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VOLUME XXXI, PART I. JUNE 1950

السودان في رسائل ومذكرات

Sudan Notes and Records

INCORPORATING المندمجة فيها

وقائع الجمعية الفلسفية بالسودان

Proceedings of the Philosophical Society of the Sudan.

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NOTES TO CONTRIBUTORS.

Contributions and correspondence are welcomed and should be addressed to the Editor. Contributors receive thirty free copies of articles published: further copies can be supplied at cost price on request. MSS. and photographs etc. are not returned unless specially asked for.

Where possible, proofs are submitted to authors for correction: authors are requested to make only essential corrections in the proofs. The Editor reserves the right to make any corrections or alterations he may deem necessary.

To assist in the preparation of material for the printer, contributors are asked to observe the following rules:—

1. Articles should be submitted, if possible, in typescript (though this is not absolutely essential), typed with double spacing, on one side of the paper only.

2. Arabic or other foreign words, including Latin scientific names of species etc., should be underlined (not in inverted commas) and where necessary followed by the English translation in brackets. The Arabic form for the word may also be given. Titles (but not authors) of books or periodicals mentioned should also be underlined (not in inverted commas). If there are several references it is better to list them at the end and refer to them in the text by numbers or by author and date only.

3. Articles should where possible be divided by suitable headings and subheadings. Paragraphs should not be numbered. Contributors are invited to add a Summary to their articles.

4. For the translation of Arabic words the orthography of the Journal, and for place names that of the Survey Dept. (R.G.S. II), should be followed; for the other African languages that of the International African Institute may be followed.

5. Maps and diagrams should be drawn as neatly and simply as possible in black ink on white paper. Where possible a portion of an existing map should be used and the Survey Department should be consulted at an early stage. While unable to undertake the drawing of special maps they may be able to modify an existing one to suit the purposes of the contributor.

SUDAN NOTES AND RECORDS

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السودان في رسائل ومدونات

INCORPORATING المندمجة فيها

وقائع الجمعية الفلسفية بالسودان

Proceedings of the Philosophical Society of the Sudan.

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Sudan Notes and Records exists to promote the collection, exchange and publication of information about the Sudan in every aspect of its history, its people and its institutions, including not only the social but also the natural sciences. Any views expressed in any contribution published are those of the contributor alone and the Committee restricts itself to approving any material for publication as a contribution to knowledge in the Sudan.

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Transliteration of the Arabic Alphabet

adopted by the Editors of *Sudan Notes and Records*

ا	at beginning of word omit, hamza (') elsewhere	ذ	dh (coll. d)	غ	gh
		ر	r	ف	f
		ز	z	ق	q (coll. g)
ب	b	س	s	ك	k
ت	t	ش	sh	ل	l
ث	th (coll. t or s)	ص	ṣ	م	m
ج	j or g	ض	ḍ	ن	n
ح	ḥ	ط	ṭ	ه	h
خ	kh	ظ	ẓ	و	w
د	d	ع	'	ي	y

VOWELS.				DIPHTHONGS.
fatḥa	a,	lengthened	ā	ى —ai (as in aisle).
kasra	i,	„	ī	و —au (as in mauser).
ḍamma	u,	„	ū	

The ل of the article always remains *l*.

The silent *t* (ة) is omitted.

NOTES.

1. The system is not applied to well-known names, such as Khartoum, Omdurman, etc.

2. The vowel sounds of *e* in "get" and *o* in "hot" with the corresponding long vowels (*a* in "gate" and *o* in "home"), which occur only in the colloquial, are expressed by e, o, ē, ō.

e.g. beled, Moḥammed, bēt (or beit), ḥōsh.

Ei may be used as alternative to show the long ē.

3. In geographical names the conventional spelling used by the Sudan Government Survey Department is followed, although not always agreeing with the above transliteration.

4. At present phonetic type is not available for proper reproduction of non-Arabic African languages.

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[illegible]

EDITORIAL NOTES.

THIS Part of Volume XXXI bears the date of June 1950. We hope henceforward that this Journal can appear with reasonable regularity in or about June and December of each year, and the Parts will be dated accordingly. It is hoped that thereafter subscribers will thus be able to know when to expect their copies.

* * *

The Editor and Hon. Treasurer, as well as the subscribers concerned, are experiencing great difficulty in the numerous cases where subscribers do not notify their changes of address. We do our best to keep a check on officials in the Sudan by means of the Government List, but have no check on other subscribers, and in any event no responsibility can be accepted where copies go astray through failure to notify change of address.

* * *

Readers will notice a change in our title. Some may already be aware of the reasons for this, but it may be desirable to give an explanation here. The Philosophical Society of the Sudan was founded in 1946 and a report on its activities appeared in Volume XXIX Part 2 : we have also been pleased to publish a few of the papers read to the Society from time to time. When the Society came recently to consider more regular and complete publication of its transactions, it appeared to the Committees of both the Society and this Journal that some form of joint publication would further the interests of both : it is hoped that it will be economical, will ensure the maximum circulation for material of value and will promote our policy of widening the scope of this Journal.

We hope therefore that from now onwards we shall publish regularly all papers of permanent value (other than those which would more suitably appear in a specialised technical journal), together with a brief record of discussions following the papers, and notes on the Society's activities. The size of the journal may be slightly increased, but at present, at any rate, there will be no change in price. As the agreement was only made just as we go to press there has been no time to include more than one paper, but it is hoped to publish more in Part 2.

* * *

Readers may be interested in a letter we have recently received from Sir E. Bonham Carter, former Legal Secretary of the Sudan, which throws light on the origins of this Journal. He writes :—

" I have a special interest in *Sudan Notes and Records*, since it was initiated by Crowfoot and myself. The suggestion that such a journal should be started was made to me by Lt. Colonel the Hon. Milo Talbot, R.E. He had held the position of Director of Survey and after he had left the service he came back as representative of British Army Intelligence Service. This was during the first World War. I passed on the suggestion to Crowfoot who took up the idea, and a meeting was held at which it was decided to start the Journal.

The aims with which the Journal was started have been carried out in the past, and I am confident that under the new management the value of the Journal will be increased."

* * *

The rapid development now taking place in the Sudan finds its reflection in an increased volume of publications, the majority of which, it is hoped, find mention in the annual bibliographical list which we are endeavouring to maintain. The vernacular press shows a succession of new magazines or newspapers (many only ephemeral) and in 1949 there appeared two modest new technical publications on special interests, namely the Game Preservation Section's *Wild Life and Sport*, and *Silva* the magazine of the Sudan Forestry Society. We welcome these even though they may to a certain extent be our competitors.

* * *

We have recently received from L'Institut Français d'Afrique Noire, Centre du Cameroun, a handsome volume in their series of " Mémoires " dealing with ethnography. This one is entitled *Inventaire Ethnique du Sud-Cameroun* and contains a comprehensive description of all the peoples of the region, arranged primarily by language classification. In each case there is a short description and sketch map of the locality, a note on such matters as physical indices, language and population density, and finally a bibliography of the locality.

The value of such a handbook must clearly be immense, both for present use and for future reference as a historical record. The absence of any such general work on the peoples and regions of Sudan is to be deplored (indeed the only general descriptive work written in the past

40 years is the rather unsatisfactory *The Sudan in Evolution*). There already exist in most district offices and province headquarters district "handbooks," many of them a mine of information, yet not available to the general public. Could not a "Sudan Handbook" be produced on these foundations without undue difficulty?

* * *

A short while ago Mr. A. C. Beaton wrote to suggest that records should be compiled of Sudan tribes and published here. We print in this number a sample from Mr. Beaton himself of what he had in mind. Can no one else make a contribution?

* * *

The article on "*Zār* and *Tambura*" in this number makes an interesting commentary on Mr. Trimingham's recent book *Islam in the Sudan*, and should be considered in relation to the advances being made by Sudanese manhood in other fields. These practices are wellknown in the towns of the northern Sudan and must supply some real psychological want. Yet they reveal how great are the changes required if we are to reach a stable integrated society of both the sexes.

NOTES ON PRINCIPAL CONTRIBUTORS.

Brigadier General M. F. GAGE, D.S.O. 5th Dragoon Guards: Served in Uganda 1898-99, was later Military Attaché at Washington.

E. E. EVANS-PRITCHARD: Professor of Social Anthropology and Fellow of All Souls College, Oxford. Author of books and of numerous articles on the Zande, Nuer, etc.

R. KIRK, O.B.E.: Assistant Director Research, Stack Medical Research Laboratories, Sudan Ministry of Health.

S. SANTANDREA: Verona Fathers Mission to Central Africa.

S. ZENKOVSKY: has lived many years in Omdurman as a missionary. Her *Customs of the Women of Omdurman* appeared in Vols. XXVI Part 2 and XXX Part 1.

J. N. D. ANDERSON: lecturer in Islamic Law at the School of Oriental Languages, London University. Has spent many years in Cairo.

SUDAN NOTES AND RECORDS
INCORPORATING
PROCEEDINGS OF THE PHILOSOPHICAL SOCIETY OF THE SUDAN.

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SUDD CUTTING

EXPERIENCES OF THE EXPEDITION FROM UGANDA 1899/1900

By Brigadier General M. F. Gage, D.S.O.

On the 8th September 1899, Commandant Henry, who was at that time commanding the Congo Free State Troops in the Lado Enclave, arrived at Fort Berkeley, the most advanced British Post on the Upper Nile some 10 miles south of the Belgian Post at Rejaf.

The Commandant suggested that we should carry out a combined reconnaissance of the Sudd Region of the Bahr el Jebel. I had arrived in these regions the previous Christmas with Lieutenant Colonel Matyr's expedition from Uganda, and being cognizant of the object of this advance down the Nile, and of the importance of discovering the exact extent to which the river was blocked by the Sudd, I unhesitatingly fell in with Commandant Henry's suggestion, considering that the opportunity was too good to be lost since we could mutually aid each other with the means at our disposal.

The following morning I left Fort Berkeley in the Uganda Protectorate launch *Kenia*, accompanied by Dr. Arthur Milne, a medical officer of the Protectorate, together with a Sudanese officer and 10 rank and file of the Uganda Rifles.

After short rests at the Congo State Posts at Rejaf and Lado, we arrived at their most advanced Post at Kero (5° 30 N. Lat.) on the 12th September. On the 14th September we finally started on our reconnaissance Northward,—Commandant Henry with two of his European Officers and some 40 rank and file, in the Belgian paddle steamer *Vankerchoven* and three steel life boats, the British party in the steam launch *Kenia*.

Commandant Henry had already informed me that he had been as far as Lake No in his steamer. Here he had found what he termed a

"Barrage" and he was of the opinion that it would require about ten days to cut through. We therefore started full of hope, with a three months' supply of food, little anticipating the weary period of anxiety with which we were to be faced before reaching the northern limit of the Sudd.

At Bor, we found the remains of a Dervish encampment which consisted of a fortified mud wall and deep ditch prepared against land attack, but quite undefended from the river side, and easily open to assault by boats. The Dervishes, some 2000 strong under the Emir 'Arabi Dafallah, had evacuated this post towards the end of 1898. They proceeded north in their steamer for about 80 miles and landed on the left bank. According to native reports they here sank their steamer and proceeded inland en route for Kordofan. Between Bor and Shambe the country was entirely without interest. There appeared to be no game near the river, and all that one saw were a few scattered villages of the Dinka tribe. The former mission stations of St. Croix and Abu Kooka were desolate and deserted like the rest of this miserable country.

On September the 18th the expedition arrived at Shambe. I had previously received various native reports of the white men being in this region, and I was not altogether surprised to find the Tricolor flying here, heralding a small French Post consisting of some 30 Senegalese *tirailleurs* under the command of a delightful officer, Lieutenant de Tonquédec of the *Infanterie de Marine*. The origin and mission of this French expedition to the Upper Nile valley forms an extremely interesting event in the political history of that period. It is sufficient to state that though intimately connected with the Marchand expedition, it was altogether independent of it, and was given a definite political objective. At the time of the evacuation of Fashoda neither the French Government, nor Marchand, nor the British Government had any definite news of the fate of this particular expedition. The real point of interest to me was that this gallant French officer accompanied by an equally fine type of N.C.O., Sous Officier Salpin, had marched 1100 miles from the West Coast through practically an unknown country with a small force of Senegalese, and had achieved their mission.

It was not an easy one, and they suffered considerable hardships and dangers in its accomplishment through lack of food and water, difficulties of transport, and constant attacks by hostile natives, not to speak of climatic influences. They lost some 30 per cent of the force. The expedition had arrived at Shambe on the 20th March 1899, Lieutenant de Tonquédec and Sous Officier Salpin having left France on the 10th July, 1898.

Needless to say, we were received with the greatest courtesy and hospitality by Lieutenant de Tonquédec. He gave us most interesting details of the country he had traversed, and of the sport he had enjoyed round Shambe. He was a keen sportsman as was evidenced by the lion skins, buffalo and other heads which adorned his hut. At that period the neighbourhood of Shambe and Abu Kooka abounded in game of every description. Lions, elephants, ostriches, giraffes, buffaloes and various species of antelopes were to be met with in large numbers, the former being the most common.

It was with much regret that we left Shambe and our charming French hosts on the 20th September to continue our reconnaissance towards the north. I had explained the political situation to de Tonquédec and had invited him to accompany our expedition forthwith. He not unnaturally demurred at this until he had received orders from his Government to evacuate Shambe. On receipt of these, he purposed to follow us towards Khartoum.

Soon after leaving Shambe the Sudd region was reached. The Sudd never forms south of this place since the river flows between more or less solid banks. From the moment one leaves Shambe travelling north, the Nile flows through one vast marsh, parts of which become *terra firma* during the dry season. These conditions obtain as far as Lake No.

According to native reports, the point where we now entered the Sudd region had been blocked comparatively recently, and though the true course of the river was still blocked for some distance, the current had now forced a subsidiary passage through the floating masses of papyrus. This passage continued for about 10 miles when it rejoined the true channel and flowed north as a magnificent river at an average depth of 25 feet, and varying in width from 70 to 100 yards as far as 8° 34′ N. Lat. At this point the actual Sudd block commenced.

