. With regard to the influence of Negro slaves no information was obtained in the Red Sea Province, but among the Kababish, the strongest tribe of nomad Arabs in Kordofan, the larger number of female slaves appear to be Dinka while some come from Dar Fertit.

Nor does it seem reasonable to regard Egypt, with its strangely homogeneous sedentary population of dolichocephals or low brachycephals,[1] as responsible for the tendency to round-headedness that exists in the Bisharin and Hadendoa. Even if a certain amount of fusion of dolichocephalic Beja and mesaticephalic Egyptian be postulated, this could hardly have the effect of raising the cephalic index of the Bisharin to 79. To the west lies the Red Sea with a brachycephalic Arab population occupying the Hejaz and the Yemen.[2] At first sight it would seem that it is these brachycephals who are responsible for the mesaticephaly of the Bisharin and the plausibility of this view appears to be enhanced when it is remembered that there has been continual traffic between the opposite coasts of the Red Sea. Yet on careful examination it appears that there are difficulties in the way of accepting this idea. Where Semite (Arab) and Hamite have mixed, the latter have ever adopted the language of the former, and when mixed peoples have arisen I think it can be said that they are more Arab than Hamite. It is clear that nothing of this sort has happened in the Red Sea Province of the Sudan. Except in the neighbourhood of the towns, Arabic has not made progress among any of the Beja tribes who have kept their own language and such of their old cultural peculiarities as were not summarily rejected because they were opposed to Islam. Since the round-headed influence under consideration did not come from the east, south, or west it is necessary to consider whether it may not have come from the north, and on examination everything seems to favour this view. In the north there is a round-headed Armenoid population which, as Elliot Smith has suggested, exerted a profound influence on Egypt from the earliest times. This population once having begun to press south, would probably exert an even greater influence on the eastern side of the Red Sea, because this area is nearer its homeland, and could never have been capable of supporting a native population comparable in size to that occupying the Valley of the Nile. It follows that the brachycephals who influenced the northern Beja were these same Armenoid intruders, and this explains the occurrence of the so-called "Jewish" nose which, as already stated, is by no means uncommon among the Hadendoa, while no instance was noted among the Beni Amer. There are no data available which allow of any precise estimate being formed of the time when these foreigners entered the country, but the paintings of the Aamu on the walls of the rock tombs at Beni Hasan indicate that

[1] C. S. Myers, "Contributions to Egyptian Anthropology," in the *Journ. Roy. Anthrop. Inst.* for the years 1903 to 1908. These papers contain a large number of measurements, *e.g.*, 136 men of Kena and Girga Provinces give an average cephalic index of 74·13 ± ·23 (*Journ. Roy. Anthrop. Inst.*, vol. xxxvi, 1906, p. 239).

[2] The cephalic index of seventeen males from the Yemen works out at 83·18 ± ·73; twelve males from the Hejaz give 79·25. These averages are calculated from the figures given by Mochi, "Sulla Anthropologia degli Arabi," in *Archivio per l'Antropologia et la Etnologia*, vol. xxxvii, 1907. Mr. G. Wyman Bury has published photographs of a number of hillmen from Southern Arabia (*The Land of Uz*, London, 1911). These show that many of his subjects have pronounced Armenoid noses, such as might be expected to accompany round-headedness due to northern influence, *cf.* specially plates facing pp. 233 and 296, the subject of the latter closely resembles the pronounced type of Hadendoa shown in Plate XXIX, Figs. 3 and 4.

strangers with the most pronounced type of Armenoid physiognomy were received in Egypt as early as the twelfth dynasty. In this painting the four men following the chief are armed with bows, spears, and throwing-sticks; since they carry the latter perhaps they may be regarded as dwellers in the Eastern Desert, though this is not Professor Petrie's view, for he considers that their rich clothing indicates that they come from a country less sterile than the Red Sea desert and would connect them with Northern Arabia. Yet, during the twelfth dynasty, when these Armenoids were being received in Egypt, Egyptian artists less than 50 miles south of Beni Hasan were recording with unsurpassed fidelity the appearance of contemporary desert men uncontaminated by Armenoid influence. Mr. A. M. Blackman has recently copied a number of representations of these people from a tomb chapel at Meir on the west bank of the Nile some 30 miles north of Assiut, and a photograph of the best preserved of these paintings has been published by the Egyptian Exploration Fund.[1] Owing to the kindness of the Committee of the Fund and of Mr. Blackman I am able to give a reproduction of this photograph so that no long description is necessary. It will be seen at once that the figure (Plate XXX, Fig. 1), which I regard as one of the most successful examples of racial portraiture standing to the credit of Egyptian artists, represents a Beja. The long thin figure and limbs, with broad chest, narrow flanks, and almost retracted abdomen are no doubt conventional and exaggerated representations of the characteristics of the pastoral desert men as they appeared to the agricultural Egyptians, but there can be no criticism of the splendid naturalism of the lined face, the thin pointed nose and the mop of hair projecting over the forehead, and standing out stiffly over the whole head to the nape of the neck. The beard is the usual chin tuft of the Beja tribes.

From what has been said it is obvious that while the Bisharin have been most modified by the foreign round-headed element, the Beni Amer are the least influenced, so that, broadly speaking, their physical characters may be taken to be those of the original Beja inhabitants of the Eastern Desert.

Summarizing their physical characteristics it may be said that they are moderately short, slightly built men, with reddish-brown or brown skins in which a greater or less tinge of black is present, while in some cases the skin is definitely darker and presents some shade of brown-black. The hair is usually curly, in some instances it certainly might be described as wavy, but the method of hair dressing adopted tends to make difficult an exact description of its condition. Often, as is everywhere common amongst wearers of turbans, the head is shaved. Where the hair is very tightly curled or approaches the woolly, this is to be regarded as evidence of Negro admixture, and indeed in these cases there is generally other physical evidence of Negro influence. The development of hair on the body varies considerably, often there is none on the chest, but a considerable quantity may be present. The face is usually long and oval, or approaching the

[1] *Archæological Report of the Egyptian Exploration Fund*, 1911–1912, Plate VIII.

oval in shape, the jaw is often lightly built, which with the presence of a rather pointed chin may tend to make the upper part of the face appear disproportionately broad. The nose is well shaped and thoroughly Caucasian in type and form, except in those individuals, comparatively few in number, in whom Negro influence may be suspected. The hair on the face is sparse, slight side-whiskers, moustache, and chin-tuft beard are the rule, leaving the area between the lower lip and the chin bare, while there is also some considerable space between the whiskers and the moustache. Occasionally when the facial hair tends to outgrow these limits shaving may be resorted to in order to reduce the beard to the usual type. Not uncommonly, especially in the younger men, the whole face is shaved. A comparison of Figs. 4 and 5 of Plate XXX will show the resemblance of the chin tuft of the present day Beja to the beard of the protodynastic Egyptians, Fig. 4 being a drawing from the photograph of an ivory head found at Hierakonpolis.[1] The general resemblance of the Beja to some ancient Egyptians will, I think, be appreciated on comparing the photograph reproduced in Fig. 3, Plate XXX, with that of the Turin statue of Rameses II. (Plate XXX, Fig. 2).

The skull is moderately long and not particularly high; in the Hadendoa skulls, to which reference is made later, the height is less than the breadth. In shape the skull is a more or less well-filled pentagon or oval often showing a very notable prominence of the occipital region. This is especially common and clearly marked in the less well-filled skulls and is often to be appreciated by the hand as a definite bulge in the calvaria when it cannot be detected by the eye owing to the mop of hair. In some instances it appears that this projection is only relative and is, in fact, an expression of a marked supra-occipital flattening. Turning to the skulls already referred to, although they are not Negroid they exhibit certain primitive characters. The supra-orbital ridges are absent, or only very slightly developed, the nares may open directly upon the canine fossæ, and there may be a slight amount of subnasal prognathism. The jaw is usually slight with a short broad ascending ramus and a broad shallow sigmoid notch. The coronoid process is, for the most part, slightly or moderately developed so that the notch has somewhat the shape of a short bow or well-curved throwing-stick with equal limbs. In two instances, however, the process and the notch are of a different type; in these the process is taller, its anterior margin has a forward curve, the notch is narrower, and as a result tends to assume more the form of a fish-hook with a somewhat open bend than that of a bow or throwing-stick.

So far the comparisons made have all been within the Beja group, but consideration of the physical characters of the Beni Amer detailed above indicates that these people closely resemble the predynastic Egyptians and certain of the people dating from predynastic times onwards to about 2000 B.C., whose remains have been found in large numbers in Lower Nubia between Aswan and Korosko.

[1] *Hierakonpolis*, I, Plate VI, Fig. 4. I am indebted to Professor Petrie for permission to publish this drawing as well as for the print of the statue of Rameses II, reproduced on the same plate.

The following table brings out some of these similarities, corrections of

	No.	H.L.	H.B.
Beni Amer (C. G. S.)	51	183·5	133·75
Earliest predynastic Egyptians from Naga-ed-Deir[1]	45	184·8	131·5
Naqada ♂[2]	139	185·13	134·87
Late predynastic Egyptians (Mac-Iver)[3]	125	—	133·5
Early dynastic from Nubia, Group A[4]	91	183·0	134·3 (82)
Middle Nubian, Group C[5]	60	181·8	133·05 (58)
Ditto[6]	123	183·0	134·0 (117)

7 mm. for the length and 8·5 mm. for the breadth having been applied to the averages of the Beja (living) to make the absolute measurements of the length and breadth of their heads comparable with those taken on the skeleton,[7] while for the same reason two units have been deducted from the cranial indices of the living.

In stature the Beni Amer and the predynastic Egyptians stand close together, the former measuring about 1·64 m. and the latter 1·63 m.[8] It seems then that it is justifiable to regard the Beni Amer, the least modified of the Beja tribes, as

[1] Elliot Smith and Wood Jones, *Archæological Survey of Nubia*, p. 22.

[2] Quoted by Elliot Smith and Derry, *Archæological Survey of Nubia*, p. 23.

[3] *Ibid.*, Bulletin No. 6, p. 20.

[4] Elliot Smith and Derry, *op. cit.*, p. 17.

[5] *Ibid.*, p. 16.

[6] *Ibid.*, p. 17. A good deal of interest attaches to the figures for the two groups of Middle Nubians (Group C) as showing the results of dealing with long series. The second series includes the first, but it is only on considering the additional material that it is seen that Groups A and C are identical.

[7] In subtracting 7 mm. for length and 8·5 mm. for breadth I have followed Professor Elliot Smith who, as the result of a series of observations on Egyptian corpses, finds that these are "the maxima that can safely be deducted from the averages in dealing with Egyptian material" (*Archæological Survey of Nubia*, Cairo, 1910, vol. ii, p. 25). As the result of investigations on aged members of the White race Dr. John H. Anderson, in a paper which appeared in vol. xl, 1910, of the *Journ. Roy. Anthrop. Inst.*, suggests that about 9 mm. should be subtracted from both length and breadth.

[8] *Archæological Survey of Nubia*, vol. ii, p. 19.

the modern representatives of the old predynastic Egyptian (and Nubian) stock, and it further appears that the modification undergone by the latter during a period of some 7,000 or more years is extremely small.

An examination of a small series of Hadendoa skulls, now in the Royal College of Surgeons, affords nothing but confirmation of the view that these Beja tribes are closely related to the proto-Egyptians.[1] Owing to the courtesy of Professor Karl Pearson and Dr. Derry I have been able to compare these with a number of the Naqada skulls and also a few sent to this country by the members of the Archæological Survey of Nubia. Comparing the Hadendoa with the Naqada skulls it is at once obvious that there is the closest resemblance in general appearance and biological characters, with this reservation, that the Hadendoa crania are, generally speaking, rather better filled than are the Naqada skulls that I have handled.

This conclusion is further borne out on comparing the photographs of the skulls and jaws (only three of the latter) figured in Miss C. D. Fawcett's paper on the Naqada crania.[2] In individual instances the resemblance is astonishingly close, thus a skull numbered 1417, though less well filled, is very like Hadendoa No. 5 and even more closely resembles Hadendoa No. 6. So, too, Naqada 1505, though slightly more massive, is very like Hadendoa No. 1. The jaws are so similar that it is no exaggeration to say that they might have come from a single family burial ground. In all there is the rather weak bone development, the short broad ramus, and the wide shallow sigmoid notch.

The Hadendoa skulls also closely resemble some of the Nubian C group skulls shown to me by Dr. Derry. I would especially refer to 76/87 female which, though longer (L. 183, B. 130) than Hadendoa No. 1, closely resembles the latter, while 87/39, a female skull which has the appearance of a male, is very like Hadendoa No. 3, both being good examples of the proto-Egyptian (predynastic) type.[3]

I may emphasize this similarity in type by quoting Elliot Smith's description of the earliest known inhabitants of Upper Egypt. These " were a people slightly below the average size of mankind. Their muscular development was so feeble that it frequently becomes a very difficult problem to determine to which sex an isolated skull or long bone belonged. Their physical characteristics exhibit a

[1] I consider these skulls male because they were obtained under circumstances that make it almost certain that they are so, though the appearance of some of them is such as would render sexing difficult or even impossible. A description and the chief measurements of these skulls are given at the end of this paper.

[2] In only two of the Hadendoa skulls have the jaw bones been preserved, but there are other jaws available for examination. Two of these appear to be of a different type (Armenoid), ignoring these, what I have said above holds good of the remaining.

[3] Measurements do not bear out the close resemblances between the Hadendoa, Naqada, and Nubian (C group) skulls, which are readily detected by the eye, doubtless because the number of Hadendoa skulls is too small for fair comparison; for the same reason there is a discrepancy between the figures obtained from living Hadendoa and from the skeletal material derived from this tribe.

remarkable degree of homogeneity. Their hair was dark brown or black, and either straight or wavy, without the slightest suspicion of any Negro characteristics. In the men there was the scantiest development of facial hair, except on the chin, where a tuft was found recalling that seen in the conventional portraits of the later dynastic Egyptians. There are many other features of the skeleton and soft parts which are quite distinctive of these people, but I shall refer only to two or three points to illustrate my meaning. These people had long, narrow heads with an exceptionally narrow forehead and prominent occiput, so that the skull, when viewed from above, presents a characteristic form, which Professor Macalister has aptly termed 'coffin-shaped.' The face was a moderately long and narrow ellipse; the nose was broader and especially flatter than that of the European, without, however, being definitely Negroid, the horizontally placed, elliptical orbits were often decidedly flattened, and the chin was almost always pointed."[1]

Under the title *Crania Habessinica* (Rome, 1912) Dr. Sergio Sergi has recently published the results of his careful study of the long series of Tigre skulls collected by Schweinfurth and sent to Berlin. A glance at the plates shows that these skulls belonged to a people having the same general cranial type as the Beja, and although only seven mandibles are figured it can be seen that the majority of these are of the proto-Egyptian type. Nevertheless, some of the skulls are decidedly higher and rounder, a total of 94 adult skulls of both sexes giving 5 brachycephals and 29 mesaticephals.[2] Some such result as this might be expected in view of Schweinfurth's account of the northern Abyssinians. "The North Abyssinians or Tigri are in any case a very mixed race . . . . Although I have paid attention to thousands . . . . I have always failed to find a single common feature, a characteristic peculiarity in their appearance, by which, in the majority of cases, they might be distinguished from the other . . . . races of this district, for instance, the Hamitic . . . . Habab, and Beni Amer. The one thing in common binding them together is their speech, a branch of the old Geez . . . ."[3]

This account suggests that the Tigre-speaking natives of Abyssinia are more mixed than the Beni Amer of the Anglo-Egyptian Sudan, and this idea is confirmed on examining such of the measurements given by Sergi as are comparable with those taken by myself on the living. Even a cursory glance at the following table shows that the Tigre stand closer to the Hadendoa than to the Beni Amer, and to both these Beja tribes than to the longer-headed Kababish whose H.B. and F.B. are both slightly in excess of those of the Beni Amer.[4]

[1] Elliot Smith, *The People of Egypt* (Address to Cairo Scientific Society, 1909), p. 8.

[2] *Op. cit.*, p. 13. The C.I. for the males (69) including apparently four immature subjects is 74·2, for the females (25) 74·1.

[3] Letter from Schweinfurth to the Berlin Anthropological Society transcribed by Sergi, *op. cit.*, pp. 1 and 2.

[4] The Kababish are a nomad Arab tribe, *cf. infra*, p. 627 *et seq.* It may be suggested that

	H.L.	H.B.	F.B.
Beni Amer (51)	183·4	133·7	120·84
Tigre (65)	183·6	136·2	125 (42)
Hadendoa (54)	182·9	136·6	122
Kababish (24)	186·91	135·36	123·7

The facial (bizygomatic) breadth has been included because this measurement is taken between two definite subcutaneous bony arches over which the skin does not tend to roll, so that if the average thickness of the cutaneous tissues were known and a correction applied the figures obtained would probably be as reliable as those for head length and head breadth. In the table the H.L. and H.B. of the living have been reduced by 7 and 8·5 mm. respectively, and the F.B. by 7 mm.,[1] in order to make them comparable with the measurements taken on the Tigre skulls. I have not ventured to make use of the facial or upper facial lengths on account of the much greater difficulty in taking these measurements on the living.

Summing up the information given in the tables and collating it with what has been said of the biological characters of the skulls and heads of the peoples under consideration it may be stated:—

(i) In their biological characters the heads of Beni Amer and Hadendoa are essentially similar, both closely resembling those of the proto-Egyptians and some of the less modified stocks which have arisen by the action of foreign influence upon them. But while the crania of Beni Amer and Hadendoa are so nearly alike in length that they may be said to be identical in this respect, they show a difference in breadth sufficient to raise the cephalic index of the Hadendoa by nearly two units. Judging by their skulls the Tigre of Abyssinia, though they speak the same language as the Beni Amer, are less nearly related to them than to the Hadendoa.

the increased facial breadth of the Tigre, Hadendoa, and Kababish is due to the greater amount of foreign blood (Armenoid and Negro) in these tribes.

[1] The corrections for H.L. and H.B. are those given by Elliot Smith (p. 606, footnote), that for F.B. is suggested by the figures quoted by H. von Eggeling in *Physiognomie und Schädel* (Jena, 1911). The author gives the average thickness of the soft tissues over the highest point of the zygoma of twenty-one well-nourished male Europeans (presumably Germans) as 4·33 mm. I should expect a rather smaller figure for the Beja and kindred peoples, and have accordingly subtracted 7 mm. from the average of the measurements taken on the living.

(ii) While the noses of the two peoples scarcely differ in length and breadth they are different in character in a large number, perhaps in a majority, of individuals.

(iii) The Hadendoa are considerably taller than the Beni Amer, they certainly show more foreign (presumably northern Armenoid) influence than the latter, and probably more Negro influence.

(iv) The genetic relationship that all these facts imply is confirmed in a remarkable way by measurements.

The Beni Amer, the most dolichocephalic of modern Beja, stand very close to the earliest predynastic Egyptians and the Nubians of Groups A (early dynastic) and C (Middle Nubian). In skull breadth the measurements are so close that they may be taken as identical. The increased breadth which distinguishes the Hadendoa from the Beni Amer and which, judging from Chantre's indices, is carried still further in the Bisharin (C.I. 79), is paralleled by the considerable increase in breadth, with only slight and inconstant increase in length, which occurs in Egypt in passing from early predynastic (H.B. 131·5) and late predynastic (H.B. 133·5) through Naqada (H.B. 134·87) to the Old Kingdom (Giza skulls H.B. 139·02[1]) and the Middle Kingdom (Naga-ed-Deir skulls H.B. 138·9[2]).

It seems therefore legitimate to conclude that the Beja are essentially similar to the old proto-Egyptians and that they represent this stock to-day, its least modified members being the Beni Amer, while the rise in head breadth in the Hadendoa and Bisharin is due to the influence of the same relatively round-headed race that increased the breadth of the skulls of the proto-Egyptians. The increase in stature of the Hadendoa, and to a less extent of the Bisharin, is doubtless owing to this same influence, but it is possible that it may be due in part to Negro (Nilotic) influence.

The Barabra.

The origin of the inhabitants of Nubia, the Barabra or Berberines, is by no means clear. Perhaps this is in part due to the confusion introduced into the problem by Frederick Müller and Keane, who have insisted on applying linguistic criteria to determine the ethnological position of the Barabra. Müller erected a Nuba-Fulah group of languages to include the Barabra dialects and Fulah. Keane rejected this view, almost with scorn, but, on account of similarities in the language, or some of the languages, spoken in Northern and Central Kordofan to those spoken by the Barabra, did not hesitate to proclaim the essential unity of the Barabra and the tall black Negro hillmen of Kordofan, in spite of the fact that Lepsius, who has

[1] From measurements on material in the Cairo School of Medicine dating from the fourth to the sixth dynasties, quoted by Elliot Smith and Wood Jones in the *Archæological Survey of Nubia* (1907–1908), vol. ii, p. 27.

[2] Elliot Smith and Derry, *Archæological Survey of Nubia*, Bulletin No. 6, p. 20.

made an exhaustive study of the Berberine dialects, traces the Barabra to the Wawat, a people mentioned over and over again in records dating from the time of the Pyramid-builders to that of the Ptolemies. The confusion may have been increased by the similarity of the names Nuba and Nubia.[1] In any case it is not difficult, in the light of fuller knowledge of the Nuba themselves and of the history of Kordofan, to explain the similarities in language which misled Keane. A much greater difficulty which must be faced is the repeated reference on the Egyptian monuments to Negroes in Nubia at a time when, as shown by the excavations conducted by the members of the Nubian Archæological Survey, the inhabitants of Nubia, though they may have exhibited some Negroid traits, were by no means Negroes, or even frankly Negroid. I shall return to these matters later, meanwhile a comparison of some of the indices yielded by the present-day Barabra and the Nuba of Kordofan will show at a glance how dissimilar are these two people.

	No.	C.I.	N.I.	F.I.	Stature.
Barabra[2]	89	76·59	80·42	101·58	1690[3]
Nuba[4]	82	76·60 (±·28)	97·08 (±·66)	81·72 (±·33)	1723 (±5)

Although the cephalic indices are almost identical the differences in the nasal and facial indices of the two peoples are both striking and significant. These differences are borne out by a whole series of physical characters not susceptible to expression by measurement. The Nuba is stoutly built, muscular, and so dark skinned that he may be called black; the Barabra is of slight, or more commonly, medium build, not particularly muscular, and in skin colour varies from a yellowish to a chocolate brown. The hair of the Nuba is invariably woolly, that of the Barabra, though approaching the Negro in individual instances, is commonly curly or wavy, and may be almost straight, while the features of the Barabra are not uncommonly absolutely non-Negroid.

Thus, there can be no doubt that the two peoples are essentially different in physical characters, and the same holds good on the cultural side. The Barabra scar their faces in the manner common to the Beja and riverain tribes of so-called

[1] This is, *e.g.*, probably the origin of the curious confusion in Westermann's recent book, *The Shilluk People*, in which the author speaks of Nyakang, the founder of the Shilluk nation, who came from the south or possibly the west, bringing "Nubians" with him (*op. cit.*, p. 143).

[2] Chantre (*Recherches Anthropologiques en Égypte*). It is to be regretted that this author has not published his figures, and that he has not always kept his measurements of the sexes distinct. Of the 89 Barabra he examined, at least 25 (probably 29) were women.

[3] The stature is the average of seventy males (*op. cit.*, p. 258).

[4] From measurements taken by myself (*cf. Journ. Roy. Anthrop. Inst.*, vol. xl, 1910, pp. 505–524) and by Dr. C. S. Myers (*ibid.*, pp. 141–163).

"Arabs"; they circumcize their youths and mutilate their girls,[1] but they do not cover the bodies of their women with cicatrices, neither do they remove their incisor teeth, nor do their women perforate the lower lip in order to wear a lip ornament. The Nuba do not circumcize their boys or mutilate their girls, but do practise the remaining deformations mentioned in the last sentence. Both make pottery, but the technique employed and results attained are utterly different, indeed, the Barabra pottery still strikingly resembles the Egyptian, and there is the clearest evidence that the predynastic tradition in pottery continued in full swing as late as the eighteenth dynasty in Upper Egypt and Nubia.

This brings us to the greatest difficulty experienced in placing the Barabra, namely, the historical; the nature of the difficulty will be appreciated by a brief statement of the data which it is necessary to consider.

The recent excavations above Aswan, conducted by the members of the Archæological Survey of Nubia, show that long ago Nubia was inhabited by a people who buried in the same way as the predynastic Egyptians, while the pottery indicates that some at least of these people had a technique closely resembling, though not identical with, that of the prehistoric Egyptians.[2] Other graves contain series of objects identical in material and manufacture with the contents of predynastic graves in Egypt. Further, on physical grounds, Professor Elliot Smith has identified these early inhabitants of Nubia (Group A) with the prehistoric Egyptians. These facts strongly suggest, but do not prove, that the Nubians of Group A and the predynastic Egyptians were contemporaneous; this is made certain, however, by the discovery of typical late predynastic objects of the finest technique and greatest value in early Nubian graves.

Specimens such as the double-bird slate palettes and magnificent gold handled mace recently found in a Nubian grave[3] bear out early traditions of contact between the two peoples such as that implied by the legend that Horus passed into Nubia after conquering Set and there won a great victory.

Again, in the first dynasty, the Palermo Stone records the smiting of a people called the Troglodytes at Elephantine. No doubt the contact between the two peoples increased, and, according to a Ptolemaic tradition, Zoser, the founder of the third dynasty, so controlled the region of the cataract that he could grant to "Khnum the god of the cataract at least nominal possession of both sides of the river from Elephantine . . . to Takompso," some 75 or 80 miles above the cataract.[4] Yet in the times of the Pyramid-builders the Nubians were sufficiently un-Egyptian to be treated as foreigners to be raided without mercy, and it is recorded in the third dynasty that Sneferu brought back from his Nubian campaign

[1] For the significance of the mutilation of girls and cheek-scars *cf. infra*, pp. 639 and 640.

[2] I am greatly indebted to Mr. C. M. Firth for showing me the specimens in question, I particularly remember one delicately made bowl with a buff coloured body upon which a number of animals were painted in bright red.

[3] This mace has been figured by Mr. Firth in *The Archæological Survey of Nubia*, Bulletin No. 7, 1911, p. 18.

[4] Breasted, *History of Egypt*, p. 112.

7,000 living prisoners and 200,000 large and small cattle.[1] Booty of this description could have been obtained only from a land such as Nubia if Sneferu and his generals "eat up" the country as Chaka's Zulu "eat up" the surrounding peoples. Further, the spoil carried off indicates that Nubia was inhabited by a more or less settled semi-pastoral people who grew catch crops on every inch of cultivable land, so Sneferu's record gives us valuable information concerning the condition of the Nubians during the Old Kingdom.[2]

In the sixth dynasty raids into Nubia alternate with armed trading expeditions. Yam, Kau, Temeh, Irthet, Mazoi, and Wawat[3] occur as names of places in Nubia and the chiefs of the three last did homage to King Merenra on his visit to the First Cataract.[4]

In this reign Una, an old and tried servant of the royal family, visited the First Cataract with only one war-boat. This is mentioned as a unique occurrence.[5] During a later expedition which lasted a year, the chiefs of Irthet, Wawat, Yam, and Mazoi brought timber to Una with which he built boats.[6] In the same reign Harkhuf, a governor of the South, was sent to "explore a road" to Yam; no mention is made of fighting. A second expedition sent to Irthet, Mekher and Tereres returned in eight months laden with gifts. Once more Harkhuf went to Yam and found the "chief of Yam going to the land of Temeh as far as the western corner of heaven. I went forth after him to the land of Temeh and I pacified him, until he praised all the gods for the king's sake."[7] After this vigorous co-operation with Yam the Egyptians traversed the land of Yam to Irthet and returned through Sethu and Wawat on the eastern bank, everywhere leaving the tribes at peace and reaching Egypt with 300 asses laden with incense, ebony, *heknu*, [oil], grain, panther skins, ivory, throwing-sticks, and "every good product."[8] All

[1] Palermo Stone, *cf.* Breasted, *Ancient Records*, I, **146**.

[2] This suggestion is confirmed by information given me by Professor Petrie, namely, that bags of bran, *i.e.*, pillows stuffed with bran, have been found in predynastic tombs. The condition of the people may well have been somewhat similar to that of the Nilotic tribes of the present day, a people predominantly pastoral and depending largely on milk for food, yet growing a certain amount of grain to make beer and to provide food for themselves, but except in unusually favourable seasons never producing enough to last them the year through without times of scarcity, which in bad seasons, when there is little food for the cattle, become periods of want or of actual famine.

[3] Irthet has been identified by Maspero as the region from Derr to Dongola, or Upper Nubia on the west, Yam is between Irthet and Aswan or Lower Nubia on the west side, and Wawat is opposite Yam on the east (Petrie, *History of Egypt*, I, p. 94). The journey to Yam and back occupied seven months.

[4] A stele on the rock at Aswan records this, the inscription runs: "The coming of the king himself appearing behind the hill-country that he might see that which is in the hill-country, while the chiefs of Mazoi, Irthet, and Wawat did obeisance and gave great praise." Breasted, *Ancient Records*, I, **318**.

[5] Breasted, *Ancient Records*, I, **322**.

[6] *Ibid.*, I, **324**.

[7] *Ibid.*, I. **333–335**.

[8] *Ibid.*, I, **336**.

this trade so impressed the chief of Irthet, Sethu, and Wawat, that he presented bulls and small cattle.[1]

Under Pepi II., Pepi-nekht, who was sent on a campaign against Wawat and Irthet, returned victorious with many living prisoners. He was sent again "to pacify these countries" and brought back the two chiefs of Wawat and Irthet and their children with many bulls.[2] Later in the same reign Sebni journeyed south to fetch the body of his father Mekhu who had died in or beyond Wawat. He has recorded that he went at the head of "a troop of my estate and 100 asses . . . bearing ointment, honey, clothing, oil . . . in order to make presents in these countries." Sebni returned from Wawat and Irthet with his father's body and with incense, clothing, ivory (one tusk 6 cubits long), hides and "all kinds of gifts from these countries."[3]

These and other records seem to show that towards the end of the Old Kingdom Egypt exercised at least so much control over Lower Nubia that much of the country could be safely traversed by small military parties and by strong caravans. Nevertheless an enduring peace was not established throughout the length and breadth of the land and local difficulties led to the despatch of more than one punitive expedition.

In connection with the Pyramid-builders' expeditions it may be significant that it is about the time of the third dynasty that the bones of the Nubians then living above Aswan begin to show definite evidence of Negro admixture.[4] This influx from the south can only have been helped by Sneferu's wasting of the country, so that from the third dynasty onwards the population that grew up was a mixture of early Nubian and dynastic Egyptian with an ever-increasing Negro element. During the time that this mixed population was fusing into a more or less common progressively darker type "the people of Nubia buried their dead in graves which, on archæological evidence, are quite distinct from those of the Egyptians of the same and, in fact, every other period."[5]

From the end of the sixth to the establishment of the eleventh dynasty little is known of Egyptian history. It was a time when domestic strife took the place of foreign aggression, the garrisons of the south, if such existed, were withdrawn, and Egyptian influence waned south of the cataract. The result may have been that the country was left in an impoverished condition with a reduced population in an unsettled state.

No doubt during this period the wilder tribes south of the Second Cataract not only continued independent, but exerted pressure on their northern neighbours, who would be driven into Lower Nubia, perhaps even into Upper Egypt.[6]

[1] *Loc. cit.*

[2] *Ibid.*, I, 358 and 359.

[3] *Ibid.*, I, 366–369.

[4] *Archæological Survey of Nubia*, Bulletin III, p. 22.

[5] *Ibid.*, p. 24.

[6] More or less steady pressure from the south must be assumed in order to account for the innumerable revolts in Nubia which occurred from the twelfth to the eighteenth dynasty, whenever the Pharaoh was strong enough to be concerned with the happenings south of the

During these centuries the process of fusion of Egyptian and Negro elements continued "until the new hybrid population assumed the remarkably homogeneous blend of Egyptian and Negro traits which characterize the Middle Nubian people,"[1] a type which, according to Elliot Smith, "seems to have remained dominant in Nubia ever since then, for the span of almost 4,000 years, which separates the Middle Empire from the present."[2]

As far as we know the eleventh dynasty did not pay much attention to the situation in the south, though there is a mention of "ships to Wawat,"[3] but in the twelfth dynasty Nubia is once more the subject of many inscriptions. That vigorous ruler Amenemhat I. has left the record "I seized the people of Wawat, I captured the people of Mazoi."[4]

There is an inscription at Wadi Halfa, dating from the time of Senusert I., referring to the capture of ten towns in the neighbourhood of the Second Cataract the grain taken being thrown into the river.[5] Ameni, the hereditary prince of the Oryx nome, led an expedition into Nubia, "I passed Kush sailing southwards, I advanced the boundary of the land, I brought all gifts; . . . Then his majesty returned in safety having overthrown his enemies in Kush the vile. I returned, following him, . . . There was no loss among my soldiers."[6] Ameni made several expeditions southward for gold and ore, sometimes with 600, sometimes with 400, troops and always returned with soldiers uninjured, so that these journeys may have been trading expeditions.[7] In the next reign, that of Amenemhat II., one Sa-Hathor worked gold mines in Nubia and forced the local chiefs to wash gold for him.[8]

Senusert III. conducted four campaigns in Nubia, between the First and Second Cataracts. He canalized the Great Cataract to allow boats to pass rapidly and fortified Kummeh and Semneh, setting up a boundary stele 37 miles south of Wadi Halfa, beyond which no Negro might come except as a trader.[9] In his sixteenth regnal year he "captured their women, . . . carried off their subjects, went

cataract. Indeed, it is difficult to imagine other conditions which could necessitate ever recurring expeditions to suppress rebellions in a narrow strip of country traversed by a great river.

[1] *Archæological Survey of Nubia*, Bulletin III, p. 25. Professor Elliot Smith applies the term "Middle Nubian" to the bodies and graves of the time of the Middle Empire (Dynasties XII–XVII). The archæologist (Dr. Reissner) speaks of these bodies and graves as constituting the C Group.

[2] *Op. cit.*, p. 26.

[3] *Ibid.*, I, 426.

[4] *Ibid.*, I, 483.

[5] *Ibid.*, I, 512.

[6] *Ibid.*, I, 519.

[7] *Ibid.*, I, 520–521.

[8] *Ibid.*, I, 602.

[9] The decree on the stele runs thus: "Southern boundary, made in the year 8, under the majesty of the King of Upper and Lower Egypt, Khekure (Sesostris III.) who is given life for ever and ever; in order to prevent that any Negro should cross it, by water or by land, with a ship, (or) any herds of the Negroes; except a Negro who shall come to do trading in Iken or with a commission. Every good thing shall be done with them, but without allowing a ship of the Negroes to pass by Heh, going downstream, for ever." Breasted, *Ancient Records*, I, 652.

forth to their wells, smote their bulls; . . . reaped their grain, and set fire thereto."[1] Another campaign is recorded in the nineteenth year of his reign when he overthrew "the wretched Kush."[2]

The rude character of some of the pottery which, according to Mr. Firth, is contemporary with the twelfth dynasty, suggests that the people who made this were well tinctured with Negro blood. But however much the kingdom expanded under the great rulers of the twelfth dynasty at its close there was again a dark period. It seems likely that at this time some such process of withdrawal took place as that which may have occurred at the end of the Old Kingdom, though perhaps not so complete, followed by an incursion of more Negroid tribes from the south, and this would account for the princes of the New Empire having to conquer Nubia or at least Upper Nubia once more.

In the reign of Aahmes I. a campaign against the Nubian Troglodytes is recorded.[3] Amenhotep I. "ascended the river to Kush. . . . His Majesty captured that Nubian Troglodyte in the midst of his army"[4] and in this reign Hormini "attained old age in Wawat" as governor of that country and went north each year with its tribute for the King.[5] From this it seems that it was at last recognized that the old policy of raids and punitive expeditions was inadequate to ensure peace on the southern border, and that the only thing to do was to arrange for the administration of the country.