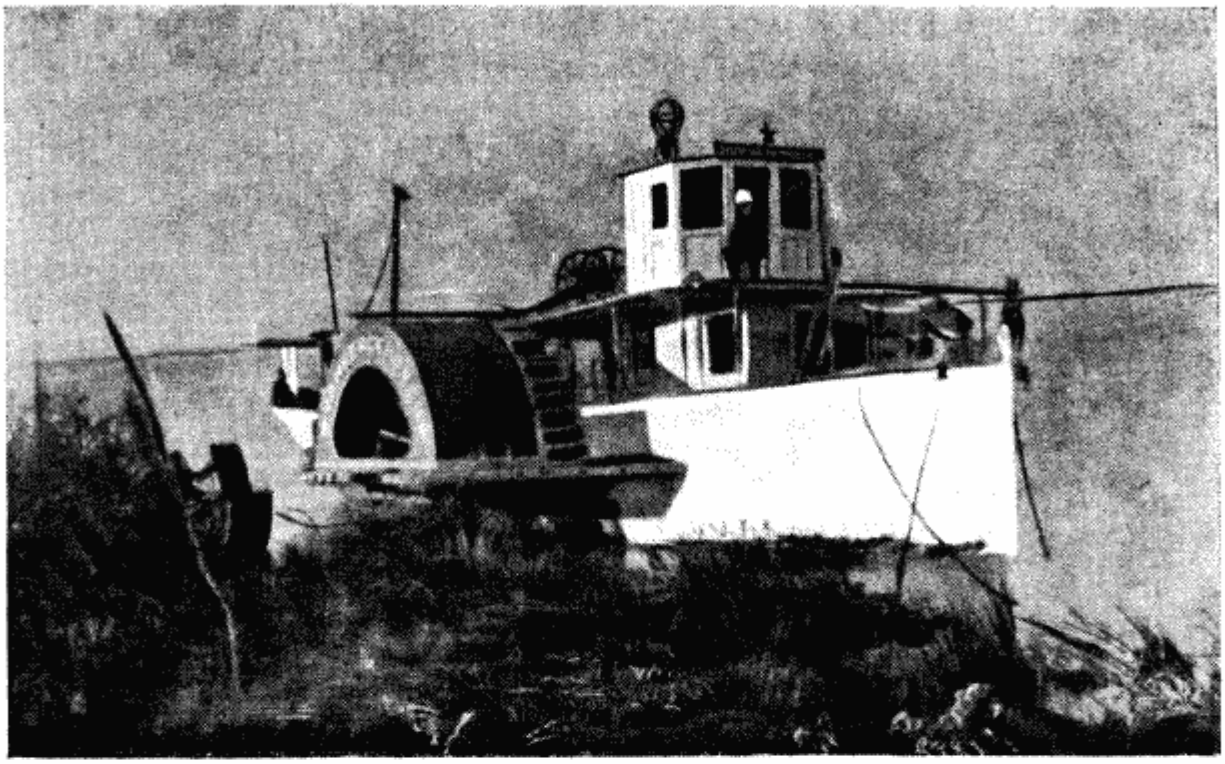
From Shambe to approx. 9° N. Lat. the river was bordered at intervals on either bank by extensive lagoons filled with floating islands of papyrus which sail about at the will of the wind. During the rainy season these islands are blown into the main river channel by the frequent squalls which are prevalent at that period, and are carried down in tangled masses by the current, often wrenching more masses of papyrus during their course from those bordering the river. Those formidable floating islands of papyrus weed, with roots perhaps 10 feet in length and a foot in diameter, continue their course until, either at a bend in the river, or when the latter suddenly narrows, they become jammed. Fresh islands constantly arriving from behind are carried by the strong current under the block already formed, and these in their turn become

entangled in the long roots of the papyrus. It will thus be seen that it is only a matter of time for the bed of the river to become completely blocked over an indefinite length. At the time I am describing, this process had evidently continued for many years with the result that the large volume of water descending from the Great Lakes could no longer find a passage through the river course, and was therefore overflowing on either side and inundating this region to an indeterminate extent.

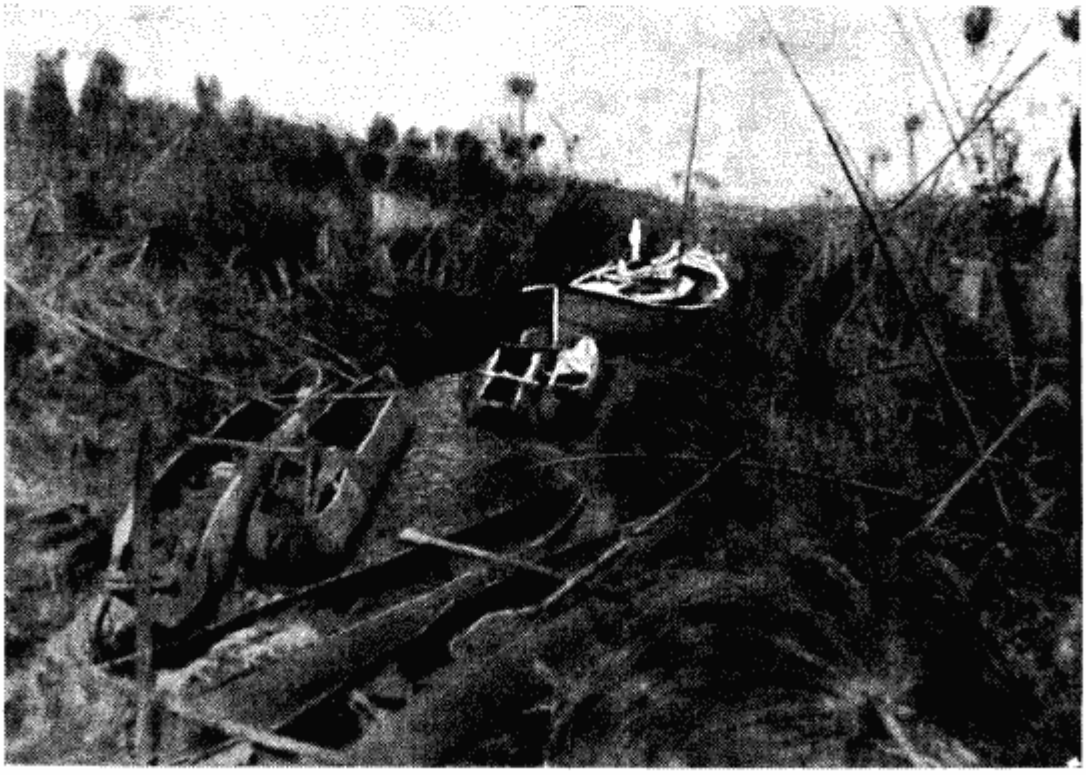
We arrived without difficulty at the first Sudd block (8° 34′ N. Lat.) on the 24th September, and at this point the troubles of the expedition began. The Nile had apparently ceased to exist. A magnificent river so far, now it had suddenly been arrested by this extraordinary barrier of Sudd. Nevertheless, the huge volume of water could not be wholly stemmed, and it had forced a passage 30 yards broad and 2000 yards in length into a large lagoon 2½ miles long by one mile in breadth. Through this passage the water was pouring like a torrent. From the lagoon no exit could be found, and the only indication that the river still continued in a northerly direction was a slight current which was observable at the north end of the lagoon. This current flowed slowly under the vast expanse of Sudd. It was evident that this flow of water was distributed over a large area as the lagoon was bordered in all directions as far as the eye could reach, by floating papyrus eighteen feet high. (vide II. on sketch).

From the observatory of the *Vankerchoven* which was some 30 feet above the level of the water, another large lagoon was descried towards the north on the far side of the Sudd, at about a mile distant. Since it was probable that some further indications concerning the direction etc., of the river would be obtainable from that lagoon, we determined to pay it a visit in one of the steel life boats. In order to do this it was necessary to drag the boat across the intervening Sudd, and we succeeded in reaching the new lagoon in the evening, after a long day's work with 30 men hauling the boat. The new lagoon extended for three miles in a northerly direction, but, here again no exit could be found, and from the masthead of the life boat nothing but a mass of Sudd was visible in every direction.

It was now evident that the course of the river was blocked for some considerable distance, so, in order to obtain further observations, we decided to cut a passage back to the lagoon we had left. This effected, it was intended to bring the steamers through to this third lagoon, when it was hoped that from the observatory of the *Vankerchoven* we should be able to see a long way over the Sudd towards the north,



The Belgian Steamer "Vankerchoven" at anchor on the Upper Nile.



Cutting a passage for the boats through a "Sudd" block.

and possibly discover free water. It must be remembered that the height of the papyrus which formed the Sudd varied from twelve to twenty feet, and it was therefore impossible to see to any distance from the masthead of a lifeboat.

On the 30th September we commenced our first attempt at Sudd cutting, and after six days of exceedingly trying work, we were obliged to own ourselves temporarily beaten, for, having opened up a passage 1000 yards long, the whole of the surrounding Sudd then began to move and three times closed up the mouth of our channel which required two days' work to reopen. Finally it became closed for a fourth time, and since there was very little food left for the men, we decided to return across the Sudd to the lagoon where we had left the steamers, and thence to proceed seventy miles up stream to the only village in those marshes, in order to purchase the necessary supplies of food from the Nuer tribe.

Unfortunately, on arrival at the steamers, we found that the *Vankerchoven* was firmly embedded in the Sudd, and three days were spent in getting her out of it; all of us in the meanwhile being on somewhat short rations. During our absence Sudd cutting, the launch *Kenia* had proceeded up stream in search of hippopotami for food. She was unable to return, having been cut off by a new block of Sudd which had formed between her and the *Vankerchoven*. Fortunately the latter was able to disengage this obstruction when all parties were reunited after a week rendered anxious on account of the food question.

A fortnight was now occupied in obtaining a supply of wood for the steamers and a two months' supply of food for ourselves. At the expiration of that period we resumed Sudd cutting operations with a view to carrying out the original scheme of connecting the two lagoons. Work was recommenced at the old place, but, in order to allow a free passage for the floating papyrus in the event of a further debacle of the Sudd, the channel was considerably widened, and after eight days' work from sunrise to sunset, a fine current was established. This was of considerable assistance to the work.

On the evening of the ninth day's work the expected debacles occurred, and enormous masses of Sudd began to pass through the artificial channel which we had cut, and continued without interruption for five hours. We awaited the result with the greatest anxiety. It was impossible to move the boats out of the way, so suddenly did the Sudd give way. The only chance of preserving the boats was to remain anchored to the papyrus which itself was anchored by means of its roots to the bed of the river, and which thereby formed a temporary

bank. There was no *terra firma* so it was not possible to land. Fortunately the boats were solidly built and were able to withstand the immense pressure which was brought against them by those vast masses of Sudd as they were forced by the current through the passage and carried into the lagoon to the north. The current was pouring through the channel at the rate of about 6 miles an hour, so it can readily be understood how great a strain was placed on the boats when masses of Sudd varying in breadth from 80 to 100 yards, and sometimes as much as 300 yards in length, were compressed and driven by the current through a channel less than 40 yards in width.

It was a full moon and almost as bright as daylight, and the spectacle was really imposing as this great expanse of weed passed in struggling procession before our eyes. The analogy appeared to me to be that of a struggling panic stricken mass of humanity seeking safety through some narrow exit as it tore and wrenched itself in its efforts to escape, until absolutely solid blocks of entangled weed were formed mixed with ambatch wood.

Every moment we expected the channel to be irreparably blocked by these solid formations. They passed on painfully slowly to the anxious watchers who foresaw the possibility of eight days' work being wasted. However, at midnight, after five hours of an irritating though almost majestic procession, the movement ceased, and as far as the eye could see by moonlight, the passage appeared absolutely clear towards the south. The following morning, to our delight, we found ourselves in the true river course in 800 yards of free water. The Sudd blocking the actual river had thus been drained through a narrow channel into a lagoon bordering the right bank, but it had cost us 8 days' hard work, and the results were not altogether encouraging. We had, however made a valuable discovery, for until now we had no positive idea as to the whereabouts of the true course of the river, so completely had it been concealed by the Sudd.

Another three days' work and the two lagoons were connected by a free waterway, and through this the steamers were brought and subsequently anchored in a small lagoon six miles north of their former anchorage. Here however, we were again doomed to disappointment since, from the observatory of the *Vankerchoven* it was observed that the Sudd still blocked the river indefinitely towards the north, without any free water being visible.

I have already explained how the country bordering the Nile in these regions had become inundated where any serious Sudd block obtained in the river's course. At the position where we now found

ourselves, these inundations evidently extended for some considerable distance. They showed an average depth of four feet of water and were overgrown with water grass fifteen feet high, which at this season of the year is fortunately easy to burn. It was found comparatively easy to beat a track through this grass after it had been burnt, and to tow the boats by means of ropes. It was therefore decided to push a reconnaissance northwards by this route in preference to tackling the actual Sudd in the river. The line of the latter was clearly indicated by the high papyrus weed which blocked it. We hoped therefore by keeping close to this clearly defined line of the river to again strike a free waterway, and thus to be able to determine the approximate extent of the Sudd.

For twenty days the reconnaissance was prosecuted across this inundated marsh ; the track was made by fifteen men wading in front of the boats in wedge shape formation and beating aside the grass ; the remainder of the men then pulled and poled the boats after them. Progress was necessarily very slow, and though the men as always, worked with a hearty good will all day under an exceptionally trying sun, not more than sixteen miles were covered during the twenty days. Three portions of open river varying from 1000 yards to a mile in length, were encountered, as also several large lagoons bordering the river, all of which materially aided us in our progress to the north. By the twentieth day we had only six days' food left, and it was therefore essential to return as fast as possible to the steamers, and again to proceed up stream to replenish our supplies. We had kept on until the last moment in the hope of finding the end of the Sudd and it was disheartening to have to turn back, but it was inevitable since there was no food ahead of us that we knew of, nor animal life of any description.

The return journey was accomplished in less than half the time it had taken to come, for the track being already made, the boats were easily drawn along by ropes. Unfortunately the men were now becoming weak from lack of sufficient food, hard work, wet bivouacs and mental depression, and sickness became prevalent. The Europeans were in no better plight, being limited to one small *kisra* (biscuit made of durra) a day, and it was not without the loss of three Congo State soldiers that was finally rejoined the steamers on the 1st December.

We now returned upstream in order to replenish our supplies. We were only able to carry a 2 months supply of grain in the boats, and of this a large quantity was reckoned to go bad through exposure to the damp. It was during this, our last voyage upstream, that one

day as we came round a bend of the river we perceived a flotilla of dug-out canoes coming towards us. They contained Lieutenant de Tonquédec and his Senegalese soldiers. Having evacuated Shambe and the other posts, they were returning to Europe via the Nile in the belief that we had already successfully negotiated the Sudd, since we had left them two months ago. They hoped therefore, to find a free waterway to Khartoum. Lieutenant de Tonquédec assumed that we were on our return journey from there, and he was much disappointed to hear that the river was still blocked.

Lieutenant de Tonquédec decided to accompany us on the second attempt to reach the free river on the north side of the Sudd which we had determined to undertake. In the meanwhile he and his party accompanied us to the village of Hillet Nuer, where the necessary food supplies were to be obtained. This village was inhabited by the Nuers who were much alarmed at our arrival. Nothing would induce them to make friends, though every effort was made to give them confidence in our peaceful intentions. They were a rich and prosperous community, possessing large herds of cattle and sheep, and extensive crops of *durra* (white sorghum).

During the twelve days that we were encamped in the neighbourhood of their village, they proved to be an intractable and hostile people, and on three occasions endeavoured to surprise our camp by night. It being apparently impossible to gain their confidence during our short stay, we were obliged to help ourselves to the necessary supplies of food for which we left good presents of cloth etc., in their houses. They no doubt proved more genial in their subsequent dealings with white men.

The scattered villages in this district are built on the only *terra firma* which we came across in these marshes. Even here, the ground becomes sodden and marshy during the rainy season, as was apparent from the ditches which had been dug round the houses to protect them from inundation. The villages lay along the banks of a branch stream leaving the left bank of the Nile at about 8° N. Lat. and then ran in an N.N.W. direction for a distance of forty miles when it was blocked by a mass of floating islands of high grass. This little river was not shown on any map, so it had apparently been formed comparatively recently, or may have been blocked at its exit from the Nile, and have thus excaped observation.[1] It had a current of 3½ to 4 miles an hour, and its average width was 200 yards. There was no great depth of water anywhere,

[1] It subsequently became known as " Gage's Channel," but did not connect with the Bahr el Ghazal, as the author hoped.—*Ed.*

it being as shallow in places as some of the numerous lagoons already mentioned, which usually averaged about seven feet of water. This branch stream swarmed with hippopotami which were a great boon after such short rations. Elephants were also seen here on one or two occasions, and I succeeded in bagging a fair tusker the day before we left the neighbourhood. This came in very useful for making biltong as an addition to our food supply.

On the 20th December (1899) we started off on our final endeavour to negotiate the unnavigable portion of the Nile, with the further addition to our party of two Frenchmen and 38 Senegalese *tirailleurs*.

Over three months had now elapsed since my departure from Fort Berkeley, so, in order to relieve any anxiety which might be felt owing to our non-appearance either at Khartoum or back at Fort Berkeley, I sent the launch *Kenia* back to the latter place with information as to our where-abouts and future intentions. At the same time, she took some Belgian invalids to Kero, they being in need of rest and change of climate. In the meantime I left instructions (through the courtesy of Commandant Henry) with the engineer in charge of the Belgian steamer *Vankerchoven* to remain in the free portion of the river. Here she would eventually be rejoined by the *Kenia*. If, by the end of March, nothing had been heard of us, the two steamers were to return to Kero.

This time we started in the three steel life boats with a good supply of dried hippopotamus and elephant's meat, and a two months' supply of grain for all hands. No more than this could be carried in view of the weight, a very serious consideration in this kind of work.

For the first ten days the old route was followed through the marshes on the right bank of the river, and the going was comparatively easy owing to the track having been well beaten down during our first reconnaissance. On the tenth day, our real difficulties began. The depth of water was diminishing for no apparent reason, and at times there was barely sufficient to float the boats. To hamper us further, the water grass was becoming intermingled with papyrus and ambatch wood, over and through which the boats had to be hauled ; consequently, progress was painfully slow sometimes not exceeding two or three hundred yards a day. The nights were exceedingly trying during our journey through these dreary marshes. At times we were fortunate in finding a comparatively solid island of papyrus on which it was possible to form some kind of bivouac, but more often we were obliged to pack ourselves as best we could, white men and black, into the boats, where pestered by myriads of mosquitoes we endeavoured to sleep. On such occasions it was not possible to cook any food, so the grain had to be

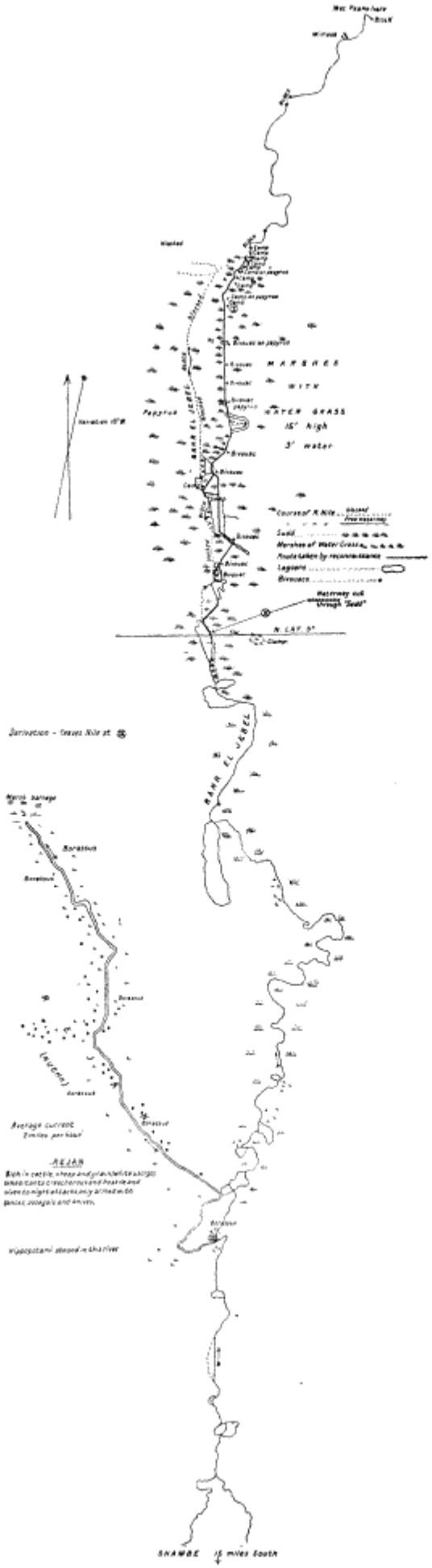
eaten whole, and this invariably caused sickness amongst the men. But for the devoted care and nursing of our sick by Dr. Arthur Milne, himself suffering from dysentery and intermittent fever, our losses from sickness would have been much greater than they were. Even so, our available working parties were greatly reduced after the first week of this trying work.

The men never grumbled however, and though at times they became discouraged after sleepless nights, they invariably recovered their usual spirits quickly.

We discovered a novel way of obtaining fresh meat. This was done by setting fire to the long marsh grass, and then shooting the numerous black diving birds which circled round, evidently attracted by the smoke. They did not often come within range, but half a dozen were sometimes bagged, and were considered a great luxury. Our foreign comrades were even tempted to eat boa-constrictor and snails on one occasion. Nothing can adequately describe the monotony of this journey through the marshes, as day after day we dragged our weary way along without sighting free water of any extent. The end of every day's work apparently brought us no nearer our goal, and each evening's observation from the masthead of a lifeboat disclosed no change in the aspect of the region of this endless tangled weed.

For eighteen days we continued on our route without finding any of the lagoons which had so greatly helped our progress in the past. On the evening of the eighteenth day we unexpectedly ran into papyrus, symbolical of the Sudd which had originally driven us to adopt the marsh route, owing to its hopeless solidity. Here we could observe no exit towards the north, east, nor west, and we knew from experience how futile it was to hope to pull the boats for any distance through such an obstacle. Our spirits were rather low that evening : our future progress appeared to be barred ; and consequently the completion of our task seemed problematical, to say the least. Were we doomed to failure after all, and were four months' work in such arduous conditions to have no result other than an undignified return to our bases ?

However, it is often when things appear at their worst that something turns up contrary to one's expectations, and sure enough, at daybreak on the following day we had our reward. Commandant Henry, on climbing the boat mast, observed for the first time a depression in the papyrus towards the north. It appeared to denote a continuous line running in an easterly direction. Since such a depression might indicate a break in the Sudd, and therefore, free water, we determined to pull the boats across the intervening obstacle. Fortune again



SKETCH OF RIVER NILE

From commencement of "Sudd region" 8° 29' N.L. to within 10 miles of Lake Nic where Major Peakes "Sudd" cutting expedition from Khartoum was met.

Scale 1:300960 1" = 4¾ miles

favoured us, for we struck a small stream which conducted us to within about 200 yards of the depression. At midnight we arrived at that depression which we had viewed at daybreak, and to our delight we found ourselves once again in a broad channel and current which was evidently the river itself. The free water continued as far as the eye could see, when its further progress was hidden by what appeared to be a bend. No further reconnaissance was possible at this juncture since all were too exhausted for further exertion after so strenuous a day. We hardly dared hope that this was at last the end of the Sudd; since there had been so many previous disappointments. Even so, we little realized the obstacles that still lay before us.

We were handicapped in not possessing any kind of a decent map of the Nile. Those in our possession bore no resemblance to the bends and general direction of the river, and since we had no instruments for determining our latitude, it was not possible to gauge accurately how far we were from Lake No, where it was known that the Sudd ceased to be an obstacle to navigation.

Having pulled all our boats into the river early the next morning, we then proceeded down stream to the bend we had observed on the previous night. On turning it, we found our further progress threatened by another barrier of Sudd. It was more solid than any we had yet encountered. For a distance of about 300 yards the boats were pushed and man-handled between the floating islands which constituted the most recently arrived portion of the "block." Then we encountered it as solid as mother earth; evidently this portion had been in existence for some years. It was out of the question to haul the boats over this, nor to cut through it with the means at our disposal; it had become so solid that elephants had actually crossed it, their tracks being quite distinct.

The banks on either side of this "block" were inundated by some three feet of water, so we were able to cut a passage through the papyrus forming these, and to pull the boats along slowly. It took us two days to accomplish the 400 yards to the far side of the "block," when we were once more in the free water of the true river.

After rowing for two and a half miles, the next barrier appeared, as usual, at a bend. It was quite as solid as the previous one. I walked across with Commandant Henry to the far side, and found that it extended for some 900 yards. The left bank here was *terra firma*, while the right bank was only slightly inundated. The inundations were evidently diminishing in extent and depth the farther we proceeded north. Four days were occupied in cutting a passage for the boats

through this further obstacle; we then enjoyed the luxury of thirteen miles of open river, and our spirits rose accordingly, for it looked as if we must surely be approaching the end.

The " block " we next encountered was of much the same character as the preceding ones except that it appeared to be almost imperceptibly moving with the current. This time we foolishly commenced cutting through the middle of the " block." Consequently on the evening of the second day, the channel we had cut began to close in, and it was with the greatest difficulty that two boats were hauled through; the third one remained jammed, and half the following day was occupied in re-opening the channel for her. The channel should have been cut between the Sudd and the bank, where there was not sufficient water to float the former. A passage cut on this principle could not have become closed. At this spot, the Sudd was from ten to twelve feet deep, and it was only floating in the middle of the river; near the banks, owing to a fall in the river, it had become anchored.

On the evening of the third day's work on this " block," the indications were that the whole mass was moving slowly with the stream, and this movement had become quite definite. In consequence another boat became badly jammed.

Fortunately something then arrested the further movement of the " block," or all the boats would have become embedded, and it is doubtful if they would have been able to resist the pressure, so firm and solid had this particular mass of Sudd become. After another five days' work, we succeeded in getting clear of the obstruction, and again we observed free water ahead of us as far as we could see.

We rowed for six hours, and then struck another most formidable looking barrage. While approaching it, a roar like a distant torrent was heard, and on making a reconnaissance on foot across the obstruction, found the whole bed of the river to be completely blocked throughout its width and depth, with the exception of a small subterranean channel which had been made by the force of the current. Through this the water was plunging with great violence, carrying with it huge masses of papyrus. No boat could have lived in this torrent, and it became evident that some caution would be necessary in tackling this extraordinary dam. Having learnt by experience that it was essential to start cutting near the bank, we fortunately took this precaution, and having cut a passage of some 200 yards in length in our first day's work, we formed our usual camp for the night on the papyrus bordering the right bank of the river.

We, the Europeans, were sleeping in the boats, our mosquito nets,

as usual, tied to oars stuck into the mud at the bottom of the river. About midnight we were awakened by the nets being torn from the oars, and a peculiar crackling noise all round ; a sure indication that the Sudd had become active and was in movement.

When this movement first commenced, the boats were providentially firmly jammed into the banks (so-called). Meanwhile the mass of Sudd, some 200 yards in length and 80 yards in breadth, through which we had cut our way during the day, was swept past us by the current, and plunged piecemeal into the subterranean channel in front of us. One of our precious dug-out canoes accompanied this procession of swirling papyrus.

The next morning we observed that the solid portion of the " block " which formed the dam, and was some 900 yards in length, remained ahead of us, and behind us all the remainder of the block was clear.

The men were now becoming dispirited, and their former energy and keenness were gradually deserting them, for we were quite unable to tell them how many more " blocks " we were likely to find ahead of us after we had finished with the present one. The never-ending food question was also once more to the fore. We were now reduced to a small stock of grain, a great deal of it having gone sour owing to exposure to the damp, and all our dried meat had been consumed.

I calculated that it would take us 12 to 15 days to make our way across the present " block," and at the end of that time we should have less than a week's supply of food, with the probability of finding further " blocks " ahead. Throughout this vast expanse of marsh food was unobtainable since there did not appear to be a living soul nearer than the village we had left twenty-nine days previously. We had not sufficient food with which to return to this village, so the only chance was to go on, and to trust to luck.

This was the situation on the morning of the 19th January 1900, a day which will ever be remembered by the members of this expedition. We had been working at the Sudd for two or three hours that morning, when my corporal, who had walked across to look at the subterranean passage referred to, returned in a great state of excitement, and informed me that he had seen a steamer on the far side of the " block." No one believed him. I had heard of no expedition from Khartoum, and I doubted if it could be a Dervish steamer escaped from Khartoum. To make sure, I went across myself, and before I was half way I perceived the Union Jack waving high above the papyrus. I then knew that our difficulties and anxieties were at an end, and that the last of the Sudd had been reached. I was informed soon afterwards that we were about 10 miles from Lake No.

We had struck an expedition commanded by Major Malcolm Peake sent by Lord Kitchener to open up the Nile.

It was not long before the whole of our party had crossed the Sudd block on foot, and were being regaled by every kind of luxury by Major Peake, his officers and those under them. The sudden and almost dramatic change from four and a half months of barbarism to, as it appeared to us, the very embodiment of civilisation, was a moment well worth living for. Tobacco instead of convolvulus leaf for our pipes, white biscuits instead of *durra*, fresh meat instead of diving birds, and wine as a substitute for Nile water, were all luxuries which none can really appreciate until they have been similarly situated. Newspapers and telegrams, unknown for so long, were eagerly read, and it was the first and unexpected intimation I had had that England was engaged in a war in South Africa.

Thus we had attained our object four and a half months after our first arrival at the beginning of the Sudd. According to the rough calculations I had been able to make, the river was unnavigable for a distance of some 60 miles. The Sudd was evidently distributed throughout this distance, with portions of free river intervening between the various "blocks."

On January 20th, after being most hospitably entertained by Major Peake's Sudd cutting party on the *Tamai*, we continued our journey towards Khartoum on another steamer. The contrast in rate of progress was impressive, for, we now covered in one day a distance equal to that covered in the previous three months.

At Goz Abu Goma we were joined by Mr. Grogan, who had travelled through from the Cape. He had marched overland from Bor, and avoiding the Sudd region had arrived at Major Peake's base camp quite unexpectedly both from his point of view and that of Major Dunne, who was in command of the camp.

We all went on together to Omdurman, where we arrived on February 5th, 1900. Here we were overwhelmed by the generous hospitality of the Sirdar (Sir Reginald Wingate) and the officers of the Egyptian Army. All our late anxieties were forgotten, and Dr. Milne, Grogan and myself revelled in the delight at again meeting English faces.

Grogan, de Tonquédec, Milne and myself arrived at Cairo on the 16th February, five months after our departure from Fort Berkeley on the Upper Nile.

THE NUER FAMILY

By E. E. Evans-Pritchard

THE HOMESTEAD.

The home of the Nuer family, the habitations in which its members dwell, may be called a homestead. These habitations are a byre and its attendant hut or huts. There may be other kin besides members of the family living in the homestead, but these are chance, and often temporary, members of the home, which belongs to the family. We may speak of them as members of the household of the family.

The byre, a massive wattle-and-daub structure of some 15 to 20 feet in diameter, is the material and moral centre of the homestead. A man who builds a byre has started a family, herd, and home of his own. The byre stands for the father's status in the family. While he is alive his wives and unmarried sons and daughters are bound to him.

The byre looks on to the kraal and is the sleeping-place of the cattle in the rains; and some of the young men of the household may also sleep there, on a platform over the dung fire kept burning in the centre of it to give the cattle protection from mosquitos. In the daytime it is the club-room of the household and the guest-room of the homestead, for byres, besides signifying the presence of a family and its head, are centres of social life in Nuer villages. When one sees a hut by itself it means that the byre has fallen down and has not yet been rebuilt or that the owner of the hut possesses at the time too few cattle to make it worth his while to build a byre for himself, since he can easily house his animals in the byre of a kinsman; unless it is the hut of an old widow or of a semi-detached concubine, neither of whom are likely to have cattle of their own. It sometimes happens that even an unmarried man may have a byre if he is the eldest son of a dead man. When he is initiated into manhood his paternal uncles should build him a byre, "so that his father's fire may be relit," and hand over to him his father's herd which they have held in trust till he should take his father's place as head of the family.