Under Thotmes I. the boundary was extended southwards to the Third Cataract. "He hath overthrown the chief of the Nubians, the Negro is helpless, defenceless in his grasp. . . . There is not a remnant among the curly-haired, who came to attack him; there is not a single survivor among them."[6] The king returned to Egypt bringing back "that wretched Nubian Troglodyte being hanged head downwards" at the prow of the royal barge.[7] In spite of the forward policy of this prince the Nubians seem to have considered that the youth and inexperience of his successor offered a favourable opportunity to revolt, for in an inscription near Aswan dated in the first year of Thothmes II., it is recorded that "The wretched Kush has begun to rebel, those who were under the dominion of the Lord of the Two Lands purpose hostility, beginning to smite him. . . . His majesty was furious thereat like a panther, when he heard it. Said his majesty, "I swear, as Re loves me, as my father, lord of gods, Amon, Lord of Thebes, favors me, I will not let live anyone among their males. . . . Then his majesty despatched a numerous army into Nubia. . . . This army of his majesty overthrew those barbarians; they did [not] let live anyone among their males, according to all the command of his majesty, except one of those children of the chief of wretched Kush, was taken away alive as a living prisoner with their people to his majesty. They were placed under the feet of the Good God. . . . This land was made a

[1] *Ibid.*, I, **658.**
[2] *Ibid.*, I, **672.**
[3] *Ibid.*, II, **14.**
[4] *Ibid.*, II, **39.**
[5] *Ibid.*, II, **48.**
[6] *Ibid.*, II, **71.**
[7] *Ibid.*, II, **80.**

subject of his majesty as formerly, the people rejoiced . . . they gave praise to the Lord of the Two Lands, they lauded this god excellent in examples of his divinity."[1]

Under Thothmes III. the contact with Nubia becomes more intimate, there is an inscription at Semneh describing offerings of grain and cattle to be made by local chiefs and governors to Dedun, a god of Nubia, at certain annual festivals.[2] At the same time the children of Nubian chiefs appear as slaves in the temple of Karnak, and a large tribute was exacted yearly.[3] In spite, or perhaps because, of this a campaign against Nubia was necessary in the fiftieth year of the reign; the names of seventeen towns or districts conquered are given, all their inhabitants being carried away captive and "all their herds being led to Egypt."[4] A revolt in Nubia was again suppressed under Thothmes IV.,[5] and his successor, Amenhotep III., after a campaign in Nubia in the fifth and sixth years of his reign, brought back to Egypt over 700 prisoners and the hands of more than 300 dead.[6]

A revolt of the usual character forced Harmhab, the founder of the nineteenth dynasty, to lead an expedition into Nubia[7] and there is an inscription in a temple at Wadi Halfa recording that Rameses I. added "slaves of the captivity of his majesty" to the endowment of the temple.[8] There were unimportant revolts in Nubia under Rameses II., but these must have been in the far south,[9] the great rock temple at Abu Simbal, where Rameses was himself worshipped, shows how completely the country had come under Egyptian influence. Here "the old native chiefs had practically disappeared, the administrative officials were in complete control, and there was even an Egyptian court of justice with the viceroy as chief judge,"[10] indeed, before this, towards the end of the eighteenth dynasty, Egyptian authority had been established as far south as the Fourth Cataract.[11] Egyptian influence had conquered, the process of absorption begun by Senusert III. when he gave the first place to the Nubian god Dedun in his temple at Semneh was complete by the end of the eighteenth dynasty, and a wall painting indicates that the majority of the Nubians who accompanied their governor Huy when he brought the tribute of the southern countries to his master, the king Tutenkhamon, have in clothes and coiffure done their best to show how thoroughly they have adopted the superior civilization.[12]

We have no representations of the Nubians until the eighteenth dynasty, from which time until the twentieth dynasty they are drawn and painted in innumerable scenes, appearing as full-blooded Negroes with coarse Negro features even when, for the sake of definition, the nearer of two blacks moving side by side is represented of a brown colour. It seems impossible to evade these many representations, or to

[1] *Ibid.*, II, **121, 122.**
[2] *Ibid.*, II, **170, 171.**
[3] *Ibid.*, II, **162.**
[4] *Ibid.*, II, **645.**
[5] *Ibid.*, II, **826–829.**
[6] *Ibid.*, II, **853–854.**
[7] *Ibid.*, III, **40–44.**
[8] *Ibid.*, III, **78.**
[9] *Ibid.*, III, **450–453.**
[10] Breasted, *History of Egypt*, p. 446.
[11] Erman, *Life in Ancient Egypt*, p. 504.
[12] Lepsius, *Denkmäler*, III, 117.

read into them any other significance than the obvious one, that the Nubians conquered by the great kings of the New Empire were Negroes in the broad common sense of the term. Further, although I have been able to find no twelfth dynasty representations of Negroes, *nehesi*, the word used by Senusert III. in his celebrated decree, though strictly meaning an inhabitant of the land of Nehes, is commonly used for Negro in the inscriptions of the New Empire. Thus in the inscription of Thothmes I. "The Negro is helpless, etc.," already referred to, the word translated Negro is *nehesi*, while of the captives taken by Amenhotep III. (*supra*, p. 617) the word translated "Negresses" is *nehesyt*, the fem. pl. of *nehesi*, and "servants of the Negroes" is written "servants of the *nehesi*."[1] Moreover, there is no doubt that even in early times Nehes signified the land to the south of Egypt. The earliest mention of Nehes is on the Palermo Stone in Sneferu's reign, though the prisoners of Sneferu are not said to come definitely from Nehes.[2] Pepi I. (sixth dynasty) made war against the Yrthet-nehesi, the Maza-nehesi, the Yam-nehesi, the *nehesi* of Wawat, the *nehesi* of Kau, and the *nehesi* of Temeh.[3] Under his successor, Pepi II., Sebni goes to the lands which Breasted translates as "countries of the Negroes,"[4] *i.e.*, *nehes*.

With regard to the word in the inscription of Thothmes I. (*supra*, p. 616) rendered "the curly-haired," *i.e.*, as a synonym of "Negro" (*nehesi*), written earlier in the inscription, and which seems at once to settle the question of the significance of Nehesi, it is necessary to exercise a certain amount of caution, for Miss Murray points out that this word reads *nebed*, and is determined by a lock of hair, *i.e.*, "the curly-haired" stands for "the *nebed*-haired." But *nebed*, according to Brugsch, does not mean "curly" but is the equivalent of the French *tresser*, *natter*, *entrelacer*, and is akin to the Coptic ⲛⲟⲩⲃⲧ=*plectere*, *intexere*[5]. Perhaps *nebed*-haired may be translated "with hair in plaits," if so it still bears out the Negroid character of the folk to whom it was applied, for many Negroes and Negroids do their hair in a mass of small plaits.

Yet, as pointed out on p. 615, the results of excavations north of Aswan show that from the twelfth dynasty onwards the population was a hybrid one; the C Group skulls, though Negroid, were certainly not Negro, indeed, as already stated, Elliot Smith considers that making allowance for newer alien [Armenoid] influence from the north, the C Group type is roughly the same as that exhibited by the inhabitants of Nubia at the present day.[6] I do not think that anyone will seriously

[1] I am indebted to Mr. Guy Brunton for making a careful copy of the original of this inscription, which I understand is difficult to read. Numerous other examples could be given but these have been selected as being among the most convincing.

[2] The inscription reads: "Hacking up the land of Nehes. Bringing of 7,000 living prisoners."

[3] Mariette, *Abydos*, II, 44.

[4] Breasted *Ancient Records*, I, 366. Sethe, *Urkundeu*, I, 136.

[5] Brugsch, *Wörterbuch*, 752. Peyron, *Lexicon Copticum*, 128.

[6] Without going into the physical anthropology of the Barabra in detail I may point out that the bulging occiput, which is a common a feature in proto-Egyptian skulls and the heads

challenge this broad conclusion, yet in view of the many representations of undoubted Negroes from Nubia dating from the eighteenth to the twentieth dynasty it is difficult to see how it can be accepted in the form put forward by Elliot Smith, namely, that the Group C type "has remained dominant in Nubia ever since," *i.e.*, since the time of the Middle Kingdom.

A possible solution suggests itself, though it does not seem to me satisfactory. It might be held that the comparatively slight difference in geographical position between the country immediately south of Aswan and in the neighbourhood of the Second Cataract, suffices to account for the difference existing between the skeletons of the Middle Nubians and the nearly contemporary representations of Nubians from south of the Second Cataract. But it seems that this solution has so much against it that it may be allowed to drop; apart from its *prima facie* improbability, and the constant pressure which was exerted from the south, its inadequacy is indicated by the use of the same term (*nehes*) for Nubians by Senusert III. (who after much fighting fixed his boundary at the Second Cataract) and by his successors, who depicted the dark-skinned opponents they overcame in pushing their confines further south.

How then can the similarity of the Nubian population of the time of the Middle Kingdom and beginning of the New Empire to that of the present day be explained, while yet taking account of the Negro population existing under the New Empire? It seems that only one explanation is tenable, namely, that for a period subsequent to the Middle Kingdom the country in the neighbourhood of the Second Cataract became essentially a Negro country and may have remained in this condition for some little time. Then a movement in the opposite direction set in, the Negroes, diminished by war, were in part driven back by the great conquerors of the New Empire, those that were left mixed with the Egyptian garrisons and traders and once more a hybrid race arose which, however, preserved the language of its Negro ancestors.

Perhaps in course of time and under the influence of increased pressure from the north this race gave rise directly to the present-day inhabitants of Nubia, the Barabra, but such a conclusion is at least premature; it is highly probable that the Beja nomads of the eastern desert may have contributed not a little to the lightening of the hybrid Egyptian-Nubian race, just as in both Lower and Upper Egypt the Ababdeh have intermarried with the Fellahin so that not only are there Fellahin in whom recent Beja blood may be traced, but there are actually settlements of people of mixed blood who call themselves Ababdeh.

In support of this suggestion and as indicating that something of the sort has taken place in recent times it may be mentioned that among the Danagla there is a division called Gel Nas, which is said to be short for Nas el-Ghazal, because

of the modern Beja (*supra*, p. 605), also occurs among the Barabra and is quite obvious in two of the photographs reproduced in Plate XXXV. The man shown in Fig. 8, with his long skull, bulging occiput, and pointed chin, seems to reproduce a number of the more salient characters of the proto-Egyptians.

they came in from the desert. Moreover, among both Danagla and Mahas the names of many divisions end in *-ab*, a suffix equivalent to "sons of" or "people of" in the Hamitic dialects of the Eastern Desert.[1]

Lastly, with regard to the language, if the language of the southern Nuba be compared with the dialects (Mahass, Sukkhot, etc.) spoken by the Barabra it will be found that there is no resemblance. The inhabitants of the *jibal* in Southern Kordofan, but situated a little north of the Bahr el-Ghazal, have a language, or rather a series of languages, with grammatical structure and vocabularies which do not resemble the Berberine dialects. The communities of some of these hills are as yet unaffected by northern influence as is shown by the fact that the men still go absolutely naked and uncircumcized, the very first result of Arab (Mohammedan) influence being the adoption of circumcision and the assumption of at least a minimum of clothing. The resemblances found between the languages of the Barabra and of the Nuba of Northern Kordofan are in fact due to foreign influence, to which the hillmen have been submitted for a considerable period. It has long been known that the southern Barabra of Dongola Province are keen traders, indeed, the traveller in Kordofan soon comes to recognize that these folk have exerted a sustained and increasing influence for a considerable time. As might be expected this influence is most marked in the north, where important settlements of Barabra have long existed, but there is not the least doubt that it has penetrated to a degree not commonly realized deep into the heart of Kordofan, and it is this pacific and mercantile penetration which, in my opinion, must be held responsible for the similarities that have been discovered in the Berberine and Nuba languages.

In support of this view, which as far as I know has not been put forward before, I would draw attention to the following extracts from Mr. H. A. MacMichael's recent work upon the tribes of Northern Kordofan. It must be remembered that the author is concerned with the history of the more important tribes of the province, not with the peaceful penetration of communities of traders, so that the following passages are of additional weight as showing the influence exerted on the former by the immigrant Barabra.

The oldest reference given by MacMichael is from El Tunisi, to the effect that Hashim, whom he describes as the "most powerful man in Northern and Central Kordofan," collected an army of 10,000 men, chiefly Danagla, Shaigia, Kababish, and Rizeiggat, to invade Darfur.[2] This was about 1784–5; Hashim was driven to Sennar by Tirab of Darfur, and MacMichael, in his account of Tirab's victorious return, notes, "It was at this time too that Bára, built originally by Danagla, was beautified with trees and gardens."[3]

The next mention of the Danagla appears to be by Ruppell who, writing in 1829, says that the inhabitants of the *jibal* Haraza, Um Durrag, and Abu Hadid are

[1] Thus Sornab and Hakmab among the Danagla, and Hassanab, Sukarab, Kamlab, Deshab, etc., among the Mahas.

[2] *The Tribes of Northern and Central Kordofan*, pp. 13 and 14.

[3] *Op. cit.*, p. 15.

a mixture of Nuba and Dongolawi.[1] The account of El Obeid as it existed in 1838–9, given by Pallmé, states that after the Turks took the place they rebuilt it in six portions, one of which was set apart for the Danagla and other foreign merchants.[2] The former were *protégés* of the Turks, and largely employed by them in the administration. Practically all the export trade was in their hands, and they also traded for slaves and ivory with the southern mountains. Besides these Danagla were commonly appointed paramount sheykhs (*sheykh el mashaikh*) of districts, and when this office was abolished the *nazir* who took their place were still often Danagla.[3]

The evidence of the inhabitants of Jebel Midob, a *massif* of considerable size in the territory of the Sultan of Darfur several days' journey west of the Kordofan-Darfur border, is particularly convincing. These folk say that they are the descendants of an ancient colony of Mahass and Danagla who travelled westwards from the Nile. Some of them told Mr. MacMichael that their fellows who had visited the river found that their language greatly resembled the Mahass and Danagla dialects and instanced the word *kosi*, meaning a wooden food bowl, "in the tongue of Mídób and of the old inhabitants of Dongola."[4]

It seems, then, that there can be no doubt as to the widely spread influence exerted by the Danagla; except in the extreme south, they went all over Kordofan as traders, settled as cultivators and took so many Nuba women to wife that it is scarcely an exaggeration to say that local small mixed races were produced. It is surely this immigration which has led to those likenesses to the Berberine dialects which exist in vocabularies obtained from the hillmen of Northern and Middle Dar Nuba.[5]

In 1910 Mrs. Seligmann collected vocabularies and obtained a certain amount of grammatical information concerning the languages spoken by seven communities in Southern Dar Nuba, viz., Talodi, Lafofa, Eliri, Tumtum, Kanderma, and Kawama.[6]

[1] Quoted by MacMichael, *op. cit.*, p. 86, *footnote*. Writing of Jebel Tubr at the present day MacMichael says (*op. cit.*, p. 101), "The Nūba of Abu Tubr contain some elements of the same Dongoláwi blood as is found at El Ḥaráza."

[2] *Travels in Kordofan*, p. 258 (London, 1844).

[3] MacMichael, *op. cit.*, p. 34.

[4] MacMichael, *op. cit.*, p. 103.

[5] Dar Nuba at the present day may be taken to extend over $2\frac{1}{2}°$ of latitude from $12\frac{1}{2}°$N. to 10° N. North of 12° foreign influence is pronounced, even in Bruce's time Jebel Tegele and Jebel Daier had been alternately overrun from Darfur and Sennar and had furnished a garrison to the latter province, or kingdom as it then was. Mrs. Seligmann's material was collected from the hills south of the eleventh parallel which, except in the case of a group (comprising the *jibal* Fungor, Nyaro, Kau, Werna, and Gedir) lying west of Melut on the White Nile, have been little subjected to foreign influence. The inhabitants of the hills lying between the eleventh and twelfth parallels, though less sophisticated than their northern neighbours, are by no means as unaffected as the hillmen further south. It is probable that this middle zone will yield more material of cultural and linguistic interest than any other part of Kordofan. I have been told that vocabularies collected in this area contain words similar to those found in Barabra, and it seems possible that even grammatical resemblances may be found.

[6] "Note on the Languages of the Nubas of Southern Kordofan" in *Zeitschrift für Kolonialsprachen*, vol. i, pp. 167–188 (Berlin, 1910–1911).

	Lafofa.	Kanderma.	Kawama.	Jebel Daier.[1]	Koldadji[2] (Russegger).	Barabra.[3]	Barabra (Lepsius).
One	*dilĕti*	*kené*	*wégătúru*	*bér*	*ber*	*wēra*	*ber.*
Two	*batéran*	*kĕrĭčan*	*uten*	*orré*	*ora*	*ūwo*	*orre.*
Three	*batádan*	*kĕrĭčin*	*toli*	*todju*	*toju*	*túsko*	*toje.*
Four	*kēka*	*malu*	*kuora*	*kendjo, kemenjo*	*kenzo*	*kemso*	*kenju.*
Five	*grēgum*	*thĕnē*	*todēne*	*tishu*	*tisu*	*díja*	*tissu.*
Six	*diledidenit*	*rĕčĭčén*	*nĭrghıl*	*kordjé*	*farzo*	*górjo*	*korje.*
Seven	*batéran didenit*	*mălŭčĭčin*	*kuritori*	*kolatt*	*falat*	*kóleoda*	*kolade.*
Eight	*batádan didenit*	*ŏbō*	*dubo*	*iddu*	*ebdo*	*íduwo*	*eddo.*
Nine	*kēka didenit*	*thĕnémalu*	*todenokurio* (? *todenokwio*)	*oit*	*wet*	*óskoda*	*wedi.*
Ten	*terum*	*ori*	*di*	*buré*	*bure*	*dim*	*bure.*
Eleven	*terum diledinenit(?)*	*ori kené*	*di nogote*	*buré berko*	*bure berkon*	*dīme wēra*	—
Twelve	—	*ori kerčan*	*di uten*	*buré aré*	*bure orakon*	*dīme r ūwo*	—
Thirteen	—	—	—	*bure tudju*	*bure tojukon*	*dīme t tusko*	—
Fourteen	—	—	—	*bure kendjo*	*bure kenjukon*	*dīme k kémso*	—
Twenty	*terum nia terum*	*ori na kerčan*	*duriduten*	*tarbe*	*bure edukon*	*aro*	—
Thirty	—	—	—	*burra burra toju*	*bure bure eddukon*	*talatina*	—
Forty	—	—	—	*burra burra kendjo*	*bure bure tojukon*	*arbaina*	—

[1] Werner Munzinger, *Ostafrikanische Studien*, p. 550.

[2] Munzinger, *loc. cit.*

[3] Leo Reinisch, *Grammatik der Nuba-Sprache*, p. 34; this column gives the Mahas dialect, the words for 30 and 40 are Arabic with the additions of the suffix—*a*.

The structure of the language of these southern Nuba is altogether unlike that of the Berberine dialects; in the latter grammatical changes, both in nouns and verbs, are produced by suffixes, in the Nuba this is done by initial change. Moreover, in the latter, alliterative assonance prevails to a considerable extent, *e.g.*, the plural of *čalanga jōte* (Eliri), a good club, is *malanga mōte*. Turning to vocabulary and for the moment neglecting Kawama, the most that can be said from the point of view of affinity with Barabra is that there are a few words scattered in the lists which might be connected with Nubian or Arabic. Kawama is the most northern of the languages investigated and is spoken not only on Jebel Kawama but also on Jebel Shwai and Jebel Heiban, both well north of the eleventh degree of latitude. This language shows a decided Berberine influence; the position may perhaps best be made clear by a consideration of the numerals. Talodi, Eliri, and Tumtum have special words for the first five numerals but form 6 by 5 + 1, 7 by 5 + 2, etc. This is not a Berberine characteristic, though, as pointed out to me by Mr. F. Ll. Griffith, Kawama shows a decided Berberine influence, especially in the agreement of the initial sounds in the words. The numerals given by Russegger for Koldadji (nearly 12° N.), and by Munzinger for Jebel Daier (about 12½° N.), are printed for comparison in the table opposite.

Using the numerals as a test it is obvious that there is the greatest difference between the languages spoken by the Nuba of Southern and Northern Kordofan, and we may say that whereas the former are unlike each other and do not resemble Berberine, the latter closely resemble each other and in some cases at least are identical with Berberine. Moreover, lest it should be suggested that these facts are not due to immigrant influence from the north, but to a primary division of the Nuba of Kordofan into two great linguistic groups, I may once more emphasize the multiplicity of languages found in Dar Nuba (Southern Kordofan)[1] and the fact recorded by Munzinger[2] that, despite Russegger's assertion, the language of Tegele in Northern Kordofan has nothing in common with the dialects of Jebel Daier and Jebel Kulfan.

Finally, reference may be made to the numerals of the people of Jebel Midob[3] who, as has been stated (*supra* p. 621), regard themselves as descended, at least in part, from immigrant Barabra. From the numerals given below it will be seen that there is close resemblance not only in many of the lower numerals but also in the method of formation of the higher numerals.

	Jebel Midob.	Barabra.
One	*pirrki*	*wer* or *ber*.
Two	*uddi*	*owi* or *uwo*.
Three	*tasi*	*toski* or *tusko*.

[1] B. Z. Seligmann, *op. cit.*, p. 168, *cf.* also Captain Watkiss Lloyd in *the Geographical Journal*, 1910, vol. xxxv, p. 262.

[2] *Ostafrikanischen Studien*, p. 551.

[3] H. A. MacMichael, "Notes on the Zaghawa and the People of Gebel Midob," *Journ. Anthrop. Inst.*, vol. xlii, 1912, p. 339.

	Jebel Midob.	Barabra.
Four	*egi*	*kenisi.*
Five	*techi or dechi*	*digi.*
Six	*korrchi*	*gorgi.*
Seven	*ollotti*	*kolodi.*
Eight	*idi*	*idui.*
Nine	*ukuddi*	*eskodi* or *oskoda.*
Ten	*timmigi*	*dimini.*
Eleven ...	*timmigĕró borchírredi* ...	*dime wera.*
Twelve ...	*tornoddi*	*dime uwo.*
Thirteen ...	*seldási*	*dime tusko.*
Nineteen ...	*selukoddi*	*dime oskoda.*
Twenty ...	*sheddedi*	*aro.*
Thirty	*tudasi*	*ir toski.*
Forty	*tuegi*	*ir kimis.*
Fifty	*tudechi*	*ir digi.*
Sixty	*tugorrchi*	*ir gorǵi.*
Ninety ...	*tu ukoddi*	*ir iskōdi.*
Hundred ...	*immil*	*imil.*

The fact that the Negroes who came into Nubia were in the majority of cases, perhaps always before Ptolemaic times, of the short relatively broad-headed type[1] may have some bearing on the Barabra problem. At the present day the nearest representatives of the short mesaticephalic Negro is to be found in the south of the Bahr el-Ghazal Province, in the neighbourhood of the affluents of the head waters of the Bahr el-Ghazal and the Congo, perhaps extending northwards to the head waters of the Shari affluents. Thus between these Negroes and Nubia there intervene the Dinka and allied tribes in the swamps of the Bahr el-Ghazal and White Nile, and the Nuba and Arab tribes of the steppes and *jibal* of Kordofan and the southern portion of the Libyan desert. This cannot have been the case in the third millennium B.C. when all, or almost all, the Negroes who came into Nubia were short and relatively broad headed. In other words, at the time when Nubia was exerting pressure on Egypt, the tall Nilotes, the most northern Negroes of the Nile Valley at the present time, had not occupied the area in which they are found to-day. We may indeed infer that the coming of the tall Nilotes to their present territory occurred during or later than the second millennium B.C., indeed, I believe that cultural evidence could be adduced to show that they were not in Nubia before this time. I would even suggest that it was the pressure exerted by the tall Negroes of the south that led to the centuries of fighting on the southern border of Egypt. But even if this view be regarded as fanciful there can be no doubt that in Ptolemaic times there were tall, relatively long-headed Negroes on the hills in the

[1] *Archæological Survey of Nubia*, Bulletins III, p. 27, and IV, p. 20.

neighbourhood of the Blue Nile some 150 miles south of Khartum. Mr. H. S. Wellcome, digging at Jebel Moya, has discovered one or more large cemeteries of these people whose physical characters have been described by Dr. Derry in a paper read before the Anthropological Institute.[1] Although several hundred graves were opened only a few bodies were in sufficiently good condition to allow an adequate osteological examination to be made. These, however, enabled Dr. Derry to determine that he was dealing with the remains of a tall, coarsely-built Negro race with extraordinarily massive skulls and jaws. Dr. Derry considered that in general appearance these folk resembled the coarser type of Nuba of South Kordofan, and compared them with the men (Nos. 8 and 9) shown in Plate XXXV of my paper on the Nuba[2] who, like the Jebel Moya skeletons, appear to have particularly large faces in relation to the size of the skull. I agree with Dr. Derry in these conclusions the more readily as I had on quite other grounds concluded that the population of the hills between the White and Blue Niles at one time closely resembled the present-day Nuba of Southern Kordofan. Moreover, there is no special reason to suppose that the black tribes who occupied the Nile Valley in the neighbourhood of the confluence of the White and Blue Niles in the eighteenth dynasty were closely akin to the Shilluk and Dinka of the present day. The fact shown in numerous contemporary paintings that they were bowmen seems to differentiate them from the Nilotes, while their use of throwing-sticks such as are still found among the Negroes living in the hills in the difficult hilly country north of the Sobat, rather suggests that the Negroes, whom Senusert III. forbade to pass his frontier and who were conquered by his successors, were akin to these and to the Nuba of Kordofan.

Nomad Arabs.

The western division of eastern tropical Africa, referred to on p. 596, is a belt of country lying between the tenth and fifteenth parallel of north latitude and stretching from the Nile into Darfur. It constitutes a vast plain dotted with steep-sided hills and rock masses which rise abruptly and reach heights varying from a few hundred to over 2,000 feet. Some of these *jibal*, such as Jebel Eliri in the south, are of considerable size, while the Tegale *massif* in the north constitutes almost a miniature range. Moderately fertile, yet but sparsely watered even in the south, the country becomes poorer and drier towards the north till beyond El Obeid there is only steppe, for the most part too poor to support a sedentary population.

[1] Dr. Derry's paper has not yet been published; the evidence for the date of these burials is the character of the objects found in the graves. These have been examined by Professor Petrie and briefly described by Mr. Wellcome in the *Proceedings of the British Association* (Section H), 1912.

[2] *Journ. Roy. Anthrop. Inst.*, vol. xl, 1910. As pointed out by Dr. Derry the general similarity of the two groups extends to the C.I., thus Jebel Moya ♂ (16), C.I. 76·9, and Nuba ♂ (32), C.I. 76·42. I do not wish to lay undue stress on this resemblance, but when it is remembered that the Southern Nuba are unusually tall for Negroes, averaging about 1·73 m., with a maximum of 1·90 m., it certainly seems significant.

This passes by degrees into the Bayuda Steppe and the Libyan Desert. The more habitable part of this vast area appears originally to have been the home of a race of tall muscular Negroes who, in the majority of their physical and cultural characteristics, are quite unlike the Nilotes. During the last few hundred years these people have been driven to take refuge in the hills, maintaining themselves moderately well in the south, though in the north they have been exterminated or absorbed into the mass of Negroid Arabs that forms the sedentary population of Northern Kordofan and Darfur. In short, the whole of the western division of eastern tropical Africa constitutes the headquarters of the Sudanese "Arab," and it is their tribes that must now be considered.

The Bayuda Steppe and the far north-west beyond Jebel Kaja is the home of the nomad tent-dwelling, camel-owning Arabs of whom the Kababish and the Kawahla are the two strongest tribes, but these graze and water their herds over a considerable area to the south and east, rich enough to sustain a fairly large sedentary population. Southwards, where the soil is more fertile, the camel is replaced by the ox and the land is occupied for the most part by cattle-owning tribes, collectively spoken of as Baqqara. In the extreme south, round the base of a number of the hills, there are communities of mixed Arabic-speaking blacks who call themselves Arabs, but who are almost entirely the descendants of slaves who revolted and fled from their Arab masters a few generations ago. These Negroids lack Arab enterprise and vigour, though they still speak of themselves by the names of the tribes they formerly served. Considering only the sedentary population it may be said that they become darker skinned and more Negroid from north to south, though there are exceptions to this rule. Thus the Gawama living north of El Obeid are darker and perhaps have coarser features than other tribes near them to whom they perhaps show less resemblance than they do to the Baqqara and the Negroids of Darfur.[1] No further reference need be made here to these dark-skinned inhabitants of Southern Kordofan and Darfur, since, as far as is known, they exhibit no evidence of Hamitic influence comparable in degree to that exerted upon the less Negroid population to the north.

The camel-owning nomads have a far smaller infusion of Negro blood, though the amount varies from tribe to tribe and even in different divisions of the same tribe, the richest divisions, *i.e.*, those possessing most slaves, tending to contain the highest proportion of numbers with Negro or Negroid features.[2] The figures given on p. 630, and the photographs reproduced on Plate XXXVII, will give some idea of the appearance of the nomad Arabs. But however much Negro blood may have modified their physique, the black element has exerted amazingly little influence on their culture and mode of life. An examination of the camp furniture of the richest division of the Kababish showed that the only distinctly

[1] Judging from the natives of Darfur met in the Sudan the mass of the folk of the Sultanate can have but little Arab blood in their veins.

[2] Owing to the Mohammedan law that the son of a slave or concubine takes his father's status, pronounced Negroids may be quite important members of a division. Thus, the Negroid

Negro objects which played any constant part in the life of the tribe were a number of the big wooden drums commonly called *nugara*. There were a small number of large wooden food bowls traded north from the neighbourhood of Nahud which suggested Negro influence, and a few oblong shields resembling those of the Nilotes, but few men possessed these, nor were they highly regarded. Pottery is not made by the nomad Arabs, indeed, throughout Northern Kordofan the hill Negroids (such as the Zaghawa) seem to have the monopoly of its production. Nor do the nomads make round tents or shelters, but retain the old rectangular Arab shape for even their smallest structures. The custom of the sedentary Arabs is the reverse. Even among such northern tribes as the Dar Hamid, upon whose territory the Kababish and Kawahla graze their herds, the homestead consists of a number of round *tukl*, the only reminiscence of the old rectangular tent being the flat-roofed, oblong *rekuba* forming an entrance to one of the *tukl*. It is in this *rekuba*, built usually of dry grass or dura stalks, that the master of the house lives and receives his companions.

In Northern Kordofan the life of the nomad Arabs, though pastoral like that of the Beja of the Red Sea Province, differs from the latter on account of the severity of the dry season and the organized effort that is required to meet it. The movements of families are no casual wanderings, nor are independent groups of tents to be found scattered over the country, but all movements take place *en masse*. Nothing is left to chance, no "here to-day and gone to-morrow," no tents shifted silently in the night as is so often supposed. The whole life of the tribe is regulated by the supply of grass and water for men and cattle, and it is only during the short wet season that there is a complete freedom of movement within the tribal boundaries. Thus, although the *kharif* brings its toll of fever,[1] it is the favourite season with the Kababish, for then fresh grass is to be found everywhere and water lies on the ground. The comparative discomfort of life during the rains, when all valuables must be brought into the centre of the tent under the ridge pole, when the tent must be made smaller so that the rain may run off the steep sides, and the *hegil*, or marriage tent, cannot be used, is nothing to them compared with the delight of having fresh grass for the cattle.

At the close of the wet season the sheykh of each section sends out scouts to find out where there is most water. There are certain known *fula*, slight

old man whose photograph is reproduced in Plate XXXVII, fig. 7, is the leader of one of the most important, and, as far as the paternal line goes, one of the most aristocratic sections of the Nurab division of the Kababish. And though this family is at present somewhat under a cloud on account of its adhesion to the Mahdi at a time when the old sheykh of the tribe, Salid Bey Fadlullah, remained loyal, there is a good deal of whispering and speculation as to what may happen at the death of the present sheykh. As a matter of fact the succession seems well established in the present line, and a split resulting in the formation of a new division is a great deal more likely than a change in the ruling family.

[1] Malaria seems to be by no means uncommon during and after the rains, but it does not seem to be severe and the chronic cases which came for treatment were all benign quartan. Nevertheless, it is said that a few children die each year of fever.

depressions with a clayey bottom, in which the water lies for some time, though in none of these (in Northern Kordofan) does the water last throughout the dry season, and in most of the sandy wadies the surface water disappears as soon as the rains are over. Great care must be exercised in choosing the summer quarters, so that there may be reasonable hope of sufficient water for the dry season.

The country round Showa, where the Nurab division of the Kababish formed their camp for the winter of 1911–12, is typical of Western Kordofan, a slightly undulating plain, generally sandy or stony, though in parts rocky and covered with coarse grass and thorny *kitr* bush. Low ranges of rocky hills rise abruptly out of the plain and dry stream-beds intersect it. The better favoured of these wadies are lined with *heglik* (*Balanites Algyptiaca*) trees, with an occasional gaunt *tebaldi* (*Adansonia digitata*). Such a wady had been taken by the Nurab; the tents all faced south and many had the sides built up with wood, an arrangement which keeps out the wind, and in addition forms a ready supply of fire-wood. This was in the cold season when a bitter wind blew from the north. After February, when the hot weather begins, the roofs of the tents are usually raised, and the open front built up with wood, leaving only a doorway; sometimes extra mats are hung up to keep out the sun. The tents stretched for about a mile along the wady. Any man who had more than one wife provided a tent for each; the concubines of rich men also had their tents, those of the wives always being in front, *i.e.*, south of the others. There were also tents for slaves and zaribas for the horses. The head of every family had his retinue living to the east of him, then came the tents of his brothers and near relatives. Besides those in the main wady there were outlying groups of tents wherever a few trees afforded shelter. Two small and rather poor sections were encamped within a mile of the Nurab *feriq* and the Berara section was about 6 miles off.

On leaving the Nurab encampment, tracks were seen leading from every direction, for about 1½ miles away lay the Showa wells where all watered their flocks. The wells probably numbered a hundred, each being about 2 feet across with no kind of barrier around them, the sides strengthened by mud and wattle. Here and there among the trees were rough huts built by those who brought their cattle from such a distance that they were obliged to spend the night before returning. The busiest time at the wells was always about noon, for to drink deep the cattle must have the water warm. Shallow troughs were puddled out over night or early in the morning beside the wells, and men and women, Arabs and slaves, worked continually, lowering wide-mouthed skins and filling these pools or pouring the water into skins to load upon dónkeys or camels. In the middle of January, cows and goats were being watered every third day, sheep every fifth, horses every day, and camels, kept for convenience near the *feriq*, only drank once in ten days. But the main wealth of the tribe, the large herds of camels with young, were all away in the waterless wastes of the north-west where the ground is covered with the winter grass called *gizzu*. The camels and some sheep stay here for two or three months, roughly from November to February, during which time they are entirely

without water. The herdsmen live on camel's milk, but this may be supplemented by a little corn and water brought from the nearest settlements. Mr. MacMichael states that the beasts return from their winter grazing fat and in excellent condition, while the Arabs all say that not only do they keep well during the herding, but they recognize that to accompany the flocks north-west is the correct treatment for weakly youths and children.

But to return to the wells, the wisdom of the Kababish in building their *feriq* some distance from the water is realized when the enormous flocks and herds driven there are seen, and it is easy to understand how the soil becomes fouled. Naturally when a division first settles the cattle feed near, but soon every blade of grass in the vicinity of the *feriq* is devoured and nothing but sand and dry thorn bushes remain. So the cattle must go farther and farther afield, even at some risk, as when certain Berara men who took their sheep 60 miles away were raided from Jebel Midob over the Darfur border. In the Nurab section Arab women were never seen working or tending the cattle, though in other sections, less well provided with slaves, the women would often go with the cows and make butter, draw water, grind dura, and take part in all other heavy work. They do not herd the camels, as camel's milk is said not to agree with women; cow's milk is considered best for them as it is richer, and goat's milk is preferred for children. At the end of the season the camp is shifted, each *da'n* keeping together. A *da'n* consists of a man and wife or wives, children, and retainers, including all slaves and freed men under his protection. The cattle are driven in front, then follow the camels bearing the women, each of whom, if her husband is rich enough, reclines in her *utfa*. These are in the nature of a litter and the camels carrying them are covered with heavy leather trappings and certain elaborate ceremonial basketwork and leather vessels. The eldest daughter rides in her *tongoa*, a sort of cradle perched high above the camel's back and usually more richly decked than her mother's. The baggage camels plod along, while the men mounted on their trotting camels superintend the caravan. The big drums called *nugara* are carried on camels in the sheykh's *da'n* and before sunset the *a'adie*, four clear strokes, is sounded; then all *da'n* must line up and take their places for the night. In the morning the camp is roused by the *dib*, one stroke repeated at intervals of a few minutes, and in a short time each *da'n* is again upon its way. The march is usually continued for about ten hours without a break, but with heavily laden camels the pace is slow. This mode of travel continues until the winter quarters are reached.

In addition to the wells that the nomads dig for themselves each year there are a few permanent wells such as Bir Soderi at the foot of Jebel Kaja. The making, cleaning, and using of such wells was often the cause of tribal disturbances in old times and even now is a fruitful source of bad feeling.

A fair estimate of the physical characteristics of the members of such a tribe as the Kababish may be gathered from the photographs on Plate XXXVII which will show the large amount of variation that occurs. Skins of all colours may be

seen, from the lightest wheaten to a fairly dark brown-black, and the noses of these people may present every character except excessive breadth; nor can the shape of the nose and the darkness of the skin be said to be closely co-related. Thus the ruling family has for generations been particularly dark-skinned, so, too, is the present sheykh Ali Tom (Plate XXXVII, Fig. 5), yet this man's nose and the noses of a number of his dark-skinned relatives are well formed, with high bridges and thin nostrils. It should be noted that round-headed individuals are found in small number and also, but quite rarely, individuals are seen with well-marked Armenoid ("Jewish") noses, the latter, indeed, may occur in individuals with quite long heads.[1] The following indices will give some idea of the general average of the tribe; it is interesting to note that there does not appear to be any substantial difference between the main body of the tribe in Kordofan and the outlying, more or less sedentary members of the tribes in the neighbourhood of Dongola.[2]

	No.	C.I.	N.I.	F.I.	Stature.
Kababish of Kordofan ...	15	74·13	70·2	—	—
Kababish of Dongola ...	9	74·5	68·9	—	—
Total	24	74·29 (±·35)	69·7 (±1·04)	88·83 (±·67)	1709 (±8)

An examination of the mode of life and customs of these people shows, however, that they have been profoundly affected by some foreign, *i.e.*, non-Arab, influence.

The Kababish are the strongest of the nomad camel-owning Arabs of the Sudan, probably they are also the least sophisticated, and their manners and customs may be taken as typical examples of those existing among the least contaminated nomads. Although they do not form a homogeneous whole derived from a single ancestor, the several elements which have entered into the composition of the tribe are perhaps less contaminated with Negro blood than those composing any other Arab tribes in the Sudan. Nor do these elements differ radically in their composition, being determined largely by political considerations and further complicated by questions of grazing and watering rights. This was well shown during the Mahdia, when the divisions that had been living long together for the

[1] The co-existence of even extreme long-headedness and a "Jewish" nose may be noted among Jews in this country at the present day, but it is by no means common.

[2] The latter were measured by Mr. O. Atkey, F.R.C.S., and the measurements sent to Dr. Duckworth, whom I take this opportunity of thanking for allowing me to use them.

most part stayed with their sheykh, Salih Bey Fadlulla, and even after his execution refused to have anything to do with the Khalifa. As a rule the other divisions and tribes who had joined the Kababish, in order to enjoy their privileges, broke away and joined the revolt. After Omdurman some, like the Guhayna and Berara, again joined the Kababish, while others, such as the Kawahla and Shenabla, retained their independence.[1]

The Kababish are divided into a number of patrilineal divisions called *khasm beyt* (خسم بيت), many of which are subdivided into smaller groups or sections (also often called *khasm beyt*), which, for the most part, include a number of families, using the word family in a rather extended sense.

A list of the tribes and subdivisions of the Kababish as they exist at the present day is given by MacMichael.[2] On examining this list it will be seen that out of the names of all the divisions and subdivisions, 80 in number, no less than 24 end in *–ab*, the affix which in the To Bedawi language signifies "sons of" or "descendants of." This alone would suggest the existence of a strong Beja element in the tribe, a presumption confirmed by the fact that some of these names are identical with those of certain of the divisions of the Hadendoa and Amara. I cannot say how many such correspondences exist, but in the few weeks that I spent among the Beja I found the following names of Kababish divisions among the Hadendoa and Amara:—

Hamdab, a Hadendoa division;
Balulab, a subdivision of the Hadendoa division Sherab;
Nurab, an Amara division;
Manufalab, an Amara division.

To these there should no doubt be added Bishariab, which can scarcely be other than the Kababish Bisharab.

The Beja (Hamitic) element in the Kababish, which these facts suggest, agrees well with results of an examination of the habits and customs of the tribe. Three culture strata can be distinguished; a superficial incrustation of Islamic habits and beliefs superimposed upon a layer of pagan Arab customs which itself covers a third, slighter but perfectly definite culture stratum, characterized by beliefs and customs which, there is every reason to believe, belong to an older social fabric. This can scarcely be other than Hamitic, and in this stratum I would class the mutilation of girls, discussed at some length below,[3] and the great feast held about a year after a death, at which mourning is discarded.[4]

As far as I can determine there is no evidence as to the length of time that has elapsed since the Beja ancestors of these tribes joined the Kababish, if indeed they joined them directly, for it is by no means improbable that they came in after

[1] H. A. MacMichael, *op. cit.*, p. 177.
[2] *Op. cit.*, pp. 173–176.
[3] *Cf.* p. 639 *et seq.*
[4] Although this ceremony is called *Sadogah*, it has retained features which long antedate Islam and which as far as I can discover are not pagan Arab.

sojourning with some of the more easterly riverain tribes among whom names with the affix *-ab* are also found.[1] The fact that none of the divisions cited possess the same camel brands (*wasm*) as their supposed eponymous Beja stocks may perhaps indicate that their absorption into the Kababish took place more than about six generations ago, the period at which, according to my experience, family history tends to become frankly mythic.

Nilotes and Half-Hamites.

Turning now to the Negroid tribes among whom there is evidence of Hamitic blood, the Nilotes call first for consideration. There can be no doubt that there is a foreign non-Negro element in the Shilluk, the most northern of the Nilotic Negroids, and though this foreign element is not so obvious in the Dinka and Nuer there can be little question that it exists in them too. Their close relationship to the Shilluk in physique and culture would seem to indicate that the same elements, even if in somewhat different proportions, have entered into all three tribes.[2] The Nuer and Dinka, indeed, stand so closely together in social organization, including totemism and religious beliefs, that I look upon them as substantially one people differing perhaps no more from each other than other admittedly Dinka tribes differ among themselves.

All are tall, long-headed, dark, woolly-haired Negroids, their skin showing no traces of the reddish or copper colour found in the shorter rounder-headed folk living in the south of the Bahr el-Ghazal Province in the neighbourhood of the Nile-Congo watershed. Although their features are usually coarse, and their noses very broad, being platyrrhine or hyperplatyrrhine, individuals occur even among the Dinka and Nuer who are broader nosed than the Shilluk, with nasal indices below 80, while among the Shilluk it is not uncommon to meet men, especially members of the aristocracy, with shapely features, including thin lips, noses that are anything but coarse, and well-modelled foreheads. I have no measurements of men of this description, indeed, three years ago it was difficult to persuade the Shilluk in the neighbourhood of Fashoda to allow themselves to be photographed, and they would not have tolerated being measured. However, the matter will be clear by considering the photographs of Shilluk reproduced on Plate XXXVIII; Figs. 3 and 4 represent an average Shilluk adolescent, Figs. 1 and 2 represent a member of the aristocracy of the refined type, while Figs. 5 and 6 are photographs of the coarsest Shilluk I met, whose face, Negro rather than Negroid, would not be out of place among a collection of West African Negroes.

The following account shows that the refined type also occurs among the Anuak of the Pibor River, a people closely akin to the Shilluk. " The Anuak strike me at first sight as being a very mixed people, they vary a great deal in colour and a

[1] There is a division among the Kawahla that recognizes its Ababdeh origin, the two peoples can scarcely have come into immediate contact at any period subsequent to their occupation of their present territories.

[2] The existence of an Hamitic element in the Dinka was recognised by Mochi in his paper " Sull' Antropologia dei Denca," *Archivio per l'Antropologia e l'Etnologia*, vol. xxxv, 1805.

good deal in feature, some of their faces are startlingly European in their regularity of feature and breadth of forehead. I have never seen such intelligent-looking natives. Some of them have got remarkably fine noses with their thin nostrils and lips, but their faces as a class seem to lack that hawk-like look of cruelty so noticeable in the good-looking Jaalin Arabs."[1]

The following table gives the results of the chief physical measurements which can usefully be represented by figures:—

	No.	C.I.	N.I.	F.I.	Stature.
Nuer[2]	40	73·55 (±·35)	100·08 (±1·23)	83·16 (±1·06)	1,796 (±7)
Dinka[3] ...	85	72·71 (±·20)	91·63 (±·94)	86·0 (±·57)	1,786 (±6)
Shilluk[4] ...	21	71·3 (±·44)	93·36 (±1·66)	83·27 (±1·29)	1,776 (±9)

It will be seen that, broadly speaking, the members of these tribes form a fairly homogeneous group, the most striking feature being the difference between the nasal index of the Nuer and the other two tribes. With regard to the slightly higher index for the Shilluk than for the Dinka, this is too small to be regarded as significant, and I am inclined to think that it is accidental, due to the small number of Shilluk measured. Certainly the impression I gained from associating with both peoples was that the Dinka were rather broader-nosed than the Shilluk. The view that the nasal index given for the Shilluk is not truly representative and may be unduly high is confirmed by the large error of the mean calculated for this people, viz., 1·66 as against the Dinka ·94 (85 subjects) and the Nuer 1·23 (40 subjects).

As will be seen from the tables of measurements given at the end of this paper the actual range of variation is considerable, thus, even neglecting extremes,

[1] This passage is an extract from a letter from Captain A. G. Cummins, R.A.M.C., to Major Lyle Cummins, R.A.M.C., to whom I am indebted for permission to quote it.

[2] Measured by the late Dr. A. M. Pirrie; the measurements of twenty-seven of these have been published by Professor Waterston (*op. cit.*, p. 348), those of the remaining thirteen are given in Appendix I at the end of this paper.

[3] The cephalic index of the Dinka are taken from 148 subjects, measured by Pirrie, Mochi, C. S. Myers, and myself, including the series of skulls brought together by Mochi as well as those collected by myself. The latter belonged to members of the Bor tribe. Two units have been added to the C.I. of each skull to render cranial and cephalic indices comparable. The stature is taken from 116 subjects.

[4] The figures here given are from the small series measured by Myers and by Pirrie. The N.I. of 11 only could be calculated; the F.I. is the average of 19 and the stature that of 14.

the C.I. of the Dinka varies between 66 and 80, and the N.I. between 84 and 102. Nevertheless, it does not appear that this betokens that the infusion of foreign blood is recent, on the contrary the comparatively uniform condition of the Nilotic peoples and their culture, and the vast area over which they are spread, seem to indicate that the foreign, non-Negro element in these people is of high antiquity. This view is supported by an examination of the curves of distribution plotted for the C.I. and N.I. of the Nilotes. These curves have been examined for me by Dr. Bowley, who reports that for the Dinka the actual C.I. and N.I. curve closely fits the normal curve of distribution, so that he remarks that if there has ever been any mixture there appears to have been thorough fusion.[1]

A good deal of interest attaches to the stature of this group, of the allied Bahima and of the tribes of the Masai group in East Africa; nor in considering these is it possible to leave aside the Southern Bantu (Zulu-Kaffirs). The men of all these tribes are tall, the Bahima are probably the tallest men in the world,[2] yet all seem to have sprung from the fusion of the short, slim Hamite,[3] and the moderately grown, stoutly built forest Negro. As far as I have been able to ascertain, the numerous breeding experiments on Mendelian lines that have been carried on in recent years afford no parallel instance, indeed, nothing seems to be known of the conditions producing variations in size in animals.[4] However, it is worth noting that among plants there is at least one instance in which a giant race arose under experimental conditions without any selective effort directed towards its production having been made,[5] while there may be an interesting parallel to the stature of the Nilotes and related tribes in the result of the union of the dwarf procumbent pea (commonly called the Cupid Pea) and the bushy pea, the latter being a stiff upright-growing plant of medium to short stature: the first generation of hybrids are all giants.[6]

No doubt it was at a relatively remote period that a people whom we may call

[1] Dr. Bowley's figures are given in Appendix II.

[2] Professor von Luschan (Appendix II, to Meinhof, *Die Sprachen der Hamiten*, p. 251) states that the Hima often exceed 190 cm. in height, and speaks of them as doubtless the tallest men.

[3] The stature of the predynastic Egyptians was scarcely 65 inches (164 cm.), *cf. supra*, p. 607.

[4] I purposely leave out of consideration individual instances of gigantism due to disease of the pituitary gland and sporadic examples of conditions associated with nanism or infantilism due to abnormalities in quality or quantity of the internal secretions.

[5] In *Primula sinensis*, observed by Dr. F. Keeble; his experiments, *cf.* "Gigantism in *Primula sinensis*," *Journal of Genetics*, vol. ii, pp. 164–188, indicate not only that the giant form which breeds true arose from a normal strain of known pedigree but lead him to state that "Giants which breed true may be produced by crossing non-giant races of *Primula sinensis* (*op. cit.*, p. 187). It does not appear to me that the experiments cited (*op. cit.*, p. 180) upon which, if I understand Dr. Keeble rightly, this statement is based, are conclusive, though I think they might become so if carried on for a few generations; they certainly seem to point in this direction. It is noteworthy that these non-giant (or at best semi-giant) races have been under observation for years and have never produced a giant.

[6] *Cf.* Bateson, *Mendel's Principles of Heredity* (1909), p. 19. I am indebted to Dr. R. N. Salaman for drawing my attention to these interesting experiments.

proto-Hamites, moving in a predominantly southern and western direction, fused with the earlier darker inhabitants of Africa—Negroes and Negroids, including in the latter term Negrillos—to produce a number of peoples differing enormously in physical characters, but united in the possession of a common stock language which we now call Bantu. This view, advocated by Stuhlmann[1] and developed on the linguistic side by Meinhof, has been examined at length by Father Hestermann.[2] Much stress is laid upon the evidence offered by the Ful, a people of mixed Hamitic descent[3] whose tongue, spoken by scattered communities from Senegal to Lake Chad, is Hamitic, but varies from all other Hamitic languages and resembles the Bantu in many ways. Thus, substantives are divided into classes and there is the same type of alliterative consonance.

Hestermann also points out that there are remarkable resemblances in phonology and that "the genitive construction with the demonstrative of the governing noun" (*Die Genitivkonstruktion mit Demonstrativ des Regens*)[4] is formed exactly as in Swahili.[5] Other arguments in favour of the mixed origin of Bantu may be found in the "Sudanese" (Negro) characteristics retained in some Bantu languages. Such Negro, *i.e.*, pre-Hamitic, characters are the occurrence of monosyllabic roots and the comparatively important part played by musical tone; both these features

[1] *Handwerk und Industrie in Ostafrika*, p. 7 (Hamburg, 1910).

[2] "Sprachen und Völker in Afrika," *Anthropos*, 1912, vii, pp. 219–250, and 1913, viii, pp. 722–760. Meinhof's point of view is given by Hestermann in the following quotation (*op. cit.*, viii, p. 222). "As far as I can discover this exchange between Hamite and Negrito can be clearly seen in a number of instances and I am persuaded that the origin of the Bantu languages is most easily explained thus, that one of the languages similar to the Ful arose as the master language (*Herrensprache*) among the Negrito and assimilated Negritic elements." It must be remembered that Meinhof and his school use Negrito for Negro.

[3] Many of the Ful have much Negro blood in their veins, the purest "cow-Fulani" of Nigeria have been described to me as an almost white-skinned people leading a wandering pastoral life.

[4] As if in English for "house of stone" we said "house that stone," *i.e.*, "that house (is) stone."

[5] Concerning this point Mr. Ray writes as follows: "I do not quite follow the argument that in Ful this is exactly the same as in Swahili." Meinhof gives in Ful:

"(i) *sauru ndu yamdę*, rod of iron (rod this iron);

"(ii) *puču ŋgu lamī'dǫ*, horse of the king (horse this king);

"(iii) *čędę ndę anasara*, money of the European (money this European),"

and says, "This construction again strongly resembles the Bantu."

In the above Ful the nasal prefix is the essential part of the demonstrative, the *du* in (i) agreeing with *ru* in *sauru*, rod, the *u* in (ii) with *u* in *pučU*, horse, and the *dę* in (iii) with the *dę* in *čędę*, money. But I do not find exactly the same in Swahili:

(i) *ndege za anga*, birds of air;

(ii) *kiti cha sultani*, chair of sultan;

(iii) *mkate wa watoto*, bread of children.

Here *a* is the possessive word "of," the *z* in (i) agrees with the *n* in *ndege*, birds, the *ch* in (ii) with *ki* in *kiti*, chair, and *w* in (iii) with *m* in *mkate*, bread. Moreover there is no demonstrative used. (In Swahili the corresponding demonstratives would be (i) *hizi*, *hiyo* or *ile*; (ii) *hiki*, *hicho* or *chile*; (iii) *huu*, *huo* or *ule*.)

A personal pronoun may be used in Swahili for emphasis as in *kiti chake sultani*, chair it of him (*ke*) sultan (*i.e.*, the sultan's own chair).

occur in Duala, a Bantu language spoken in the Cameroons by a people occupying the north-western edge of the Bantu area, *i.e.*, a portion in which the Hamitic influence might be expected to be comparatively slight.

Doubtless the proto-Hamites came in a series of waves spread over a long period of years, and there must have been unending variations in the stocks to which they gave rise, and in the peoples who sprang from the fusion of these, even as at the present day the Bantu differ enormously among themselves in physique and culture. Just as the Bantu arose seemingly as the result of the interaction of proto-Hamite and Negro so, we may be certain, there arose tribes and peoples of mixed blood who, in spite of minor modifications and the introduction of some foreign elements, retained their old African tongues. If, as seems reasonable, these tribes are at the present time represented by the Nilotes and the half-Hamites, then the similarities between these people on the one hand and their undoubted resemblance to the Bantu on the other are easily and logically explained. We cannot at present judge whether the main interactions which gave rise to the Nilotes took place at approximately the same period as those to which the Bantu owe their origin, but in support of the suggestion that parts at least of these two great stocks may have arisen at about the same time, I would refer to the close resemblance in the social organization and religion of the Zulu-Kaffir and the Dinka.[1] This is not the place to go into this matter in detail; I will only mention the totemism of both peoples, the importance of rainmakers, and the comparatively small cult of the high gods compared with that of ancestral spirits. With regard to the cult of the latter the similarity in the ideas of Zulu and Dinka is amazing. A distinct mental effort has at times been necessary when reading Callaway's "Religious System of the Amazulu" to remember that it was not an account by another traveller of the beliefs that I had found among the Dinka. I will go even further than to urge the uniform origin, within broad limits, of the Nilotes, the half-Hamites and the Southern Bantu, and will suggest that it is on account of Hamitic influence that the fetishism, polytheism and human sacrifices found in West Africa scarcely occur among the peoples now under consideration.[2] Yet in

[1] The likeness of Nilote and Kaffir is not limited to social organization and religion. The refined type of Shilluk shown in Plate XXXVIII, Figs. 1 and 2, is matched by the photograph of a Zulu girl with a narrow face and straight, high-bridged nose, published by von Luschan (*op. cit.*, Plate X). It must be remembered that it is by no means uncommon to find among the Zulu-Kaffir individuals with narrow, or even high-bridged noses, thin lips, relatively light skin colour, and hair that is by no means woolly. Von Luschan, who estimates that he has observed more or less closely some 5,000 Zulu and other Kaffirs, says that of this number 23, *i.e.*, nearly 5 per cent., showed a combination of a number of these characters.

[2] This view is in direct opposition to that put forward in 1911 by Dr. Wallis Budge in *Osiris and the Egyptian Resurrection.* Dr. Budge regards the predynastic Egyptians as cannibals, with the same lust for human flesh that is found in the savages of Equatoria at the present day, and states that, like the latter, "the primitive Egyptians were in the habit of burying slaves alive in the graves of great kings and chiefs" (*op. cit.*, p. xxii), while even in the fourth dynasty he speaks of the sacrifice of "countless human beings" (*op. cit.*, p. xxiii), in the Sun temples at Abû-Sîr. Granting, for the sake of argument, that Dr. Budge has adduced

spite of the common origin of the three peoples it does not seem possible at present to produce evidence of technical processes or implements common to all, or even to both Nilotes and Southern Bantu, which can be referred to early Hamitic influence. Such cultural characters as they have in common seem to belong rather to the black element which occurs in both. Moreover, these points of resemblance seem to be negative rather than positive. Thus, considering the Nilotes and Zulu-Kaffirs, covering in the males is entirely absent, or exists only in so rudimentary a form as the protection worn over the glans penis by the Zulu; nor do either folk mutilate their girls.[1] Of weapons, the throwing-stick is absent from both peoples, and probably the same may be said of the bow.[2] There are, however, a few points of positive resemblance; neither Zulus nor Nilotes despise handicrafts, indeed, skilled workmen are appreciated by both people.[3] Again the shields of Zulu and Nilote are oblong and made of skin, though here the resemblance ends,[4] and both have wooden clubs though the Zulus habitually throw theirs and the Nilotes do not.

Our knowledge of the half-Hamites is curiously incomplete considering how extensively some of these tribes have come into contact with Europeans of late years, and the amount of printed matter that is concerned with them. Nevertheless, certain interesting comparisons can be made with the Beja and even with the Nilotes. Physically they appear to resemble the latter more closely than the former in spite of their somewhat shorter stature and lighter colour, though even in physical characters evidence seems to be somewhat contradictory. Yet I think it may be agreed that, broadly speaking, they stand nearer physically to the Nilotes

good evidence for the occurrence of these and the other blood-thirsty rites which he mentions (although some will feel doubtful of this), and that he is right in regarding them as closely related to those of West Africa, his explanation implies that the "African" religion of which he writes as forming the basis of Egyptian belief in predynastic times is essentially Negro in origin though Dr. Budge avoids using this word.

This view, which has always seemed to me inherently improbable, has become even more difficult to accept since Elliot Smith has shown that the predynastic Egyptians and earliest Nubians were not even Negroid. It seems scarcely credible that the White Race borrowed its beliefs from Negroes, with whom it had so little contact that miscegenation seldom or never occurred.

I believe that the facts brought forward in this paper suggest a more reasonable explanation of the features common to the social life and religion of ancient Egypt and of tropical Negro-land and indicate that these are due to the infiltration of the latter with the ideas of that great White Race of which the predynastic Egyptians constitute the oldest known as well as one of the purest branches.

[1] The Bechuana are an exception to this rule, *cf. infra*, p. 645.

[2] The bow occurs among the Agar Dinka of the Southern Bahr el-Ghazal. I regard this as being due to cultural drift from the Azande or kindred tribes.

[3] In this they differ entirely from the half-Hamites, such as the Masai, whose spears and metal ornaments are made for them by the Dorobbo, whom they despise.

[4] The shields of the Zulu are of the well-known oval shape, those of the Nilotes are narrower and tend to be rectangular, often the upper and lower edges are concave and there is usually a central boss. Possibly no importance should be attached to this rather remote resemblance, but it is at least worth noting that neither use round shields similar to those employed by pure Hamites such as the Beja and Somali.

than to the Hamites, and though much shorter in stature their features do not approach those of the Hamito-Semitic branch of the White Race so closely as do those of the Bahima. On the other hand, unlike the latter, they circumcise their males and mutilate their girls. I am further inclined to see traces of their Hamitic descent in the character of their pottery and in the predominance of spiral technique. It is known that as regards basketry this process is extremely old in the Hamito-Semitic area; examples are known from predynastic and first dynasty tombs, it persists through the whole historic period and is used at the present day among the Beja (Hadendoa) and the Arab tribes of the White Nile and Kordofan. In the north-west of the continent it occurs among the Tuareg and many tribes of mixed descent. It was in use 2,000 years ago in Arabia, for Mr. C. M. Doughty has shown me a fragment of a basket made by this process which he brought back with him from the tombs of Medain Saleh. It is in use among the Waheia[1] in the neighbourhood of the great lakes at the present day. On the other hand, as far as my personal observation goes, it does not occur among the Nuba of Southern Kordofan, while Ankermann states that it is absent in the West African culture zone.[2] Turning now to pottery, there is, as far as I am aware, no evidence how the proto-Egyptians made their pots, but at the present day the Hadendoa make vessels of the class shown in text figure by the usual spiral technique of superposing lengths of rolled out strips of clay. These pots closely resemble those (without necks) made by the Nandi and figured by Mr. Hollis.[3] Unfortunately no mention is made of the process by which these pots are produced, but their likeness to the Hadendoa pots is sufficient to make it at least probable that the same process is employed. The Anuak (Nilotes) of the Sobat and Pibor Rivers make their pots by the superposition of clay rolls[4] and this is the common method in Kordofan as it is further south among the Zulu-Kaffirs.

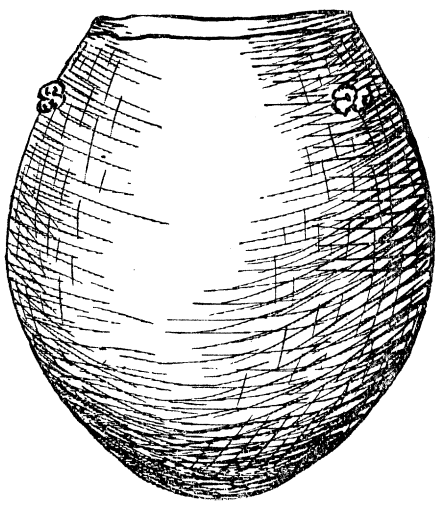

FIG. 1.

Since the above was written important confirmatory evidence has been obtained from linguistics. Westermann, who has recently spent some time in the Shilluk country studying the language, considers that this, as well as Dinka (and Nuer), belongs to a well-characterized sub-division (Niloto-Sudanic) of a larger linguistic group which he speaks of as Nilotic. The Nilotic languages originally

[1] Max Weiss, *Die Völkerstämme in Norden Deutsch Ostafrikas*, p. 432.
[2] *Zeitschrift fur Ethnologie*, vol. XXXVII, 1905, p. 70.
[3] *The Nandi*, Plate XIII.
[4] I am indebted to Captain A. G. Cummins for this information.

belonged to the family of the Sudan languages, for various elements "in all Nilotic languages point to this common origin. . . . But at a certain former period all these languages had been influenced more or less strongly by languages of a different character, which are generally called Hamitic languages."

It will be seen that not only do Westermann's conclusions confirm the idea put forward in this paper on physical and cultural grounds, but since languages of, or akin to, the Nilotic group are spoken by the half-Hamites of British and German East Africa and also by a number of tribes of the Congo basin[1] some suggestion is offered of the remoteness of the period at which the infusion of Hamitic blood began.

Mutilation.

Having discussed, within the limit of available material, the physical characters of the chief peoples of the Anglo-Egyptian Sudan who are themselves Hamites or in whom is a strain of Hamitic blood, it is necessary to consider the significance from the ethnic standpoint of a custom which may be said to be universal in eastern tropical Africa. This custom is the mutilation of the female genitals. I use the term "mutilation" for every grade of operation on the external organs, from a partial clitoridectomy to the most sweeping infibulation, for, as I shall endeavour to show, I hold that all have a common origin. Before proceeding to record the facts I will indicate briefly my line of arguments, and point out that the geographical distribution of the custom of mutilation in Africa and the East indicates that it arose in the Hamito-Semitic area in the neighbourhood of the Red Sea. It is distributed round this area in just such a manner as might be expected if it had at first remained more or less localized among the peoples sprung from a common stock, and had then been carried far afield by the great wave of Semitic influence that followed the birth of Islam. Thus, while its distribution eastwards is sporadic, as though carried by trade and isolated colonies, it radiates from the shore of the Red Sea westwards and southwards across Africa with ever diminishing intensity.

There is no doubt that circumcision is an old Hamito-Semitic custom; wherever mutilation is practised circumcision also prevails, but the area over which this rite is found is so much wider than that covered by mutilation that I have purposely chosen the latter as presenting the simpler problem. To have examined the distribution and significance of circumcision would have necessitated a discussion of south and west African problems for which I am by no means prepared.

At this point it will be well to allude to a common misconception. The Barabra, the Beja, the Arab and even the darker so-called "Arab" tribes of the

[1] The Bari language is akin to Masai; moreover, Westermann (*op. cit.*, pp. 34, 35) points out that certain tribes lying between the upper waters of the Rivers Rohl and Sue speak languages which in a broad way seem to be connected with the Niloto-Sudanic group, so that perhaps they may be regarded as a sub-group of these. To this sub-group belong Mittu, Madi, Madi-Kaya (Abo-Kaya), Abaka, Luba, Wira, Lendu, Moru. According to Schweinfurth the six first named of these tribes speak dialects of one language.

Sudan all perform a severe operation upon their girls, the whole of the labia majora and minora and the greater part of the mons being removed, so that after healing has taken place the opening of the vagina is represented by a minute orifice immediately anterior to the rectum.[1] There does not appear to be any evidence that this (infibulation) or any serious operation similar to it is a Semitic, Arabian, or even essentially a Moslem custom, though since the area in which it is practised coincides with that occupied by the tribes of the Sudan who profess Islam it is common in the Sudan to find it regarded as an Arab, or at least Mohammedan custom.[2] But far from this being the case, the custom is not found in Egypt, Algeria, Morocco, or Syria, nor, so far as I can ascertain, does it occur in Arabia.

Equally severe mutilation has been recorded among the Somali and Danakil, *e.g.*, by Paulitschke[3] and recently by Creignou,[4] who states that the object of the operation is the complete ablation of the labia majora and minora and the clitoris, but that as the operation is done without an anæsthetic, and the operator works hurriedly according to her own ideas, excision is not always complete. The children are generally four to six years old, but sometimes younger: almost any old woman may operate, and with the exception of a minute orifice posteriorly the *aditus vaginæ* should be completely closed. To ensure this result thorns are thrust through the opposite edges of the wound and maintained in place by a figure of eight suture. To assist healing the patient is kept on her back and her knees and ankles bound together. The comparatively slight operation of clitoridectomy is extensively practised in Egypt at the present day, at least among the lower classes, for Professor Elliot Smith informs me that the glans clitoridis is always wanting in dissecting-room bodies. I cannot say whether the practice is general in Syria;

[1] My summary description of the operation is based on the examination of a number of Kababish children and adult slaves, and in all these it was clear that a clean sweep had been made of the whole vulva, except its extreme posterior edge, including the greater part of the mons. This was also the procedure at Jebel Kaja, where I had the opportunity of seeing the operation performed. No doubt the technique of the operation varies locally: it could not be more severe than among the Kababish, with whom the use of the knife is an absolutely necessary preliminary to marriage. The Hadendoa, on the other hand, stated that the use of a knife was unknown, and that it would be shameful if penetration were not effected without extraneous aid. On the other hand, both people admit that so much scar tissue is formed that the vulva requires incision before a child can be born.

Captain R. G. Anderson of the Egyptian Medical Corps ("Medical Practices and Superstitions of Kordofan," in the *Third Report of the Wellcome Research Laboratories*, 1908) states that two operations are in vogue in the Sudan. Where only the clitoris and labia minora are removed the operation is termed *Tahuret Sunna*, this operation being "mostly restricted to the Bagara tribes" (*op. cit.*, p. 320). The more severe *Tahuret Farohen* is practised by other Sudanese Mohammedans, in this the "upper two-thirds of the labia majora are also removed" (*loc. cit.*), this operation being "popularly supposed to denote an ancient method practised in, and handed down from, the time of the Pharaohs."

[2] So, *e.g.*, says Captain Anderson, *loc. cit.*

[3] *Ethnographie Nordost-Afrikas*, I, 174 (Berlin, 1893).

[4] *Supplément à L'Anthropologie*, "Comptes Rendus des Séances de L'Institut Français d'Anthropologie," No. 6, 1912, pp. 111 *et sqq.*

educated Syrians with whom I have discussed the matter in the Sudan say that it does not occur, but this testimony cannot be regarded as conclusive with regard to the lower classes, for Duhousse, writing of Beyreuth, describes clitoridectomy as commonly performed by barbers on children between nine and twelve years old.[1] It does not occur among the Arabic-speaking population of Algeria and Morocco,[2] but in Abyssinia the operation was recorded 300 years ago by the first Jesuit missionaries to that country, and we have written evidence of the practice in Egypt some two thousand years ago, for the well-known passage in Strabo *Circumcidunt etiam mares et foeminas excidunt* indicates that at least clitoridectomy, and perhaps partial or complete excision of the labia minora, was practised. Moreover, at this time circumcision and "excision" were the rule among the barbarous Cresphagi, seemingly nomad Hamites, who lived in the neighbourhood of the harbour of Antiphilus (*Strabo*, Bk. xiv, 4, 9), identified as Hamfilah on the Red Sea Coast about 100 miles south of Massaua. Nearly two centuries earlier, *i.e.*, about the middle of the second century B.C., Aramaios of the Serapeum records that the mother of one Tateni, a girl in his charge, had obtained money from him on the false plea that her daughter was to be circumcised, "as is customary among the Egyptians," urging that she required money for the rite and to endow her daughter for marriage.[3] The practice continued into Christian times, for St. Ambrose (*ob.* 397) also refers to the "circumcision" of Egyptian women, "*Aegyptii quartodecimo anno circumcidunt mares; foeminae apud eos eodem anno circumciduntur, quod eo scilicet anno incipiat flagrare passio virilis.*"[4]

Professor Elliot Smith, whom I have consulted with regard to the possibility of obtaining anatomical evidence from mummies, tells me that no information can be gathered in this quarter, for "the pelvic viscera were so completely excised and the remains of the labia so stretched by the plugging of the pelvis that nothing can be said about the condition of the vulva during life." With regard to predynastic women he states that there was certainly no infibulation, and that in some cases he was able to recognize the labia minora and (with less certainty) the clitoris. But, as he points out, "a shrunken labium minus is not easy to identify," so that although there is nothing to suggest any operative procedure it cannot be said that the clitoris and part of the labia minora may not have been removed.

Clitoridectomy is still the custom among the Christians of Abyssinia[5] as it

[1] *Bulletin de la Société d'Anthropologie de Paris*, XII, 1877, pp. 124 *et sqq.*

[2] Some years ago I spent some weeks in Algeria and I think I should have heard of the custom had it existed; with regard to its absence in Morocco my statement is based on information given me by Professor Westermarck and Mr. S. L. Bensusan.

[3] Bernadino Peyron, *Papyri Greci del Museo Britannico di Londra* Papyrus XV, pp. 85 *et sqq.*, (Torino, 1841).

[4] Ambrosius, *De Patriarcho Abrahamo*, lib. II, Cap. II.

[5] For this information I am indebted to Abyssinian merchants whom I met at Tokar, and who drew the sharpest distinction between clitoridectomy and the larger operation practised by the Somali and other Mohammedan tribes.

was in the seventeenth century when Ludolfus discussed its distribution in the Near East and noted that the operation was wrongly called circumcision.[1]

There is no doubt as to the former wide extension of the rite among the Arabs of Arabia and Syria. In folklore its origin is attributed to Sarah, who performed the operation on Hagar while she lay asleep in order to lessen Abraham's love for her, and it was only after this that Allah commanded Abraham and Sarah to be circumcized themselves. Moreover, the antiquity of the rite is established, for, according to Ibn al-Athir (*ob.* 1234), Mohammed himself said, Circumcision is an ordinance for men and is honourable for women.[2] There are, indeed, actual records dating from the earliest years of Islam which refer to the rite practised by the pagan Arabs, and which also seem to indicate that the operation performed was clitoridectomy, or perhaps an even slighter operation, more closely analogous to circumcision in the male. There are several references which go back to the end of the sixth century; al-Nabigha, a poet who flourished about this time, said "And (our horsemen) laid hold of maidens in a state of pleasant ease, and made them hasten the fact of circumcision."[3]

Ibn Hishām (*ob.* 834) in his description of the fight between Hamzah (an uncle of Mohammed) and Sība ibn 'Abd al-'Uzza at the battle of Uḥud (A.D. 625) represents Hamzah as calling out "Come on, O son of the cutter of the prepuces (بظور plural of بَظْر baẓr) of the clitoris," referring to the fact that his mother habitually operated on girls at Mecca. The fact that Zayd ibn Thābet, another warrior present at this battle, "circumcized his daughter," is referred to in the *Kitāb al-Aghānī*.[4]

The Poems of the Hudhaylites, composed by the poets of the Hudhayl tribe and collected by al-Sukkarī (*ob.* 888), contain references to the mutilation of women, and show that among those tribes practising the rite the natural state was looked upon with contempt. Khālid ibn Wāthilah, who lived about the end of the sixth century, speaks of "A company of people who do not circumcize their women, and among whom the eating of locusts is not reprobated."[5] Another poem composed by Abu 'l-Muwarriq at about the same time says, "If you were to become his neighbour (or guest) in Hudhayl, he would turn you away and your mother with the long prepuce of the clitoris."[6]

There are also passages in the Kitāb al-Aghānī which indicate the contempt felt for uncut women. Thus there is recorded a conversation said to have taken place in the presence of the Caliph Hisham (A.D. 724–743): al-Walīd, his successor,

[1] *Commentarius ad Suam Historiam Aethiopicam*, pp. 172–173 (1691).

[2] Hastings' *Encyclopædia*, art. "Circumcision."

[3] The word *i'dhar* (إعذار) is that generally used for the circumcision of men.

[4] *Op. cit.*, vol. xvi, p. 14, l. 26. This work, *The Book of Songs*, was compiled by Abu 'l-Faraj Isfahānī, who died A.D. 967, but contains poems of many different and earlier dates.

[5] *Op. cit.*, p. 147, l. 2.

[6] *Op. cit.*, p. 179, l. 5; the word used is *'unāb* (عُنَاب), which means "having a large *preputium clitoridis*."

twitted 'Abbas b. al-Walīd b. 'Abd-al Malik on account of the condition of his mother, who was a Greek and therefore unmutilated. Al-Walīd said to 'Abbas, "Silence, O son of an uncircumcized woman," to which the latter answered, "Do you exalt yourself over me on account of what has been cut from the *baẓr* of thy mother?"[1]

The *Naḳā i'ḍ* contains a poem in which Jarir (*ob.* 728) satirizes his rival al-Farazdaq of the clan Mujāshi', "The circumcisers fear in the case of the daughters of Mujāshi' the likeness of crooked sticks or the horns of mountain-goats."[2]

In Burton's translation of the *Arabian Nights*, circumcision occurs as an essential part of conversion to Islam in the story of "The Moslem Champion and the Christian Damsel," in which the heroine "became a Moslemah, after she was circumcized."[3] But Professor Arnold, whose assistance I sought in the hope that he might be able to determine the date of this story, considers that this translation is incorrect, the word translated "circumcized" signifying "purified herself."[4]

Perhaps Burton was influenced in his translation by his knowledge of the writings of al-Nawawī, whom he quotes to the effect that in the Hejaz as in Cairo the "circumcision of girls is the universal rule."[5] This is in accordance with the *Fatāwā 'Ālamgīrī*, which states, not only that the circumcision of females was allowed, but that it is commonly practised in Arabia,[6] and both these accounts agree with Niebuhr's report written 500 years after that of al-Nawawī that girls are

[1] *Op. cit.*, vol. vi, p. 103, l. 5; other references will be found in the same volume, p. 152, l. 26, and in vol. xix, p. 59, ll. 11 and 12.

[2] *Naḳā i'ḍ*, ed. Bevan, vol. i, p. 230, l. 6. The passage is interesting in that it suggests that hypertrophy of the clitoris was not unknown in mediæval Arabia. It seems to have been sufficiently common in Egypt for the College of Cardinals *de propaganda fide* to accept it as a valid reason for a rite which their missionaries had at first prohibited on account of its imagined Judaising purpose (Bruce, *Travels, &c.*, Bk. V, Chap. 12). Lane (*Arabic-English Lexicon*, art. بظر) suggests that the condition is by no means uncommon in Arabia and Egypt at the present day.

[3] Burton, *Arabian Nights*, vol. v, p. 279.

[4] Professor Arnold writes: "I have looked up several editions of the Arabic text of the *Arabian Nights* (*e.g.*, that of Būlāq, 1250 A.H., vol. i, p. 649), Cairo, 1306 A.H. (vol. ii, p. 273), and Calcutta, 1839 (vol. ii, p. 565), but in none of them is there any authority for Burton's translation that the Christian damsel was circumcized. The correct translation is 'She became a Muslim and purified herself, and he taught her how to pray.' The word for 'she purified herself' (تطهّرت) is *taṭahharat* and merely means that she made ablutions, purified herself by washing. It is true that the second conjugation (طهّر) *ṭahhara* is used in the sense 'he performed the rite of circumcision upon somebody, and so purified him'; but I can find no warrant for the fifth conjugation (تطهّر) being used in connection with circumcision; in the feminine (as here) it generally refers to a woman washing herself after the menstrual discharge. Moreover, I am inclined to doubt whether the circumcision of women was practised in the society to which the stories of the *Arabian Nights* refer."

[5] *Pilgrimage to Al Medinah and Meccah*, Memorial Edition, 1893, vol. ii, p. 20, footnote. He also states that to call anyone *ibn-al-baẓra*, "son of an uncut mother," is a sore reproach.

[6] *Op. cit.*, vol. iv, p. 237, quoted by Hughes, *Dictionary of Islam*, 1895, p. 57. This work is a collection of legal decisions according to Mohammedan law, drawn up by order of the Emperor Alāmgīr (Aurangzīb, 1659–1707).

circumcized at Mokha though not in Sanaa.[1] Moreover, Hurgronje, writing of Mecca at the present day, says that clitoridectomy is performed quietly without any ceremony,[2] and Jaussen notes that the custom occurs but is not universal among the Arabs of Moab.[3]

It is said[4] that every girl in Oman submits to operation at least in Sohar and at Baghdad, while Chardin[5] records that both sexes are regularly circumcized on the Persian Gulf, whereas inland in Persia fewer women are circumcized than males. Further east Niebuhr speaks of the rite being practised by Arab women at Cambay near Surat—one of the oldest ports of India—while at the present day a mild form of the operation occurs among the Malays of Sarawak, who no doubt learnt it from the mediæval Arabs, to whom they owe Islam and the characters in which their language is written.[6]

Returning to Africa, mutilation appears to be absent in North Africa in the region of Berber influence, but is said to occur among the Tuareg.[7] If this information is correct it is not without significance that the Tuareg, who still lead a semi-nomadic existence and have female descent, are socially perhaps the least modified of the Hamitic peoples of North Africa. Infibulation is universal in Darfur and Borgu; it is also said to occur among the Tibbu though not among the inhabitants of Bornu.[8] Perhaps it does not pass west of Borgu or Wadai, but clitoridectomy certainly occurs among the Ful and the Mandingo,[9] and also among such Negroid but not Negro-races in the French Sudan as the Toucouleurs, the Ouassoulonka and the Kassonka.[10]

Mutilation exists on the west coast among the natives of Sierra Leone, Benin, Akra, Old Calabar, and Loango;[11] some of these people are not full-blooded Negroes but Negroids with a varying and sometimes very considerable amount of Hamitic blood in them. Where this is not the case or cannot be stated with certainty there is still the question of foreign cultural influence to be considered. How thoroughly Central and West-Central Africa is permeated with this influence is as yet scarcely appreciated, but evidence in this direction is rapidly accumulating and I have elsewhere in this paper referred to the noteworthy fact that Wester-

[1] C. Niebuhr, *Description de l'Arabie* vol. i, p. 113 (Paris, 1779).