The wife has her hut at the side of the byre, and in a polygamous family each wife has her own hut, where she and her children sleep. Near to it there may be a simple shelter for cooking. In a large homestead there may also be a hut for the youths of the household to sleep in, and perhaps a hut for the senior girls. The head of the family has no hut of his own but sleeps in the huts of his wives. In such a polygamous family all the huts of the wives are built around the byre and this attachment symbolises for the Nuer what we call the agnatic principle of their society, which insists that all the sons of a man belong to his lineage irrespective of their maternal affiliations, their links with the kin of their mothers through the different huts within the homestead. Very early in life small boys are driven by their father or elder brothers away from their mothers' huts to the byre, the place of the menfolk of the family, where they eat, sleep, and spend the leisure hours of the day. When they are about seven or eight years of age they sleep there instead of in their mothers' huts, where the women and girls eat and sleep, and near which they spend most of the day. The men and boys, to whichever hut they may belong, belong also, and primarily, to the byre and to its *gol*, a word which means the hearth of the fire of cattle-dung kept burning in the centre of the byre (there is sometimes a second one in the kraal), and also 'homestead,' 'family,' 'household,' and even 'lineage' in certain contexts. Daughters belong to the huts and they will be married from them into stranger lineages, into which they are absorbed. They are lost to the father's lineage. Sons belong to the byre and to the lineage of its owner. This connection between byre and lineage is seen when a new byre is built, for then the *gwan buthni* of the family, a man of a collateral lineage of their clan who habitually performs ritual for them, is summoned to make a libation of beer to their guardian spirits and to their ancestral ghosts before its central support is planted, so that the spirits and ghosts may give peace and prosperity to all who dwell therein. In the byre, at the side of the hearth, is kept a branch, decorated with metal rings and pieces of skins of sacrificed beasts, which serves as an ancestral shrine. In summer camps a windscreen takes the place of the byre as the men's dormitory and club, and the shrine is placed at its entrance. Small grass beehive huts take the place of the wattle-and-daub huts of the villages as the dwellings of the womenfolk of the home.

The polygamous family is a unit, the *gol* of the husband of the several wives. *Jigoala*, " the people of my hearth," are " my family " in this inclusive sense. But the children of each wife also belong

exclusively to her *dwil*, hut, and to her *mac*, cooking-fire, so that the polygamous family is divided into a number of separate domestic groups within the larger whole. The huts of the different wives are the centres of these elementary families which have a common husband and father. Outside her hut each wife has her *buor*, a mud windscreen, against which she makes her cooking-fire, and near to it is her *thung*, a plastered hole in the ground for pounding millet (she has another fireplace and another pounding-hole inside her hut for use on rainy days). This mud screen, the top of which is fashioned into three humps, is the sign of a married woman's status as the mistress of her home and the mother of children, just as the hearth in the byre is the sign of a man's status as the father of a family and the master of household and herd; and it also has ritual associations, for sacrifices are made near it. It is the centre of a married woman's life. Here her friends and neighbours gossip with her when she is working or in the evening when work is done. As boys grow up they attach themselves more and more to the byre, but each boy remains, both in sentiment and by social alignment, also a member of his mother's hut. Hence one may distinguish between full brothers and paternal half-brothers by saying that the first are brothers *kwi dwiel*, on the side of the hut (as we say, on the distaff side) while the second are brothers *kwi luak*, on the side of the byre (as we say, on the spear-side); and this distinction is a fundamental one in Nuer society, for it runs not only through the family but through the kindred also, and is moreover the paradigm of the lineage structure.

With the huts go the gardens, with the byre go the cattle and the kraal. Each wife has her own garden and granaries, and with her millet she makes porridge for herself and her daughters, small sons, and guests, and also porridge and beer for the men and boys in the byre, the male members of the whole household, only some of whom would be her own sons, and any male neighbours and guests who may be present. A husband may have a garden of his own but, if so, he distributes the millet among his wives when their supplies are running short.

The cattle belong to the *tut*, the 'bull,' that is, the husband. It is the usual practice for a man to divide his cows among his wives, but they only have the use of them for milking and cannot dispose of them. A cow given to a wife is merely what the Nuer call *yang gwith*, a cow of the churning-gourd, since it is given to the wife so that she may have milk for her little ones and butter and cheese to pour over her porridge. It is true that the husband ought not to dispose of the cow without consulting her, and I have heard a wife protest strongly that she had not been advised of her husband's intentions; but she cannot refuse

her consent to its disposal for the benefit of the family. Nor can she dispose of it herself. When I asked some Nuer whether a wife could give a cow which she always spoke about as " my cow " to her brother they wondered whether I was joking : " Could she do such a thing ? Would not her husband kill her ? Give one of his cows to her brother indeed ! Eh he ! " If a man dies, leaving only young children, and his wives remain in his homestead or live with his brothers they continue to have use of the cows he allocated to them during his lifetime. A dying man may expressly direct that they should do so. However, the trustees of the animals are the dead man's brothers and their disposal is subject to the claims of the family as a whole and must be in their common interest. If a widow tried to remove the cows from the herd and take them to the home of her brother, or of some unrelated man with whom she was living in concubinage, her husband's kin would certainly not, except in very special circumstances, permit their dispersal, for the cattle belong to the lineage, to the sons as a whole, who are links between the ancestors and its as yet unborn members. If the sons are men when their father dies they ought to go on living together round a common kraal. Nevertheless, as will be seen, they frequently do not do so. Whether they do so or not, the cattle belong to all of them, and they should be used, when the herd is large enough, to obtain wives for them in order of seniority, though in practice they are often a bone of contention. Even cattle which come to wives on the marriages of their kinswomen (the cow of the paternal aunt and the cow of the maternal aunt) are not their property in an absolute sense. They have the use of them and should their hunsband die their sons inherit them, but while the husband is alive the beasts count as part of his herd and the wives cannot dispose of them without his consent, which he can withhold. With the consent of the wife concerned, which she would find it difficult to withhold, he can dispose of them for marriages or other purposes. A man also gives oxen to his sons so that they may display themselves in their company but, here again, the sons do not have rights in them against their father, who can use the animals for any purpose he thinks fit, including the marriages of other sons than those to whom he has given the beasts, though he would promise a son deprived of his ox to replace it as soon as he could do so. The only cattle a father cannot, or at any rate ought not, to take for his own use are those which come to sons by inheritance, for these are *ghok jookni*, cattle of the ghosts. They may come through a dead mother's right, or the son may be the child of a ghost-marriage and have a right in his sociological father's herd which should not be set aside by his natural father and foster-parent.

ECONOMY OF THE HOME.

The family is an economic unit. Its members, with aid in certain undertakings from kinsmen and neighbours, maintain themselves and provide for their daily needs. The labour of the family is shared between the sexes, which have complementary tasks. Boys' work is mostly within the sphere of men's activities, the older boys performing many adult tasks, and, except milking, they take no part in labour which is never done by men. Girls have the same duties as women, to the extent their age permits.

Most of the labour connected with the flocks and herds falls to men and boys. They herd the animals, tether and loosen the cattle, dig and repair wells where these are used, construct watering troughs and draw water for the cattle when this is necessary, erect fences along the sides of the kraals in the rains, butcher animals at sacrifices, and bleed and castrate them and train their horns. Women and boys milk the cows, tether and loosen the sheep and goats, water the calves, clean the byres and kraals, and erect fences round the huts in the rains to keep the cattle away from the maize.

The work of the gardens is shared equally between men and women, sons assisting their mothers and the husband his wives. Men clear the land in the dry season, chopping down trees and brushwood and burning them when gardens are made in woodland and hoeing up the grasses when they are made in open steppe. They make dams, trenches for drainage, and raised seed-beds where the nature of the ground makes these necessary. They do most of the planting and, while the ground is still hard, most of the weeding, and they assist the women in the later weedings. Women do most of the harvesting, though the men generally cut down the millet stalks before the women remove the heads and carry them to the homesteads. There, the men erect the drying platforms and the women make the gass coverings for the millet placed on them to dry. Men do most of he threshing but women prepare the threshing-floor and make beer if neighbours are invited to assist ; and it is they who make the simple mud and grass granaries which the Nuer find sufficient for storing their scanty harvests. Women cultivate what little maize and tobacco and what few vegetables the Nuer plant. If birds threaten the harvest men erect platforms overlooking the millet gardens and from them the boys scare the birds away.

Only men hunt—pursuit by spear and dog and occasionally by use of giraffe-traps—and they and the boys do by far the greater part of the fishing : deep water fishing from canoes and fishing by harpoon

and spear in shallows and from dams and platforms. Women take part in fishing at low water, using lobster-pot baskets and sometimes spears. Women collect wild fruits and roots; men collect honey.

Men do most of the building and repair of huts and byres. They cut and bring in the beams and withies and grass, erect the framework of the huts and byres, earth the walls of byres, and thatch the roofs, though women may thatch their huts if the thatching is of the flanced kind. Women make beer for neighbours who assist the family in these tasks and they make the cord used in building, fetch water for the earthing, and finish off the huts and byres with eaves. They may cut and carry grass for roofing their own huts or they may get it done by their male neighbours 'with beer,' as the Nuer say; and they generally do flanced-thatching of huts by themselves and earth them, though this also may be done 'with beer' if the hut is a large one. When the hut is completed its mistress smooths the floor with sand. In the summer camps men make their own windscreens and assist their womenfolk in the construction of their grass beehive huts.

When on the move from homesteads to camps and from camp to camp the men strike the kraal and drive the cattle while the women, assisted by the boys, who also drive the sheep and goats, carry their dairy and cooking utensils and other household goods and their babies.

Most of the daily tasks of the home, especially the preparation of food by churning and cooking, are the exclusive privilege of women. Their hardest tasks are the pounding, winnowing, and grinding of millet in the daily preparation of porridge and these tasks with churning and brewing take up a great part of their time, especially in the villages. They also draw water, gather firewood, sweep in and around their huts, and spread out the cattle-dung in the kraal so that it will be dry for the men to make up the evening fires in byre and kraal.

Men generally manufacture the tools and ornaments they use for themselves or for the cattle, and women the utensils and ornaments they use. Men make spears, harpoons, clubs, tethering-cords, cattle-pegs, mallets, bells and tassles and collars for the oxen, skin bags, hair necklaces, sleeping-hides, tobacco and snuff containers, neckrests, bracelets, armrings, horn spoons, ambatch containers, and drums. Women are the potters and they make aprons, mats, brooms, gourd-dishes, and beer-filters. Though pounding and grinding grain are female tasks and it is women who construct the pounding-holes and manufacture the grindstones, men fashion the heavy wooden pestles and the wooden rolling-pins.

From this survey of the division of labour between the sexes it

will be observed that the men take on themselves a fair share of the work of the home: most of the care of the flocks and herds, most of the building, the hunting, and fishing, at least as much of the agriculture as the women do, and most of the manufacture of tools, utensils, and ornaments. When one sees in village or camp the men lounging about, chatting, smoking, and sleeping, while the women are hard at work around them one sometimes forgets that when a man is at home he is supposed to be at leisure. The work of the homestead is chiefly in the hands of the women and a man's work is very largely in the bush, where he herds, hunts, fishes, and clears cultivations.

It is, I think, also important to note that none of the broader departments of economy are exclusively the domain of one sex, but that the sexes co-operate in some degrees in most undertakings, their shares being suitably allocated, for tasks requiring strength or absence from home are generally done by men and lighter and more routine tasks within the home by women. Moreover, though each sex has its appointed tasks in the economy of the home there is often direct mutual assistance between the sexes in the performance of these tasks. A man holds a restless cow while his wife milks it; in planting seed the husband goes ahead and digs a sharpened pole into the earth every few feet while his wife, or a child, follows him and drops the seed into the holes he has made and rubs the displaced earth over them with her foot; a man cuts and cleans out bottle-gourds to be used for churning and his wife then soaks them; and a man cuts the strips of hide to be used in the manufacture of winnowing-trays and baskets for porterage and his wife then makes these things. Also, tasks which are proper to one sex are often performed by the other. A man will spread out cattle-dung to dry if there is no boy in the home and his wife, who in the absence of boys would normally be expected to do this work, is busy preparing food or nursing her baby. An old woman who has no one to aid her will do many of the tasks usually performed by men, such as using a planting-pole.

The sexes are complementary economically as well as biologically, and in this context the restriction of milking to women and boys—for no man may milk cows, and boys do not generally milk them if there are women to do it—has a special significance. A woman's exclusive role of milkmaid combined with her roles of dairymaid and cook make her the centre of the family and household. However many cattle a man possesses he is helpless without a wife or mother or sister to milk the cows. It is only through marriage that a man can have a home of his own or own a herd, and one of the serious consequences of divorce

for a man is that it compels him to attach himself to the home of a kinsman whose womenfolk can milk and cook for him. Hence, also, if a man dies leaving motherless unmarried sons every effort is made to arrange for the eldest of them to be married as soon as possible so that the others may group themselves around him, or rather round his wife, who cooks and milks for them all and is in a general domestic sense wife to them all. Otherwise the brothers may scatter to the homes of married sisters, of their mother's brothers, or of some other kinsman. Even after men are married and have homes of their own there are many occasions when they have to rely on the wives of brothers or of other neighbours and kinsmen for the milking of their cows. Nuer group themselves round a herd and the rule prohibiting men from milking means that in grouping themselves round a herd they also group themselves around the milkmaid and dairymaid who serves the herd.

Division of labour between age-grades is also equitable. Childhood for both sexes comes to an end with the removal of the second lower incisors at the age of about seven or eight, and from this time children take an increasing part in the labour of the home. The boys begin to clean the byres and kraals, to herd the sheep and goats, to assist the women in milking and the men to make up the dung fires, and to perform many other light tasks. This is perhaps the busiest time of their lives and is the only time that they are subject to discipline. They are ordered about by their fathers and elder brothers. When a boy is about thirteen his father gives him a fishing-spear, and when he habitually brings home fish to be cooked his father is proud that his son has begun to provide for the home, and he begins to think of having the boy initiated into manhood. At this age also a boy accustoms himself to the care of the cattle, being sometimes left in charge of them when the youths have gone to a dance. "Then there comes a day when the boy is ordered to do something and answers 'I won't do it. Do it yourself.' Then his father says "He has become a man, let him be initiated." After initiation he is a *ngwet*, youth, and from initiation to marriage he engages as often as possible in flirting and dancing and, apart from attentions to the cattle, is often neglectful of home duties, especially of the monotonous agricultural tasks which are heaviest at the season when dances are most frequent. After marriage he is a *wut*, a man in the fullest sense, and with the cares of a family he gives less and less time to flirting and dancing and devotes himself to the maintenance of his wife and children. Girls begin to take on household duties rather earlier than boys and by the time they have reached the age of thirteen to fifteen they are doing most of the chores of adult

women. They have not the leisure to give the same wholehearted attention to flirting and dancing that the youths can give, and they are married at an earlier age. Soon after marriage they assume the full domestic responsibilities of a *cek*, a married woman with children.

In general, we may therefore say that a Nuer home is run by the combined efforts of all its members, and that the labour of running it is fairly distributed among them. Living among the Nuer one cannot but be struck with the camaraderie of the family as they assist one another in daily and seasonal tasks, either by direct aid or by co-ordination of tasks. No work is considered degrading, no one is a drudge, all have leisure for rest and recreation, and all are content with their roles in the economy of the home. Indeed, the division of labour between sexes and ages accords with the social and personal freedom of women and children in Nuerland and with the recognition, so striking among the Nuer, of the independence and dignity of the individual.

The family produces most of what it needs, and most of what it produces it consumes. Nevertheless, some tasks cannot be performed, and others are often not performed. by the ordinary family without assistance from kith and kin, and there is much sharing among neighbours.

Most hunting, and much of the fishing, require more participants than the family can muster, and unless families take it in turns to herd, a single family would find it difficult, or impossible, especially in dry season camps, to look after its cattle, calves, and sheep and goats, as well as to attend to the children and to the tasks of kraal and kitchen. Help in activities requiring cooperation, as well as in milking when that is required, is given by close neighbours who are also kinsmen. Also, there are other tasks which, though they might be accomplished by the family unaided, are often, but by no means always, performed by cooperative parties of neighbours: clearing gardens, making drainage trenches, dams, and seed-beds in swampy ground, weeding, harvesting, threshing, and building. The helpers are given beer or porridge or both. Thus the Nuer say of building a byre: "We Nuer cut the supports with beer, we cut the grass with beer, we build the walls with beer, and we erect the supports with porridge." Although a family probably spends as much labour in helping other people as would, had it been expended in their own home and gardens, have enabled them to be self-sufficient in these undertakings, it is much more pleasantly spent when distributed in this way. Not only is a family relieved of the necessity of tackling unaided particularly laborious jobs, but when the work is done by mutual aid it becomes something of a game, losing

its monotony in merry company and in the feelings of good-neighbourliness it engenders; for the beer and porridge are not payment for work done but hospitality provided for friends and kin, who accept the invitation to take part in the work because they are friends and kin. The owner of the homestead does not supervise the work, and each does as much or as little as he chooses. Apart from cooperative parties of this kind Nuer, especially the women, like to perform their same, but several, duties in company where this is convenient, as when women collect wild fruits or draw water, boys herd the goats and sheep, and men fish with spears in pools, lagoons, and the shallows of streams.