[2] *Mekka*, vol. ii, p. 142.

[3] *Coutumes des Arabes au Pays de Moab* p. 35 (Paris, 1908).

[4] Niebuhr, *loc. cit.*

[5] *Voyages en Perse* x, p. 76 (Amsterdam, 1711).

[6] See *Baluchistan Census Report*, 1911, p. 106, *Bombay Census Report*, 1911, p. 120, *Rajputana Census Report*, 1911, p. 154.

[7] H. Sarrazin, *Races Humaines du Soudan Français*, p. 189, writes: "Nous nous sommes laisse dire que l infibulation était pratiquée sur les jeunes filles en bas âge. Elle consisterait à trancher légèrement les nymphes et à les maintenir rapprochées pour en obtenir la soudure; on ne ménage qu'une légère ouverture. C'est plus tard un gage de virginité pour la jeune fille qu'on peut libérer, au moment voulu, par une incision longitudinale."

[8] My information concerning Darfur, Borgu, Tibesti and Bornu was obtained from headmen of those settlements of pilgrims (generally called Fellata or sometimes Tekruri) from West-Central Africa that are to be found at so many centres upon the chief routes leading to the Red Sea ports.

[9] L. H. Gray in Hastings' *Encyclopædia*, art. "Circumcision."

[10] Sarrazin, *op. cit.*, pp. 240, 263, 288.

[11] L. H. Gray, *loc. cit.*

mann states that the languages of a number of tribes in the neighbourhood of the Nile-Congo watershed all show evidence of a more or less foreign influence of the type commonly called Hamitic.

Turning to the half-Hamites, mutilation, but not infibulation, is the universal practice and has been described among the Masai,[1] the Nandi,[2] the Suk,[3] and the Wanderobbo,[4] besides occurring among a number of Bantu-speaking tribes of Eastern Africa such as the Akamba[5] and the Akikuyu.[6] As far as is known the Nilotes do not mutilate their women,[7] in this they resemble the great lacustrine tribes, the Bahima, the Banyoro, the Baganda, and the majority of the Southern Bantu, though the rite has been recorded among the Bechuana.[8]

It will be admitted that the geographical distribution of "mutilation" fully bears out the contention that the custom is not originally Mohammedan or even Arab, for there can scarcely be more question of Mohammedan or recent Arab influence having been exerted upon such tribes as the Masai and the A-Kamba than upon the ancient Egyptians. But since the rite existed in ancient Egypt, and is found at the present day over so great a part of Africa east of the Nile, existing both in modern Egypt and among such untouched tribes as the half-Hamites of British and German East Africa, and also in Arabia, it follows that the custom must be either indigenous or due to physical or cultural contact with a people who practised it and at one time or another, directly or indirectly, exerted their influence over the whole of the area under consideration. Now in the present state of our knowledge there is nothing to suggest that at any time a single indigenous culture prevailed over the whole of this area, so that whether or no the custom dates back to a period of undifferentiated Hamito-Semitic culture in the north, and is an offshoot of this culture in the south, it can be due to no other cause than the influence (direct or indirect) of this culture. Lest this suggestion be considered fanciful or over bold I may refer to the avoidance of bringing milk and meat into contact, which has led to elaborate ritual observances among the half-Hamites and kindred peoples (*infra*, pp. 656 and 657) and among the Jews. For whether the prohibition "to seethe a kid in its mother's milk" (Exodus xxiii, 19, and xxxiv, 26) refers to this avoidance or not, the more pious Jews of both Europe and Palestine[9] still diligently observe the Law in this respect, and take the greatest

[1] A. C. Hollis, *The Masai*, p. 299.

[2] A. C. Hollis, *The Nandi*, pp. 57–60.

[3] M. W. H. Beech, *The Suk*, p. 21.

[4] Max Weiss, *Die Volkerstämme im Norden Deutsch-Ostafrikas*, p. 401.

[5] C. W. Hobley, *Ethnology of the A-Kamba and other East African Tribes*, pp. 68 *et seq.*

[6] W. S. and K. Routledge, *With a Prehistoric People*, p. 164.

[7] This is certainly true of the Shilluk, Dinka, and Bari; although I do not know of any evidence suggesting that the custom exists among the less well-known tribes, it would be unwise to be dogmatic.

[8] James Chapman, *Travels in the Interior of South Africa*, pp. 44, 45 (London, 1868).

[9] W. M. Thomson (*The Land and the Book*, 1888, p. 95) says: "They [the Arabs of Palestine] select a young kid, fat and tender, dress it carefully, and then stew it in milk generally sour, mixed with onions and hot spices such as they relish. They call it *lebn immû*—

trouble to avoid the mixing of meat and milk or butter either in their cooking vessels or in their stomachs. Apart from Merker's suggestion, now generally discredited, of Semitic influence on the Masai,[1] there can scarcely be any question but that here is a survival among Jews and half-Hamites of a custom going back to a common culture. It is noteworthy that a view somewhat akin to that put forward here was held by Maimonides who, writing in the twelfth century, boldly suggested that the existence of this custom in Judaism could only be due to the persistence of foreign and pagan influence.[2] Moreover, linguistic evidence cannot be neglected; after years of discussion as to whether Egyptian was or was not a Semitic language, or showed Semitic influence, it now seems determined that ancient Egyptian (and therefore modern Coptic) is in fact a pre-Semitic, *i.e.*, a Hamito-Semitic speech.[3]

If the view that mutilation is a survival from a period of undifferentiated Hamito-Semitic culture be accepted, we may conjecture that the different grades of severity of the operation prevailing in the Sudan are merely local variants of the common widely spread rite, and that the operation has, on the whole, tended to become more and more severe as it was found that it assisted to safeguard the chastity of women. It is indeed probable that among the half-bred Semites and semiticized Hamites of Eastern Africa the preservation of chastity became the whole, or at least the avowed, object of the operation at a comparatively early date, as it is at the present day among the Mohammedan tribes of the Anglo-Egyptian Sudan.

Face Scars.

Before leaving the subject of lesions purposefully inflicted it may be worth while to say something concerning a custom which in the Sudan exhibits almost the same distribution as infibulation, and which I was at one time disposed to believe was, like the mutilation of the female genitals, an old-standing habit of considerable ethnic significance. The custom I refer to is that of scarring the cheeks, and is common to both sexes.

Cheek scars of one form or another are of almost universal distribution in the Sudan except among the Negroes, and even members of these tribes tend to adopt the custom when they come under Arab influence, while slaves, whatever their race, are always marked in this manner, generally with the same series of scars as those borne by their masters.[4] Scars such as these are produced by fairly

kid in his mother's milk. The Jews, however, will not eat it. They say that Moses specifically forbade it. . . . They further maintain that it is unnatural and barbarous to cook a poor kid in that from which it derives its life."

[1] On this point *cf.* von Luschan, *op. cit.*, p. 248.

[2] *Jewish Encyclopædia*, art. "Milk."

[3] Hestermann, "Sprachen und Völker in Afrika," *Anthropos*, vol. viii, 1913, p. 221.

[4] Some tribes affect differences in the size, form or position of the scars borne by their members. A few tribes are said to mark themselves in such a way that their members are recognizable by their scars. I cannot say at first hand whether this is so, nor have I been able to obtain satisfactory information on this matter; if such cases exist they are far from being the rule, and, speaking broadly, cheek scars cannot be regarded as a form of tribal or clan badge in the Sudan at the present day.

deep incisions with a sharp knife, they heal cleanly as a rule, and as far as I know the cicatrices produced do not tend to hypertrophy, nor is any attempt made to increase their size by keeping the wound open, or by introducing foreign substances. Thus these scars differ entirely from those massive hypertrophied cicatrices produced by the women of some Congo tribes, and in the Sudan by the women of Dar Nuba,[1] though like all these they are, in most cases, avowedly produced for their æsthetic value ; such at least is the reason very generally given in answer to inquiries.

The commonest form of cheek scar is three, rarely two, more or less vertical lines on the cheek below the malar bone or sometimes over the bone itself. Scars such as these are of universal occurrence among the Barabra, who cut them long and deep so that the resulting scar is comparatively coarse. The cosmetic result is, however, considered none the less admirable on this account, and two sets of scars are sometimes made for the avowed purpose of adding beauty and distinction to the face. Scars of much the same coarse character are common among the sedentary Arab tribes south of Khartum and among the Baqqara, indeed, my limited experience suggests that, broadly speaking, the more black blood the bigger the scar. The exception to this rule, if I am right in formulating it, is that in some tribes, *e.g.*, the Gawama, the men scarcely scar themselves, while the practice is universal among the women, to whom the scars are "as a golden ornament."

The Kababish and some at least of the kindred nomad tribes make smaller scars, indeed, these are often so much smaller and shallower that they may scarcely be noticeable in middle-aged men. It will be remembered that (as I have shown) the Kababish have a considerable amount of Beja blood in their veins, so that turning to the Beja it is not surprising to find that although the majority of these tribes scar, there is no uniform practice. Thus the Bisharin scar little if at all ; many Hadendoa seem to think that cheek scars are of comparatively recent introduction, for even now not all the Hadendoa have them and the Amara scarcely scar at all. Moreover, though the women of the Nabtab, the aristocracy of the Beni Amer, scar their faces the men do not. It is then obvious that the practice is by no means universal among the Beja nor does it occur among the Somali, while inquiries showed that it seldom occurs in Arabia, or among such recent Arab immigrants into the Sudan as the Zebediya (Rasheida). It does, however, occur at Mecca and it appears to be a distinguishing mark of the inhabitants of that city and Medina.[2]

[1] Photographs showing scarifications of Nuba women will be found in my paper on the Nuba, referred to on p. 611.

[2] Robertson Smith speaks of these gashes as *tashrīṭ* and says that they are the distinguishing mark of the inhabitants of Mecca (*Encyclopædia Britannica*, art. "Mecca," p. 951, while Burton (*Supplemental Nights*, IV, p. 153) says : " . . . both at Meccah and at Al-Medineh the cheeks of babes are decorated with the locally called "Mashali"—three parallel gashes drawn by the barber with the razor down the fleshy portion of each cheek, from the exterior angles of the eyes almost to the corners of the mouth."

Considering these facts and what has already been said concerning the prestige of everything Arabian, especially when connected with the holy cities, it appears probable, nay, almost certain, that the custom is derived from immigrant Arabs, and is not an ancient widely spread Hamitic custom.

I cannot leave the subject of cheek scars without referring to the linear marks which are shown upon certain of the faces painted or carved upon a number of Egyptian monuments; thus, in the reproductions given in Lepsius' *Denkmäler* of the captives at Medinet Habu, the chief of the Libyans is shown with two obliquely placed lines suggesting cheek scars. As a matter of fact these lines are entirely unlike the marks upon the original monument, which starting from the side of the nose run outwards and only slightly downwards across the cheek, as is well shown in a photograph, for which I am indebted to Mr. A. G. K. Hayter, who has also made for me a series of careful sketches and notes concerning the representatives of other races mentioned in this paragraph. Lines essentially similar in character, in that they do not obviously represent the ordinary skin-folds of the face, occur in other drawings and in the original are quite clear upon the face of the captive Negro chief at Medinet Habu. In this engraving there are two lines which in character and position broadly resemble those upon the chief of the Libyans, but the captive Syrian (?) chief in the same tomb has two lines which fairly obviously represent the hollow below the eye and the cheek-fold.

Turning to the brilliantly painted figures on the tomb of Huy at Gurnet Marai, the face of one of the Negroes whose head appears among the horns of a number of cattle shows two black lines drawn upon it. These run across a brown or black cheek in a nearly horizontal line from near the angle of the mouth to the region of the angle of the jaw. Mr. Hayter points out that single and double lines upon other Negro or Negroid faces in this tomb obviously represent the cheek-fold and his sketches certainly confirm this view. Considering the facts just stated, and that representations of both Libyans and Negroes exhibit similar marks, which if they are not misplaced skin-folds can only be scars or lines of pigment, considering too the variety in lines described by Mr. Hayter for the Negroes in Huy's tomb, together with the absence of any historical record even suggesting that either people scarred their faces, it seems almost certain that the lines represented by the ancient Egyptians upon these and other faces are merely exaggerated and often misplaced representations of the normal skin-folds of the face.

It has been shown on physical evidence that the Beja are the scarcely modified representatives of an early Hamitic stock (known as the proto-Egyptian) and it has been suggested that certain practices still prevalent in the neighbourhood of the Red Sea may date back to less differentiated and even earlier culture than the proto-Egyptian. At this point it becomes a matter for legitimate inquiry to determine

to what extent it may be possible to recover the essentials of the social customs and religious beliefs of the early Hamites.[1]

In pursuing this inquiry there are three main sources of information available, viz. :—

(i) The traditional customs and beliefs and the present-day practices of the Beja.

(ii) The customs and beliefs of the ancient Egyptians.

(iii) The customs and beliefs of the barbarous tribes and peoples of Africa sprung from the mixture of Hamite and Negro or affected culturally by Hamitic influence.

I believe that the following subjects may be usefully investigated from each of these standpoints :—

A.—Social and family organization.

B.—Totemism and animal cults.

C.—Customs connected with milk and cattle.

D.—The importance of the placenta, especially of the royal afterbirth.

E.—The belief in otiose high gods, associated with an active cult of the dead.

F.—The cult of divine kings responsible for the production of rain, when the high god may assume the form of a rain god.

G.—The position of the body in the grave.

Social and Family Organization.

In considering the manners and customs of the Beja it must be remembered that these tribes are now perhaps the most fanatical Mohammedans in the Sudan, and that consequently at the present day only such of their older usages have survived as are not contrary to the written word of the Koran. The majority if not all the Beja were, however, heathen during the lifetime of Makrizi (A.D. 1366–1442) and it was of these that he wrote :—" They are nomads living in skin tents which they carry wherever they find grazing. Their genealogies are counted in the female line. Each tribe has a chief but they recognize no paramount. They have no religion. Property passes to the sons of sister and daughter to the prejudice of the son of the deceased. To justify this custom they say that there can be no doubt as to the parentage of the son or daughter of a sister and that these must belong to the family, whether their mother had gotten them by her husband or by another man. They formerly had a paramount chief to whom all the other chiefs were subordinate."[2] Makrizi adds that the Beja had many

[1] It will be remembered that, as stated on p. 595, this paper is limited to the Eastern Hamites.

[2] Quoted by Quatremère, *Mémoires Géographiques et Historiques sur l'Égypte*, II, pp. 136–137 (Paris, 1811).

dromedaries and camels besides sheep and cattle innumerable which provided them with meat and milk. In another passage Makrizi speaks of the Beja as a people utterly irreligious and unintelligent. Both men and women go naked, having no other covering than a loin cloth and the majority of them lacking even this.[1]

Here is a perfectly definite account of a pagan, nomad, pastoral people with matrilineal descent, living almost entirely upon the milk and flesh of their flocks. With the exception only of matrilineal descent, which has been given up owing to the introduction of Islam, and the wearing of Arab clothing, the picture drawn by Makrizi is that seen by any traveller in the eastern desert at the present day. Moreover, even a slight acquaintance with the people is enough to show that they retain indisputable traces of a former matriarchy. These are most obvious in their marriage customs as the following account will show.

Among the Hadendoa the bridegroom goes to his bride's village to be married and stays there from one to three years. The tent for the young couple is usually built some 60 or 70 yards from that occupied by the girl's parents, *i.e.*, at the least distance that the stringency of the rules of avoidance between son-in-law and mother-in-law renders convenient. Unless betrothed in infancy or childhood the young man is not supposed to see his maiden, and he should spend the time, which may be a week or less, that intervenes between the payment of the dowry and his marriage, with his own people. The framework of the tent and the furniture, especially the marriage-bed,[2] are provided by the bride's relatives who erect the dwelling, the strips of matting, which when sewn together form the tent, should be provided by the bridegroom. While living with his wife's people a man accompanies his father-in-law whenever the latter moves to new pasture, he should help him in all matters and in fact be to him as a son. For about the first month after marriage the bride spends her days in her mother's tent, meeting her husband only at night. During this time his food is prepared by his mother-in-law and sent to his tent.

There does not appear to be any strict rule that the first child shall be born among its mother's people, but it is obvious that under the conditions stated this must often occur. Yet if a woman does not bear a child for some years after marriage it is perhaps a matter of indifference, regulated by convenience, whether it is born among its father's or mother's relatives. A more stringent rule prevails among the Amara, who say that a woman must be delivered of her first-born in her mother's tent, or, if this is impossible, among her mother's people, and even if she has left them she will return when her

[1] *Op. cit.*, II, 167. In spite of this some of the Beja had embraced Islam and attained a modicum of civilization in Makrizi's time, for he speaks of the Hadareb as Moslems, and as wearing Arab costume (*op. cit.*, II., 156). This change seems to have affected the historian's estimate of their character, for he now speaks of them as being "generous and liberal."

[2] By marriage-bed is meant the large bed, called in Sudan Arabic *serir*, and held off the ground by four low supports at the corners. This is absolutely unlike the narrower higher *angareb*, shaped like a European bedstead, and commonly used by men when sleeping alone.

time approaches. The Nurab who, although they consider themselves strong enough to stand alone, have but recently ceased to call themselves Amara, follow the custom of the latter. The Bisharin custom resembles that of the Amara as does that of the Beni Amer. Among all these tribes the husband carries his wife away to his own people from one to three years after marriage, the Beni Amer, however, say that although this is what happens normally a woman has the right to decline to follow her husband, and that if she persists in this attitude her husband would have no other resource than to visit her from time to time, since he could not be expected to settle down permanently among her people. Thus a girl, even when married, remains an object of concern to her parents and her division, and her mother's opinions and desires do not cease to be of importance to the husband.

I may here refer to a feature of the social organization of the ancient Egyptians and certain African peoples of mixed Hamitic and Negro descent which there is every reason to believe is connected with matrilineal descent and which is probably a legacy of an old Hamitic practice, namely, the custom of brother-sister marriage in the royal family. It is so well established that this occurred in Egypt that it does not seem necessary to cite specific instances.[1] But it cannot be said that the fact that such unions occur among the powerful lacustrine tribes of Central Africa has received the attention that its importance warrants. These tribes, namely, the Bahima, the Banyoro, and the Baganda, are all totemic and observe the ordinary rules of clan exogamy, yet the Bahima marry their sisters and even have intercourse with their sisters married to others.[2] Again among the Banyoro, who trace descent in the male line, princes "might cohabit with princesses and have children by them, though . . . the couple necessarily belonged to the same totemic clan. . . . However this cohabitation was not marriage." "The rule," says Mr. Roscoe, "was for princes and princesses to live together promiscuously and not to regard each other as husband and wife, though the king might take a princess and keep her in his enclosure.[3] He might even beget children by his full sister.[4]

The Baganda also trace their descent in the male line, except in the case of the royal children, who take their mother's totem as well as certain totems claimed by every prince and princess.[5] Clan exogamy was strictly observed except in the case of the ruling prince, who, on his becoming king, was ceremonially married to one of his half-sisters, who shared with him the coronation ceremonies and the

[1] The evidence on this point in late historic times is discussed by Huth, *The Marriage of Near Kin*, pp. 35–38, who gives a genealogy of the Ptolemies; instances of its earlier occurrence will be found in Petrie's *History of Egypt*, *cf.* especially vol. ii, pp. 1, 40–44.

[2] *Journ. Roy. Anthrop. Inst.*, vol. xxxvii, 1907, p. 105.

[3] From information supplied by Dr. Roscoe to Professor Frazer, *cf. Totemism and Exogamy*, vol. ii, p. 523.

[4] Frazer, *loc. cit.*

[5] J. Roscoe, *The Baganda*, p. 128; this connects brother-sister marriage with matrilineal descent.

official mourning for his predecessor. Yet this queen and any other princesses that the king might subsequently marry might not have any children, indeed, unless taken by the king, princesses were not allowed to marry, though it was common knowledge that they took what lovers pleased them. If they bore children both mother and child were promptly killed; this convention led to the systematic practice of abortion, nevertheless, it appears that from time to time princesses bore children whom they succeeded in passing off as belonging to someone else.[1]

These examples all indicate that the custom of brother-sister marriage is something abnormal and foreign to the general life of the lacustrine tribes, if this were not so, there would scarcely be the steady determination that the royal daughters should bear no children. The custom must be due either to the survival of an ancient practice or to foreign influence, and it requires but little reflection to see that the latter is the correct explanation. The Bahima, whose divergence from the African Negro is noted on page 656, are an immigrant pastoral people who have occupied the territory of a sedentary agricultural population, the Bahero, who till the ground and do all menial work. The Banyoro are divided into two socially distinct groups, the one pastoral and the other agricultural. The herdsmen are the descendants of a nomadic race who have become more or less sedentary but they still despise the husbandmen and speak of them as peasants and slaves.[2] The Baganda are ruled by a foreign aristocracy; Mtesa who was king at the time of the discovery of the country was proud of his foreign ancestors, whose language he still spoke.[3]

Turning to the Nilotes it is found that although the Shilluk king does not formally or actually marry his sisters, in other details the Shilluk princesses are treated substantially as are the royal daughters of the lacustrine kingdoms. Thus, although the king's sons take many wives, his daughters must remain unmarried, the alleged reason for this being that it is unfitting that a royal daughter should marry a commoner, while she could not marry a man of royal blood since this would be incest. The prohibition of marriage does not extend to all intercourse; a king's daughter is allowed to select lovers as she chooses, and nothing is said so long as it is not publicly known that she has become pregnant; but if this were discovered she would be killed, as would also the man responsible for her condition. This, which until recently appeared to have been sternly carried out, led to the frequent production of abortion.[4]

Even if no further evidence could be adduced, in view of what has been said in the earlier part of this paper, there could be, I think, no hesitation in referring this foreign influence to the Hamites and admitting that the custom we are discussing not only runs parallel to that of the Egyptians but that it owes its

[1] Roscoe, *op. cit.*, pp. 82–85.

[2] Frazer, *op. cit.*, p. 514.

[3] A. H. Keane (*Man, Past and Present*, p. 90) makes this statement on Stanley's authority.

[4] "The Cult of Nyakang and the Divine Kings of the Shilluk," *Fourth Report of the Wellcome Tropical Research Laboratories*, vol. B. 1911.

existence among the Negroid tribes of Central Africa to the influence of that great race to which the predynastic Egyptians belonged. We thus reach the conclusion that brother-sister marriage was a widely spread early Hamitic institution. Nor were consanguineous marriages limited to the royal family, or even to the aristocracy, for the practice occurs among commoners in certain Galla tribes at the present day[1] and there is evidence that marriages between near relatives were by no means repugnant to the feelings of the Egyptian populace.[2]

Totemism and Animal Cults.

With the exception of a single passage in Makrizi,[3] which possibly may be taken to indicate the existence of some form of animal cult, there does not seem to be any evidence suggesting that animals were associated with the social organization or with the worship of the pagan Beja, nor have any traces of animal cult been discovered among the Beja of the present time. Sacred animals, however, do exist among the pagan Hamites of Abyssinia, among them are the hyæna, the snake, the crocodile, and the owl,[4] though there is no reason to suppose that these are totems. Among the southern Galla of British East Africa there is a well-defined tree cult. Great reverence is paid to the *yak* (baobab), milk being poured over its roots once a month, and a white thread being tied round the trunk or its branches, and once a year "they kill for it" (*wa-na-u-tindia*) a black sheep. They also honour the *worede* and the *oda* (wild fig). Karayu is the name given by Krapf as the name of one of nine tribes of the Galla descended from one Wolab, but *kareyu* or *karayu* is also the name of a tree which the Karayu clan of the Wasanye will not cut down.[5]

The animal cults of ancient Egypt are so well known that it is not necessary to adduce specific instances; I may state, however, that careful study of the evidence leads me to regard the ancient Egyptians as definitely totemistic.

Among the Nilotes of the Sudan the Dinka and Nuer are the only people known to have a well developed totemic system, but animal cults exist among the

[1] Paulitschke, *Ethnographie Nordost-Afrikas*, I, p. 196.

[2] Mr. A. W. Gardiner gives a most interesting, though necessarily incomplete, family history of the time of Rameses III., *Zeitschrift für Ägyptische Sprache und Altertumskunde*, XLVIII, pp. 50, 51. In this it is recorded that two of the daughters of Setau, the high priest of Nekhbet, at El Kab were married to their paternal uncles. In the same journal (vol. l, 1912, p. 57) Sethe gives an instance of the probable union of father and daughter.

[3] Quatremère, *op. cit.*, II, p. 26; nor does the passage in question clearly refer to the Beja.

[4] Littmann, Art. "Abyssinia," in Hastings' *Encyclopædia of Religion and Ethics*, p. 57.

[5] Miss Werner, to whom I am indebted for the above information concerning the cult of trees, writes that the relations between Wasanye and Galla require careful working out. The Wasanye she met spoke Galla and knew no other language, though they admitted they once had another which they say is that spoken by the Waboni. They have the same, or partly the same, clans as the Galla, but are by no means clear about the divisions into Iradid and Berietuma, nor do they know of any rule obliging each division to marry into the other (which the Galla strictly observe). Miss Werner did not believe their explanation that they were really a branch of the Galla, though they may have adopted clan names when subjugated by the latter, just as the Pokomo have since done.

Shilluk, and Nyakang, their semi-divine culture hero and first ruler, still appears among them in animal forms, while his sister Nikaiya or Nyakai lives in the Nile and is definitely associated with the crocodile.

In British East Africa the Jaluo, one of the tribes of the Nilotic Kavirondo, inhabit the open hilly country to the north-east of the Victoria Nyanza and speak a language closely allied to Shilluk. Hobley describes them as totemistic, their word for totem being *kwero*, which recalls the word *kwar* applied by the Bor and Tain Dinka alike to their totem animals and their ancestors. The totemism of these people is, however, extremely aberrant in form, their *kwero* being considered malignant creatures whom it is praiseworthy to kill.

Among the half-Hamites the Nandi and Suk are certainly totemic. The former are divided into a number of clans, each having one, or occasionally two, totemic animals,[1] the latter also have a large number of totemic and exogamous clans."[2] Among the Masai totemism, if it exists, must be of a less obvious character than among the Nandi, for Hollis does not mention it, though he adduces facts which not only indicate animal cults, but so strongly suggest totemism that I have little doubt that these people are totemistic.[3] A number of Bantu-speaking East African tribes who resemble the half-Hamites in physique and in many social matters are totemic, such as the Akikuyu[4] and the Akamba.[5]

Customs connected with Milk and Cattle.

The Beja, the half-Hamites, and the Nilotes all have a large number of customs which have this in common, that they are connected with the chief product of their herds, viz., milk, or with the grass upon which they feed. I am inclined to think that love and veneration are not too strong terms for the feelings towards their cattle which I believe form the basis of that special regard for milk and grass which occurs under varied forms among many of the tribes that have a strong infusion of Hamitic blood, or who have adopted elements of Hamitic culture.

None of the Beja tribes with whom I am acquainted milk into a clay vessel or put milk into one of these, in spite of the fact that many of the Hadendoa make pots. Nor would it be permissible to milk into one of the modern tin bowls which Europeans have recently introduced into the country. Gourds and basket vessels, especially the latter, are considered the appropriate receptacles for milk, though skin vessels, *girba*, may be used. Nor may any man of the Bisharin,

[1] A. C. Hollis, *The Nandi*, pp. 1–11. In a single instance one of the totems is inanimate, the Toiyoi clan has as totem the soldier ant and rain.

[2] M. W. H. Beech, *The Suk*, p. 5.

[3] A. C. Hollis, *The Masai*, pp. 307–308. There is no doubt as to the totemism of the Elgeyo and Kamasia tribes, which, if I understand him aright, Hobley considers to be branches of the Masai, *cf. The Akamba and other East African Tribes*, p. 157.

[4] W. S. and K. Routledge, *With a Prehistoric People*, p. 22.

[5] C. W. Hobley, *Ethnology of Akamba and other East African Tribes* (hereafter quoted as *The Akamba*), pp. 4–6.

Artega, and Hasa drink the milk he has himself drawn, whether the animal is his own property or not, until someone else has taken three sips. So strict is this rule that to say of a man *halab sherab*, "he milked [and immediately] drank," would be a sore term of reproach.[1] There are also customs concerning the cooking of milk which vary from tribe to tribe: thus the Beni Amer and Bedawib commonly cook their milk by dropping into it hot stones as it stands in one of the wide-mouthed basket-work vessels called in Arabic *umra*. On the other hand, the majority of Hadendoa will not cook milk, and in this the Artega and Ashraf resemble them. Among the Artega, Ashraf, and Hasa only men may milk camels or sheep, and these tribes despise the Arab Zebediya, recent immigrants from Arabia, for allowing their women to milk their animals. The Artega, Ashraf, and Ḥasa have few cows, and I do not know what general rules would be applicable to them. There are, in fact, few cattle in the southern part of the Beja country, and they are not held in high esteem. No doubt where they do exist they are a comparatively recent introduction,[2] and this probably accounts for the fact that an Artega who would milk camels and sheep joyfully would not milk a cow. Moreover, the Amara, who formerly had no cattle and have not many now, were said to look upon them with a certain contempt and compare them to hyænas. This feeling does not, however, prevent them milking their cows, nor do the Hadendoa make any difficulty in this matter. No menstruous woman drinks milk lest the animal from which it was drawn should suffer, and the Bedawib say that any infringement of this rule would render sterile both the woman and the animal from which the milk was taken; nor may a menstruous woman drink *semn* (butter). These prohibitions do not extend to parturient women, nor are they enforced against a homicide, nor is milk or *semn* avoided by mourners.

These facts all indicate that milk is not "common" (using the word in its biblical sense) among the present day Beja; it might, indeed, almost be called sacred or sacrosanct. This is also the attitude of the southern Galla in British East Africa, for Miss Werner informs me that the only legitimate receptacle for milk, which may never be boiled, is a basket-work vessel called *gorfa*, nor may the milker drink of the milk he has drawn without first handing the vessel to someone else; when this person has drunk his fill, the milker himself may drink.

[1] *Halab sherab* is Arabic, I believe that in the Tigre language, spoken by the Beni Amer, the equivalent would be

Egale	*nosu*	*halba*	*kasata*	*iti*	*tabaitu*
So and so	himself	milks	drinks	(relative pronoun)	sucks

i.e., So and so draws milk and drinks like a suckling.

[2] The prestige of everything Arabic (as opposed to things African) has already been noted. Strange as it may seem, this feeling extends to cattle, which are more African than Arabian in their association, doubtless because the dry climate of Eastern Arabia is unsuited to them. So it comes about that the Zebediya have camels and sheep and goats, but no cattle. On the other hand, some of the Beni Amer in the neighbourhood of the Eritrea frontier have promising herds of cattle.

Among half-Hamites there are numerous ceremonial observances connected with milk. Gourds are the only vessels in which it may be received or stored. Milk may not be boiled, nor may those that are suffering from wounds or sores drink it. Meat must not be taken for twenty-four hours after drinking milk, or, if meat has been eaten, milk must be avoided for twenty-four hours, and even then must not be taken until some salt and water has been swallowed. If no salt can be obtained, blood may be substituted. Moreover, there are certain animals which should not be eaten if it is possible to obtain other food. A Nandi having partaken of the flesh of one of these animals may not drink milk for at least four months, and then only after having taken a strong purge.[1]

Masai warriors (*il-moran*) will not partake of milk on the same day as meat, always taking a strong purgative before they pass from one diet to the other, so scrupulous are they to avoid bringing milk and flesh or blood into contact. These rules no longer hold when the warrior passes into the next age-grade, that of elder (*ol-moruo*).[2]

The Suk agree that no one would be killed in a hostile kraal if a woman of the kraal poured milk upon the raiders, while a mixture of blood and milk drunk by the claimant to stolen property or other witness will cause the death of a liar.[3]

The Dinka (Shish) have a number of observances connected with milk. Cows should be milked by boys and girls before puberty; in case of necessity a man might milk a cow, but this is not a desirable practice, nor should old men do so even when they are past sexual relations. Menstruating women may not drink milk, though puerperal women may, and although milk is sprinkled upon the graves of the rainmakers, who are killed ceremonially in their old age, the near relatives of a dead man may not touch milk during the first few days after the death, *i.e.*, during the time that they sleep near the grave. This sacred or uncommon character of milk extends to a number of Central and East African Bantu-speaking tribes in whose veins runs much Hamitic blood or who are ruled by a foreign (Hamitic) aristocracy. This is specially the case among the great lacustrine tribes, the Bahima, the Banyoro, and the Baganda. Although all three speak Bantu dialects there is far less dark blood in the Bahima than in any other Central African tribe. Photographs show how unlike the Negro are some of the members of this tribe, whose physical characters are thus described by Frazer. "They are a fine tall race with spare, lithe figures, shapely heads, straight well-carved noses, high foreheads, and thin lips. The neck is long and graceful, which gives the head a light easy poise, very different from that of the Negro with his squat neck. Their complexion, too, is far less dark than his; indeed, it is sometimes a pale or reddish yellow. Their deportment is dignified. In appearance they differ absolutely from the Negro type, and in character they are equally distinct from most Bantu-

[1] Hollis, *The Nandi*, pp. 21 and 24.

[2] J. Thomson, *Through Masai Land*, pp. 429–431, 443. *Cf.* also Hollis, *The Masai*, xvi, 317.

[3] M. W. H. Beech, *The Suk*, pp. 25, 28.

speaking peoples, their uniform apathy, listlessness, and unruffled calm contrasting strongly with the excitability, rapid utterance, and furious gesticulation of other African races. The Muhima (singular of Bahima) is never in a hurry. Pride is the keynote of his character; his ancestors conquered the country some generations ago and he inherits the tradition of the dominant race. All menial labour is done by his slaves, the Bahero or Bairo, who till the ground, build huts, and carry water for their lords and masters. The only occupation which the Muhima deems worthy of him is the tending of the cattle. He loves the huge-horned beasts, which, sometimes vicious with other people, are gentle and docile under his care. He pets them, talks to them, coaxes them, weeps over their ailments, and sometimes commits suicide when a favourite animal dies."[1]

Only the men milk the cows, whose produce is not allowed to stand after noon or to turn sour, and it is not lawful to boil milk or for a menstruous woman to drink it.[2] These folk go even further than the Masai in those customs whose object it is to avoid bringing into contact milk and other foods; thus it is strictly forbidden to eat vegetables and drink milk at the same time, nor may meat be mixed with milk, hence milk is drunk in the morning and beef eaten at night.

The Baganda[3] and the Bunyoro observe somewhat similar customs as regards milk, but in addition the latter keep a special herd for the king's use and a complicated ceremonial described by Frazer was enacted thrice a day when the king drank milk.[4]

Among the A-Kamba, a Bantu tribe living to the south of Mount Kenia between the Tana River and the Uganda railway, there is "a special curse used for a bad wife, the husband draws a little milk from her breast into his hand, and then licks it up, this is a curse which has no palliative, after it the husband can never again cohabit with the woman."[5] I venture to think there can be little doubt as to the significance of this ceremony, especially when it is remembered that in the Hamitic area it is not infrequent for foster children to be looked upon as related to each other in the same degree as blood relations. Thus milk affords as valid a bond as blood, and the ceremony just described can only mean that the husband purposely makes himself of one blood (milk) with the woman and thus cuts himself loose from her for ever.

Among some Gallas and half-Hamites grass is of the same sacred character as milk. Major H. Darley informs me that some Gallas round Gore in Western Abyssinia throw grass towards a lion; this is perhaps only a special example of their habit of throwing grass into the air as a sign of peace, a custom which also

[1] *Totemism and Exogamy*, vol. ii, p. 533. Photographs of the Bahima of German East Africa are given by Max Weiss, *Die Volkerstämme im Norden Deutsch-Ostafrikas* (Berlin, 1910). These seem to show that Frazer's description is not quite of general application, though it agrees well enough with a number of Weiss' figures, especially those of the aristocracy.

[2] Frazer, *op. cit.*, p. 534.

[3] Roscoe, *The Baganda*, pp. 417–419.

[4] Frazer, *op. cit.*, pp. 526–528.

[5] Hobley, *The A-Kamba*, p. 105.

obtains among the Masai.[1] Grass is also of religious importance to the Nandi.[2] No doubt in all these cases the explanation is to be found in the feeling voiced in the Masai saying: "God gave us cattle and grass, we do not separate the things which God has given us."[3]

The Importance of the Placenta, especially of the Royal Afterbirth.

As might be expected there are no records concerning the treatment of the placenta among the ancient Beja, but it is clear that their modern representatives attach considerable importance to the afterbirth. Before proceeding to give the data which justify this statement it will be convenient to refer to the practice in Ancient Egypt. With Miss Murray I have shown that an object having the shape of the placenta occurs as a cult-object upon Egyptian monuments from proto-dynastic to Ptolemaic times, and that its conventionalized form is called the "Inner Thing of the King," or "The Royal Child"; moreover, there is always the closest association between the king and the cult-object.[4] There can then be little doubt as to the importance of the afterbirth in Egypt, and the examination of the evidence suggests that the placenta was regarded as the double, physical or spiritual, of the infant it had nourished.

Returning now to the Beja, the coastal Bisharin hold that it is important for the future welfare of the child that the afterbirth should not be eaten by dogs or birds, it is therefore thrown into the sea or placed in a tree and watched for some days. Probably they ensure its safety by some such method as that employed by the Hadendoa, who enclose it in a basket and tie it in the branches of a tree if they cannot throw it into the stream. The Artega treat the afterbirth in the same way, but some of the Beni Amer bury it some little distance in front of the door of the tent, place a camel saddle over the spot and leave it there for seven days and then, after removing the saddle, they kill a sheep on the spot and make a feast.[5] Considerable importance seems to be attached to the placing of the camel saddle over the placenta, for it was said that if the father did not himself possess a saddle he would borrow one for the purpose.

Among the Arab tribes of the Sudan there are a number of customs which indicate that considerable importance is attached to the placenta. The Dar

[1] Hollis, *The Masai*, p. 289. Other customs concerning grass are given upon pp. 290 and 350.

[2] Hollis, *The Nandi*, pp. 74, 77, 78, 85.

[3] Hollis, *op. cit.*, p. 290.

[4] "Note upon an Early Egyptian Standard," *Man*, 1911, **97**.

[5] This feast was called by the Arabic name *karama*. I do not know how much stress should be laid on the use of this word. Properly it signifies a feast given with piacular intent, at least some of which is distributed to strangers and the poor. Sacrifices made at graves and after dreaming of a deceased parent are *karama*. The importance in the present instance of the exact connotation of the word did not occur to me until after I had left the Sudan, but if my informant used the word with its proper significance in his mind, the ritual character of the treatment of the placenta is enhanced.

Hamid, an important sedentary tribe of northern Kordofan, bury it at the threshold and thrust a green branch of *heglik* into the ground above it. The Gawama bury the placenta in the same way, but the leaf of the *dom* palm is used instead of the *heglik* branch.[1] Mr. MacMichael informs me that among some of the Arab tribes of the Blue Nile District, including the Batahin, the placenta is buried at the threshold with corn, date stones, and a fragment of woven stuff, for preference silk, a palm leaf being thrust into the ground in the usual way. I may conclude this subject by pointing out that I have elsewhere recorded the erection of a shrine over the afterbirth of a saint among a population predominantly composed of Barabra.[2] This occurred at Bara in northern Kordofan.

Among the Bahima of Ankole who form the Hamitic aristocracy of a Bantu state, the placenta is buried under the threshold, the hole dug to receive it being lined with sweet smelling grass.[3] Mr. Roscoe does not mention whether the graves of adults which are dug in the cattle kraal are prepared in this way, but clearly the position in which the afterbirth is buried, as well as the preparation of its "grave," alike show the importance that is attached to it.[4]

Among the Nilotes the maximum amount of Hamitic blood is probably to be found among the Shilluk, and, as already mentioned, men with well formed noses, thin lips, long faces, and high foreheads are by no means uncommon among them. The Shilluk king has a large number of wives, but none of them bear their children in the royal village, for each is sent when pregnant to some other village, where she stays until her child is weaned. Just as the afterbirth of every Shilluk is buried near the hut in which he is born, so the afterbirth of the royal child is buried in that village, where he will live and ultimately be buried, while there was a time before the rise of the present capital, Fashoda, when custom dictated that a prince who succeeded to the throne should make the village in which he was born the capital of his kingdom.

The Dinka bury the afterbirth outside but near the walls of the tukl; among the Shish tribe in the neighbourhood of Shambe the afterbirth is washed and then wrapped in a skin, usually I believe an old garment, in which it is buried. When the child is old enough to understand he is shown the place where his afterbirth was buried, and he will remember this as he grows up. The special interest attaching to this information is that a skin—that of the animal killed at

[1] It is worth noting that at Qurneh, near Thebes, a leaf of the date palm projects from each of the more recent graves in the modern cemetery, its avowed object being to enable the soul of the deceased to find its proper grave. In view of the other evidence adduced, I find it difficult not to connect the two customs.

[2] In an article contributed to *Essays and Studies presented to William Ridgeway.*

[3] J. Roscoe, "The Bahima," *Journ. Roy. Anthrop. Inst.*, vol. xxxvii, 1907, p. 106.

[4] The importance of the threshold is discussed by Professor Frazer in a paper, "Folk-Lore in the Old Testament," in the volume of *Anthropological Essays presented to Sir E. B. Tylor, etc.* As noted by Professor Frazer, "the afterbirth is supposed by many peoples—for example, by the Baganda—to be a personal being, the twin brother or sister of the infant, whom it follows at a short interval into the world" (*op. cit.*, p. 172).

the funeral feast—is used to wrap the body of a man before he is laid in his grave. Probably this is the custom among the majority if not among all the Dinka tribes, it certainly applies to the Agar and the Shish.

Striking as these examples are, they cannot compare with the conditions found among the Baganda, a Bantu people, with kings of predominantly Hamitic blood, among whom the belief in the importance of the placenta was carried to a pitch which, as far as I am aware, is found nowhere else in Africa. Even among commoners the afterbirth was called the second child, and was believed to have a spirit which at once became a ghost, and attached itself to the stump of the umbilical cord (*mulongo*).[1] For this reason the umbilical cord of a prince was treated with the greatest reverence. "On the birth of a prince the umbilical cord is dried and preserved, placed in a pot which is made for its reception, and sealed up; the pot is wrapped in bark cloths and decorated with beads, in olden times with various seeds which resemble beads; this is called the *mulongo* (twin), and has a house built for its abode in the enclosure belonging to the Kimbugwe, the second officer in the country, who takes his seat in all the councils of the state with the Katikiro (Prime Minister). The umbilical cord of the king was decorated and treated as a person. Each new moon, in the evening, it was carried in state, wrapped in bark cloths, to the king, and the Kimbugwe, on his return, smeared the decorated cord with butter, and left it in the moonlight during the night. It was looked after by the Kimbugwe until after the king's death, when it was placed in a special shrine or temple called *malolo*, with the king's jawbone, *lwanga*, which is spoken of as the 'king.' The two ghosts, the one of the placenta attached to the *mulongo* and the other of the dead king attached to the *lwanga*, were thus brought together to form a perfect god, to whom offerings were made in the *malolo*. The *malolo* or temple is entirely different from the tomb in which the king's body is laid; indeed, the *malolo* is built some months after the tomb, often, it appears, at a considerable distance from the latter. The *malolo* is kept in repair by the state, while the interior and enclosure are looked after by some of the widows of the deceased king. Within the *malolo* is a daïs, covered with lion and leopard skins, and protected by a row of brass and iron spears, shields, and knives; behind this there is a chamber formed by bark cloth curtains; here are kept the *lwanga* and *mulongo*, to which the spirit of the dead king is attached, but they are placed upon the daïs, when the departed king wishes to hold his court, or for consultation on special occasions."[2]

The Belief in Otiose High Gods, associated with an Active Cult of the Dead.

Knowledge of the religion of the pagan Beja is almost entirely lacking, and, as far as I can ascertain, Egyptian records supply no clue. The earliest mention of the Beja (Blemmyes) is made by Roman historians, who state that in the third

[1] Roscoe, *The Baganda*, p. 54.

[2] Seligmann and Murray, "Note on an Egyptian Standard," *Man*, 1911, **97**.

century A.D. they took advantage of the decline of the Roman power to ally themselves with the Palmyrenes and invade Egypt A.D. 268. The allies seem to have dominated the country for a few years, and even the defeat of the Beja by Probus only checked their inroads temporarily. Some eighty years later, when the Roman Government was re-established, one of the conditions upon which peace was made was that the Beja should be given permission to visit the temple of Isis at Philae, to borrow her statue and take it into their own country for worship.[1] These rights were not withdrawn until the reign of Justinian, who, by ordering the destruction of the temple, seems to have removed the one object in Roman territory that the Beja really respected, and thus occasioned renewed raids. It is impossible to say how long the worship of Isis persisted, or whether the "idol" of which Makrizi and others make mention represented this goddess, but Procopius[2] states that the Beja worshipped Isis, Osiris and Priapus, and offered human sacrifices to the sun. Moreover, it is recorded in the Life of St. Pachomius[3] (*ob.* 346) that the Beja carried off a monk from the neighbourhood of Panopolis and forced him to worship their "idol." These few statements suggest that the religion of the pagan Beja in essentials may have resembled that of Egypt, but though probable enough it would scarcely be safe to press this view.[4] There is no hint of the cult of those animal gods that so impressed the Greek and Roman historians of Egypt's decadence. On the other hand, the system of shamanism described by Makrizi suggests the existence of ancestor-worship. "These Beja [of the desert of Aidab and Aloa] . . . are still given to idolatry . . . following their priests in all things. Each family has a priest who erects a tent of skins in which he practises his vocation. When consulted he strips himself and enters the tent backwards. He comes out behaving as a maniac or epilept and says: The spirit salutes you and advises you to give up a particular journey for such and such a tribe is about to attack you. . . . When they determine to move their encampment, the priest loads the tent of which I have spoken on the back of a camel which bears no other load. They allege that this animal rises and travels as if heavily laden, and that it sweats profusely although the tent is absolutely empty."[5]

The pagan Galla believe in a high god called Wak,[6] who, as Miss Werner states, is not clearly distinguished from the sky; nevertheless, Wak is frequently addressed in prayer, and Miss Werner considers that more worship is paid to Wak than to the ancestral spirits. The routine worship of the recent ancestors is somewhat as follows:—A bullock is sacrificed on the grave on the day of burial

[1] *A History of Egypt*, vol. v, p. 100.
[2] Quoted by Quatremère, *op. cit.*, vol. ii, p. 133.
[3] Quatremère, *op. cit.*, vol. ii, pp. 130, 131.
[4] It is possible that the adoption by the Beja of Egyptian deities may have been late.
[5] Quatremère, *op. cit.*, pp. 152, 153.
[6] Littmann, *loc. cit.* Miss Werner informs me the correct name is Wain, of which Wak is the genitive.

and eaten by the grave-diggers. Some time later another bullock is killed and all the dead man's relatives are invited to the feast, which is held in a shed specially built for the purpose. Probably this marks the end of the period of mourning. It is customary for anyone who passes a grave to put some tobacco upon it.

The Barea and Kunama, who, according to Munzinger, exhibit no traces of degenerate Christianity such as is found among the Bogos, recognize one god who is lord of the universe. Yet he is not worshipped, nor has he any dealing with mankind. The cult of the dead seems to be of more importance, a special festival is held in November after the harvest, which Munzinger speaks of as a feast of "thanksgiving, propitiation and remembrance of the dead."[1] Every household makes a quantity of beer, and a small pot is set apart for each dead member of the family for a couple of days, after which it is drunk by the living. It is a time of peacemaking, dancing and singing, and only after this feast may wild honey be collected.[2]

All those Nilotic and half-Hamitic tribes concerning whose religious beliefs we have definite information believe in the existence of a high god who, broadly speaking, concerns himself little with the affairs of mankind, the regulation of which is held to depend on man's own efforts, seconded by the spirits of the dead (*atiep* and *jok*), whose benevolent interest is invoked by prayer and sacrifice. Although totemic or other forms of animal cults exist in some of these tribes they do not seem to cause confusion; the totems are on a totally distinct plane to that occupied by the high god, while totemism fuses so readily and logically with the cult of the dead that the two beliefs do not exert any mutually disintegrative action, but rather reinforce and tend to perpetuate each other. Thus, among the Dinka, whose religious beliefs I have described at length elsewhere,[3] the social organization is into a number of totemic clans, and although some of their prayers begin *Nyalich ko Kwar*, "God and our Ancestors," it is the latter that are feared, propitiated and invoked in the affairs of everyday life, and it is to them that shrines are raised, while in some cases in which appeal is made nominally to Dengdit the form suggests that he has been confused with the *jok*. Moreover, even the high god Nyalich, perhaps most often called Dengdit, is believed by the Niel Dinka to have ruled the tribe in human guise long ago, and the Adero clan of this tribe have the rain (*deng*) as their totem.[4]

[1] Munzinger, *Ostafrikanische Studien*, p. 473.

[2] Munzinger, *loc. cit.*

[3] Hastings' *Encyclopædia of Religion and Ethics*, art. "Dinka," vol. iv, pp. 704–713.

[4] The Niel Dinka say that the first ancestor of the clan appeared from the sky as a young woman pregnant with her first child. The people reverentially formed a circle round her, killed bullocks, and then rubbed her from head to foot with the belly fat. Next they built for her a hut without a door. Here, a month later, her child was born, and she called to the people, who brought cattle, which she told them to go and sacrifice. When they came back they found her nursing a marvellous babe with teeth like an adult, and tears of blood. Then the mother said to them: "This is your *bain*, look after him well, for I can stay with you no longer." As she spoke, the rain came down in torrents, and therefore the boy was called Deng (Rain) or

I may continue my brief review of Dinka religion by pointing out that important as is the part played by the ancestral spirits in the every-day life of man, they are not thought to be concerned in the giving of rain, this being a matter for Dengdit or Nyalich himself, who must be approached by the rainmaker of the tribe, who in each generation incarnates the spirit of the great ancestral rainmaker (*cf. infra*, pp. 671 *et seq.*).

Among the Shilluk there is a quite general belief that the spirits of the dead are everywhere, and that sometimes they come to their descendants in dreams, and help them if they are ill or give them good counsel, but this belief does not appear to have given rise to any cult of the dead comparable in intensity with that existing among the Dinka, its place as the working religion of the tribe being taken by the cult of Nyakang the semi-divine ancestor of their kings, in whom his spirit is immanent. The Shilluk think of Nyakang as having been human like themselves, and as having led them to the land they now occupy. He was the first of their kings and the ancestor of their royal house, though unlike his recent successors he did not die, but disappeared during a tempest. His holiness is especially shown by his position in relation to Juok the high god of the Shilluk, who made man and ordered all things. Juok is formless and invisible, and like the wind is everywhere at once. He is far above mankind and Nyakang, and does not concern himself with the affairs of every-day life. Nevertheless, certain of the sacrifices offered to Nyakang by the Shilluk king have no other object than to enable him to move Juok to send rain. Apart from the rain ceremony Juok is scarcely worshipped directly,[1] yet his name occurs in such common greetings as *yimiti Juok*, "May Juok guard you."

Practically nothing is known about the religion of other Nilotic tribes, but I found that the Shir, the tribe living immediately to the south of the Dinka (and not uncommonly confused with the Bari), have a god Long e Ke corresponding to the Dinka Dengdit, and a form of ancestor worship which resembles that of the Dinka. The ancestral spirits (*tilimut*) linger about the village and look after their descendants, but they also send sickness and must be placated with offerings.

Turning now to the half-Hamites, the Nandi have a supreme deity Asis, or Asista, identified with the sun, though, as noted by Sir Charles Elliot in his Introduction to Mr. Hollis' book, we "are led to suppose that he is a benevolent and powerful, but somewhat vague deity."[2] The cult of the dead is much more developed. The spirits of the deceased (*oiik*) protect their living kinsmen, but, as among the Dinka, they also send sickness and the spirit responsible for the disorder must be discovered and propitiated.

Dengdit (Great Rain). He ruled them for a long time and, when he was very old, disappeared in a great storm.

[1] Westermann (*op. cit.*, p. 171), however, gives a prayer to Juok having no reference to rain-making.

[2] *The Nandi*, p. xix.

It is less easy to summarise the religion of the Masai. Naiteru-Kop, "The Beginner of the Earth," who arranged the present order of things, seems a fair representative of the Nilotic and half-Hamitic high gods, but it cannot be said that there is any clear evidence of the part played by ancestral spirits.

The Suk believe in a vague Supreme Being who made the earth and is the universal father, whom most men call Torotut, "the Sky," but some Ilat, "Rain."[1] The account given of the death ceremonies suggests that the spirits of the dead play the same part as they do among the Nandi; some at least pass into snakes.[2]

Among the Bantu-speaking tribes of East Africa the Akamba recognize an impersonal deity Engai, or Mulungu, who lives in the sky, and a host of ancestral spirits, *Aiimu*, who stand in the most intimate relation with the living.[3]

The Cult of Divine Kings responsible for the Production of Rain, when the High God may assume the Form of a Rain God.

The chiefs of the Dinka and the kings of the Shilluk are regarded as beings almost divine, upon whose correct conduct the preservation, or at least the welfare, of their people depends. In fact, they belong to that class of ruler to whom Professor Frazer applies the name Divine Kings, believed to incarnate the divine spirit, and who were periodically killed lest that spirit should suffer from its retention in an ageing body. Every Dinka high chief is killed in his old age, this being done at his own request with all ceremony and reverence. The Shilluk king was also slain by his subjects, nor was his death postponed until, in his old age, he felt that he had done all that he could for his people, but he was killed while still in vigorous middle age directly his wives complained that his generative faculties were weakening. The Wawanga, a tribe of Bantu-speaking Kavirondo of British East Africa, also kill their king, and there appears to be little doubt but that the king is a "semi-divine personage . . . first and foremost, a priest or medicine man. . . ."[4] There is also a somewhat close resemblance between the rite as carried out by the Wawanga and the Shilluk. The custom of king-killing, in a somewhat modified form, is also found among the Banyoro, a people with a foreign (Galla) aristocracy. Their kings had to take their own lives while they were still in the full possession of their faculties and before their bodily vigour was impaired by the ravages of disease. "As soon as the king felt unwell and thought he was about to die, he called his principal chiefs, and, after discussing affairs of state with them in council he went to a private house, where only his chief wife was allowed to visit him. There he asked her for 'the cup,' the poisoned cup . . . and having received it at her hands he drained it and in a moment was dead. . . . If the king

[1] M. W. H. Beech, *The Suk*, p. 19.

[2] Beech, *op. cit.*, pp. 20 and 22.

[3] Beech, *op. cit.*, pp. 85–90.

[4] K. R. Dundas, "The Wawanga and Other Tribes of the Elgon District," in this Journal, vol. xliii, 1913.

faltered, or was too ill to ask for the cup, it was his wife's sad duty to administer the poison. His death was kept secret for a time. . . . The public announcement of the death was made by the chief milkman."[1]

It remains to inquire whether there is evidence that at any time the Egyptian king was ceremonially put to death like the Dinka rainmakers and the divine kings of the Shilluk. It is obvious that nothing of the sort occurred in historic times, yet even at the height of Egypt's power ceremonies were performed which can scarcely be explained in any other way than that they arose at a remote time when the king was not allowed to die naturally, but, after a more or less definite period of office, was sent to Osiris by violence, accompanied by such high ceremonial as befitted so great an occasion in the nation's history.

The *sed* festival of ancient Egypt seems to be a survival of the custom of the ceremonial killing of the king. The essential point of the ceremony was the identification of the king, though still living, with Osiris the god of the underworld, with whom every pious Egyptian was united at his death. The oldest representation of the ceremony which has come down to us is that on the mace head of King Narmer. This shows the king as Osiris seated in a shrine at the top of nine steps and holding the flail commonly held by the god. At one side of the space in front of the king are a number of standards, the first of which is the jackal Upwawat, "the opener of the ways," described on the seal of King Zer as "he who opens the way when thou advancest towards the underworld." This seal shows King Zer as Osiris preceded by Upwawat and the ostrich feather, the emblem of lightness or space, called "the *shed-shed* which is in front," upon which the deceased was supposed to ascend. "Here, then," to quote Professor Petrie,[2] "the king, identified with Osiris, king of the dead, has before him the jackal-god, who leads the dead, and the ostrich feather, which symbolizes his reception into the sky."

Later discoveries do but confirm the suggestion that the great feature of the *sed* festival was the Osirification of the king. No doubt in historic and even in protodynastic times this apotheosis was ceremonial, the king was not killed but continued his reign as Osiris. Nevertheless, it is known that in two cases an Osiride figure of the deified king was treated as a dead king, no doubt in a sense regarded as having died at his *sed* feast. Mr. Howard Carter found buried in a pit at Thebes the seated figure of a king of the dynasty Mentuhotep, represented as clothed in a tunic coming down to the wrists, as in the Osiride figures of Pepi and other early kings.[3] The other example is furnished by the remains found by Professor Petrie in a ruin on the summit of the highest hill of the desert plateau in the immediate neighbourhood of Thebes. These included a fragment of a seated figure of Sankh-ka-ra, a king of the eleventh dynasty, wearing a close-fitting garment coming down and covering the wrist, besides the remains of a sarcophagus

[1] Frazer, *Totemism and Exogamy*, vol. ii, pp. 529–530.
[2] *Researches in Sinai*, 1906, p. 183.
[3] *Qurneh*, 1909, p. 6.

lid with many graffiti upon it. "We must then picture a cenotaph or imitation sarcophagus, with roll moulding, pilaster framing, and a separate lid with cornice, standing freely accessible in the chapel, where there is no trace of a well or tomb pit. And along with it was a seated figure in Osiride dress as worn at the *sed* festival. The limestone cenotaph was not merely a niche or shrine for the figure, or it would not have had a separate lid, well finished at the joint and rough underneath. That lid proves that a cenotaph sarcophagus existed, the inside of which was invisible."[1] It seems that this evidence, all pointing to the Osirification of the king, can have but one meaning, namely, that the *sed* ceremony represents the actual killing and burial of the king which regularly took place in prehistoric times, as it does among the Shilluk at the present day.

One other point may be mentioned as illustrating the close similarity in the Nilotic and Egyptian ceremonies. A representation of the *sed* festival discovered at Memphis in 1909 shows the stuffed or dried arms and chest of a man being carried behind the king. Professor Petrie suggests that these are the remains of a deified king "probably the relic of the king Osiris preserved in the Metelite nome . . . which were used in the investiture of the ruler from early times."[2] Further, "these arms were perhaps at first the actual dried arms of the Osiris-King. . . . In historic ages they were probably a cartonnage model of a chest and arms which were carried to the investiture, and laid on the shoulders of the new ruler to confer the virtue of the royal office."[3]

In support of the suggestion that the divine king may cease to be put to death and yet maintain his importance as priest-king I may refer to the *sim* or priest-king of the Bogos, a pagan tribe of Abyssinia with some 2,000 adult males, of whom about a third are Schmagilli, the descendants of one Gebre Tarke the founder of the nation, and constitute the ruling aristocracy. The Bogos are pastoral Hamites and are described by Munzinger as by no means African (Negroid) in type. Their skin varies in colour from pale yellow to black, their hair, though thick and coarse, is not woolly, and their features are finer and more regular than those of their Tigre neighbours.[4] The *sim* is head of the whole tribe, his office descending in the direct line from father to first-born son, the *sim* succeeding to his new position of dignity after fasting in isolation in his hut and washing his whole body in the water with which his father's body had been washed. Munzinger describes the *sim* as sacred and inviolable, one whose office is

[1] *Qurneh*, 1909, p. 5.

[2] *Palace of Apries*, 1909, p. 10.

[3] *Palace of Apries*, *loc. cit.* Consecration by means of the bodily remains of a great predecessor continued in Egypt to a much later period. Makrizi records that in the month of Shaban, of the year 821, the Venetians carried away from Alexandria the head of St. Mark. "The Jacobite Christians were sorely grieved by this theft, which they regarded as a disaster to their religion. For when the Patriarch was elected he proceeded to Alexandria, where this head was placed in his arms. They were indeed persuaded that without this ceremony his installation was not valid."—Quatremère, *op. cit.*, vol. ii, p. 262.

[4] Munzinger, *Uber die Sitten und das Recht der Bogos*, 1859, p. 68.

a sacrament ensuring a heavenly blessing, an anointed king without royal power, by which he apparently means temporal power, for he goes on to say that in other countries he would have become a real king and considers that only the jealousy of the pastoral nobility has prevented it here. The tribe gives the *sim* a state dress and its members appear to be jointly responsible for his comfort and food supply, while even if he be a poor man his blood is rated higher than that of the proudest noble. Considering that the religion of the Bogos shows traces of Christian influence and the advance in socio-political organization that has been made by the vast majority of the Abyssinian tribes, remembering too that Munzinger's work on the Bogos was concerned predominantly with their social organization and legal customs, it seems reasonable to regard the *sim* as a divine king, and perhaps a rainmaker, although like the priest-king rulers of the half-Hamites he is not put to death by his people.

Having indicated that the rulers of Egypt and the kings or chiefs of the Nilotes and half-Hamites belong to the class of Divine Kings, it remains to consider whether it can be shown that they are also rainmakers, that is to say, are they believed to control the weather so effectively that the due supply of water necessary to the country is dependent upon their actions? It will be seen immediately that there is no doubt as to this in the case of the Nilotes; it is almost as certain for the half-Hamites; but, when considering the powers of the Egyptian king, there are certain special circumstances which must be taken into consideration.

In the first place, Upper Egypt is a country in which rain falls at such uncertain intervals that it plays no part in the economy of the land, its place being taken by the inundation of the Nile. Secondly, our records of the earliest dynasts indicate that these had advanced farther on the road to civilization than any other Hamitic or partially Hamitic people in the African continent. Nevertheless, the great mace head of Hierakonpolis, dating back some six or seven thousand years, one of the earliest monuments upon which is portrayed the king of Upper Egypt, shows his majesty inaugurating irrigation works with a hoe of the pattern still in use. The scene is so interesting and suggestive that I may be allowed to quote Professor Petrie's description: "The main part of the mace is occupied with a record of public works performed by the king. The central figure is the king standing with a hoe in both hands. Before him is a man holding a basket for the earth, and beyond that there has been another man holding a bunch of ears of corn. Above these are the usual standard-bearers of the army, and immediately in front of the king's head is his title—the rosette, and his name—the Scorpion. Behind him are two fan-bearers, and the open country with growing plants. Beyond that is the end of a festal subject, which is the conclusion of the scene before the king. In the upper part are figures in palanquins. . . . Below them is a row of women with long hair, dancing.

"Below the king are represented the irrigation works which he is inaugurating. Two men are engaged in making the banks on opposite sides

of the canal; a third is running forward with a hoe; the attitude with bent knees . . . is drawn from the appearance of a man when running through long grass. Above him is a palm tree growing in an enclosure of reeds bound with cords, like modern Egyptian field-fences. By the side of that is the prow of a boat on the canal. At the bottom, across the canal, stands a hut built of reeds bound with cords. . . ."[1]

There is a fifth dynasty inscription in Wady Maghara[2] which seems to refer to the king Ne-user-ra in his water-supplying capacity. The scene is divided into parts, on one side is the king smiting the enemy; on the other is an enormous water vessel on a stand supported on three ☥ (life) signs. On the vessel are the titles and name of the king, while above it are two inscriptions reading (i) "Lord of foreign lands" and (ii) "He gives cool water."[2]

There is a passage in the inscriptions of the temple of Redesiyeh[3] in which Seti I. describes the digging of the well near which the temple was subsequently built, which suggests that it was the king only that could move "the god" to grant water, but I do not wish to lay too much stress upon this and similar passages[4] since the common style in which the kings of Egypt record their acts lays continual stress on the close relationship existing between them and the gods. Perhaps rather more weight may be ascribed to the address of the court to Rameses II. upon the Kubbân stele, though even here the language is absurdly inflated. "If thou sayest to the water 'Come upon the mountain' the flood comes forth quickly after thy word, for thou art Re in limbs, and Khepri with his true form."[5]

Much better evidence is offered by the stele at Abu Simbel concerned with the marriage of Rameses II. with the daughter of the Hittite king, and this is confirmed by a poetic fragment in the Papyrus Anastasi. The inscription on the stele reads: "Then his majesty took counsel [for] the army with his own heart, saying: 'What are these newcomers like! When there goes not a messenger to Zahi in these days of flood on the upper [heights] in winter.' Then he offered an oblation for [—] and for Sutekh. Then he came [pray]ing, saying: 'Heaven is—and earth is under [thy feet]. That which thou commandest is all that happens. Thou—to make the flood and the cold upon the [heights] . . . which thou hast assigned to me, King Rameses (II.).' Then his father, Sutekh, heard every [wor]d. . . ."[6]

Though the language is obscure it is evident, as Breasted points out

[1] *Hierakonpolis*, vol. i, pp. 9–10.

[2] Lepsius, *Denkmäler*, vol. i, p. 152. I am indebted to Miss Murray for drawing my attention to this scene, as well as for her reading of the two inscriptions.

[3] The village of Redesiyeh is on the Nile, about 5 miles above Edfu. The temple is in the desert, about 37 miles east of the modern village.

[4] Such passages as "Behold the god has performed my petition and he has brought to me water upon the mountains."—Breasted, *Ancient Records*, III, **172**.

[5] Breasted, *op. cit.*, III, **288**.

[6] Breasted, *op. cit.*, III, **423**.

(*loc. cit.* f.n.), that Rameses was disturbed at the difficulties his visitors would have to face owing to their travelling during the rainy season. He accordingly approached Sutekh with an offering to ensure good weather, just as Hatshepshu had made an offering for favourable weather to "Hathor, mistress of Punt," before the departure of the Punt expedition.[1]

Moreover, the account in the Papyrus Anastasi makes the matter clear. The poet imagines the Hittite king sending word to the chief of Kode, presumably one of his vassals, bidding him prepare to accompany him to Egypt. The Egyptian king's power over the "water of heaven" is especially mentioned, and he is clearly regarded as the semi-divine or divine rainmaker.

> "Equip thyself that we may proceed to Egypt,
> That we may say: 'The behest of the god comes to pass.'
> Let us make overtures to Rameses II., L[ife] P[rosperity] H[ealth],
> For he gives breath to whom he will,
> And every country lies at his disposition.
> Kheta is in his power alone,
> If the god accepts not his offering,
> It (Kheta) sees no rain,
> For it is in the power of Rameses (II.), L[ife] P[rosperity] H[ealth],
> The Bull, loving valor."[2]

Taking all these statements into consideration there seems no reason to doubt that, seen from one aspect, the Pharaoh was the "water-expert"[3] for his people, who recognized his power over the weather and logically extended this to the control of the "water of heaven" in those areas in which the rainfall was regular enough to be of importance. As far as I have been able to ascertain there is no record since the early dynastic period of the king inaugurating the irrigation of the land, but there can be little doubt that throughout the historic period the ruler of Egypt was associated with the ceremony which each year initiated the irrigation of the land in the neighbourhood of his capital. Makrizi writing of the time of the Arab conquest says that a virgin in gay apparel was thrown into the river as a sacrifice to obtain a plentiful inundation. 'Amr, the conqueror of Egypt, prohibited this custom, but even in Lane's time a truncated pillar or cone of earth called *aruseh* (the bride) was raised some little distance in front of the dam shortly before the date of the great ceremony. The *aruseh* was washed away by the rising waters, generally a week or fortnight before the dam was cut.[4]

[1] Breasted, *op. cit.*, II, **252**.

[2] Breasted, *op. cit.*, III, **426**.

[3] Magicians supposed to have special control over particular aspects of nature are common among uncivilized peoples. Such men are in a sense departmental experts. Often, as among the Zulu-Kaffir and some half-Hamites (*infra*, p. 674), the expert is merged in the all-round magician or "witch-doctor," having well nigh universal power. No doubt such syncretism had occurred in the case of the Pharaoh, yet, in instances such as that just referred to, one aspect of his many-sided religious activities is isolated for the moment and considered as independent.

[4] E. W. Lane, *Manners and Customs of the Modern Egyptians*, p. 500 (London, 1895).

Norden, writing in 1757, records how "the bashaw and his beys go with a grand retinue to the ceremony of opening the bank,"[1] while Lane refers to a small building of stone which had become a ruin in his time from which the grandees used to witness the ceremony, and he states that it was upon its site that the tent for the officials concerned in the ceremony was pitched.[2]

The following account taken from Lane's work shows the importance of this festival as late as the middle of the nineteenth century:—

"In the afternoon of the day preceding that on which the dam is cut, numerous boats, hired by private parties for pleasure, repair to the neighbourhood of the entrance of the Canal. Among these is a very large boat called the 'Akabeh' . . . painted for the occasion in a gaudy but rude manner. . . . It is vulgarly believed that this boat represents a magnificent vessel in which the Egyptians used, before the conquest of their country by the Arabs, to convey the virgin whom it is said they threw into the Nile. It sails from Boolak about three hours after noon, taking passengers for hire, men and women. . . . It is made fast to the bank of the isle of Er-Ródah, immediately opposite the entrance of the Canal. . . . In many boats the crews amuse themselves and their passengers by singing, often accompanied by the darabukkeh and zummárah; and some private parties hire professional musicians to add to their diversion on the river. . . . In the evening, before it is dark, the exhibition of fireworks commences, and this is continued, together with the firing of guns from the 'akabeh' and two or more gunboats, every quarter of an hour during the night. . . . The fireworks which are displayed during the night consist of little else than rockets and a few blue lights. The best are kept till the morning, and exhibited in broad daylight during the cutting of the dam. . . .

"Before sunrise a great number of workmen begin to cut the dam. . . With a kind of hoe the dam is cut thinner and thinner from the back (the earth being removed in baskets and thrown upon the bank), until at the top it remains about a foot thick. This is accomplished by about an hour after sunrise. Shortly before this time, when dense crowds have assembled in the neighbourhood of the dam on each bank of the Canal, the Governor of the metropolis arrives, and alights at the large tent before mentioned, by the dam. Some other great officers are also present, and the Kádee attends and writes a document to attest the fact of the river's having risen to the height sufficient for the opening of the Canal, and of this operation having been performed: which important document is despatched with speed to Constantinople. Meanwhile the firing of guns and the display of the fireworks continue, and towards the close of the operation the best of the fireworks are exhibited, when in the glaring sunshine they can hardly be seen. When the dam has been cut away to the degree above mentioned, and all the great officers whose presence is required have arrived, the Governor of the

[1] F. L. Norden, *Travels in Egypt and Nubia*, p. 63 (London, 1757).
[2] Lane, *op. cit.*, p. 501.

metropolis throws a purse of small gold coins to the labourers. A boat, on board of which is an officer of the late Wálee, is then propelled against the narrow ridge of earth, and breaking the slight barrier, passes through it, and descends with the cataract thus formed. . . . Just as his boat approaches the dam, the Governor of Cairo throws into it a purse of gold as a present for him. The remains of the dam are quickly washed away by the influx of the water into the bed of the Canal, and numerous other boats enter, pass along the Canal throughout the whole length of the city, and some of them several miles farther, and return.

"Formerly the Sheykh el-Beled, or the Básha, with other great officers, presided at this *fête*, which was celebrated with much pomp; and money was thrown into the Canal and caught by the populace, some of whom plunged into the water with nets, but several lives were generally lost in the scramble."[1]

A tolerably detailed account of the rainmakers of the Nilotic Dinka has been published elsewhere.[2] It must be understood that the Dinka consist of a congeries of tribes, in each of which one man, the *bain*, is supreme head in the politico-religious sphere, and this man is the rainmaker of his tribe.[3]

One Biyordit is the *bain* and rainmaker of the Bor tribe, and he also exerts considerable influence among the neighbouring poorer and weaker Tain Dinka, who have no cattle and live in small and scattered communities among the marshes. The following information was derived from him, and indicates the position of the rainmaker in relation to the high god Dengdit. In each of the eight rainmakers who preceded Biyordit there was immanent a great and powerful spirit called Lerpiu, now immanent in Biyordit, who says quite simply that at his death Lerpiu will pass into his son. Near a hut belonging to Biyordit there is another, constituting a shrine, in which the *jok* of Lerpiu is thought to reside more or less constantly. Within this hut is kept a very sacred spear, also called Lerpiu, and before it stands a post called *rit*, to which are attached the horns of many bullocks sacrificed to Lerpiu. Behind the hut there is a bush of the species called *akoi*, which must not be cut or damaged in any way, but which strangers are allowed to approach without the least ceremony. The *akoi* bush is clearly the least sacred part of the shrine, yet its presence is essential, for the *jok* leaves the hut to come to the *akoi* during the great rainmaking ceremony, and the slight sanctity of the *akoi* at other times is well explained by the absence of the *jok*.

[1] E. W. Lane, *op. cit.*, pp. 501–503.

[2] C. G. Seligmann, art. "Dinka," in Hastings' *Encyclopædia of Religion and Ethics.*

[3] Not every man called *bain* is a rainmaker, for the men commonly spoken of as the "chiefs" or "sheykhs" of the Dinka tribes are often called by this name. In spite of this, there does not appear to be any tendency for village chiefs to attempt to emulate the rainmaker, or for quack practitioners to appear, for the successful rainmaker has within him the spirit of the great rainmakers of the past, and all recognize the futility of competing with him. Further, the existence of a powerful and successful rainmaker naturally leads those who live within his sphere of influence to leave all such matters to him. Although the authority of a *bain* is so great as to be practically absolute, I heard of an instance in which it had been disregarded. A *bain* foretold the defeat of his people at the hands of the Government and entreated them not to fight, yet his people fought and were defeated.

Central shrines such as that described, whereat the most important ceremonies including rainmaking are held, exist among all the Dinka tribes. That of the Shish tribe is at Lau, in the Bahr -el-Ghazal province, and the name of the spirit immanent in their rainmaker is Mabor. It was obvious that to the Shish of Shambe (some miles from Lau) the personality of the rainmaker was entirely submerged in that of the spirit immanent in him, so that, when they spoke of Mabor, the dominant idea in their minds was that of the ancestral spirit of this name working through the body of the man in whom it was immanent.

The rain ceremony consists of a sacrifice made in the spring (about April), when the new moon is a few days old. It is avowedly made to the great ancestral spirit which is believed to be immanent in the *bain*, in order to move Dengdit to send rain. The following outline of the actual proceeding was obtained from Biyordit and some of his old men. In the morning two bullocks are led twice round the shrine, and are tied to the *rit* by Biyordit; then the people beat drums, and men and women, boys and girls, dance round the shrine. Nothing further is done until the bullocks urinate, when everyone who can get near the beasts rubs his body with the urine, after which all except the old men go away. Presently the bullocks are killed by Biyordit, who spears them and cuts their throats. While the sacrifice is being prepared, the people chant, "Lerpiu, our ancestor, we have brought you a sacrifice, be pleased to cause rain to fall." The blood is collected in a gourd, transferred to a pot, cooked, and eaten by the old and important men of the clan. Some of the flesh of one bullock is cooked with much fat and left near the *akoi* for some months, yet it is said not to smell unpleasantly, and is ultimately eaten by people who have no cattle of their own. The food left near the *akoi* is said to be for the *jok*, the meat from the other bullock is eaten on the same day. The bones of the sacrifice are thrown away, but the horns are added to those already attached to the *rit*.

Among the Shir the *matat* corresponds in function and power to the Dinka *bain*, and like the latter has immanent in him an ancestral spirit which passes from rainmaker to rainmaker. In spite of this I obtained the impression that less confidence was shown in the *matat* than in the Dinka *bain*, the former seemed more mercenary and to have more of the instinct of the magician making his clients pay for the benefits he conferred, and less of the righteousness of a spiritual ruler standing in well defined and inviolable relation to the highest powers. Thus, although I spent more time among the Dinka than among the Shir I never heard a hint of a Dinka *bain* withholding rain, or of it being necessary to threaten him. On the other hand, among the Shir one of the first facts learnt about the rainmaker is that he may withhold rain in order to extort cattle. The *matat* is supposed to hold back the rain by burying a gourd filled with water under the floor of his house and when the rainy season is late he is charged with being responsible for the delay and is threatened with the loss of his possessions and the death of his children and even of himself if he does not bring the rain. He will then dig up the gourd and hurl it on the ground so that it breaks and the water it contains

is spilt. As he does this he prays. If rain does not fall soon the people say that it must be another man who is keeping back the rain. Not much could be learnt concerning the actual rain ceremony. It was said that the *matat* cuts the throat of a black he-goat or sheep, splits the animal down the front, and pegs it out on the ground; then water is poured upon the body, which is subsequently eaten.