Some work requiring special skill is performed by specialists. Some men are known to be expert at thatching, at iron-working, and at making pipes, spoons, necklaces, girdles, armlets, wedding-sticks, giraffe-traps, drums, cattle-bells, and canoes (very rarely made); and some women are expert potters and basket-makers. A wedding-stick, which requires much skill, labour, and metal to make, would probably be bought in most cases; and other experts are occasionally rewarded with a present, a sheep for a thatcher and millet for a potter or pipe-maker; but Nuer usually get the help they require by appeal to kinship. "*Nei ti mar kendial thile Kuk,*" "Among kinsmen of every kind there is no purchase." When Nuer want something they ask for it as a gift or loan from a kinsman. "We do not say to a man 'You have two spears and I have none, I would like to buy one.' With us Nuer it is all giving (*moc*) and begging (*lim*)." It is difficult for a Nuer to refuse a kinsman in need, especially if he has two of a thing and his kinsman has none, or if he has a skill the other man lacks. I remember a youth borrowing a spear from his paternal cousin, who had two spears, and how when a few days later the cousin returned it the owner felt bound to say to him "No, you keep it, it is yours now." He kept it. It is difficult to refuse assistance or a gift even to distantly related persons. "If a man who has several spears refuses to give you one you say nothing to him, but you speak ill of him to his friends. One of these friends may test your story by asking the man for a spear, and be refused likewise. Now the owner of the spears may one day wish to marry a cousin of this man, and when the marriage is discussed in the byre the man will say that he will not in any circumstances consent to it."

It should, however, be pointed out that it is not right to ask a man for something he has need of, and if a man borrows such a thing from another without asking permission, as Nuer are prone to do when they are of the same age-set, and loses it, there may be strong words, and he will be expected to replace it. Nor is there any obligation to give a

man a beast unless he is a close kinsman and there is therefore an obligation to help him in need, as for sacrifice when a member of his family is sick, for marriage, or to provide his son with an ox at the time of his initiation, or to enable the lad to join one of the meat-eating camps of young men the Nuer call *nak*. Unless the persons are close kin it is correct to loan a beast and the borrower will have to repay the loan with a more valuable animal, a steer for a ram or he-goat, a heifer for a steer, and an ox for a barren cow. The transaction is regarded as an exchange (*luil*). I do not think a man would loan a cow in this way. Nevertheless, Nuer can be very generous to their friends and it is not uncommon for a man to give a cow to a particular friend (*maath*). The friend will doubtless make a return gift one day if he can afford to do so, but he is under no obligation to make one, and I have known Nuer give cows to friends when there was small chance of a return. An exchange of cows as gifts creates between the two men a bond like that of kinship.

Nuer eat so much in each other's byres and windscreens that, as far as the men are concerned, there may be said to be to some extent commensalism among the members of nearby homesteads and even between the members of a small village. Nuer keep open house and, in their summer camps especially, men visit one another so regularly to drink milk together that an older man does not care to drink milk alone, but will send a small boy to invite an age-mate to share his gourd with him. Nuer readily lend milch cows to families with small children and make gifts of millet and fish to those in need. When animals are sacrificed the meat is generally the right of a family, or of a family and their close kin, but neighbours often receive meat if they ask for it persistently enough, for it is not thought mean to refuse. On some occasions a beast belongs to whoever can seize meat from it, but on such occasions men of the same household assist one another and, as those taking part in the scrimmage are all kith and kin, a sense of fairness prevails. In general, it may be said that no one in a Nuer village starves unless all are starving. The food supply of a community is ultimately at the disposal of all its members within whose corporate life each family has security to pursue its particular interests and to satisfy its most elementary needs.

HUSBAND AND WIFE.

Though I did not study in detail relations within the Nuer family I could not have avoided making some general observations and reaching some general conclusions about them, and I set these down here.

Nuer have told me, though they do not like to speak of it, for it touches on death, that there is what we would call a latent hostility between husband and wife, and indeed between man and woman. They say that when a man has begotten several children by his wife he wants her to die, and may even pray for this to happen, for he does not want to die before her and another man to cohabit with her, rule in his home, use his cattle, and perhaps illtreat his children and rob them of their birthright. Men say also that women in their hearts wish for their husbands' deaths, and when a youth marries, his mother is said to warn him that when he visits his bride she may crouch to the right of the doorway to force him to enter to the left of it, which is the side of death. If she does this, he must order her to the other side. Nuer men also say that women have bad mouths and that evil comes out of them, and they account for this by a story which relates that the mouths of women used to be, before God changed their position, where their vaginas are now ; and they say that women are sensual and fickle, God having at their request, as another story relates, cut their hearts in two so that one half might be added to the male organ to give them greater pleasure in coitus. There are other stories which suggest a deep-lying hostility towards women.

Whatever may be the significance that should be attached to these statements and stories, family life among the Nuer is remarkably harmonious on the surface, and I attribute this, in part at any rate, to the unchallenged authority of the husband in the home. A woman must obey her husband, and Nuer say he has right to chastise her if she neglects her children or other domestic duties. They told me that should he kill her (I have never heard of a case of the kind), whatever trouble his action may otherwise bring on him, he will not have to pay compensation, for she belongs to her husband's people and he only destroys what is his own, losing thereby both wife and the cattle he paid for her. No doubt there are cases of cruelty, and I have been told of such, but I must record that during a year spent in intimate contact with Nuer in villages and camps I did not once see a man strike his wife or hear a serious quarrel between spouses, and I believe that this was because these are rare happenings.

Women know their duties and unless they are by nature lazy and slovenly, or wish to goad their husbands into divorcing them, they avoid domestic shortcomings. The husband, on his part, does not interfere with his wife's organization of her duties. So long as she performs them she may do so in her own way. For instance, when there is meat, a man hands it to his wife to prepare and leaves it to her

discretion to decide how much of it to keep for herself and her children and how much to serve to the menfolk in the byre. Moreover, it is difficult for a man to illtreat his wife, even should he wish to do so, for his conduct cannot be kept secret and his kinsmen would certainly intervene on her behalf; and I have been told that no reputation in Nuerland is more shameful that that of a wife-beater, a man who prefers *kur man*, fighting with women, to *kur wutni*, fighting with men. Also, a Nuer woman, who readily accepts admonishment and correction for faults, would not submit to bullying but would return to her parents and brothers, leaving her husband without cook, dairymaid, and nurse, and therefore unable to maintain his home; and he may find it difficult to persuade her to return. If she does return it will only be after lengthy discussions in her parents' home and, as he is likely to have said something unpleasant about them in altercations with his wife, he may have to pay them a cow in compensation. Even if her father and brothers support her husband he cannot prevent her from running away again, and this time to some distant relative who is unconcerned alike whether the bridewealth is returned or what the husband's grievances and discomforts may be. Should he decide to divorce her and marry again he has first to get his cattle back—it is always doubtful whether he will succeed in doing so—and he has then to face two or three years as a bachelor before his new wife comes to live with him. Therefore he will only take this step if his wife shows that she is determined to leave him, or if she is incorrigibly lazy, dirty, foul-mouthed, quarrelsome, or wanton, and occasionally if she is barren. Even if she has these defects he may, rather than go through the tedious process divorce entails, let her depart and bear him children by other men. A man will seldom divorce his wife for adultery unless she is constantly unfaithful, and adultery seems to be common enough and to occasion little resentment if it takes place outside the husband's home. Should it take place in his hut it may cause him serious sickness. It is also believed that a woman may suffer much in childbirth if she has committed adultery, and if she experiences difficulty in parturition she will confess her fault to the midwife, especially if the child is the fruit of adultery, lest she and her child die.

I found Nuer women well content with their lot and that their husbands and other men treated them with respect. Their status in society is high. In saying this, I am judging not so much by the fact that the same number of cattle have to be paid for the homicide of a woman as of a man, and I believe more for a young woman in some parts of Nuerland, but by the part they take in the daily life of the

community. They mix freely, and with easy assurance, with the men, and they have no hesitation in arguing with them about matters in which they are interested as women. They have as intimate relations as the men with the cherished cattle, share with them the common life of the kraal, and enter the byres when they wish to do so. In the evenings married and unmarried women alike chat with the men, and flirtation between youths and maidens is open and uncensured. A married woman may talk as freely to men as an unmarried woman. One often sees such a sight as a woman stop a man walking through her kraal to take a pull at his pipe. With rare exceptions, Nuer women appeared to me to be happy.

In a polygamous family the relations between husband and wife are complicated by the husband's relations with his other wives. *Nyak*, a co-wife, in its verbal form means both 'to be a co-wife' and 'to be jealous,' and Nuer admit that co-wives are sometimes on bad terms, especially if the husband appears to favour one wife or her children. A sensible husband avoids doing this. Among the Nuer the first wife has no special status, though the husband generally consults her more than the other wives because he married her first and started his home and family with her. On the contrary, Nuer insist on the equality of wives, and they recognize that custom of the home is intended to eliminate as far as possible friction between them. The wives generally cook in turn for the husband and the byre, and each cooks also for herself, her daughters, and small sons; but it is also a convention that a wife shall frequently cook for the family of a co-wife and that the children of one hut may eat in any other hut. I was told that if there is any trouble between the huts this convention is unlikely to be observed. Nuer have told me also that some women, while they give food they have cooked to their co-wives, remove part of it before doing so and hide it for their own children to eat in secret; and there is even a word, *gor*, for this part. It is impressed on boys that if they bring to the home fish or meat they should not give it to their own mothers but to another of their fathers' wives. Indeed, there is the same kind of assertion in the face of reason and experience that *cek gur*, your father's wife, is *mor*, your mother, as there is in the dogma that *gat gur*, your father's son, is *demor*, your mother's son. A man would never address one of his father's co-wives as *cek gwar*, my father's co-wife, but either as *ma*, mother, or by some honorific title; and she would never address the son of a co-wife as *gat nyakda*, son of my co-wife, but as *gatda*, my son. But though children are told that their father's other wives should not be treated differently from their mother, it seems to be acknowledged

by all that there is likely to be jealousy between co-wives, that each will try to further the interests of her own children, and that it is a misfortune for children should their mother die and they be left to the care of a co-wife. Nuer say that this is what happened to *gukur*, the dove, and is the reason for the plaint of his note ' *giek cek gur*,' ' bad is your father's (co-)wife.'

PARENTS AND CHILDREN.

Nuer welcome children and hope when they marry that their wives will be fertile. Abortion is said to be very rare and practised only by unmarried girls. Though the men of the kraal may hope that monorchids and babies born with defects and deformities will not survive, they do not kill them or let them die. The proper care and nurture of children is the concern of the whole family and household, and from the moment of birth care is taken to isolate the child from any contact which may be injurious to it. Even the father keeps away from the mother's hut for the first few days lest he inadvertently causes it some misfortune. The prohibition on coitus between parents till the child is weaned is seldom infringed, although it imposes long abstinence, for the child is suckled till he can digest solid food and can toddle about homestead and camp by himself. Generally this means till he is between two and three years of age. Artificial aids to weaning are rarely necessary : infants pass slowly from the breast to cow- and goat-milk. Children have first claim in the allocation of milk from the herd, and if there is a shortage it is the adults, and not they, who go without.

The care of small children falls naturally to the mother, and it is she who feeds and bathes them and attends to their other wants. Infants toddle behind their mothers as they go about their household duties and run to them when afraid. But the father also takes an interest in his infant children, and one often sees a man nursing his child while the mother is engaged in the tasks of the home. Nuer fathers are proud of their children and give much time to them, petting and spoiling them, giving them titbits, playing with them, and teaching them to talk ; and the children are often in the byres with the men. The affection of children for their fathers is very striking in Nuerland, and I have never seen a man beat his child or lose his temper with him, however aggravating he might be. When a father speaks crossly to his child, as he does if, let us say, the child goes to the edge of a river or among the cattle, where he may be injured, it is evident that the child is not afraid of his loud words and obeys from affection rather than fear. In his first years a child is corrected by his mother and elder brothers

and sisters, who may give him a few strokes with a grass switch if he is naughty.

In considering relations between parents and children it is, I think, important to recognise that a Nuer child is not born into the family alone and then slowly extends his awareness to members of the household and kindred, but is born into a wider group than the family, in the sense that all those who share the homestead of the father and adjacent homesteads take an interest in the child from the time the mother leaves her hut after bearing him. The father's other wives, his brothers and their wives, and other kinsmen and affines of the father if they live near him, take frequent notice of the child, nurse him, talk to him, and make him understand that they belong to him ; and if he is an eldest child and is brought up in his maternal grandfather's home he will have the same close relations with corresponding persons there.

As daughters grow up they come more and more under the direction of their mothers, and the mother and elder sisters give them their training in household tasks and what moral advice and wordly wisdom they care to impart. The father takes little interest in the affairs of his daughters so long as they do not get into trouble with the young men. His chief concern with them is to ensure that they are well married. Boys come under their father's direction. He and the other men of the kraal see that they carry out their duties in the care of flocks and herds. Boys learn from their elder brothers and cousins how to fish, hunt, cultivate, dance, flirt, and engage in the other activities of men. A boy can see the stages of his life before him, initiation, courtship, marriage, and the starting of a family and home, and he realises even in childhood that these stages are all bound up with his father's herd, and that he and his brothers have a common interest with their father in the herd. Nuer, in my experience, both love and respect their fathers, and it is, only when a father is selfish or extravagant in his use of the herd that, even when his sons are men, any serious disagreement is likely to arise between them. Even then, young men submit to their father's indiscretions. If they may show their disapproval by going to stay with relatives for a time, they say little, partly, no doubt, because they fear a father's anger, but chiefly, I believe, because, in spite of faults, they love their fathers. Though relations between a father and his son may be strained, the sorrow and anxiety of the son should his father fall sick are most apparent. Nuer say that should father and son fail altogether to agree, the son may go to live for good with his maternal uncle, but this would be a most serious offence in the eyes of the Nuer, being *dakene mar*, the breaking of kinship, and I have never known it happen.

Boys treat their mothers with affection, though they are offhanded with them and are sometimes rude to them. When they are approaching the threshold of manhood a feeling of male superiority seems to affect their attitude to their mothers. I was told that a youth would never interfere on his mother's behalf should his father be angry with her, though should the father wish to beat her, the son would not reveal her hiding-place, lest she should curse (*biit*) him. A mother's curse prevents a son from begetting male children. It is not necessary for her to utter a curse. She may be silent and *biit ka locde*, curse in her heart. If then she dies before she has forgiven her son she will haunt (*cien*) him from the grave. This was the reason given to me to account for the care Nuer take of their mothers when they are very old, carrying them on their shoulders from village to camp.

I am aware that the account I have given of relations between parents and children is insufficient. My observations do not permit me to develop the subject further. I would like, however, to draw attention to the peculiar position of the eldest child of a marriage. The eldest child of either sex is known as *gat ma kea* and a mother may address him as *keeda*, my eldest. This child must never use the spoon of his father or mother, and I have sometimes been given to understand that this is one of the reasons for the bringing up of an eldest child by his maternal grandparents. It is felt that it is better to keep him away from his parents' home till he is of an age to observe the prohibition. He must also avoid sleeping or sitting on his mother's sleeping-hide, for this may make her barren and also injure the father, the child himself, and the cattle. I believe also that if the eldest child is a girl, she may not use the horns of female animals for any purpose. When an eldest male child is initiated an ox must be sacrificed, whereas the sacrifice of a sheep or a goat may be considered sufficient at the initiation of a younger son. Parents, especially the mother, and maternal uncles are said to fear the curse of an eldest child.