The chiefs of the Bari are also rainmakers, and the attitude of their people towards them seems much the same as that of the Shir to their rain chiefs. Accounts of Bari rainmaking have been given by Mr. F. Spire[1] and by Captain Jennings Bramly.[2] Both authors lay stress on the precarious position of the rainmaker who cannot produce rain at the proper season. Thus Spire notes that previous to the British occupation it was the custom to kill or severely punish an unsuccessful rainmaker,[3] while Jennings Bramly writes: "As to rainmakers, of course, the chief who lives near a hill has a greater reputation than he who lives in the plain. The position of a rainmaker is precarious, however; he has great power as long as the rain behaves within bounds, as he can always get more goats slaughtered up to a certain amount and feast upon them. But there comes a time when the need is too great, and he is given a last chance. Then an ox, if they can afford it, is slaughtered and a great feast prepared, and some of the blood with some round pebbles is put in one of the hollowed stones used by the women for grinding corn. This is left on one side, I presume as an offering to some higher power. The feast is held with much drumming; at its conclusion, on a given signal, amid dead silence, all retire to their huts, and not a sound is made till morning. If no rain comes in three weeks from that day the rainmaker is killed. . . ."[4]

Among the Shilluk the position of the king as rainmaker is less frankly obvious on account of the great amount of centralization that has occurred in both the politico-economic and religious spheres. Probably this people is the best organized in the Anglo-Egyptian Sudan; the king is absolute head of a state divided into districts, each administered by a chief directly responsible to the sovereign and acting as his proxy. Nevertheless, there can be no doubt that the king is responsible for the due supply of rain to his country, and on consideration it will be seen that his position is essentially similar to that of the Dinka rainmakers. Like them he is a "divine king" who in due course is killed ceremonially; like them he has within him the divine or semi-divine spirit of a great ancestor,[5] and it is through his influence that the latter moves the high god Juok to send the rain. This is shown by the part taken by the king in the great rainmaking ceremony held at

[1] "Rainmaking in Equatorial Africa," *Journal of the African Society*, No. XVII, October, 1905.

[2] "The Bari Tribe," *Man*, 1906, **65**.

[3] *Op. cit.*, p. 19.

[4] *Op. cit.*, p. 102.

[5] A short description of the ceremony by which the spirit of the semi-divine Nyakang is transmitted to the king-elect will be found in my paper, "The Cult of Nyakang and the Divine Kings of the Shilluk." Other details are given by Westermann, *op. cit.*, pp. 124, 125.

Fashoda. The king gives a cow and a bullock to Nyakang; the cow is added to the herd belonging to the shrine, and the bullock is slain by one of the guardians of the shrine before the door with one of the sacred spears, the king standing near the beast shouting his prayer for rain to Nyakang and holding a spear pointing upwards in front of him. As much blood as possible is collected in a gourd and thrown into the river, and the same is done with the bones after the meat has been eaten by the guardians. Much of the dura preserved in the shrine since the beginning of the last harvest is used in making the *merissa* which is drunk at the ceremony. Incomplete as this account is, it shows the predominant part taken by the king. Moreover, the guardians of the shrine of Nyakang at Fenikang, own capital of Nyakang, say that the king should himself come to their village to perform the rain ceremony. In spite of this the usual practice is for the king to send the necessary animals and to allow his part to be performed by a substitute.

Turning to the half-Hamites, it may be said that we lack detailed information concerning the religion of any one of their tribes, but it is nevertheless possible to determine that their chiefs are rainmakers. Thus, among the Masai the *laibon* (medicine-man) or *ol-oiboni* is paramount chief. Of Lenana the present *laibon*, Hollis says, "All Masai acknowledge him as their lord and pay tribute to him,"[1] while of the Nandi he writes: "The *Orkoiyot*, or principal medicine-man, holds precisely the same position as the Masai *Ol-oiboni*, that is to say, he is supreme chief of the whole race. He is a diviner, and foretells the future by such methods as casting stones, inspecting entrails, interpreting dreams, and prophesying under the influence of intoxicants. He is also skilled in the interpretation of omens and in the averting of ill-luck. . . .

"The Nandi believe implicitly in the powers of their *Orkoiyot*. They look to him for instruction when to commence planting their crops; he obtains rain for them, either direct or through the rainmakers, in times of drought; he makes women and cattle fruitful; and no war-party can expect to meet with success unless he has approved of the expedition."[2]

The Position of the Body in the Grave.

The form of burial adopted by the predynastic Egyptians was in the flexed position with the body lying on the side, all manner of necessities and luxuries being buried with the deceased. It is, no doubt, somewhat bold to regard this so-called "embryonic" position as peculiarly Hamitic, yet in spite of its wide distribution and the paucity of information concerning the methods of burial in the Hamito-Semitic zone, there are certain striking coincidences which cannot be passed over as insignificant. In this connection it is important to remember that Egyptian evidence shows that a method of burial may be changed somewhat suddenly without any alteration in the essential religious ideas of the

[1] *The Masai*, p. 326.

[2] *The Nandi*, p. 49. Captain M. Mercker, who is quoted by Professor Frazer (*Lectures on the Early History of Kingship*, pp. 112–114), gives a similar account of the Masai chief.

people; necessities and luxuries are still buried with the corpse, there is, indeed, an exaggeration of the care bestowed upon it, when the flexed position gives place to the extended and painted coffins and elaborate monuments are substituted for skins or mats.[1] The Desert people, whose burials we know as "pan-graves," retained the flexed position until the time of the Middle Kingdom,[2] and it persisted at least as long in Nubia.[3]

Coming to the present day, the Beja of the Sudan, the Somali, and the Danakil, have all adopted the Mohammedan method of burial. This is not the case with the Galla, who lay the body on its side, but Paulitschke[4] does not record whether the body is flexed or extended, though he notes that food and drink and the greater part of the valuables of the deceased are buried with him. Miss Werner informs me that the Galla of British East Africa bury in a contracted position, the corpse being tied in this posture, but inhumation is in the squatting, not the lying posture. Burial in the embryonic position occurs among the Nilotes, and is practised, I believe, by the Shilluk, and certainly by the Shish Dinka. The latter wash the body and shave the head; the skin upon which the corpse has been lying is placed in the grave and the body is laid on it resting on its right side with the knees and arms flexed, the head resting upon the right hand. Care is taken in arranging the skin to protect the ears so that earth may not get into them, indeed, a special piece of skin may be laid over the upper ear for this purpose.

The rarity of burial as a method of disposal of the dead among the half-Hamites makes it impossible to adduce evidence concerning them, but among the Bantu-speaking Akikuyu, whose physique and social organization resemble that of the half-Hamites, and who, like the latter, rarely bury their dead, burial, when it does occur, is on the side in the flexed position, and is "reserved as a mark of honour for a man who is old and rich, and has, in the ordinary course, at least two grown-up sons to perform the necessary rites. If a man is very rich he would be buried, even if he had no grown-up children, four old men performing the ceremony. A woman of very advanced age is also entitled to burial, because 'she would have much intelligence.' . . . The old men choose the site of the grave, which is outside the door of the hut. . . . The grave is nearly square in shape, only slightly inclining to the oblong. The body is placed on its side, with the knees bent and drawn up. The head rests, if a man, on the palm of the right hand; if a woman, on the palm of the left, or it may be placed on the two hands placed together, palms facing. . . . The whole is folded entirely and tied up in the clothes usually worn, so that not even the head is visible; the oxskin, or other bedding of the deceased, is either also used for this purpose or put first in the grave. The ornaments are taken off and put in the grave separately."[5]

[1] It is not relevant to the present argument to discuss how far this change may have been due to foreign influence.

[2] *Diaspolis Parva*, pp. 45, *sqq.*

[3] *Archæological Survey of Nubia*, Bulletin No. 4, pp. 8–13.

[4] *Op. cit.*, I, p. 204.

[5] W. S. and K. Routledge, *With a Prehistoric People*, pp. 170, 171.

The inhabitants of the lacustrine kingdoms of Ankole and Unyoro also bury in the flexed position; the Bahima commit their rulers to the village manure heap, commoners are buried at the door of their huts, but in both classes the arms and legs are doubled up against the body, which lies on its side, and the head is bent forward.[1] The Banyoro place the body on its left side, with legs and arms flexed, and the hands under the head.[2] The Baganda do not bury in the flexed position.[3]

So much for the positive evidence; the negative evidence, though very incomplete, to a certain degree supports my argument. The least contaminated Nuba, those of southern Kordofan, do not bury in the flexed position, neither did the tall Negroids who came into Nubia under the later Ptolemies or during the early Christian period,[4] while Dr. Derry's photographs of tall Negro or Negroid burials from Jebel Moya, near the Blue Nile, show that the extended, as well as the flexed position was in use.[5] Holding as I do that the Negroids who came into Egypt were probably related to the Nuba of Kordofan, and that the folk of Jebel Moya certainly were, each of these facts supports the other.

Continuing southwards and westwards from Dar-Nuba so as to skirt the country of the Nilotes the evidence is all against burial in the "embryonic" position by the mesaticephals of Equatoria. The Azande are buried in a lying or sitting posture; moreover, when a king dies many of his wives are thrown alive into his grave to form a carpet for his body, their limbs being first broken to prevent them struggling. The Bongo inhume in a squatting position.[6] A Lendu chief is buried in the floor of the hut in which he has formerly lived. The body is made to take a sitting position by means of cloth wrappings.[7] In some parts of the Congo (north-east) burial is in a square pit dug in the house, the body being placed in a sitting position with the arms folded and wrists fixed to the shoulders. When the pit is filled in, the grave is sprinkled with ox blood or beer.[8] These examples seem to indicate that the shorter, copper-coloured tribes to the west of

[1] Cunningham, *Uganda*, p. 10.

[2] Cunningham, *op. cit.*, pp. 30–31.

[3] J. Roscoe, *The Baganda*, p. 119. The Baganda and the Banyoro, but not the Bahima, sacrificed numerous human victims at the burial of their king. Roscoe speaks of "hundreds" (*op. cit.*, p. 107) being slaughtered, and the account given by Baker of the funeral of Kamrasi King of Unyoro (*Ismailia*, p. 316), shows that a large number of people perished. The fact that the Bahima, whose non-Negro physical characteristics have been alluded to (*supra*, p. 657), do not provide human victims at the death of their rulers, whereas the more Negroid Banyoro and Baganda do so, is an additional argument in favour of the view already set forth (pp. 636, 637, f.n.) that the "customs" of West Africa and other wholesale slaughterings are Negro and not Hamitic in origin.

[4] *Archæological Survey of Nubia*, plates accompanying vol. ii, cf. Plate vi, Figs. e, f, g, h.

[5] In the middle and northern Nuba zones (*cf.* p. 621, f.n.) there is much variety in the position of the body, which is squatting at Jebel Tiema and Jebel Katla Kurun (Anderson). Some of the "Nuba" of Northern Kordofan who formerly buried on the side in the flexed posture now bury in the extended position.

[6] Schweinfurth, *Heart of Africa*, vol. i, p. 303.

[7] Johnston, *Uganda Protectorate*, vol. ii, p. 554.

[8] Wallis Budge, *Osiris and the Egyptian Resurrection*, vol. ii, p. 110.

the Nilotes, who have been subject to less Hamitic influence than their eastern neighbours, do not bury in the embryonic position.

Having discussed the distribution of the beliefs and customs set forth under the seven headings on p. 649, I may now consider the parallelism of the evolution of politico-social organization as it exists on the White Nile at the present day, and as it seems to have developed in predynastic Egypt. From what has been said when dealing with animal cults of ancient Egypt it may be assumed that in these early times there were a number of communities, of the same stock and in the same relatively early stage of civilization, extending along the banks of the Nile from the head of the delta to the neighbourhood of the First Cataract.[1] It must be borne in mind that the people now under discussion are not the Egyptians known to history but "naked, half-savage peasants,"[2] "great hunters, as well as skilful fishermen," whose industries "may have resulted in rudimentary commerce."[3] It may be assumed that these communities at times fought among themselves, but on this point we have no evidence. There is, however, no doubt that towards the end of the predynastic period they were capable of combination, and the fragment of a slate palette now in Gizeh Museum shows a number of them united in attacking the walled cities of an enemy.[4]

Attackers and attacked are alike represented by signs, the majority of which also occur as standards. The besieging force is represented by a hawk, two hawks upon standards, a scorpion, and a lion, each holding a pick with which he is destroying the crenelated walls of the cities. The defenders, too, are indicated by signs representing a long-legged bird, perhaps a heron, an owl, a "reed," a building of conventionalized and heraldic form and an unusual form of the *ka* sign. No doubt, as first suggested by Professor Petrie,[5] this represents "the conquest of seven Egyptian towns by various other tribes or towns whose emblems are figured attacking them." It is tempting to suggest that we have here an early stage in the confederation of the communities which later became the nomes, the Scorpion nome under its Scorpion king having not yet emerged as leader. In any event it cannot be doubted that at this early period some at least of the units represented

[1] The labours of the members of the Archæological Survey of Nubia indicate that peoples of the same stock extended into Nubia much farther south, and some at least of these were sufficiently "Egyptian" to bury typically predynastic Egyptian objects with their dead (*cf.* especially Bulletin No. 7, pp. 13, 14, recording the contents of Grave 1 of Cemetery No. 137), but this southward extension of the predynastic race need not be considered in the present argument.

[2] Erman, *A Handbook of Egyptian Religion*, p. 6.

[3] Breasted, *History of Egypt*, p. 30.

[4] This slate probably comes from Abydos. Papers by Mr. F. Legge and Professor Petrie describing and discussing this and other palettes of the same period will be found in the *Proceedings of the Society of Biblical Archæology*, vol. xxii, 1900, pp. 125–141. Mr. Legge's paper is illustrated by photographs of seven specimens. All these, and one more, are reproduced in *Man*, 1900, Plates B, C, D.

[5] "Note on a Carved Slate," *Proc. Soc. Bibl. Arch.*, vol. xxii, 1900, p. 140.

by animal standards were accustomed to work together to a common end, for in the fragment of a palette now in the Louvre, five standards ending in hands are represented as pulling upon the same rope. These standards are jackal, jackal, hawk, hawk, and a sign which is apparently that which later became known as the attribute of Min of Koptos.

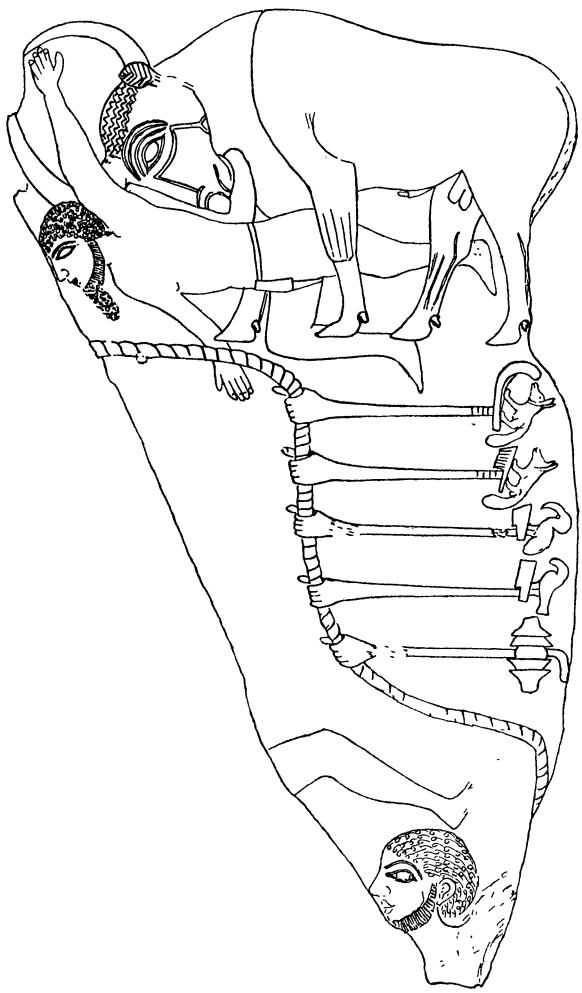

FIG. 2.

Breasted argues that there were probably some twenty communities, states or tribal units of the kind described distributed along the Nile in Upper Egypt,[1] to be united after many years, perhaps centuries, under the Scorpion king who ruled at Hierakonpolis, and to whose mace-head reference has been made. We do not know nor can we ascertain the number of these early kings who, with their colleagues

[1] *History of Egypt*, p. 31.

and rivals of the North, were spoken of by the later Egyptians as the "worshippers of Horus," semi-divine, half-mythic figures whom Manetho simply calls "the Dead."

The next step was the union of the North and South under Menes, whose successors welded the kingdom into that stable organization under the firm central control of the king which is the prominent feature of the Old Kingdom.

Turning to the Nilotes of the Sudan and the natives of Uganda we find peoples in whom we see clearly those main stages of development which, as outlined above, we can determine to have been traversed by the Egyptians. We are still dealing with peoples who, like the early predynastic Egyptians, might be described as "naked savage peasants," hunters, and fishermen.[1] Further, as has been remarked, the Nilotes show no inconsiderable admixture with that foreign (Hamitic) blood which ran pure or almost pure in the veins of the predynastic Egyptians, as it does at the present day in those of the southern Beja. The Baganda, though they have absorbed less of this blood, are, or were, ruled by a royal family, traditionally immigrant from the north, who belonged to a race of predominantly Hamitic stock. Lest it should seem that I am inclined to lay too much stress upon what after all may seem a comparatively small proportion of foreign blood in a large Negro population, I may once more refer to the type of Shilluk whose photograph is reproduced in Figs. 1 and 2 of Plate XXXVIII. I would point out that there is reason to believe that a comparatively small number of foreigners carrying a superior culture may impose some at least of the features of that culture on people of inferior race, even though the mass be too large to be influenced considerably in physical characters.[2]

If the actual socio-political conditions of the Nilotes be examined we find that development has taken place upon the same lines as those along which Egypt travelled. Everywhere dulled by Negro blood this progress has reached different stages among the tribes; nevertheless, the line of development seems to have been identical in the two peoples, and although on the material and technological side the Nilotes everywhere show marked inferiority to even the protodynastic Egyptians, it cannot, I think, be denied that the magico-religious ideas and practices of the two peoples agree to a remarkable extent. Moreover, the "drag" imposed by the large amount of Negro blood in the mixed Negro-Hamitic populations under consideration has varied in degree, and it is probably not an

[1] I purposely retain the language of Breasted and Erman lest I should be accused of unduly glorifying the Nilotes or of belittling the Egyptians, nevertheless the epithets applied to "native" peoples need not always be construed too literally; as far as I can determine there is no evidence that the predynastic Egyptians went naked, and though the males of the Dinka and of the Shilluk do not wear even a loin cloth, their women are clothed, as are both sexes of the Baganda.

[2] In support of this statement, which I believe holds good for a far greater area than Africa, I would cite from Melanesia the difference in culture of the Northern and Southern Massim, and in India the spread of Aryan beliefs and customs among the Dravidian and other non-Aryan tribes.

accident that the most advanced and stable socio-political organization existing among the Nilotes is to be found among the Shilluk, the people in whom the proportion of Hamitic blood is largest. The following brief summary of the political and social condition of the Nilotes will make clear the stages of development reached by the more important peoples.

The Dinka consist of a congeries of autonomous tribes often at war with their neighbours and each ruled by a rainmaker, who incarnates a divine or semi-divine spirit, and in his old age is ceremonially killed, in order to secure the continued prosperity of the country. All the Dinka tribes are totemic, and their religion consists of the cult of a high god and ancestral spirits. As far as can be determined, no one tribe or chief has ever risen or attempted to rise to a predominant position, nor is there any evidence that neighbouring Dinka tribes have tended to coalesce even when inhabiting areas in which identical geographical conditions exist.

The Bari are less well known than the Dinka. Sir Samuel Baker, who visited the country in 1871, *i.e.*, before the Dervish troubles, speaks of the Bari as having many independent sheykhs and none paramount,[1] so that at first sight it would appear that the political organization of the Bari resembles that of the Dinka. Nevertheless, Mr. E. B. Haddon, who has specially studied this matter, has adduced evidence to show that a good deal more centralization has gone on among the Bari than among the Dinka.[2] According to native legend the Bari came into the Nile valley as the result of the fission of an old Beri-Bari tribe. Later there were further divisions, as a result of which the Mundari, Shir, Nyefu, and Fajelu tribes were formed. There always have been among the Bari a number of exogamous divisions, each with special cattle marks, but Mr. Haddon was unable to obtain proof of the existence of totems. After these movements a process of centralization went on among the Bari. The various clans divided the country amongst themselves, the head of each clan being the ruling chief in each community, so that the whole country was divided into districts governed by *bonun*, but under the chief of the Bekat clan, who was principal rain-chief (*mata*) or "king" of the Bari. At one time a number of kindred tribes speaking Bari or one of its dialects, viz., Nyefu, Fajelu, Mundari, and Shir, were dependent on the Bari *mata* for rain.[3] Centralization has proceeded still further among the Shilluk, whose king, the supreme temporal and spiritual head, rules a united nation of some 50,000 souls from his capital, Fashoda. In each king the spirit of the semi-divine Nyakang, the legendary founder and first ruler of the Shilluk nation, is incarnate. Totemism does not exist among the Shilluk, nor is there any definite clan organization, though it is believed that the royal line sprang from animal ancestors. The country is divided into a number of districts, each administered by a chief responsible to the king, whose place he takes in such

[1] *Ismaïlia* (London, 1879), p. 115.

[2] "System of Chieftainship among the Bari," *Journ. African Soc.*, No. XL, vol. x, 1911.

[3] E. B. Haddon, *op. cit.*

important religious festivals as the rain and harvest ceremonies, offerings for which are, at least in theory, provided by the king, who should himself officiate at the more important shrines. Probably much the same development might be traced among the half-Hamites as among the Nilotes, indeed, I believe that consideration of the facts and the writings of the authors quoted in this paper would make this clear, but, as even less is known concerning the religious and social organization of the former, it does not seem worth while to seek formally to establish the parallelism.[1]

From the brief summary given of the conditions of the Nilotes it will be evident that the political evolution of the Dinka may be regarded as corresponding in a certain measure to that stage of development of predynastic Egypt in which a series of communities of kindred stock extended along the banks of the Nile. Perhaps the Bari represent a stage somewhat anterior to that which seems to be recorded on the slate palettes, when warfare was conducted by allied communities and led to the condition of centralization which is known to have existed under the Scorpion King. But whether a parallelism such as I have sketched be admitted or not, I think the facts adduced leave no doubt as to the close similarity in social and religious organization of the late predynastic and protodynastic Egypt and the Shilluk kingdom as it exists at the present day. To my mind there is a surprising similarity in the position of the Shilluk kings and of the protodynastic rulers as we can reconstruct it from the monuments, and this resemblance is greatly strengthened if, as suggested on p. 665, the view be adopted that the king of Egypt was ceremonially killed as are (or were) the Shilluk kings and Dinka rainmakers.

There is, too, a closer parallelism between the animal gods of Egypt and the divine or semi-divine ancestors of the Shilluk than is at first apparent. Differences in degree, if great enough, are scarcely distinguishable from differences in kind, so at first sight the countless animal-headed gods of the Middle Kingdom or the New Empire seem to stand apart from anything existing in Africa at the present day. Yet in the earlier periods such representations were uncommon, so that it is easy to give a list of at least the best known examples. On the palette of Narmer there is a woman's head with cow's horns and ears; the Sphinx is now usually attributed to Khafra (and even considered his portrait). A lioness-headed woman is figured by Borchardt from a bas-relief of the fifth dynasty, and he also reproduces fragments showing the king as a lion trampling on his enemies. The upper parts of the figures are destroyed, but, as Miss Murray suggests, the lion had a human head as on the chariot of Thothmes IV. I do not recall animal or human figures carved by the northern Nilotes, but there is a tradition concerning a wooden image of Nyakang, and the Shilluk certainly believe in divine or semi-divine beings part animal, part

[1] It may be pointed out, however, that while there is the closest resemblance in the social organization, habits, and customs of the Nandi and the Masai, the former are certainly totemic, while of the latter it can only be said that they are divided into a number of exogamous clans, and that totemism may be suspected.

man. According to one account Nyakang was himself half crocodile, while legend states that crocodiles, hippopotami, and other wild beasts were turned into men at his will. His sister Nikaiya or Niyakai still lives in the river in crocodile form, though she appears in human guise from time to time, when she is known by the way she mouths her words. Sometimes her appearance brings good luck, at other times she comes to carry off victims for her crocodile friends in the river. The Shilluk kings still appear in animal forms, especially in the vicinity of their grave-shrines, and some fifty years ago Nyakang was himself recognized as a white bull to which sacrifices were made.

In further confirmation of what I have said, let me point out that just as Osiris in one aspect was the first king of Egypt and its culture hero who taught men useful arts, so Nyakang was the first ruler of the Shilluk who gave them their laws and customs, and to this day, when the Shilluk king is installed, the wooden effigy of Nyakang is brought from its shrine and placed upon the royal chair before the new king takes his seat.

In view of the great area concerned in this inquiry and the various stages of development of the peoples considered, remembering also the ethnic and religious floods by which it has been submerged, either partially or completely, since the time—some six thousand years ago—of the proto-Egyptians, I do not hesitate to suggest that the customs and beliefs examined show such a substantial agreement as can be explained best by the assumption that the peoples discussed either represent the descendants of that stock which gave rise to the proto-Egyptians or have been permeated by its influence. If this be agreed, it is permissible to seek to reconstruct the early Hamitic culture from those ideas and customs which are common to Hamites, half-Hamites, and Nilotes. A common measure of these can be stated, and this may be considered to outline the beliefs of the early Hamites.

Proceeding on these lines it may be said that the Hamites were a pastoral people with matrilineal descent, perhaps totemistic but certainly given to animal cults. If they were totemistic, then the marriage of near kin which we know occurred, and still occurs in some of their descendants, may indicate a comparatively late stage in their development, and may have been induced by socio-economic factors such as I believe are responsible for the "best" Arab marriage, viz., that of a man with his paternal uncle's daughter. Circumcision was practised, as was clitoridectomy or some similar operation. The cult of the dead was of special importance, but with this was combined the worship of a god dwelling in, or identified with, the sky, who gave the rain without which the cattle would perish and mankind would starve. The importance of cattle probably gave rise to the beliefs which are indicated by the holy or sacrosanct character of milk and grass.

Excepting only in those rare districts where grass and water are superabundant pastoral people are ever patriarchal, in the sense that there must be an absolute ruler in each community, whose word is law in all that concerns the cattle; so

the wise senior, who during a long term of years had led his people to clean and abundant pasture, might come to be regarded as having a special influence with the god of the firmament. Thus the god in the sky, or identified with the sky, would tend to assume the form of a rain-god and his arch-servant to become a rainmaker. The killing of the rainmaker or divine king can perhaps best be understood in connection with the yearly renascence of vegetation on the lines advocated by Professor Frazer; in any case this custom seems to have had a perfectly definite place in early Hamitic practice. In relation with this it may not be amiss to refer to the East African (Hamitic) custom of age-grades each with its own chief, or chiefs, who take charge of the country for a given time, but this matter is at present so obscure that I do not care to do more than indicate the possibility of some connection. The idea of a spiritual double seems widespread in the Hamitic zone,[1] and I have little doubt that in this idea lies the explanation of the care taken of the placenta, which seems to be considered as the double of the child, with a spirit of its own essentially similar to the child's soul or spirit. The dead were buried in the "embryonic" position, *i.e.*, lying on the side with the limbs flexed and the head bent forward.

[1] Perhaps going back to the undivided Hamito-Semitic period, the common Semitic idea of the guardian angel may be connected with the double, and to this day the Egyptian Fellahin who speak of the double as *qarina* (partner, companion) tend to confuse it with the *shaitan* that follows man through life.

APPENDIX I.

HADENDOA SKULLS.

Skull No. I.

Complete cranium with mandible, the left ramus of the latter missing. Fragments of scalp found with this showed that hair was wavy. Skull rather long, moderately narrow (C.I. 75·6). There is cracking and bulging outwards of left side of skull in region of parietal boss which makes the transverse diameter not quite certain, though the measurement given can be scarcely more than a couple of millimetres out. The posterior third of the sagittal suture lies in a broad shallow depression. No occipital bulge.

Face not broad, orbits large and rounded in general form, supraorbital ridges absent, the supraorbital notch is so slight that it can only be said to be indicated. Nasal bones well developed, the aperture of the nose does not suggest Negro influence, though on the right side the rima is somewhat deficient.

Jaw not heavily built, chin moderate, ascending ramus short and broad, edge of ramus at angle not turned out, but on contrary rather slopes inwards. Angle rounded to so considerable an extent that at first sight it almost looks as if it had been pared away. Sigmoid notch broad, moderately shallow. Coronoid process moderately developed.

To sum up, a rather slightly built skull, not of the extreme proto-Egyptian type, but suggesting Negroid influence.

There is nothing heavy or "square" about the face or jaw.

Skull No. II.

Complete skull with mandible. Moderately broad and well filled (C.I. 75). No occipital bulge.

Face not broad, orbits tend to be angular and elliptical rather than circular, supraorbital ridges slight, foramina present.

Nasal bones well developed, rima at base of nostril very slightly developed, some subnasal prognathism.

Jaw moderately stoutly built, chin well developed, ascending ramus short and broad, angle not turned out. Sigmoid notch broad, shallow but not excessively so. Coronoid process moderate.

The strongest built and best filled skull of the series.

Skull No. III.

A moderately short and broad cranium (C.I. 76·3), the mandible is missing, there is slight flattening of the upper surface of both parietals, there is no bulging in the occipital region. A few hairs adhering to the surface of the skull show that the hair was wavy or curly.

Face: this suggests Negro influence, there is distinct prognathism, the nasal aperture is broad for its height and there is no rima separating the floor of the nasal cavity from the canine fossa. The brow ridges are very slight, the supra-orbital notches are represented by foramina, the orbits tend to be rectangular and their longitudinal axes are somewhat oblique.

Skull No. IV.

A long narrow "coffin-shaped" skull (C.I. 72·3) with slight degree of klinocephaly. The frontal has been cracked centrally by a triradiate fissure and the adjoining edges of the fragments have been thrust somewhat outwards from within. There is no occipital bulge. Face is perhaps slightly prognathous, the brow ridges are scarcely indicated, the orbits tend to be rectangular, their long axes are somewhat oblique. Nasal bones well developed, nasal aperture moderately wide.

Skull No. V.

Calvaria only; symmetrical senile (?) atrophy of area which should be occupied by parietal bosses. Skull moderately long and fairly well filled (C.I. 76·4). A metopic suture is present. Enough of right supraorbital region persists to show that there was only the slightest development of the supraorbital ridges. Occipital bulge well marked.

Skull No. VI.

Calvaria only, moderately long, rather narrow (C.I. 77·3). There is a slight lateral asymmetry (not, I think, P.M.). Occipital bulge well marked. Supraorbital ridges, which in general terms would be described as slight, are moderately well developed for this type of skull.

Skull No. VII.

Skull only, almost whole of left side below temporal line has been broken away. In shape a fairly broad oval, the vertex and neighbouring region is flatter than in other skulls of the series.

Face not broad, orbits tend to be round and are certainly not small. Cheek bones perhaps rather prominent. Supraorbital ridges slight, supraorbital notches present.

Nasal bones well developed, rima everywhere sharp, perhaps there is slight subnasal prognathism.

Skull No. VIII.

Skull only, the greater part of the left parietal has been destroyed. Some curly or wavy hair remains attached to the skull, which is moderately long and when seen from above is oval.

Face: brow ridges moderately well developed. Orbits large, tend to be round and perhaps to droop slightly at their outer and lower angles. There is a supraorbital foramen on the right side, on the left a notch.

Nasal bones well developed yet there is slight subnasal prognathism and the floor of the nostril passes directly into the canine fossa.

Skull No. IX.

Skull only, much of the left parietal, including the region of the parietal eminence, is broken away. On the right side there is absorption of bone, resulting in thinning in two situations, namely, immediately behind and below the parietal boss and also external to and rather in front of the eminence. Probably the latter area of absorption was bilateral and symmetrical. Seen from above the skull is a moderately long oval with a fairly well marked occipital bulge (C.I. 73·4).

Face somewhat coarse, prominent cheek bones. Orbits tend to be elliptical and angular rather than round, their long axes are almost horizontal. Supraorbital ridges slight, small supraorbital notch on both sides.

Nasal bones fairly well developed, nasal apertures almost round in form, but rima well marked below. Some subnasal prognathism. Extensive absorption of alveolar process, most of the molars having been lost during life.

Skull No. X.

Skull only, most of the sutures have started and the bones are out of position owing to this, nevertheless it can be seen that skull was a moderately broad oval with some but not extensive bulging of the occiput (C.I. 79·9). Both zygomata and the underlying portions of the skull have been broken away.

Face: the orbits tend to be round, supraorbital ridges scarcely indicated. Supraorbital foramina, not notches, are present.

Nasal bones well developed, nares open directly into canine fossa, some subnasal prognathism.

Skull No. XI.

Skull only, left side of cranium and almost whole of occipital region missing.

Face large, rounded orbits rather pulled down at outer angle, supraorbital ridges slight.

No subnasal prognathism.

Measurements of Hadendoa Skulls.

	L.	B.	Bi.	H.	Hi.	B.N.	B.A.	Ai.	U.F.L.	Bi-z.	U.F.i.	N.H.	N.W.	Ni.	O.W.	O.H.	Oi.	Circ.	Cap.
No. 1	176	133	756	128	72·7	100	102	102·0	74	124	59·6	49	25	51·0	40	37	92·5	496	1,120
„ 2	180	135	750	138	76·7	105	105	100·0	68	130	52·3	48	28	58·3	40	31	77·5	510	1,260
„ 3	169	129	763	125	74·0	94	90	95·7	60	115	52·1	47	25	53·2	35	32	91·4	477	1,040
„ 4	177	128	723	127	71·8	92	92	100·0	66	108	61·1	45	24	53·3	36	34	94·4	492	1,120
„ 5	178	136	764	134	75·3	—	—	—	—	—	—	—	—	—	—	—	—	500	—
„ 6	176	136	773	—	—	—	—	—	—	—	—	—	—	—	—	—	—	500	—
„ 7	179	—	—	135	75·4	106	98	92·5	64	134?	47·7	49	24	49·0	35	35	100·0	—	—
„ 8	180	—	—	141	78·3	101	92	91·1	67	122	54·9	42	24	57·1	40	34	85·0	505	—
„ 9	173	127	734	119	68·8	97	101	104·1	60	130?	46·1	43	25	58·1	38	38	100·0	482	1,010
„ 10	169	135	799	124	73·4	90	90	100·0	63	116	54·3	45	23	51·1	35	32	91·4	490	—
„ 11	—	—	—	131	—	100	97	97·0	70	—	—	48	22	45·8	38	37	97·4	—	—
Average ...	175·7	132·8	757·7	130·2	74·0	98·3	96·3	98·0	65·7	122·3	53·5	46·2	24·4	52·9	37·4	34·4	92·1	494·6	1,110

Measurements of Jaws.

	Bicondylar.	Bigonial.	Height of Symphysis.	Thickness of Symphysis.	Height of mandible at second molar.	Thickness of mandible at second molar.
No. 2 ...	116	85	34	36	26	16
„ 4 ...	91	73	28	13	25	13

BENI AMER.

No.	Division.	H.L.	H.B.	Bi-z.	Bi-g.	F.L.	U.F.L.	N.L.	N.B.	Bi-m.	N-m.	Stature.
45	Hasa ...	... 184	133	124	100	97	54	45	38	90	107	1,507
46	Afilenda ...	... 178	132	120	103	120	66	50	34	90	111	1,583
47	Beit Mâala	... 200	143	120	92	126	74	53	35	93	108	1,701
48	Adhasri ...	... 186	136	120	90	111	63	51	36	90	106	1,688
49	Adhasri ...	... 196	143	130	90	123	70	55	38	94	115	1,711
50	Afilenda ...	... 185	127	126	100	116	67	51	37	99	118	1,668
51	Ḥasa ...	... 181	139	123	97	115	67	56	40	95	112	1,604
52	Beit Mâala	... 194	155	138	97	120	68	51	37	98	122	1,686
53	Beit Mâala	... 192	145	127	96	116	61	51	37	92	110	1,815
54	—	199	138	139	97	118	61	50	39	98	117	1,719
55	—	200	148	134	110	112	64	55	41	99	127	1,678
56	Afilenda ...	... 177	148	135	93	118	69	55	37	96	118	1,660
57	Adhasri ...	... 199	142	125	97	122	67	56	51	97	121	1,658
58	Ḥasa ...	... 187	148	134	92	123	65	55	37	94	115	1,632
59	Afilenda ...	... 195	142	132	83	119	65	51	37	96	115	1,500
60	Adhasri ...	... 186	138	129	85	118	65	55	38	93	112	1,683
61	Adhasri ...	... 188	140	115	94	117	63	51	41	91	109	1,687
62	—	200	146	122	86	114	65	52	38	90	109	1,600
63	Beit Mâala	... 196	140	133	103	124	70	60	35	99	121	1,653
64	Beit Mâala	... 190	140	126	90	120	70	54	35	93	111	1,583
65	Afilenda ...	... 185	145	122	90	112	64	53	39	83	103	1,627
66	Adhasri ...	... 184	135	127	95	124	66	55	37	91	109	1,614
67	Beit Mâala	... 186	142	124	88	120	65	51	32	91	107	1,595
68	Adhasri ...	... 190	148	132	96	127	72	55	35	105	124	1,666
69	Adhasri ...	... 191	144	126	93	103	58	50	32	90	106	1,619
70	Hasa ...	... 194	138	132	96	126	63	55	33	95	117	1,650
71	Habab ...	... 187	142	135	98	125	71	55	35	95	114	1,609
72	Beit Mâala	... 195	148	132	100	126	68	52	42	96	113	1,639
73	Habab ...	... 190	140	130	84	122	66	54	38	93	111	1,619
74	Habab ...	... 181	140	120	95	117	65	50	32	93	112	1,628

BENI AMER—*continued.*

No.	Division.	H.L.	H.B.	Bi-z.	Bi-g.	F.L.	U.F.L.	N.L.	N.B.	Bi-m.	N-m.	Stature.
75	Adhasri	196	144	119	93	123	71	60	39	95	114	1,631
76	Kantebai ...	190	138	125	88	116	60	49	36	95	117	1,664
77	Habab	190	154	135	95	125	70	54	34	97	129	1,755
78	Habab	193	143	130	100	113	63	48	39	97	117	1,644
79	Habab	189	143	128	96	122	66	52	38	97	120	1,700
80	Habab	188	140	124	96	113	58	49	35	95	117	1,677
81	Habab	191	140	126	103	117	70	51	43	94	113	1,604
82	Beit Mâala ...	186	148	134	94	121	67	57	35	97	121	1,668
83	Habab	194	139	124	94	116	62	52	33	90	113	1,630
84	Habab	184	146	130	88	114	65	48	35	96	114	1,572
87	Hakolab	180	142	120	93	116	61	48	32	91	109	1,618
99	Hasa	194	142	128	94	108	57	47	34	91	113	1,640
100	Habab	186	156	124	86	113	62	45	33	93	111	1,552
101	Adhasri	200	148	134	100	121	67	53	36	97	120	1,671
102	Habab	191	140	132	100	118	64	51	35	97	122	1,693
103	Habab	203	138	130	97	125	72	56	39	95	114	1,620
104	Habab	195	142	128	100	114	63	50	37	97	118	1,642
105	Habab	198	140	136	94	111	60	47	36	98	115	1,754
106	Habab	194	140	126	90	119	68	50	34	95	120	1,606
115	—	194	147	130	99	115	66	51	31	93	110	1,552
116	—	183	140	125	90	112	58	45	35	93	111	1,616

HADENDOA AND AMARA.