These customs relating to the eldest child are an indication of his special position in the family and kinship system. He is born in his mother's home, in *cieng mandongni*, the home of his (maternal) grandparents, as the Nuer say, for a bride remains with her parents till after the birth of her first child. The child is later brought to the husband's home and may be weaned there, but ought then to be taken back again to his maternal grandparents, at any rate if the grandmother is still alive, to be brought up by them. If the eldest child is a boy, he returns to his father's home for initiation and if she is a girl, she returns for betrothal and marriage. If the maternal grandmother is dead the child

will probably be brought up by his parents till he is about six years of age, then go to his maternal uncle till puberty.

The eldest child is the keystone of the marriage. Till he is born the union is not regarded as complete. He is also the link through which the kin of the father and the kin of the mother are brought into relations of kinship with one another, for the child is the child of the mother's people as well as the child of the father's people. It is true that he belongs to his father's lineage, because he is the child of their cattle, but the sentimental claims of his mother's people to their daughter's child are recognized in their right to bring the child up in their home, at any rate if his mother's mother is still alive. Indeed, it must be recognized that in Nuer family life there is always a pull on the children in both directions : a pull of legal and religious norms and of the whole pattern of the politico-social structure towards the father's kin and lineage, and a pull of personal affection towards the mother's people. Rights in the herd, duties of blood-revenge, and status in the community hold a man to his father's kin, but with these go jealousy about cattle, resentment against authority, and personal rivalries. A man has no rights in his maternal uncle's herd, he has no obligation to assist his maternal uncle's people in their feuds, and he has no hereditary status in his maternal uncle's community. But the fact that he lacks these rights and duties and status means that he is not burdened with the disputes and tensions they engender. The paternal ties are stronger, if there is often a touch of hardness in them. The maternal ties are weaker and for this reason are also in some respects tenderer.

FULL AND HALF-BROTHERS.

This pull in opposite directions is most evident in polygamous families, when the sons of each hut have a different set of kinsmen on the mother's side to the sons of other huts. I cannot say what is the frequency of polygamy in Nuer society, and it would in any case be difficult, in view of the variety of Nuer domestic unions, to decide on a criterion of polygamy ; but, although monogamous marriage is much commoner, polygamy is frequent enough to have set its stamp on the lineage system.

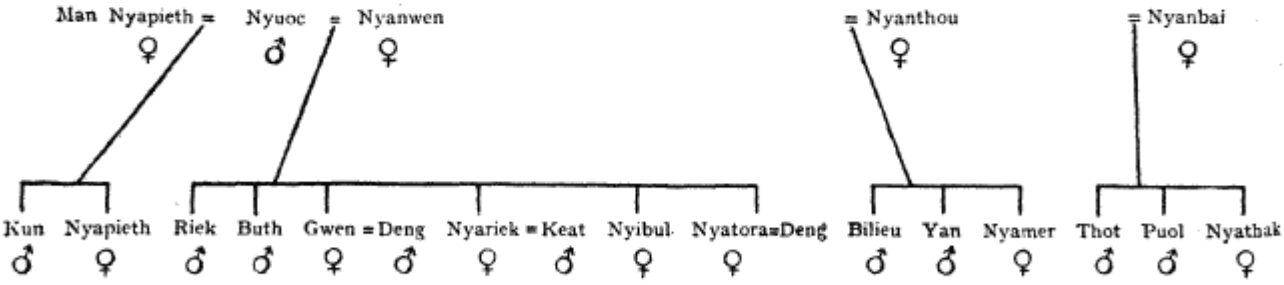
A Nuer lineage is often named after a woman, their ancestress, because lineages are generally thought of as dividing out from within a polygamous family. They cannot be differentiated by reference to the name of the father of the founders of the different lines of descent but only by reference to the founders themselves or to their mothers. Thus the typical lineage structure is conceived of as being present in the

structure of the polygamous family and in the distribution of huts in the homestead if occupies. There is involved here a contradiction between the dogma of the unity of brothers, which the Nuer so often enunciate, and both the lineage system and the common experience of family life. It is a cardinal teaching that brothers are all equal and undivided, for they are all sons of the same father and therefore, through their identification with him, equivalent in the lineage. Maternal descent does not count within the lineage and therefore ought not to count within the family, for by the agnatic principle in Nuer social life the family derives from the father. Hence, Nuer say, if your uterine brother and your paternal half-brother quarrel you must not enter the dispute on your uterine brother's side, because by so doing you divide the family. You split, as it were, the father. That the huts do not divide the byre is particularly emphasized by, and in, the rule that brothers must marry in order of seniority irrespective of their uterine attachments. If a junior half-brother has several uterine sisters whose marriages have increased the family herd he will not be married before a senior half-brother who lacks uterine sisters, but the senior will be married first and the cattle of the bridewealth of his junior paternal half-sisters will be used to procure him a wife. Also, all the brothers must marry before one of them takes a second wife. Even after the father is dead opinion enforces this rule. It is only when, as rarely happens, there are enough cattle for a further marriage from the family herd while the unmarried brothers are too young to marry that an elder brother may marry a second wife before they are married. When a man dies his eldest son takes his place as head of the family : " he changes himself into something like their father." It is then his duty to see that his unmarried brothers are not unfairly treated. Should the family disperse and one of the brothers attempt to take for himself all the cattle of his uterine sisters's marriages, and refuse to allow them to be used for the marriage of a half-brother who is the senior of the unmarried sons of the family, it may prove impossible to prevent his doing so ; but if he does so, he cuts himself off from his brothers and paternal kinsmen. They will not live with him or any more assist him in his troubles and quarrels. " They may even let him be killed unaided and recoup themselves for his past meanness with the cattle they receive in compensation for his death." This is the final and, to a Nuer, most frightful sanction.

So strong is the feeling of Nuer on this matter that although *demar* (or *gatmar*) means ' my uterine brother ' and *gatgwar* is the term for ' my father's son ' (paternal half-brother), they almost invariably use

the term for the uterine brother to refer to, or address, the half-brother and keep the term for ' father's son ' to speak about, or address, paternal cousins. To address a father's son by the term for this relationship is regarded as very bad form because it makes a cleavage in the family. It would be regarded as *dakene mar*, a breach of kinship. It would be even worse to call your full brother ' *gatgwar*,' ' my father's son ' : the term would only be used for this person as an affectionate meiosis. In the same way a man must not address his paternal half-sister by the term for this relationship (*nyigwa*) for " *nyagur e jen nyimor*," " your father's daughter (paternal half-sister) is your mother's daughter (full sister)." Nuer have told me that they are so anxious not to distinguish between full and half-brothers that should a man go with his half-brother to visit his mother's sister's home the young men of that home will make a point of greeting the half-brother first and of addressing him as ' *gatmar*,' ' son of my mother,' before addressing their true mother's sister's son by this term (which correctly applies to him and not to his half-brother).

But although Nuer are constantly asserting the solidarity of the polygamous family, it is as evident to themselves as it is to the observer that things are often different. They recognize that whereas full brothers will help each other even to the point of forgoing their rights, and will pool their resources, paternal half-brothers will insist on their rights and try to avoid their obligations, at the most doing for each other only what self-interest demands of them. Half-brothers will tend to drift apart after the death of their father, especially after they are married, and go to live with their different affinal and maternal kin. This very often happens in Nuerland. I give a typical example, from the village of Mancom on the Nyanding river, in illustration.



Nyuoc was drowned, and after his death Kun and Nyapieth went with their mother to live with their mother's brother. Nyanwen and her unmarried children (Riek, Buth, and Nyibul) went to live near one of her married daughters, Gwen. Nyanthou continued to live with her children in her dead husband's home. Nyanbai had predeceased her husband. Two of her children, Thot and Nyathak, continued to

live in their father's home with the children of Nyanthou. The third child, Puol, went to live with the children of the second wife, Nyanwen. In this instance all the wives and children are living in the same vicinity, and I was told that they may form a common household again later; but in many cases the wives and children scatter far after the death of the husband and father, and they may not live together again for some years, if ever.

However, sons ought to continue to live together on the death of their father, and it is hoped that they will do so. If they live together there is less chance of unfairness in the disposal of the cattle and of resultant disputes. As I have explained, a man may anticipate difficulties of the kind by directing before his death how his herd is to be divided among his sons. If he does not do this, his herd ought to remain undivided till all the sons are married. What is left of it may then be divided among them at a family council. There is more likelihood of this being done if all the sons live together and their father's herd with them. For even though the herd is divided among the huts, it is still very much a single herd in a common kraal. When one of the brothers wants to marry, the different huts will all 'loosen cattle' for his marriage as they would have done had the father been alive. But if a widow takes her sons to her own kin or to the home of a lover in a distant part of the country the brothers who remain in their father's home are less inclined to help them, unless they return to live there, when they want to get wives; and if they have no sisters they may then find it difficult to marry. Nevertheless, a boy without sisters is to some extent protected by the rules governing division of bridewealth, which ensure that he will receive at least some of the cattle of the marriages of his paternal half-sisters. Though he lives apart from them, his half-brothers will not seek to deprive him of his rights in bridewealth, even if they are not ready to help him by gifts from their own cattle.

Inheritance of widows may occasion rancour among paternal half-brothers. Full brothers have first rights in a widow, but if she prefers to live with a half-brother who is a member of their household or village they should not, and I was told would not, object; but if the half-brother is living in a different part of the country they may refuse to allow the widow to depart.

In discussing the shortcomings of half-brothers Nuer often mention the obligation to marry a wife to the name of a man who has died without heirs. If he leaves behind a uterine brother, this brother will use the cattle brought into the home on the marriage of one of their

sisters to take a wife in the name of the dead man, so that she may bear him children. If the dead man had only half-brothers it is feared that they may try to ' blot out ' the dead man's name and use the cattle to marry wives in their own names. To prevent this, it is said that the dead man's mother's people may, if there was no close friendship between him and his half-brothers, arrange for his uterine sister to marry a wife to his name. Her husband then takes the cattle which would have gone to the dead man on the marriages of his sisters and makes the arrangements to marry a wife to his name with them, though he does not himself cohabit with this wife. Nuer say that in affairs of this kind a sister's son can be trusted better than a paternal half-brother.

The distinction between full and half-brothers runs right the way through the Nuer kinship system. Nuer say that your *gwanlen kwi dwiel*, your father's brother on the side of the hut (his uterine brother), is a real father to you, but your *gwanlen kwi luak*, your father's brother on the side of the byre (his paternal half-brother), is only a father in his talk. If your father is dead and you are still a boy he may take advantage of your youth to deprive you of your rights. Similarly, the Nuer say that the *nar mande* (or *nar kwi dwiel*), the mother's uterine brother, is a real mother and father to you, but not the *nar gwande* (or *nar kwi luak*), the mother's paternal half-brother. I once asked a youth who was threatening to fight his maternal uncle, over an insult he considered he had received from him. " But surely he is your maternal uncle ? " " Yes," he replied, " but only a maternal uncle on the father's side."

When we speak of uncles on the father's side we speak of half-brothers of the parents whose fathers are dead and who own their own herds and homesteads, may be in different villages, districts, or even tribes. They have already become distinct points of growth on the lineage branch. There is no pretence here that they are equal and undivided. This dogma does not go beyond the family : sons in relation to their father. As we have seen, within the family it is the assertion of an ideal in the face of recognized social actualities which only partly conform to it ; for the difference between full and half-brothers, or between the huts, in a family is both marked and a matter of concern to the Nuer. Their concern with it is clearly connected with the lineage structure and the importance of the maternal kin in social life, which is related to that structure, since both act to pull apart the children of different wives of the same husband. Half-brothers have a single social personality through their lineage-identification with their father, but they are also very evident points of segmentation which take their departure from their mothers and by reference to them.

TWO EPIDEMICS OF CEREBROSPINAL MENINGITIS.

By R. Kirk.

18. *And when the child was grown, it fell on a day that he went out to his father, to the reapers.*
19. *And he said unto his father, My head, my head! And he said to a lad, Carry him to his mother.*
20. *And when he had taken him, and brought him to his mother, he sat on her knees till noon, and then died.*
32. *And when Elisha was come unto the house, behold, the child was dead, and laid upon his bed.*
33. *He went in therefore, and shut the door upon them twain, and prayed unto the Lord.*
....and the flesh of the child waxed warm.... and the child sneezed seven times, and the child opened his eyes.

II Kings, IV, 18.

CEREBROSPINAL meningitis is one of the major epidemic diseases of the Sudan. No part of the country is altogether free from the infection, but the areas of epidemic outbreak vary from year to year. Communities affected in one year may escape in a subsequent year although their neighbours may be subject, indicating either a rise in immunity in the population as a result of the epidemic or a drastic elimination of susceptibles during it. In the desert climate of the northern Sudan epidemics occur characteristically in the dry months of the year and end abruptly with the onset of the rains, but this seasonal incidence is less sharply defined in the more humid and equable southern Sudan. The disease in the Sudan is no different clinically from that observed in other countries, and in epidemics extending over many years there has been a remarkably constant mortality rate of 65-75 per cent. As Buchanan (1940) has pointed out, climate, locality, race, diet and habit have no effect on the mortality rate, which is notably constant whether the epidemic be large or small.

Until the introduction of the sulphonamides no measures adopted in the Sudan can be said to have modified the disease, although evacuation of villages to temporary shelters sufficiently numerous to provide a separate shelter for each person has been thought to have limited the spread in infected communities. Prophylactic vaccination was attempted by Chalmers and O'Farrel (1915), Davis (1931) and Riding and Corkill (1932) but found ineffective. Corkill (1936) reported on the addition of vitamin A to diet with a view to increasing resistance through improved nutrition, but the results were inconclusive. Specific

anti-sera have proved of little use in treatment in the Sudan and were discarded, after extensive trial, in 1934. The mortality rate in cases treated in hospital was the same as that in untreated cases. This depressing picture was suddenly altered with the introduction of the sulphonamide drugs and the demonstration of their efficacy under field conditions in the Sudan by Bryant and his colleagues in 1939.

The causal agent of cerebro-spinal meningitis is *Neisseria meningitidis* the small, Gram-negative, intracellular diplococcus found in the cerebro-spinal fluid of cases of the disease, and commonly referred to simply as the meningococcus. This bald statement of the bacteriologist does not carry one very far in attempts to explain the epidemiology of cerebrospinal meningitis. Although the meningococcus is of importance only as the cause of cerebrospinal meningitis, its capacity to produce this disease in susceptible individuals is merely an unfortunate accident, which plays no part in furthering its own survival in this world. Its real life is passed as a harmless inhabitant of the human throat, and it is transferred from the throat of one individual to another by the usual modes of respiratory spread, without normally causing any disease. Only by coincidence of an invasive variant of the microbe meeting an unduly susceptible individual does meningitis occur. The person who contracts meningitis becomes infected as a rule not from a previous case of this disease, but from a healthy " carrier " in whose throat the meningococcus is present. This is the generally accepted account of the epidemiology of meningococcus infection, based on extensive bacteriological and epidemiological studies. It provides an adequate explanation of the sporadic cases of cerebro-spinal meningitis which are always occurring in some part of the world, but does not explain why the disease sometimes assumes epidemic form, usually in overcrowded populations. Presumably this can occur if (*a*) an unusually aggressive variant of the microbe arises and is propagated, or (*b*) many people simultaneously become susceptible. There is no method of testing susceptibility to cerebrospinal meningitis, and the meningococcus loses its virulence in culture so rapidly that the ordinary virulence tests are of little value. At present we just do not know how epidemics of cerebrospinal meningitis arise.

A great deal of laborious bacteriological work, most of which can now be dismissed as irrelevant, has been carried out in connection with this disease in the Sudan. Estimation of carrier rates was tried, but given up as impracticable, many years ago. In several of the epidemics strains of meningococci were isolated in the field and brought to the laboratories in Khartoum for typing, but there was no consistency

in the results. The dominant type in one epidemic was different from that in the next. In some epidemics the strains could not be clearly typed. During the course of this work generous help was received from the late Dr. W. M. Scott, of the Ministry of Health.[1] Dr. Scott confirmed our results in a number of the difficult cases, and was instrumental in having some of the Sudan strains included in the polyvalent meningococcus vaccine prepared by the Inoculation Department of St. Mary's Hospital.[2] In view of the results quoted above, however, prophylactic inoculation did not seem a very hopeful line to follow up in the Sudan. Nor did the possibilities of chemotherapy promise much, since it was known that even dead meningococci are highly lethal if introduced into the cerebrospinal fluid. By the time they were seen many of our patients were in a late stage of the disease, with the cerebrospinal fluid already crowded with meningococci. If all these microbes could be killed by some powerful chemical agent it did not seem that this would make any difference to the patient. The remarkable results reported by Ferry and his colleagues in America (1931) induced us to start work on the lines of the Dick reaction with the so-called "exotoxin" of the meningococcus. Even if the results of this work had been significant, the possibility of its practical application on a large scale in the Sudan seemed negligible. The introduction of the sulphonamides, and the demonstration of their efficacy by Bryant and others in the Sudan, made it unnecessary to continue this work any further.

The writer has observed various epidemics of cerebrospinal meningitis in different parts of the Sudan. In retrospect, two of these now seem memorable. The first was observed in 1936, in the Nuba Mountains district of Kordofan Province. The other was that notable epidemic in Equatoria in which Bryant and his colleagues experimented with the sulphonamides. There are others whose experience of cerebrospinal meningitis is longer or more profound than that of the writer, but none of them has had the privilege of observing personally two major epidemics of this disease within a few years of each other, one of which occurred just before the introduction of the sulphonamides, the other just after it. The object of this paper is to describe and contrast very briefly some of the salient features of the two epidemics as seen

[1] It was a great loss to medical science when Dr. Scott, Chief Bacteriologist at the Ministry of Health, was killed in his laboratory which received a direct hit during the Nazi air raids on London.

[2] Under the direction of Sir Alexander Fleming, who has since gained immortality as the discoverer of penicillin.

by an observer to whom the disease had for some years been a subject of intimate study.

THE EPIDEMIC IN KORDOFAN.

The Nuba Mountains epidemic of 1936 was really only part of a much wider epidemic involving Kordofan, Darfur and the Blue Nile Provinces. The disease spread widely in these areas during several years, annually attaining epidemic proportions in the dry season but disappearing with the onset of the rains. From 1932 to 1936, 5570 cases with 3808 deaths were recorded in the Nuba Mountains. A sharp outbreak occurred in the Kau hills in 1932. In 1934 the Rashad district was affected and 1796 cases with 1393 deaths were reported before the disease died down with the onset of the rains in May. With the drying up of the country after the rains recrudescence of the disease occurred in November, this time in the Heiban district, immediately south of the area in which the previous epidemic had occurred. In December cases were occurring in the neighbouring Otoro hills and in the Kadugli district. Spread from Otoro was mainly southwards to Tira Akhdar and the Moro hills, and from Kadugli mainly south-westwards. The northern part of the Koalib hills became infected, and a serious outbreak occurred in the Nymang hills of Dilling district. As usual, the disease subsided with the onset of the rains in May 1935. In November of that year the first cases were reported near Kadugli, and from there the disease spread in 1936 over practically the whole Nuba Mountains area, until it finally disappeared with the coming of the rains at the end of June.

No form of treatment proved of any use in this epidemic, a fact which was recognised by the people. The policy adopted was therefore one of preventive rather than curative medicine, and measures designed to limit the spread of the disease were undertaken with great energy. The preventive measures included the following :—

1.—Propaganda was directed to chiefs and headmen, with a view to gaining their co-operation in giving early information of new outbreaks. The people were also bombarded with propaganda encouraging them to take preventive measures such as keeping out of doors, avoiding crowds, not visiting sick people, avoiding people from infected villages and so on. The custom of visiting the sick was regarded as an important factor in spreading the disease. Propaganda aimed at discouraging it was not very successful.

2.—Dances and public gatherings were prohibited. Religious and

other essential assemblies were restricted to open spaces, and permitted only under conditions approved by the district commissioner. Early closure of drinking shops was enforced ; also of merchants' shops which were believed to be foci of infection because of the crowds collecting there for gossip.

3.—Restrictions were placed on travel, wherever possible. If this caused serious interference with the normal course of trade (for example, in the collection of the cotton crop) temporary sub-markets were established by the Department of Agriculture and Forests.

4.—Whenever an outbreak was notified medical staff and police were despatched to turn the people of the infected villages out of their houses into open shelters. These were constructed of grass by the people under surveillance, and were required to be sufficiently numerous to provide a separate shelter for each individual to sleep in.

5.—Quarantines were established for the sick and separate ones for contacts, who were kept in quarantine for 10-14 days. The quarantines were under the supervision of medical staff, police and watchmen. This staff made daily visits to the villages to see that the people were not returning to their houses, and sent reports on the progress of the disease to the district headquarters.

It cannot be said that those Draconian measures were popular with the people, who knew the disease from long experience. They had not been favourably impressed by the results of government therapeutics. They suspected that the prophylactic measures were probably equally ineffective and there was certainly no convincing demonstration to the contrary. Often the immediate result of the preventive measures was inconvenience, sometimes even hardship, to the people concerned. Tribal and family life were upset and local economic conditions disturbed. As a result, cases were concealed and lies were told about the recent incidence of disease in the villages. Often the presence of the disease in a village was discovered only by finding in the cemeteries evidence of recent burials which had not been reported in spite of the fact that orders and regulations had been promulgated in which burial without permission of the medical authorities was prohibited. The epidemic regulations were evaded in numerous other ways, and to make them effective police and military had to be employed, a state of affairs which did little to enlist the co-operation of the people. Lumbar puncture came to be regarded as a method of " liquidating " cases of an infection which was embarassing the government. Charlatans and quacks, medicine men, magicians and other mountebanks did a roaring trade in charms and cures.

The experience of previous years suggested that the only measure which had any effect on the disease was the complete evacuation of villages to grass shelters. This was the main policy to which efforts were being directed when the writer visited the scene of the epidemic in 1936. The explanation of the apparent success of this method is probably the same as that of the fall in incidence of cerebrospinal meningitis which results in naval and military establishments in England from increasing the air space for each individual during the hours of sleep. But it is comparatively easy to arrange the wider spacing of individuals during sleep in highly organised and disciplined communities like the British forces. To ensure among primitive Africans the complete evacuation of whole villages to temporary sleeping places is a task compared with which the labours of Hercules, the labour of slaves at the galley oar, or prisoners in the mines of Siberia, seem easy and pleasant. Yet the writer can testify that heroic efforts were made to put those measures into effect over extensive and populous areas by the administrative and medical staff and the native administration officials, all of whom appreciated the magnitude of the disaster which this epidemic had brought to the people concerned. In 1936 the District Commissioner of one of the heavily infected areas expressed to the writer his belief that there could be no hope of any progress in his district until some method of preventing these recurrent epidemics could be found. This, he said, was the third year in succession in which all activities in the area had been paralysed by epidemics of cerebrospinal meningitis, and all the resources at his disposal had been mobilised in attempts to combat this disease.

It was often easy enough to persuade the people to evacuate their houses and sleep in open grass shelters at the beginning of an outbreak. But as soon as the case incidence fell and supervision was relaxed they quietly returned to their houses at night, especially in the cold weather. In some cases it was found that the only way of stopping this was to render the houses uninhabitable by burning off the grass roofs or otherwise opening them to the elements. The writer well remembers the looks of sullen resentment in a village in which this had been done, and his own impression that he would willingly have been elsewhere at the time. The Medical Inspector in charge, who is a competent anthropologist, assured him it was all right, since the thoughts of the Nubas follow magical rather than rational lines and they believed that those who had been seen so energetically engaged in trying to control the disease could unleash it by magic if provoked. Our immunity from harm was probably due more to this than to the fact that we were supported by the coercive apparatus of the government.

THE EPIDEMIC IN EQUATORIA.

In 1937 and 1938 the extensive epidemics of cerebrospinal meningitis which had ravaged the central and western Sudan died down, and the main centre of the disease became Equatoria. Outbreaks began in the Aweil district of Equatoria in 1937, disappeared with the advent of the rains in this year, but flared up again in the following dry season. By January 1939 the Tonj, Aweil and Lakes districts[1] were heavily infected, and during this year the disease continued throughout the rainy season in these areas.

The mortality rate at the beginning of the epidemic was 80 per cent, but the use of the sulphonamide drugs later reduced it to approximately 10 per cent in treated cases. Bryant and Fairman (1940) record a very dramatic example of this. An urgent call for help was received at Wau hospital from a chief who reported that he had 37 cases of meningitis in his villages, and that the cases had been collected in grass shelters near the road. A doctor at once set out from Wau with staff and equipment. He was delayed 15 hours on the road. By the time he arrived at his destination 33 of the 37 patients had died. However, a treatment post was established there, and the next 250 cases of cerebrospinal meningitis in this district were treated with sulphonamides, with only two deaths.

Such figures seemed at first fantastic, compared with previous experience of this disease in the Sudan. Confirmation of the results on a wide scale was not long delayed, however. It soon became evident that, as regards case mortality and treatment, the new drugs had profoundly altered the picture of cerebrospinal meningitis in the Sudan. When the writer visited the epidemic area in March 1939 the medical staff was naturally much more interested in cure than in quarantine. It was realised that to be effective treatment must be made immediately available at the site of an outbreak, and an organised scheme of field treatment had been devised. All dressers were trained in the technique of lumbar puncture. Mobile units able to undertake treatment were formed and sent into the affected areas. People who brought their sick relatives to those units for treatment saw a miracle wrought in front of their eyes, and from past experience of the disease they knew that it was a miracle.

The management of this epidemic was, in consequence, different from that of the previous epidemic in Kordofan. Doctors and medical

[1] From 1948 these districts come under the newly re-formed Bahr el Ghazal Province.

staff were no longer policemen, helping to enforce drastic epidemic regulations on a distrustful population. Most of their time was devoted instead to saving lives and restoring the sick to health and strength. The principal concern of medical administration was to arrange that a properly equipped and trained team of dressers could instantly be put into action at the site of every outbreak. The people were quick to appreciate that this was a very different policy from the older one of quarantine and coercion. Cases and outbreaks were no longer hidden, or discovered only by surreptitiously prowling round cemeteries. Once the news of a miraculous cure for cerebrospinal meningitis had spread among the people few cases of over two days' duration were seen, for relatives and friends began to carry in the sick to treatment centres at the first onset of symptoms. After the scheme had been in operation for a short time Bryant and Fairman (1939) were able to state that, with the co-operation of the chiefs, they believed they could now locate every case of the disease in a given area.

Having the co-operation of the people meant also that it was no longer necessary to have recourse to the coercive apparatus of police and military. These forces, not now urgently required for epidemic work, were to a large extent able to carry on with their normal duties, which was a great relief to the administrative authorities. The paralysis of other activities in the district, which had been such a regrettable feature of previous epidemics, was no longer necessary. The people were now willing to listen to advice, and of their own accord put into effect the preventive measures which were suggested to them. As a result everything was done with as little upset to the community as possible. The whole atmosphere associated with this disease had changed from one of coercion, resistance and dull resentment to one of eager and hopeful co-operation between the people and the medical staff. Medical work, which had previously been duty only, distasteful and often irritating, was infused with the zeal of a crusade. Sudanese dressers entered willingly into the treatment of this dangerous and infectious disease. Chiefs and notables lent their aid and authority to discourage dances and other tribal gatherings. Bryant and Fairman (1939) record their indebtedness to " the many nameless Dinka medicine men who forsook their own lucrative practices and used their authority in encouraging patients to come to us."

For one to whom cerebrospinal meningitis had been a depressing and apparently insoluble problem for several years it was an exhilarating experience to live through the days of this epidemic of 1939. Day after day one saw a succession of cures which would have been

incredible of a few years earlier, and there could be no doubt or reservation about the matter. A more magic rod than Aaron wielded had been placed in our hands to strike at this disease.

FURTHER OBSERVATIONS.

It was hoped that prompt treatment and sterilisation of cases would, by removing one obvious source of infection, help to limit the spread of the disease. There is no evidence that it did so. The incidence of cerebrospinal meningitis in Equatoria during the years 1938-1944 is shown below.

1938	.. .. ..	172 cases
1939	.. .. ..	2062 „
1940	.. .. ..	3577 „
1941	.. .. ..	1317 „
1942	.. .. ..	969 „
1943	.. .. ..	3069 „
1944	.. .. ..	2158 „

While there were isolated instances in which the prompt institution of treatment appeared to cut short an outbreak, there were no grounds for the supposition that the introduction of treatment, even this most efficient treatment, had any influence on the general spread of the epidemic. There is nothing remarkable or surprising in this conclusion. It is, in fact, just what would have been predicted by anyone conversant with orthodox views on the epidemiology of cerebrospinal meningitis which are taught to every medical student during his undergraduate career.

This summing up is at first sight depressing. Yet it will be evident to anyone who has followed this account of the two epidemics that the introduction of the new drugs changed abruptly and completely the whole picture of epidemic cerebrospinal meningitis in the Sudan. Not only were treatment and prognosis altered in individual cases, but so also were the practical politics of the management of epidemics. If the case incidence was not affected the case mortality was greatly reduced, while the changed emphasis in policy from quarantine to cure liberated both the authorities and the people from some of the more oppressive epidemic restrictions which had really been in many cases an addition to the distress already caused by the epidemic. Although cerebrospinal meningitis practically disappeared from the northern Sudan in 1937 and 1938, the writer does not believe that this was the result of the heroic preventive measures adopted in Kordofan in 1936. Nor, indeed, can

it be said that the measures adopted in 1936 and previous years had influenced the general course of that epidemic to any extent. As has been already pointed out, it was sometimes noted that the case incidence fell in the population of a village which had been turned out into open shelters. But this was often followed by a rise in incidence, and enquiry in such cases showed that the people had returned to their houses as soon as the case incidence fell and supervision was relaxed. This sequence of events was, in fact, our clearest evidence that evacuation of villages to temporary sleeping places affected the incidence of the disease. Any beneficial effect of this policy was only local and temporary. Many of the measures which were carried out under compulsion in 1936 were voluntarily undertaken by the people themselves in 1939, but this did not stop the epidemic.

Critics may say that the preventive measures so energetically undertaken in 1936 were wrongly conceived or based on inadequate knowledge of the epidemiology of cerebrospinal meningitis. The truth is, however, that the only honest alternative to the measures then undertaken would have been to take no measures at all, to let the epidemic rip. Perhaps after all this would have been the more logical policy in the existing state of knowledge, but human affairs are not always solved by the rules of formal logic. Such a policy would have been repugnant, being tantamount to a confession of the complete inability of medical science to do anything at all in the face of a disastrous epidemic disease. Prophylactic inoculation had been shown to be ineffective. Various factors such as diet (Corkill, 1936) and climate (Corkill, 1939) which might conceivably affect susceptibility had been investigated without providing any clear line of action. There was evidence that the evacuation of villages to temporary sleeping places had some local effect on the incidence of the disease, as has been described, and indirect evidence in favour of this policy was derived from the known effects of spacing individuals more widely during sleep in highly disciplined and civilised communities. At the same time, we were not prepared to accept unreservedly the view that cerebrospinal meningitis is spread by symptomless carriers only. Evidence obtained in the Sudan from quite extensive experience of the disease in nature suggested that dissemination of infection from actual cases plays a more important part in epidemics than is admitted by orthodox explanations of the epidemiology of cerebrospinal meningitis.