No.	Division.[1]	H.L.	H.B.	Bi-z.	Bi-g.	F.L.	U.F.L.	N.L.	N.B.	Bi-m.	N-m.	Stature.
16	Amara ...	192	150	139	100	125	73	53	22	97	125	1,687
17	Amara ...	196	153	124	90	120	70	53	33	91	110	1,660
18	Amirab ...	194	154	133	97	148	66	54	39	94	108	1,692
19	Amirab ...	208	134	124	100	124	66	55	35	95	116	1,762
20	Amirab ...	178	130	128	95	112	69	48	33	90	107	1,573
21	Amirab ...	188	146	126	93	107	59	43	36	93	112	1,577
22	Amirab ...	186	140	125	90	108	60	47	36	93	111	1,605
23	Bishariab	187	146	133	97	115	66	55	35	91	111	1,601
24	Bishariab	188	143	129	95	145	64	55	37	88	104	1,672
25	Amirab ...	190	148	134	93	117	69	50	38	93	108	1,689
26	Amirab ...	201	150	140	107	135	79	60	34	100	122	1,706
27	Amirab ...	192	143	134	97	121	71	55	39	93	110	1,756
28	Amirab ...	186	144	125	87	110	61	43	36	95	109	1,603
29	Amirab ...	192	148	124	94	119	72	54	38	89	106	1,616
30	Amirab ...	177	139	117	90	113	66	48	35	87	103	1,596
31	Bishariab	179	136	129	88	110	65	50	38	90	107	1,692
32	Amirab ...	181	148	128	100	112	65	50	36	92	111	1,669
33	Amirab ...	196	150	136	98	117	61	47	37	101	119	1,800
34	Amirab ...	193	138	130	98	131	70	55	40	96	122	1,744
35	Bishariab	195	152	129	89	114	64	52	34	89	110	1,713
36	Amirab ...	189	148	120	92	119	65	50	36	87	105	1,754
37	Amirab ...	188	140	130	95	118	65	50	38	96	110	1,675
38	Amirab ...	190	146	132	101	130	70	51	39	95	112	1,726
39	Amirab ...	190	142	124	100	119	69	54	41	95	113	1,736
40	Amirab ...	188	148	126	95	112	60	48	35	92	112	1,627
41	—	194	148	134	103	126	68	51	40	98	145	1,693
42	Amirab ...	192	146	130	100	118	68	50	37	99	119	1,680
43	Amirab ...	188	146	140	100	118	65	56	41	94	109	1,732
44	Amirab ...	191	140	122	95	122	69	48	40	94	110	1,606
85	Hakolab ...	198	150	130	90	123	70	58	37	91	113	1,675
86	Amara ...	180	146	128	92	115	63	56	42	90	111	1,539
88	Sherab ...	188	138	130	88	119	61	50	38	90	119	1,690
89	Sherab ...	186	138	133	97	118	65	52	38	95	115	1,652
90	Amara (Nurab)...	190	148	138	96	116	66	52	38	97	117	1,725
91	Ashraf ...	196	154	134	98	124	68	55	38	94	121	1,684
92	Gumilab	196	144	132	94	123	67	54	40	93	122	1,785
93	Kololaib	190	143	129	100	116	64	51	42	92	113	1,621
94	Abel Gaur	190	142	128	104	109	62	53	38	91	111	1,630
95	Gumilab ...	184	144	122	97	125	70	56	41	99	123	1,645
96	Amara (Nurab)...	193	148	122	88	117	71	51	37	92	111	1,655

[1] The divisions of the Amara are not given, the other names are those of Hadendoa divisions.

HADENDOA AND AMARA—*continued.*

No.	Division.[1]	H.L.	H.B.	Bi-z.	Bi-g.	F.L.	U.F.L.	N.L.	N.B.	Bi-m.	N-m	Stature.
97	Abdelwab	188	150	124	98	115	65	51	37	91	112	1,663
98	Kamilab	184	142	132	104	117	61	45	38	95	120	1,592
107	Amara	196	148	130	94	124	72	54	40	103	123	1,681
108	Amara	194	144	128	92	111	—	51	33	95	113	1,656
109	Amara	196	156	130	98	127	71	58	35	91	114	1,630
110	Amara	184	143	124	90	114	62	49	38	91	108	1,706
111	—	188	148	130	100	117	70	52	35	96	112	1,737
112	Amara	194	152	134	92	126	69	52	39	91	106	1,707
113	Amara	186	140	122	95	116	64	47	36	89	108	1,637
117	—	195	145	134	94	131	78	58	35	92	112	1,672
118	Amara	183	147	133	107	120	70	53	35	97	111	1,837
119	Amara	191	142	122	90	116	67	53	34	90	111	1,633
120	—	186	144	124	90	108	63	50	35	88	105	1,619
121	Amara	193	144	128	100	130	74	54	38	95	98	1,671

KABABISH.

No.	Division.	H.L.	H.B.	Bi-z.	Bi-g.	F.L.	U.F.L.	N.L.	N.B.	Bi-m.	N-m.	Stature.
1	Nurab	200	146	148	—	124	—	50	35	—	—	1,754
2	Nurab	196	144	134	—	127	—	58	40	—	—	1,697
3	Nurab	198	142	133	—	113	—	47	38	—	—	1,670
4	Nurab	199	148	137	—	126	—	57	36	—	—	1,648
5	Nurab	191	142	135	—	117	—	56	34	—	—	1,772
6	Nurab	194	158	137	—	121	—	60	36	—	—	1,515
7	Berara	197	152	138	—	139	—	62	40	—	—	1,680
8	Berara	206	146	142	—	124	—	55	42	—	—	1,698
9	Berara	194	144	138	—	124	—	61	41	—	—	1,810
10	Nurab	200	144	130	—	113	—	51	35	—	—	1,686
11	Nurab	190	138	125	—	125	—	59	37	—	—	1,791
12	Nurab	190	146	141	—	110	—	49	40	—	—	1,684
13	Nurab	190	144	132	—	114	—	53	36	—	—	1,708
14	Nurab	199	138	126	—	110	—	50	35	—	—	1,673
15	Nurab	198	150	132	—	117	—	49	43	—	—	1,742

[1] The divisions of the Amara are not given, the other names are those of Hadendoa divisions.

DINKA (DR. PIRRIE'S MEASUREMENTS, THE LAST SIX SUBJECTS BY C. G. S.).

No.	Head length.	Head breadth.	Biauricular.	Bizygomatic.	Facial length.	Upper facial length.	Nasal length.	Nasal breadth.	Aur. vertical.	Aur. up. nasal.	Aur. alveolar.	Stature.
1	204	149	122	149	120	76	48	46	140	102	112	1,925
2	203	135	121	136	130	78	49	40	138	98	104	2,044
3	195	149	120	134	122	72	37	37	195	146	157	1,530
4	193	135	113	132	105	68	42	41	138	97	106	1,790
5	198	142	117	134	114	67	40	43	130	98	106	1,780
6	289	145	116	147	109	65	45	42	130	97	105	1,790
7	194	142	115	128	106	66	42	35	135	97	100	1,750
8	189	148	113	138	107	62	41	40	132	94	100	1,680
9	200	154	123	213 ?	113	65	46	40	140	100	100	1,800
10	198	147	122	148	—	—	43	40	130	94	106	1,780
11	194	137	114	134	104	58	37	41	132	93	95	1,760
12	184	142	116	137	114	73	43	37	134	95	99	1,710
13	198	138	116	137	115	65	42	42	142	92	98	1,760
14	186	140	114	137	115	67	41	41	138	95	104	1,800
15	199	144	116	142	116	69	44	42	141	99	108	1,850
16	198	140	119	139	115	72	44	40	140	95	110	1,690
17	194	145	116	142	104	64	41	38	138	90	101	1,740
18	186	140	113	134	115	67	44	41	145	100	101	1,840
19	191	143	110	136	104	64	48	44	137	95	104	1,700
20	198	142	120	138	114	68	50	38	138	100	106	1,790
21	190	138	116	131	99	58	40	46	141	99	107	1,740
22	191	138	116	132	118	67	44	45	134	97	110	1,690
23	196	144	117	132	113	64	39	41	147	94	102	1,780
24	203	144	114	133	115	61	41	39	138	99	105	1,730
25	194	135	114	135	119	69	42	48	128	97	115	1,700
26	199	137	116	135	109	69	44	42	138	92	94	1,800
27	198	145	127	145	104	69	46	44	130	95	104	1,845
28	206	143	116	138	110	67	35	41	141	94	100	1,710
29	194	135	116	132	114	75	50	45	138	93	100	1,880
30	193	138	113	131	105	64	37	38	131	93	107	1,705
31	189	144	122	137	97	52	35	44	134	96	97	1,960
32	208	143	123	144	122	69	44	48	148	102	112	2,000
33	190	153	123	144	119	67	41	42	131	102	116	1,830
34	196	142	117	135	105	63	44	39	147	98	105	1,920
35	202	153	126	146	126	72	49	41	143	100	107	1,890
36	213 ?	119 ?	107	138	115	63	37	40	141	93	95	1,750

DINKA—*continued.*

No.	Head length.	Head breadth.	Biauricular.	Bizygomatic.	Facial length.	Upper facial length.	Nasal length.	Nasal breadth.	Aur. vertical.	Aur. up. nasal.	Aur. alveolar.	Stature.
37	184	150	116	139	120	70	51	40	126	90	101	1,740
38	185	143	115	135	124	67	44	40	138	100	100	1,870
39	—	142	119	136	124	65	50	38	130	89	98	1,830
40	203	—	116	139	126	72	—	40	132	99	101	1,790
41	197	135	111	134	104	79	40	40	129	93	102	1,795
42	204	143	120	140	131	70	53	45	136	98	108	1,920
43	194	145	110	140	109	64	44	39	130	94	100	1,830
44	202	142	126	136	117	68	46	44	140	95	103	1,810
45	195	148	122	140	126	71	45	42	133	100	104	1,805
46	201	143	116	132	120	69	44	41	142	93	99	1,915
47	192	139	118	138	113	67	46	39	125	96	103	1,825
48	200	151	125	147	118	72	45	44	135	99	107	1,810
49	199	147	119	143	132	73	44	43	—	98	109	1,880
50	186	135	110	130	107	62	41	39	140	95	96	1,820
51	203	142	124	138	104	62	42	42	135	98	103	1,860
52	180	142	113	129	118	60	39	40	132	92	101	1,710
53	179	140	108	130	118	67	42	36	131	95	105	1,770
54	203	144	118	140	128	69	40	43	142	98	110	1,848
55	200	140	107	129	100	59	37	35	140	94	101	1,620
56	198	137	112	132	103	60	40	41	134	95	107	1,660
57	197	145	119	132	106	68	40	37	137	100	108	1,688
58	192	131	111	132	120	67	50	42	135	101	105	1,720
59	191	142	119	134	115	62	39	36	128	92	100	1,700
60	187	128	117	134	111	68	44	42	124	101	113	—

NUER (DR. PIRRIE'S MEASUREMENTS[1]).

No.	Head length.	Head breadth.	Biauricular.	Bizygomatic.	Facial length.	Upper facial length.	Nasal length.	Nasal breadth.	Aur. vertical.	Aur. up. nasal.	Aur. alveolar.	Stature.
1	195	135	115	137	—	—	47	43	135	97	106	1,790
2	191	148	117	140	108	68	41	42	138	99	99	1,720
3	191	138	112	131	114	62	39	41	135	98	90	1,770
4	191	146	120	143	118	73	44	43	138	104	112	1,770
5	194	130	116	130	118	67	40	40	135	94	98	1,820
6	192	131	120	134	108	60	41	37	135	93	100	1,800
7	203	146	118	140	108	69	43	43	138	97	107	1,815
8	197	147	117	139	106	72	48	42	138	92	101	1,850
9	201	140	115	134	109	63	37	40	136	94	104	1,740
10	196	147	123	130	117	70	44	41	138	97	98	1,860
11	194	145	118	142	122	68	45	42	132	98	108	1,800
12	194	136	115	134	106	62	44	45	133	97	103	1,830
13	181	143	117	137	118	67	43	34	132	90	104	1,780

[1] The measurements of twenty-seven other Nuer measured by Dr. Pirrie are given in Professor Waterston's paper in the *Third Report of the Wellcome Laboratories.*

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No.	Division.	C.I.	N.I.	F.I.	U.F.I.
45	Hasa	72·28	84·44	78·23	43·55
46	Afilenda	74·16	68	100	55
47	Beit Mâala	71·50	66·04	105	61·67
48	Adhasri	73·12	70·59	92·50	52·50
49	Adhasri	72·96	69·09	94·62	53·85
50	Afilenda	68·65	72·55	92·06	53·17
51	Hasa	76·80	71·43	93·50	54·47
52	Beit Mâala	79·90	72·55	86·96	49·27
53	Beit Mâala	75·52	72·55	91·34	48·03
54	—	69·35	78	84·89	43·88
55	—	74	74·55	83·58	47·76
56	Afilenda	83·62	67·27	87·41	51·11
57	Adhasri	71·36	91·07	97·60	53·60
58	Ḥasa	79·14	67·27	91·79	48·51
59	Afilenda	72·82	72·55	89·47	48·87
60	Adhasri	74·19	69·09	91·47	50·39
61	Adhasri	74·47	80·39	101·74	54·78
62	—	73	73·08	93·44	53·28
63	Beit Mâala	71·43	58·33	93·23	52·63 ?
64	Beit Mâala	73·68	64·81	95·24	55·56
65	Afilenda	78·38	73·58	91·80	52·46
66	Adhasri	73·37	67·27	97·64	51·97
67	Beit Mâala	76·34	62·75	96·77	52·42
68	Adhasri	77·89	63·64	96·21	54·55
69	Adhasri	75·39	64	81·75	46·03
70	Hasa	71·13	60	95·45	47·73
71	Habab	75·94	63·64	92·59	52·59
72	Beit Mâala	75·90	80·77	95·45	51·52
73	Habab	73·68	70·37	93·85	50·77
74	Habab	77·35	64	97·50	54·17
75	Adhasri	73·47	65	103·36	59·66
76	Kantebai	72·63	73·47	92·80	48
77	Habab	81·05	62·96	92·59	51·85
78	Habab	74·09	81·25	86·92	48·46
79	Habab	75·66	73·08	95·31	51·56
80	Habab	74·47	71·43	91·13	46·77
81	Habab	73·30	84·31	92·86	55·56
82	Beit Mâala	79·57	61·40	90·30	50
83	Habab	71·65	63·46	93·55	50
84	Habab	79·35	72·92	87·69	57·02

BENI AMER—*continued.*

No.	Division.	C.I.	N.I.	F.I.	U.F.I.
87	Hakolab	78·89	66·67	96·67	50·83
99	Ḥasa	73·20	72·34	84·38	44·53
100	Habab	83·87	73·33	91·13	50
101	Adhasri	74	67·92	90·30	50
102	Habab	73·30	68·63	89·39	48·48
103	Habab	67·98	69·64	96·15	55·38
104	Habab	72·82	74	89·06	49·22
105	Habab	70·71	76·60	81·62	44·11
106	Habab	72 16	68	94·44	53·97
115	—	75·77	60·78	88·46	50·77
116	—	76·50	77·78	89·60	46·40

HADENDOA AND AMARA.

No.	Division.[1]	C.I.	N.I.	F.I.	U.F.I.
16	Amara	78·13	41·51	89·93	52·51
17	Amara	78·06	62·26	96·77	54·45
18	Amirab	79·38	72·22	111·27	49·62
19	Amirab	64·42	63·64	100	53·23
20	Amirab	73·03	68·75	87·57	53·91
21	Amirab	77·66	83·72	84·92	46·83
22	Amirab	75·27	76·60	86·40	48
23	Bishariab	78·07	63·64	86·47	49·62
24	Bishariab	76·06	67·27	112·40	49·61
25	Amirab	77·89	76	87·31	51·49
26	Amirab	74·63	56·67	96·43	56·42
27	Amirab	74·48	70·91	90·30	52·99
28	Amirab	77·42	83·72	88	48·80
29	Amirab	77·08	70·37	95·97	58·06
30	Amirab	78·53	72·92	96·58	56·41
31	Bishariab	75·98	76	85·27	42·64
32	Amirab	81·77	72	87·50	50·78
33	Amirab	76·53	78·72	86·03	44·85
34	Amirab	71·50	72·73	100·77	53·85
35	Bishariab	77·95	65·38	88·37	49·61

[1] The divisions of the Amara are not given, the other names are those of Hadendoa divisions.

HADENDOA AND AMARA.—*continued.*

No.	Division.[1]	C.I.	N.I.	F.I.	U.F.I.
36	Amirab	78·31	72	99·17	54·17
37	Amirab	74·47	76	90·77	50
38	Amirab	76·84	76·47	98·48	53·03
39	Amirab	74·74	75·93	95·97	55·65
40	Amirab	78·72	72·92	88·89	47·62
41	—	76·29	78·43	94·03	50·75
42	Amirab	76·04	74	90·77	52·31
43	Amirab	77·66	73·21	84·29	46·42
44	Amirab	73·30	83·33	100	56·56
85	Hakolab	75·76	63·79	94·62	53·85
86	Amara	81·11	75	89·84	49·22
88	Sherab	73·40	76	91·54	46·92
89	Sherab	74·19	73·08	88·72	48·87
90	Amara (Nurab)	77·89	73·08	84·06	47·82
91	Ashraf	78·57	69·09	92·54	50·75
92	Gumilab	73·47	74·07	93·18	50·76
93	Kololaib	75·26	82·35	89·92	49·61
94	Adel Gaur	74·74	71·70	85·16	48·44
95	Gumilab	78·26	73·21	102·46	57·38
96	Amara (Nurab)	76·68	72·55	95·90	58·20
97	Abdelwab	79·79	72·55	92·74	52·42
98	Kamilab	77·17	84·44	88·64	46·21
107	Amara	75·51	74·07	95·38	55·38
108	Amara	74·23	64·71	86·72	—
109	Amara	79·59	60·34	97·69	54·62
110	Amara	77·72	77·55	91·94	50
111	—	78·72	67·31	90	53·85
112	Amara	78·35	75	94·03	51·49
113	Amara	75·27	76·60	95·08	52·46
117	—	74·36	60·34	97·76	58·21
118	Amara	80·33	66·04	90·23	52·63
119	Amara	74·35	64·15	95·08	54·92
120	—	77·42	70	87·10	50·81
121	Amara	74·61	70·37	101·56	57·81

[1] The divisions of the Amara are not given, the other names are those of Hadendoa divisions.

KABABISH.

No.	Division.	C.I.	N.I.	F.I.	U.F.I.
1	Nurab	73	70	83·78	—
2	Nurab	73·47	68·97	94·78	—
3	Nurab	71·72	80·85	84·96	—
4	Nurab	74·37	63·16	91·97	—
5	Nurab	74·35	60·71	86·67	—
6	Nurab	81·44	60	88·32	—
7	Berara	77·16	64·52	100·72	—
8	Berara	70·87	76·36	87·32	—
9	Berara	74·23	67·21	89·86	—
10	Nurab	72	68·63	86·92	—
11	Nurab	72·63	62·71	100	—
12	Nurab	76·84	81·63	78·01	—
13	Nurab	75·79	67·92	86·36	—
14	Nurab	69·35	70	87·30	—
15	Nurab	75·76	87·76	88·64	—

DINKA.

No.	C I.	H.I.	N.I.	F.I.	U.F.I.
1	73	68·6	95·8	80·5	51·0
2	66·6	68	81·6	95·5	57·3
3	76·4	?	100	91·0	53·7
4	69·9	71·5	97·6	79·5	51·5
5	71·7	65·7	107·5	90·3	50
6	—	—	93·3	74·1	44·2
7	73·2	69·6	83·3	82·8	51·5
8	78·3	69·8	97·5	77·5	44·9
9	77	70	86·9		
10	74·2	65·7	93·0	—	—
11	70·6	68	110·8	77·6	43·2
12	77·2	72·8	86·0	83·2	53·2
13	69·7	71·7	100	83·9	47·4
14	75·3	74·2	100	83·9	49·9
15	72·4	70·9	95·4	81·6	48·5
16	70·7	70·7	90·9	82·7	51·8
17	74·7	71·1	92·6	73·2	45·1
18	75·3	78	93·1	85·8	50
19	74·9	71·7	91·6	76·4	47·0
20	71·7	66·7	76	82·6	49·3

DINKA—*continued.*

No.	C.I.	H.I.	N.I.	F.I.	U.F.I.
21	72·6	74·2	115	75·5	44·2
22	72·3	70·2	102·2	89·3	50·7
23	73·5	75	105·1	85·6	48·4
24	70·9	63	95·1	86·4	45·8
25	69·6	66	114·2	88·1	51·1
26	68·8	69·3	95·4	80·7	51·1
27	73·2	65·7	95·6	71·7	47·6
28	—	68	117·1	79·7	48·5
29	69·6	71·1	90	86·3	56·8
30	71·5	67·9	102·7	80·1	48·8
31	76·2	70·9	125·7	70·8	37·9
32	68·7	71·1	109·0	84·7	47·9
33	80·5	68·9	102·4	82·6	46·5
34	72·4	75	88·6	77·7	46·6
35	75·7	70·8	83·6	86·3	49·3
36	—	66·1	108·1	83·3	45·6
37	81·5	68·5	78·4	86·3	50·4
38	77·3	74·6	90·9	91·8	49·6
39	—	—	76	91·1	47·7
40	—	65	—	90·6	51·8
41	68·5	65·5	100	77·6	58·9
42	70·1	66·7	84·9	93·5	50·0
43	74·7	67	88·6	77·8	45·7
44	70·3	69·3	95·6	86·0	50
45	75·9	68·2	93·3	90	50·7
46	71·1	70·6	93·1	90·9	52·2
47	72·4	65·1	84·7	81·8	48·5
48	75·5	67·5	97·7	80·2	49
49	73·9	—	97·7	92·3	51
50	72·6	75·3	95·1	82·3	47·6
51	70	66·5	100	75·3	44·9
52	78·9	73·3	102·5	91·4	46·5
53	78·2	73·2	85·7	90·7	51·5
54	70·9	70	107·5	91·4	49·3
55	70	70	94·5	77·5	45·7
56	69·2	67·7	102·5	78·0	45·4
57	73·6	69·5	92·5	80·3	51·5
58	68·2	70·3	84	90·9	50·7
59	74·3	67	92·3	85·8	46·2
60	68·4	66·3	95·4	82·8	50·7

NUER.

No.	C.I.	V.I.	N.I.	F.I.	U.F.I.	Alve. I.
1	69·2	69·2	89	—	—	109
2	77 5	72·3	105	90	48·6	100
3	72·3	70·7	105	98	47·3	94·8
4	76·4	72·3	91	90	51·0	107
5	67	69·6	95	102	51·5	104
6	68·1	70·3	88	88	44·7	107
7	71·9	68	97	80	49·3	110
8	74·6	70·1	89	84	51·8	109
9	69·7	67·7	108	89	47·0	110
10	75	70·4	93·1	90	53·8	101
11	74·7	68	93·3	85·9	47·9	110
12	70·1	68·6	102 ·2	79·1	46·2	106
13	79	72·9	79·0	86·1	49 ·9	115

BENI AMER.

	No.	Av.	St. Dev.	Er. of Mean.	Er.of St. Dev.	Coef. of Var.	Source.
H.L. ...	51	190·49	6·20	±·58	±·41	3·25	C. G. S.
H.B. ...	51	142·25	5·37	±·50	±·35	3·77	
C.I.	51	74·70	3·42	±·32	±·22	4·56	
N.L.... ...	51	51·96	3·41	±·32	±·22	6·56	
N.B.... ...	51	36·57	3·36	±·31	±·22	9·18	
N.I.	51	70·52	6·75	±·63	±·45	9·57	
F.L.	51	117·70	5·91	±·55	±·39	5·02	
F.B. ...	51	127·84	5·42	±·51	±·36	4·23	
F.I.	51	92·12	5·27	±·49	±·35	5·72	
U.F.L. ...	51	65·13	4·23	±·39	±·28	6·49	
U.F.I. ...	51	51·21	3·82	±·36	±·25	7·45	
Stature ...	51	1,643	58	±5	±4	4	

Hadendoa and Amara.

	No.	Av.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
H.L. ...	54	189·97	5·72	±·52	±·37	3·01	C. G. S.
H.B. ...	54	145·11	5·25	±·48	±·34	3·61	
C.I.	54	76·39	2·90	±·26	±·18	3·79	
N.L. ...	54	51·86	3·59	±·32	±·23	6·92	
N.B. ...	54	36·95	3·08	±·28	±·19	8·33	
N.I. ...	54	71·58	7·33	±·67	±·47	10·24	
F.L.	54	119·67	8·26	±·75	±·53	6·90	
F.B. ...	54	129	5·22	±·47	±·33	4·04	
F.I.	54	92·78	6·13	±·56	±·35	6·60	
U.F.L. ...	53	66·94	4·32	±·40	±·28	6·45	
U.F.I. ...	52	51·80	3·61	±·33	±·23	6·96	
Stature ...	54	1,676	60	±5	±4	4	

Kababish.

	No.	Av.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
H.L. ...	24	193·91	5·27	±·72	±·51	2·71	Atkey & C. G. S.
H.B. ...	24	143·96	5·08	±·70	±·49	3·52	
C.I.	24	74·29	2·55	±·35	±·24	3·43	
N.L. ...	24	53·5	4·61	±·63	±·44	8·61	
N.B. ...	24	37	2·82	±·38	±·27	7·62	
N.I. ...	24	69·70	7·54	±1·04	±·73	10·81	
F.L. ...	24	118·67	5·56	±·76	±·54	4·68	
F.B. ...	24	134·29	5·18	±·71	±·50	3·84	
F.I. ...	24	88·83	4·87	±·67	±·47	5·48	
U.F.L. ...	—	—	—	—	—	—	
U.F.I. ...	—	—	—	—	—	—	
Stature ...	23	1,709	56	±8	±6	3	

BARABRA.

	No.	Av.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
C.I.	89	76·18	3·53	±·25	±·17	4·63	Chantre
N.I.	89	82·67	9·47	±·67	±·47	11·45	
F.I.	89	100·83	5·51	±·39	±·27	5·46	
Stature ...	70	168	7	±·52	±·37	3·91	

SHILLUK.

	No.	Av.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
H.L. ...	21	195	5·54	±·81	±·57	2·84	Myers, Pirrie.
H.B. ...	21	139·48	5·01	±·73	±·52	3·51	„ „
C.I. ...	21	71·3	3·04	±·44	±·31	4·26	„ „
N.L. ...	11	41·91	2·57	±·52	±·37	6·13	Myers.
N.B. ...	11	39	3·38	±·68	±·48	8·66	„
N.I. ...	11	93·36	8·88	±1·66	±1·27	9·51	„
F.L. ...	18	110·44	6·20	±·98	±·69	5·61	Myers, Pirrie.
F.B. ...	18	134·77	4·15	±·66	±·46	3·07	„ „
F.I. ...	19	83·27	8·37	±1·29	±·91	10·05	„ „
U.F.L.	—	—	—	—	—	—	—
U.F.I. ...	—	—	—	—	—	—	—
Stature	14	1,776	53	±9	±7	3	Myers, Pirrie.

DINKA.

	No.	Av.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
H.L. ...	79	194·08	6·59	±·50	±·35	3·39	Pirrie, Myers & C. G. S.
H.B. ...	79	141·19	5·44	±·41	±·29	3·85	„
C.I. ...	148	72·71	3·70	±·20	±·14	5·08	Pirrie, Mochi, Myers & C. G. S.
N.L. ...	82	42·90	4·19	±·31	±·22	9·76	Pirrie, Myers & C. G. S.
N.B. ...	82	40·82	2·96	±·22	±·15	7·24	„
N.I. ...	85	91·63	12·96	±·94	±·67	14·14	Pirrie, Mochi, Myers & C. G. S.
F.L. ...	81	112·85	8·25	±·61	±·43	7·31	Pirrie, Myers & C. G. S.
F.B. ...	81	135·55	5·05	±·37	±·26	3·72	„
F.I. ...	85	86	7·89	±·57	±·40	8·17	„
U.F.L. ...	—	—	—	—	—	—	—
U.F.I. ...	—	—	—	—	—	—	—
Stature ..	116	1,786	97	±6	±4	5	Pirrie, Myers & C. G. S.

NUER.

	No.	Average.	St. Dev.	Er. of Mean.	Er. of St. Dev.	Coef. of Var.	Source.
H.L. ...	40	194·05	5·51	±·58	±·41	2·83	Pirrie
H.B. ...	40	142·55	4·73	±·50	±·35	3·31	„
C.I. ...	40	73·55	3·28	±·35	±·24	4·45	„
N.L. ...	40	42·47	4·38	±·40	±·33	10·31	„
N.B. ...	40	41·2	2·75	±·29	±·20	6·67	„
N.I. ...	40	100·08	11·53	±1·23	±·86	11·52	„
F.L. ...							
F.B. ...							
F.I. ...	12	83·16	5·46	±1·06	±·73	6·56	„
U.F.L. ...							
U.F.I. ...							
Stature ...	39	1,806	70	±8	±5	3	„

APPENDIX II.

Dr. Bowley has kindly supplied the following note on the results of his examination of Dinka measurements.

For each of the three groups (C.I., N.I., and stature) that normal curve is selected which has the average of the standard deviation of the group. Definite lines of division are then taken in the normal curve as follows :—

	Most probable number of instances.
Between average and average + $\frac{1}{2}\sigma$	·192 of n
Average + $\frac{1}{2}\sigma$ „ „ + σ	·149 of n
„ σ „ „ $\frac{3}{2}\sigma$	·092 of n
„ $\frac{3}{2}\sigma$ „ „ 2 σ	·044 of n
„ 2 σ „ „ $2\frac{1}{2}\sigma$	·017 of n
„ $2\frac{1}{2}$ „ „ 3 σ	·005 of n
Outside average + 3 σ	·001 of n
	·500 of n

where n is the number of observations and σ is the standard deviation. A precisely similar distribution is to be found for negative deviations. This

scheme is then fitted on to the observations. Thus for C.I. the average is 72·71, $\sigma = 3{\cdot}70$, $n = 148$. Between $72{\cdot}71 + 3{\cdot}70 = 76{\cdot}41$ and $72{\cdot}71 + \frac{3}{2}$ of $3{\cdot}70 = 78{\cdot}26$, the most probable number is ·092 of $148 = 13{\cdot}6$. Actually there are eleven at 77 (*i.e.*, between 76·5 and 77·5), four at 78 of which three may be expected to be between 77·5 and 78·26, making fourteen in the group, in this case the nearest integer to the most probable.

The results are as follows:—

	C.I.		N.I.		Stature.	
	$n = 148$		$n = 85$		$n = 116$	
	$\sigma = 3{\cdot}70$		$\sigma = 12{\cdot}96$		$\sigma = 9{\cdot}66$ cm.	
	av. $= 72{\cdot}71$		av. $= 91{\cdot}63$		av. $= 178{\cdot}6$	
Average.	Observed.	Expected.	Observed.	Expected.	Observed.	Expected.
	x_1	x_2				
$+ > 3\sigma$	2*	·1	0	·1	0	·1
$+ 2\frac{1}{2}\sigma$ to 3σ	1	·7	1	·4	2*	·6
2σ „ $2\frac{1}{2}\sigma$	2	2·5	0	1·4	1	1·9
$1\frac{1}{2}\sigma$ „ 2σ	4	6·5	4	3·7	1*	5·1
1σ „ $1\frac{1}{2}\sigma$	14	13·6	6	7·8	6*	10·7
$\frac{1}{2}\sigma$ „ 1σ	18	22·1	13	12·7	22*	17·3
0 „ $\frac{1}{2}\sigma$	30	28·4	27*	16·3	24	22·3
0 „ $-\frac{1}{2}\sigma$	30	28·4	12*	16·3	25	22·3
$-\frac{1}{2}\sigma$ „ 1σ	25	22·1	8*	12·7	23*	17·3
-1σ „ $1\frac{1}{2}\sigma$	13	13·6	6	7·8	6*	10·7
$-1\frac{1}{2}\sigma$ „ 2σ	7	6·5	4	3·7	4	5·1
-2σ „ $2\frac{1}{2}\sigma$	2	2·5	3*	1·4	1	1·9
$-2\frac{1}{2}\sigma$ „ 3σ	0	·7	1	·4	1	·6
$- >$ „ 3σ	0	·1	0	·1	0	·1

For any compartment taken singly the standard deviation of error due to random sampling is $\sqrt{p(1-p)n}$, where n is the whole number in the group and pn the most probable number in the compartment. The numbers marked * differ by more than the standard deviation, but only the two giants in the first group seriously. A test more refined in principle, but unfortunately rough in its application, is as follows: form for each compartment the quantity $\frac{e^2}{x_2}$ where $e = x_2 \sim x_1$; the sum for the group of these quantities is a measure of the goodness of the fit, and Professor Karl Pearson has shown how to measure the probability that such observations would come by random sampling from an assigned frequency group. Putting aside the two giants of group one, it is found that the first group (C.I.) is an extremely good fit; that deviations as great as are found in the second group (N.I.) are about as likely as not to occur, and that the chances are only

FIG. 3.—HADENDOA TEMPORARY SHELTER.

FIG. 2.—HADENDOA ENCAMPMENT (SINKATKENAB).

FIG. 1.—A BENI AMER VILLAGE.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

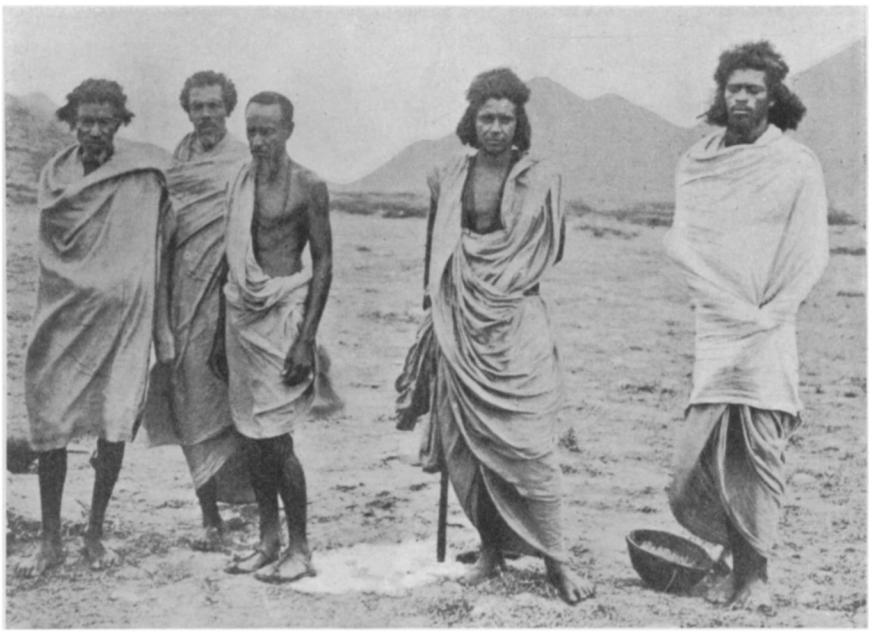

FIG. 2.—GROUP OF HADENDOA (BEDAWIB).

FIG. 1.—GROUP OF BEJA, IN FRONT ARE THREE BENI AMER, BEHIND THEM TWO HADENDOA.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

FIG. 1.—TYPE 87.

FIG. 2.—TYPE 87.

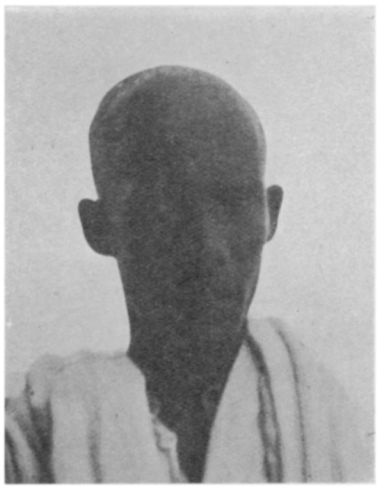

FIG. 3.—TYPE 47.

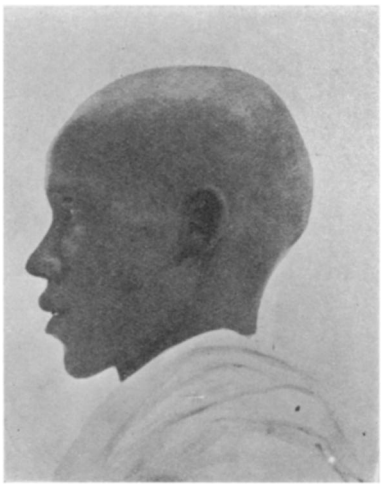

FIG. 4.—TYPE 47.

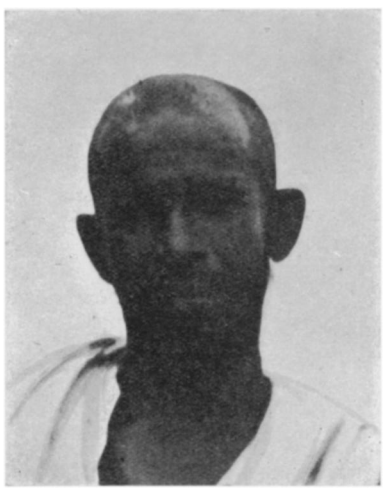

FIG. 5. TYPE 62.

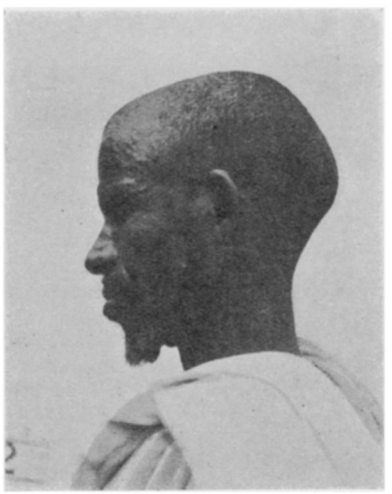

FIG. 6. —TYPE 62.

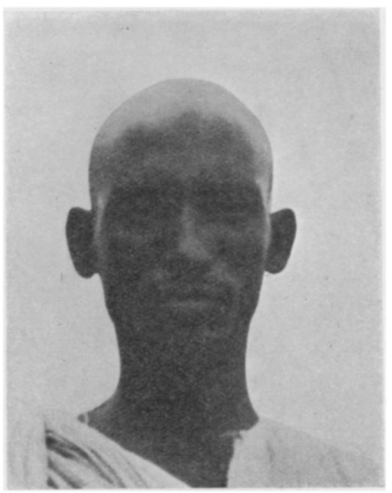

FIG. 7.—TYPE 63.

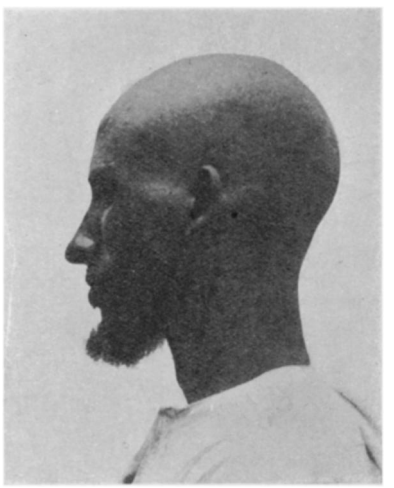

FIG. 8.—TYPE 63.

BENI AMER TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN,

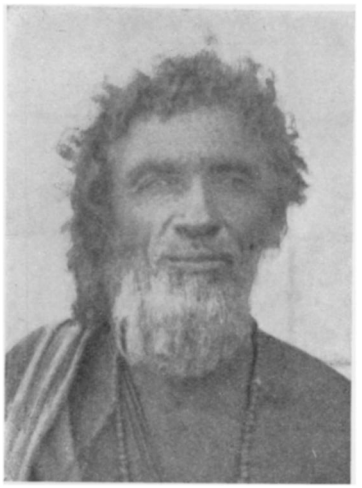

FIG. 1.—TYPE 16.

FIG. 2.—TYPE 16.

FIG. 3.—TYPE 17.

FIG. 4.—TYPE 17.

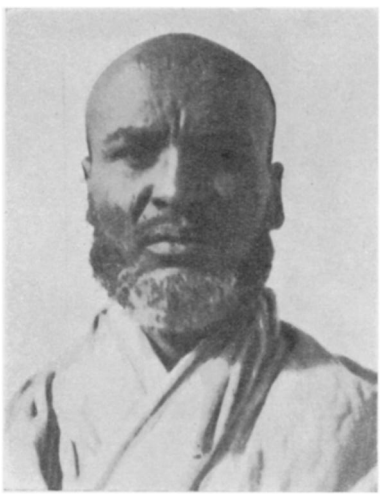

FIG. 5.—TYPE 27.

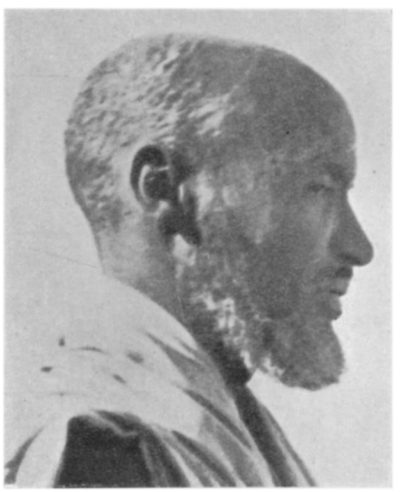

FIG. 6.—TYPE 27.

FIG. 7.—TYPE 96.

FIG. 8.—TYPE 96.

HADENDOA TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

FIG. 1.—TYPE 108.

FIG. 2.—TYPE 108.

FIG. 3.—TYPE 86.

FIG. 4.—TYPE 86.

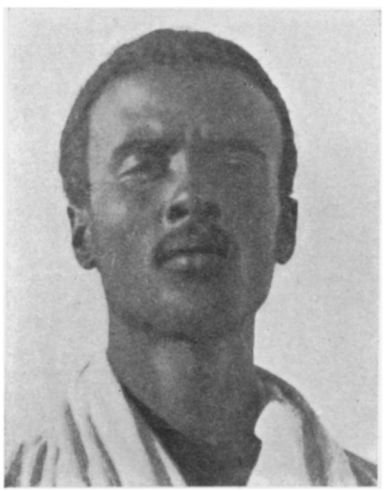

FIG. 5.—TYPE 29.

FIG. 6.—TYPE 29.

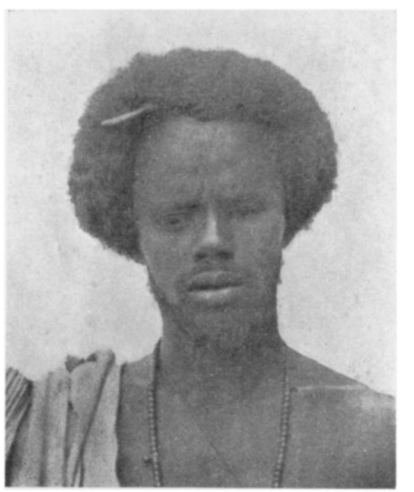

FIG. 7.—TYPE 91.

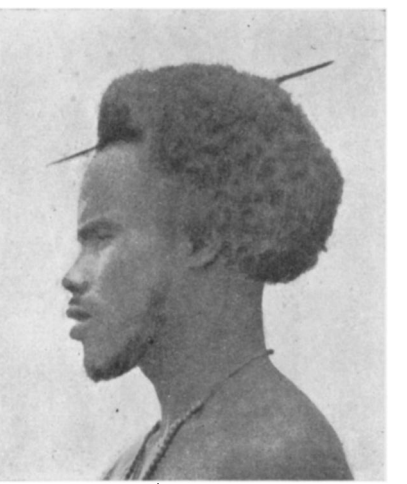

FIG. 8.—TYPE 91.

HADENDOA TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

FIG. 1.—BEJA FROM TWELFTH DYNASTY TOMB.

FIG. 2.—HEAD OF RAMESES II. (TURIN MUSEUM).

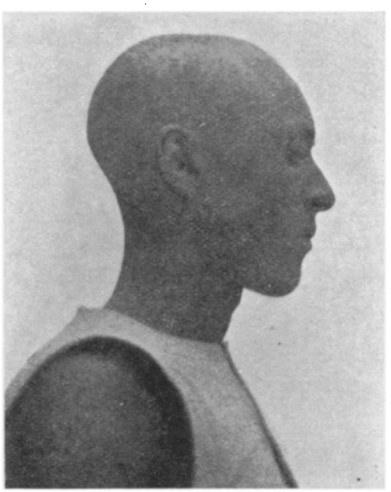

FIG. 3.—HEAD OF BENI AMER SHOWING RESEMBLANCE TO RAMESES II.

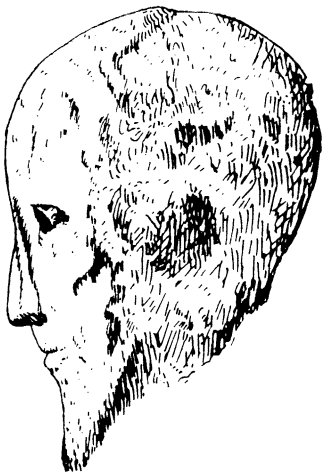

FIG. 4.—IVORY HEAD OF PROTODYNASTIC EGYPTIAN FROM HIERAKONPOLIS (QUIBELL).

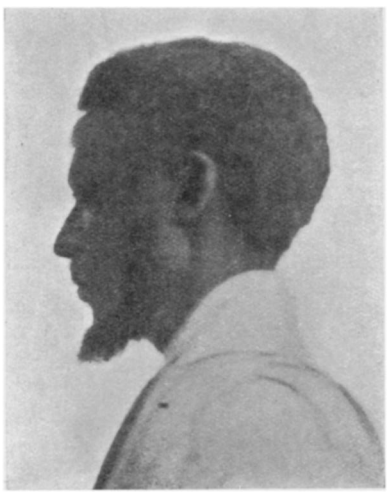

FIG. 5.—HEAD OF BENI AMER SHOWING CHIN-TUFT BEARD.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

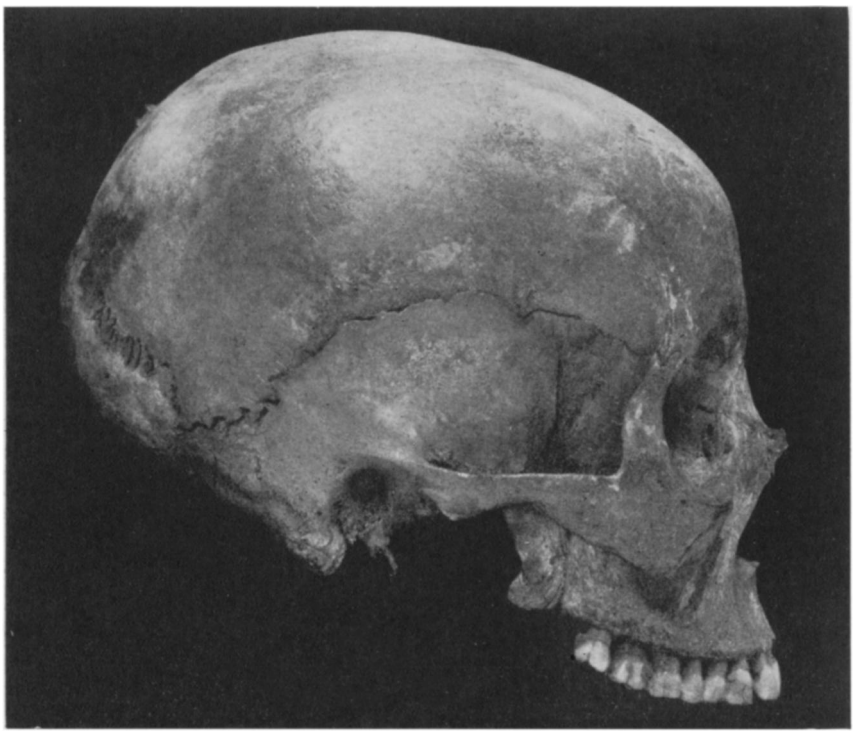

FIG. 1.

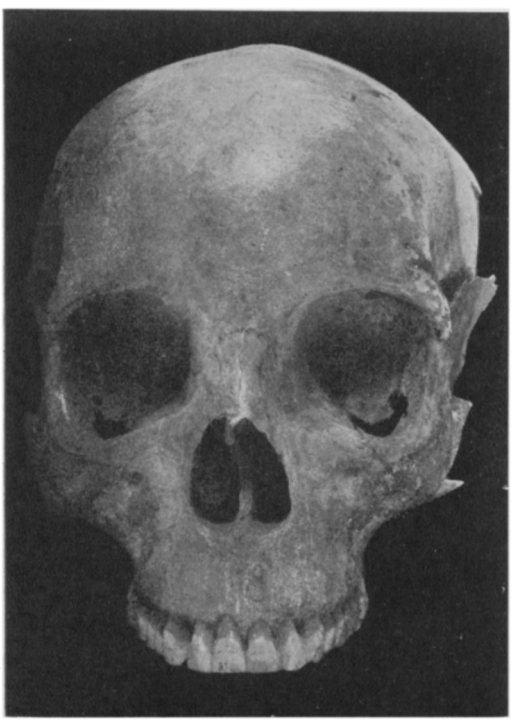

FIG. 2.

FIG. 3.

HADENDOA SKULL NO. I.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

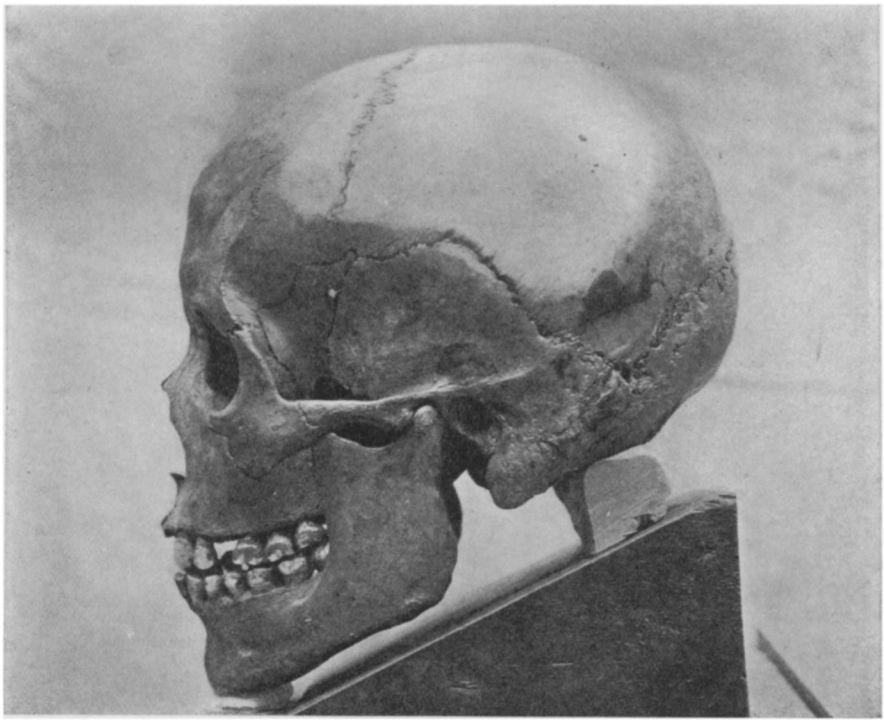

FIG. 1.

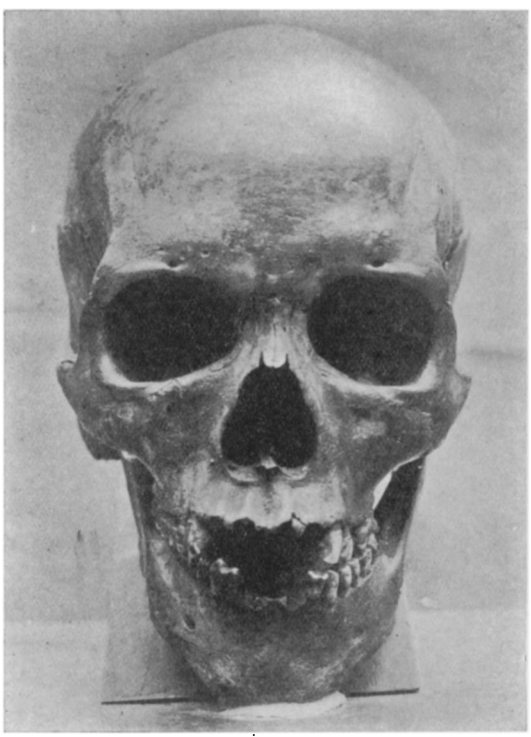

FIG. 2.

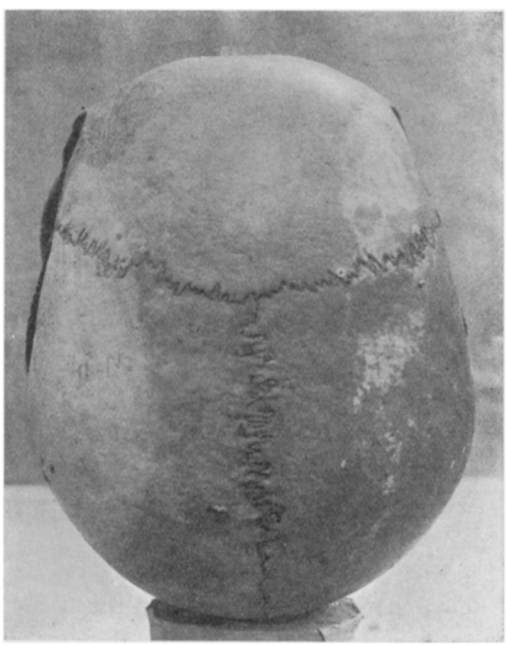

FIG. 3.

HADENDOA SKULL NO. II.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

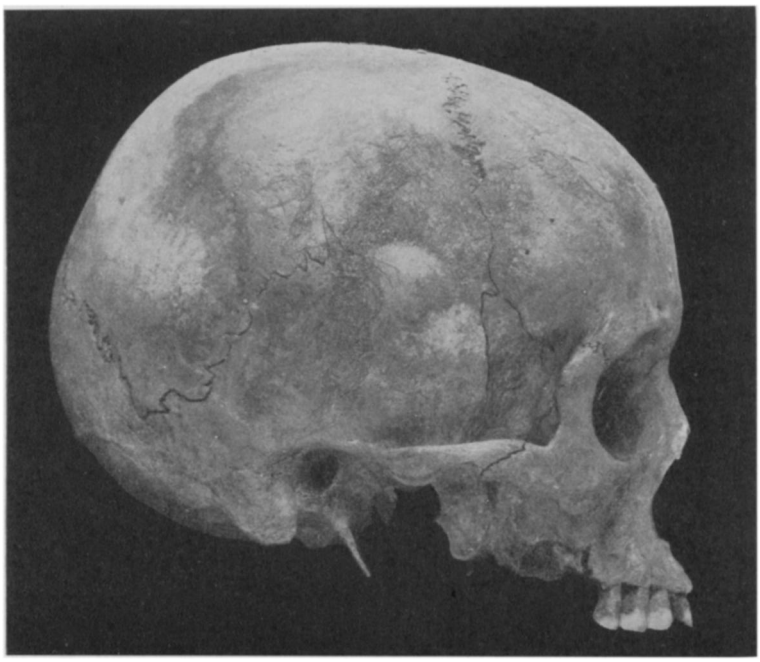

FIG. 1.

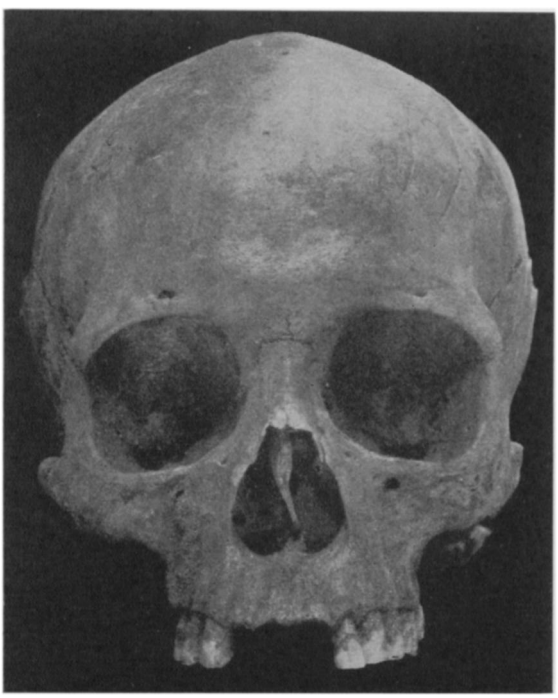

FIG. 2.

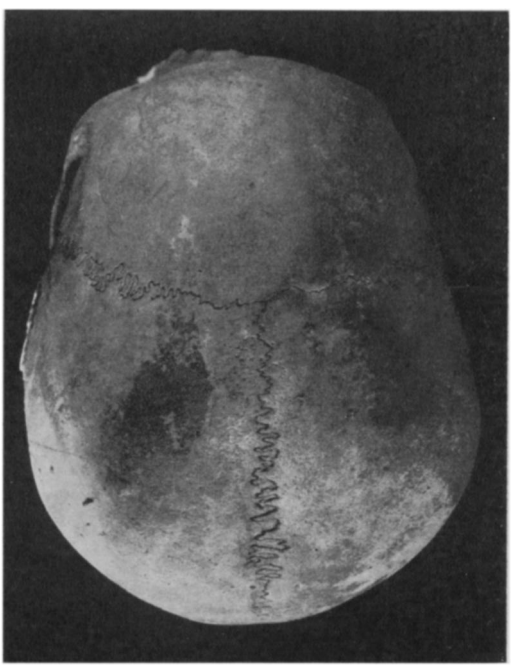

FIG. 3.

HADENDOA SKULL NO. III.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

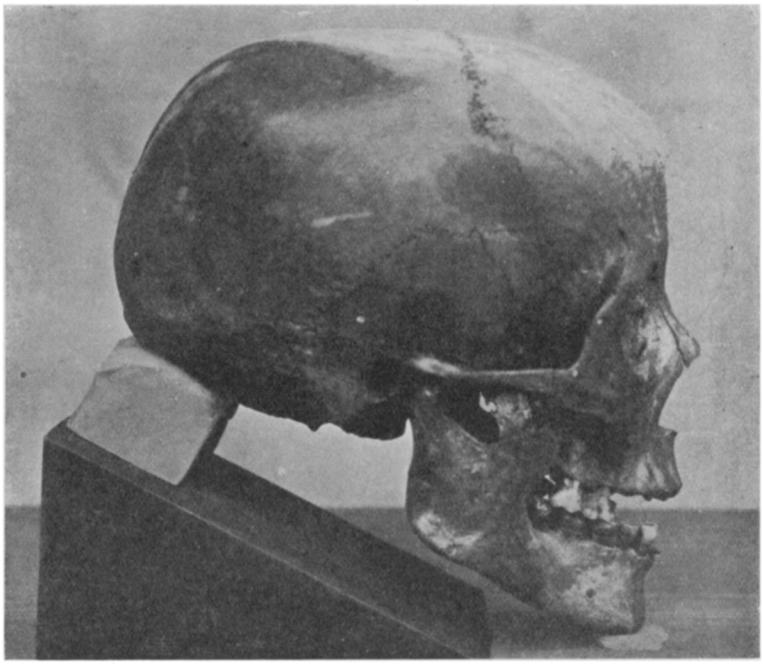

FIG. 1.

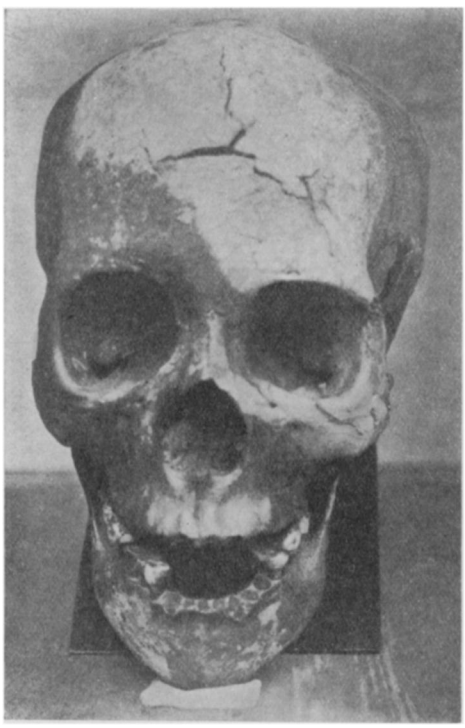

FIG. 2.

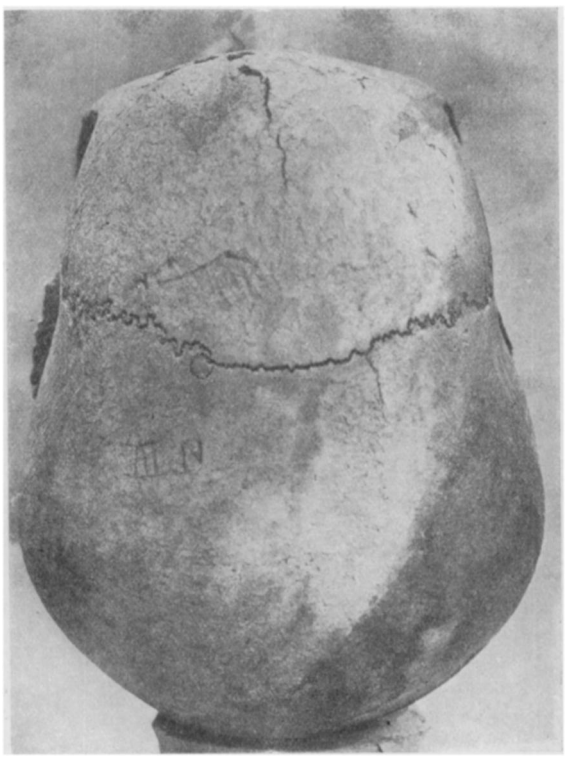

FIG. 3.

HADENDOA SKULL NO. IV.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

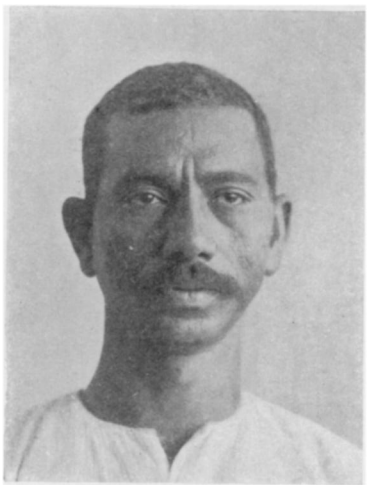

FIG. 1.

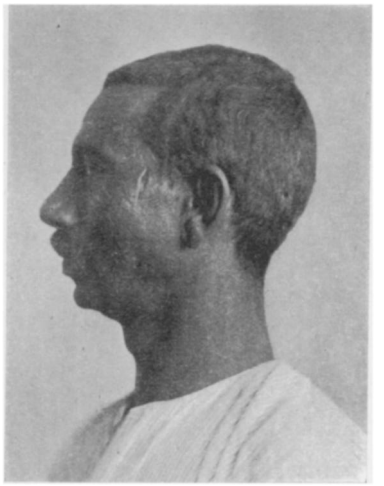

FIG. 2.

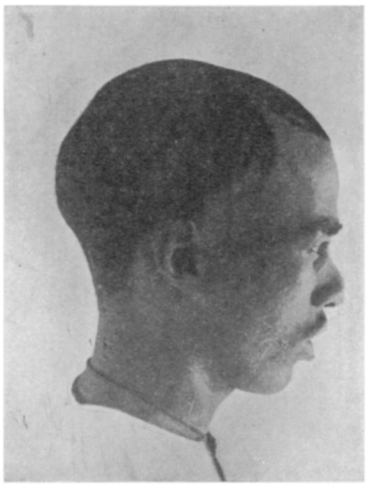

FIG. 3.

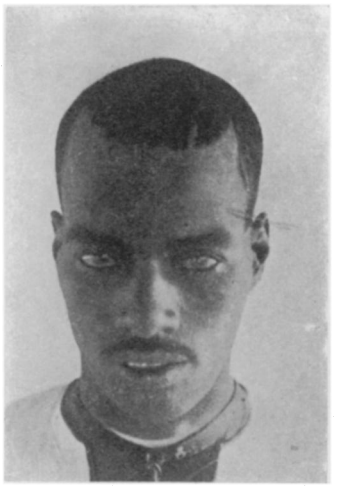

FIG. 4.

FIG. 5.

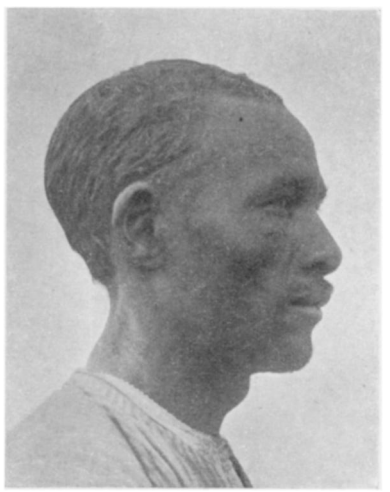

FIG. 6.

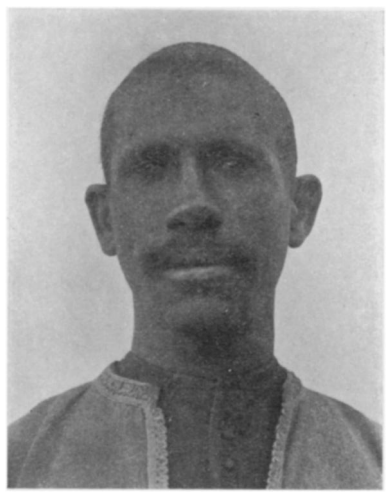

FIG. 7.

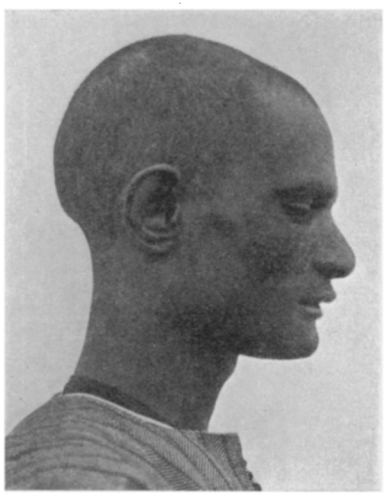

FIG. 8.

BARABRA TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

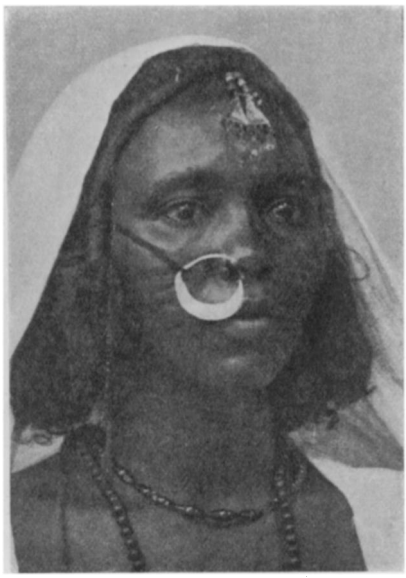

FIG. 1.

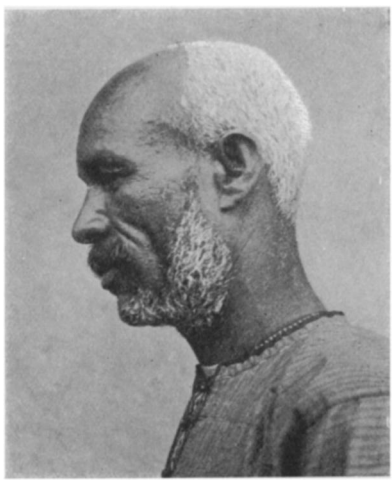

FIG. 2.

BARABRA TYPES.

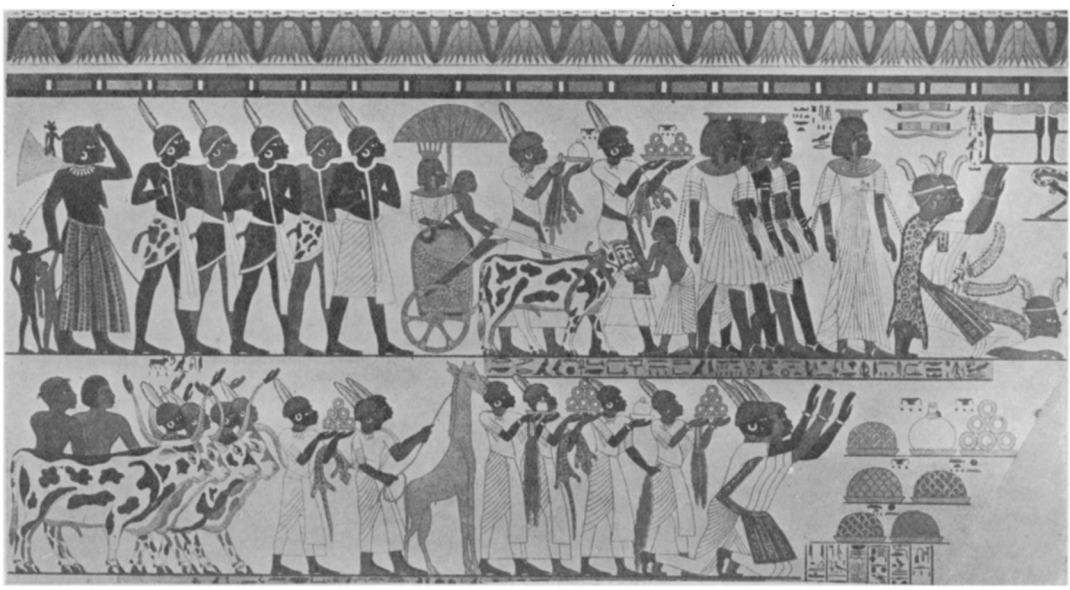

FIG. 3.

PART OF WALL PAINTING FROM TOMB OF HUY.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

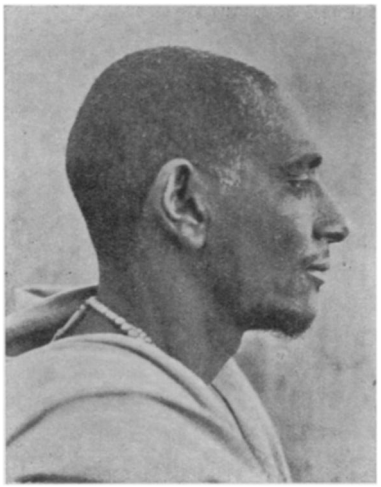

FIG. 1.—TYPE 5.

FIG. 2.—TYPE 5.

FIG. 3.—TYPE 7.

FIG. 4.—TYPE 7.

FIG. 5.—KABABISH SHEYKH ALI TOM.

FIG. 6.—TYPE 8.

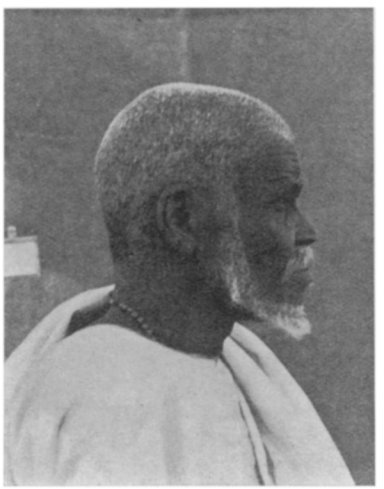

FIG. 7.—TYPE 1.

FIG. 8.—KABABISH WOMAN.

KABABISH TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

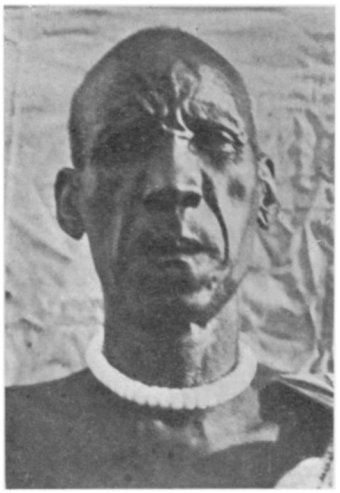

FIG. 1.—TYPE 19.

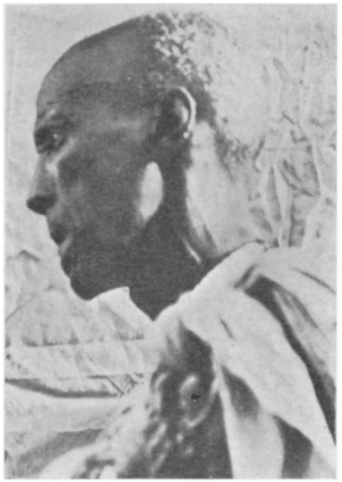

FIG. 2.—TYPE 19.

FIG. 3.—TYPE 20.

FIG. 4.—TYPE 20.

FIG. 5.—TYPE 17.

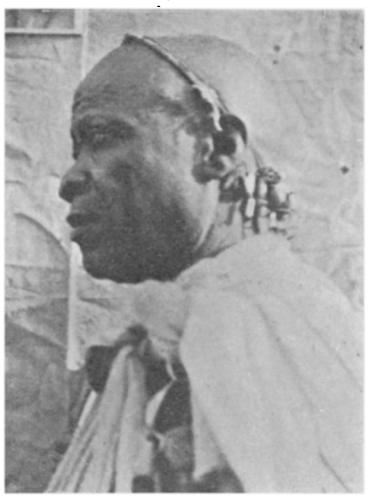

FIG. 6.—TYPE 17.

SHILLUK TYPES.

SOME ASPECTS OF THE HAMITIC PROBLEM IN THE ANGLO-EGYPTIAN SUDAN.

about 7 to 1 against so large a series of deviations as actually occur in the third group (stature).

The conclusion is that these observations might have been correctly made by random sampling from normally distributed physical characteristics, if we can allow for the two heads with large C.I., of course there are other more composite groupings from which these could conceivably have arisen, but there is no indication of the mixture of two distinct groups with widely differing averages.

PLATE XXV.

Beni Amer village.
Hadendoa encampment (Sinkatkenab).
Hadendoa temporary shelter.

PLATE XXVI.

Group of Beja, in front are three Beni Amer, behind them two Hadendoa.
Group of Hadendoa (Bedawib).

PLATE XXVII.

Beni Amer types.

PLATE XXVIII.

Hadendoa types.

PLATE XXIX.

Hadendoa types.

PLATE XXX.

Beja from twelfth dynasty tomb.
Head of Rameses II. (Turin Museum).
Head of Beni Amer showing resemblance to head of Rameses II.
Ivory head of protodynastic Egyptian from Hierakonpolis (Quibell).
Head of Beni Amer showing chin-tuft beard.

PLATE XXXI.

Hadendoa skull No. I.

PLATE XXXII.

Hadendoa skull No. II.

PLATE XXXIII.

Hadendoa skull No. III.

PLATE XXXIV.

Hadendoa skull No. IV.

PLATE XXXV.

Barabra types.[1]

PLATE XXXVI.

Barabra types.
Part of wall painting from tomb of Huy (Lepsius).

PLATE XXXVII.

Kababish types.

PLATE XXXVIII.

Shilluk types.

[1] I am indebted to Dr. Wood Jones for Figs. 3 and 4, and to Mr. Blackman for Figs. 5, 6, 7 and 8.