Finally, our thoughts were doubtless greatly influenced by the doctrine, then prevalent, that medicine has two separate divisions (*a*) curative medicine and (*b*) preventive medicine, the latter being the

field in which future advances could be expected whereas curative medicine has reached the stage in which it could be reduced to a routine. This doctrine is especially plausible to medical workers in the tropics who can still observe the remarkable amelioration of man's estate which immediately follows application of the most elementary public health measures such as conservancy, protection of water supplies, or even simple cleanliness. In some of the most highly civilised regions of the world this stage is long past, and it is now difficult to envisage many further advances in preventive medicine except as the direct result of new knowledge. The history of these two epidemics is of interest in this connection because heroic attempts to apply the only useful measures known to preventive medicine did nothing to alleviate the situation, possibly only aggravated it. Relief came as a result of new discoveries in another (and, to the writer, completely unexpected) field, namely chemotherapy, which is a branch of curative medicine. It is possible that the new knowledge provided by the action of these drugs in cerebrospinal meningitis may yet lead to great advances in preventive medicine but this will be decided only by careful work continued uninterruptedly over prolonged periods.

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GLEANINGS IN THE WESTERN BAHR EL GHAZAL [1]

BIRRI DONGO

By Fr. S. Santandrea

DEIM ZUBEIR.

The age of discovery is not over in this part of the country ; there is still in store enough to excite the interest of the keenest amateur anthropologist. To give an instance, the last time I was at Deim Zubeir, with a very limited time at my disposal, I was shown an elderly man, Daketo Njogose, whom people said to belong to a strange unknown tribe, the Rangba (or Langba). I set out to cross-examine him and write a small vocabulary of his language. I do not know how, but although almost altogether ignorant of Banda, I soon had the impression that Rangba sounded much like it. I therefore asked the man whether he belonged to a tribe (or sub-tribe) somehow related to the Banda ; he denied it flatly, adding that he had been born on the Bangana River, a tributary of the Ngbangi (the same as Ubangui ?), with the following tribes as neighbours : Haussa, Dandi, Njakara (*i.e.* Nzakara) and Banda to the east. Later on, having got a small vocabulary of the Sopo Banda, I was able to compare it with Rangba, and realised that my first, impression had been right : it was evidently a dialect of Banda. Although this name is missing from lists of Banda sub-tribes circulated from various sources, it is recorded by Père C. Tisserant in his famous *Essai sur la Grammaire Banda*, (Preface, p. 5, n. 2), as one of the Languasi dialects.

But more findings may await the field worker in the Deim Zubeir Area.

THE BIRRI

The Tribe.

In my previous article, when speaking of the so-called Zande settlement of Deim Zubeir, I mentioned the Birri, expressing my intention of studying—if possible—their tribe and language. I found no literature

[1] This study is meant as a sequel to my previous article " Little known Tribes in the Bahr El Ghazal Basin " in *S. N. & R.* Vol. XXIX Part I.

on this tribe, except a few hints scattered here and there in A. de Calonne-Beaufaict's *Azande*, a veritable mine of information on the races inhabiting the Mbomu Basin. The question of their real name was already cleared : it is *Viri*, thus slightly differing from the commonest pronunciation of the name of the Ndogo-like section of the Belanda, the *Bviri*, alias *Viri* or *Vèri* (low and high tone, whereas the former name has both high tones). *Birri* is in all likelihood their Zande name, slightly mispronounced : after all " b " and " v " are often interchangeable.

General Information and Customs

Their home is in the Oubangui-Chari, beyond the River Warra, a northern tributary of the Mbomu, their neighbours being the Kare (south and east), the Bodo (or Vodo), Sere, Tagbu, Golo (west), not to speak of the omnipresent Zande and Bandia. There are good reasons to think with de Calonne-Beaufaict that, together with the Momvu, they represent the oldest aboriginals of the Mbomu Basin. It is difficult to give an idea of their actual number, owing to lack of official data ; the only information available is contained in *From the Congo to the Niger and the Nile*,[1] wherein 4500 Birri are said to be living in Rafai's area. To judge from what happened to other local tribes, they are presumably reduced by now to about a third. At Deim Zubeir I succeeded in counting eight tax-payers. The Birri appear to be divided into two main sections, the Viri Mboto and the Viri Munga : seven of the local tax-payers belong to the latter. Names of clans : Zàmbagu, Ayandi, Akafe, Gbemugu (totem : reed-rat). The only Munga I met believes in metempsychosis, asserting that, after death their souls enter into the body of their totem, the leopard. A Mboto holds the same belief with regard to their totem, the *Colobus Guereza*. The Birri are essentially agriculturists ; they have no cattle, but possess numbers of goats (*inyi*) and sheep (*kodro*). Blacksmithery is practiced only by few. Pots are made by both men and women, as amongst the Zande. Their staple food is eleusine and millet. A special drink of theirs is beer made of oil-palm (*indri*) seeds, called *mbugu*, whereas plain beer, from millet or eleusine etc., is called *a'bā*. At present they are dressed after the Zande or—if money is available—European fashion, but formerly men went naked. My chief informant, Abongu Masaraka, a man of about forty years of age, assured me that his grandfather wore no clothes, but his father did. Women supplied, and still supply, their wardrobe daily

[1] Vol. I, p. 197 ; describing the Duke of Meklemburg's Travels : by Capts. Von Wiese and Kaiserwalden.

from the bush, wearing " leaves." Their ancestors knew no circumcision, no blood-brotherhood ; cicatrisation is practised, but sparingly.

As far as the family is concerned, their customs agree (almost) to perfection with those of the Ndogo-Golo. The customary brideprice consists of one hundred big spears, usually employed for no other purpose. The bridegroom is bound to work for his " in-laws." At childbirth, the parturient is expected to make confession of all her sexual sins, lest the child die ; such a confession, however, she makes privately to the midwife, who is supposed to keep the secret. A baby is given a name three days after birth for a girl, four for a boy ; the father (occasionally replaced by an elderly male relative) or an old woman, according to sex, " beats " the baby with a twig calling out its name.

Funerals last likewise three or four days, according to sex. The grave-hole has a side-niche, wherein the corpse is laid, lying of one side : a man is made to face east and a woman west. After one month the customary *karama* (festival) is held, but the solemn one takes place after about one year, during the first dry season, when grain for the feasting is plentiful.

Religion.

Such is the scanty information I succeeded in getting, by dint of sheer effort. Coming to the subject of religion, less can be expected from two or three extremely backward informants, brought up in an atmosphere imbued with the ideas and practices of the Zande conquerors. *Ngothu* is the general term for " spirit," corresponding exactly to the Zande *(a)toro* : I heard it applied even to God and the souls of the departed. Entering into details, one of my Birris observed that *'Bati* properly refers to the ancestors' spirits ; but I much doubt the exactness of his statement. In fact I gathered that small hut-like structures are erected to 'Bati (called *dhara ga 'Bati*), entrusted to the care of particular individuals (*uru-ga'Bati*) in whose families such a right is hereditary. As an average, there are only three or four *uru-ga-'Bati* in one clan. Now this behaviour is in striking contrast with that of natives as regards ancestral worship, which is generally looked upon as an affair of familiar nature. And practice, in this field, weighs more than theory. More in keeping with the traditional ideas of local tribes is the custom of making offerings to *Ngothu* in the cultivations, to obtain a plentiful harvest, as attested by other informants, who would translate *Ngothu* with the Zande word *atoro*. I think therefore *'Bati* is more likely to be the name of a particular spirit (or a class of spirits)

endowed with special power, I was tempted to surmise relationship between the Birri *'Bati* and the Zande *Baeti*, two nouns whose pronunciation might be easily confounded. But when asking to whom a sacrifice was made in case of drought, they said to *Makau*, and not to *'Bati*, as one would expect if the spirit in question represented a " loan " from the Azande. On the other hand, here we are faced with an evident loan from the Kresh, for *Makau* is one of the most characteristic spirits of that tribe, whose worship has far outrun the limits of their country, reaching the farthest boundaries of Belanda-land. Although not God, *Makau* may be styled His agent : he has in his hands, so to speak, the management of the world created by the higher-dwelling but less known and approacheable *Mbaja*. Now the Birri, lacking perhaps a specific name for " God, the Creator," have borrowed it from their neighbours, the Kresh. In fact, when speaking of the creation of man, neither *Ngothu* nor *'Bati* are mentioned, but only *Makau*. Here is a most explicit text in this respect: *" Makau akpa uru kpangbara motu,"* thus translated into Zande *" Mbori afu boro ku zegi-no."* This " loan " must not cause surprise, especially if we take into account the smallness and little importance of the tribe ; are there not strong reasons to believe that even the great Zande nation have borrowed from abroad the term for God, *Mbori* ?

The Language

But the real point of interest about this tribe is their language. Here again de Calonne-Beaufaict is the only authority for references, but his short hints on the subject are either extremely general or vague. At p.p. 146-147 he speaks of " fragments de vocabulaire Birri, rattachant directement cette language aux divers dialects *momvu* ; " but no Birri word is quoted. I could find nowhere *Momvu* linguistical material to try a comparison between the same and Birri ; the only little bit available (within my knowledge and reach) is the list of twenty words in Momvu and Logo by de Calonne himself, at p. 142, which he gives to prove that there exists relationship between the two languages—and many more. Leaving the latter aside, I succeeded in getting the translation of eighteen of such words into Birri, the result being that, out of the lot, five words show more or less close similarity with Momvu, much less, however, than between the latter and Logo.

Now apart from, and independently of the author's findings and conjectures, the fairly ample linguistic material I have gathered enables me, I think, to formulate the following statement :—Birri stands as a " central " language, both geographically and linguistically, probably

representing the best preserved form of the old stock either from which several groups were derived or by which they were deeply influenced, viz. the Momvu-Makere, etc. (cf. de Calonne-Beaufaict), the Moru-Madi-Lugbara-Avukaya-Logo[1] and the Bongo-group, including Kresh and Aja (as both bear substantial resemblance to the same). Moreover there appears to be considerable relationship—too extensive to be casual—between Birri and the Ndogo-group; some few terms can even be detected that are either the same or very similar to those of the Raga-east tribes.

As far as Vocabulary is concerned, I think that the lists of words which I was able to compile in the various language groups are enough to prove my assertion. In view of their length these lists have been omitted. A remark worth noticing is the negligible influence of Zande on Birri, in spite of a number of circumstances likely to favour it.

What has been said about Vocabulary holds good, on the whole, also with regard to general phonetics. Here, however, there is a discordant detail which deserves to be brought to light, owing on one side to its own peculiarity, and on the other to its being common to a language belonging to a quite different group. In Birri we find a well defined set of interdental consonants, " dh " and " th," that sound stronger than the corresponding sounds in English (respectively " dh " as in " that " and " th " as in " think "), thus differing considerably from " dh " and " th " as found in Nilotic languages. Now such consonants are alien to the groups mentioned above, as well as to local Bantu languages, *e.g.* Huma and Bodo, but are shared in common with Kare. Unfortunately I could get only extremely scanty material of the latter, but it was enough to discover this point of phonetical similarity. This is no place for a fuller discussion on Kare, on which languages I have no literature to consult except the too brief and desultory hints by de Calonne-Beaufaict in his repeatedly quoted book. I personally think that the immigrant Kare may have been influenced by the autochtonous Birri, with whom they have been living for a long time in peaceful proximity, freely intermarrying with them. But a final decision should be left to experts on Bantu language, to which group, according to de Calonne, Kare belongs.

Lastly, dealing with Grammar, an outstanding feature consists in many points of resemblance between Birri and the Moru-Madi-Logo group. I mention only one here, as it is in contrast with other kindred groups, Bongo and Ndogo, and yet forms, according to some authors, one of the

[1] In connection with this group, I rely exclusively on Dr. A. N. Tucker's book *The Eastern Sudanic Languages*, published by the International Institute of African Languages & Cultures, 1940, to which I shall always refer simply as " Tucker."

basic characteristics of Sudanic languages, *i.e.* the genitive case constructed thus :—possessor + possessed. *E.g.* " tusk " *mvoro si* (" tooth " = *si* ; " elephant " = *mvoro*). In Bongo and Ndogo the phrase would run thus " tooth (of) elephant." The same " reverse " construction takes place with some of the main prepositions that thus become *anteposition*s. *E.g.* " on the stool " = *mbata dru* (" stool " = *mbata* ; " on " = *dru*, which means also " head ") ; " in the calabash " = *kperi tuu* (" calabash " = *kperi* ; " in " = *tuu*). In Bongo and Ndogo both phrases have the preposition (" on " and " in " respectively) first.

This account, however short, is enough, I hope, to define the position of Birri in the midst of the large Sudanic family, and to give at the same time an idea of its importation for comparative studies on the language-groups concerned. Therefore my notes, when moulded into final shape, may throw some light on the complex congeries of the languages spoken by the tribes clustering once upon a time on both sides of the Divide, but scattered now far and wide, thus helping the experts in their laborious researches.

KHOR SHAMMAM or RAGA EAST.

If the age of discovery is not over at Deim Zubeir, it is " less over " at Khor Shammam. This suburban village may be called a veritable mine inside which hidden treasures still wait to be unearthed. To introduce Khor Shammam to strangers, suffice it to say that the Raga East tribes, who used to live within and roundabout the town of Raga, are now clustered round Khor Shammam (partly east and partly west), the residence of the Feroge chief ruling the whole lot. Field work in this spot acquires a particular character : there is much of an archaeologist's job about it. As already hinted above, one may succeed in unearthing dead, or half-dead, races ; for Khor Shammam can be styled a " cemetery of tribes." It is therefore of interest not only to the ethnologist or linguistic student, but also to the sociologist, and—why not ?—to the medical expert. To give an appalling instance, according to a good number of reliable informants from various tribes (Kresh, Feroge, Indri—besides members of the tribe in question), around 1900 the Togoyo occupied this area, roughly from Khor Shammam to Kossinga, and were more numerous than the Indri at present, who count well over one hundred tax-payers ; now they are reduced barely to a dozen souls in all !

Another attraction for the explorer at Khor Shammam, is the chance of finding, amongst the medley of Feroge-ised foreigners, old individuals

—looking more like living mummies—who can utter words in, or even speak fairly well, an unknown or far-away language. So it happened to me with regard to Sara. Although both the tribe and language are famous in linguistic circles (cf. Tucker), I had no material at hand to compare with my notes on Bongo, Yulu, Kara, to which languages it is stated to be closely related. At Khor Shammam I at last discovered two old Sara men, one more than half-deaf and the other at least as deaf, half-blind and presumably a leper. With their help, however, I managed to write a small vocabulary that turned out to be almost identical with Kara, and some odd grammatical notes bearing great resemblance to Kara and the Bongo group generally, but showing in some points, *e.g.* the conjugation of verbs, closer affinity to Kresh and Aja.

Some other discoveries (not *all*, by all means !) from this unexhausted mine form the subject of the following notes.

THE DONGO or DANGO.

The Tribe

The official *Handbook of the Bahr el Ghazal* (December 1911) reads : "*Dango*—An unimportant negro tribe living in the neighbourhood of Kafia Kingi " (p. 29), and southwest of that old Merkaz they are marked on the map attached thereto. The oldest list I could trace, issued from Wau Mudiria, puts the number of their taxpayers at 230. In the re-arranging of tribes that took place in 1930 the Dongo returned to their old home, in Darfur. Were these Dongo a local colony who rejoined the bulk of the tribe, or else the bulk itself that had previously drifted south, presumably under Feroge pressure ? Lack of reliable information prevents me, at present, from giving a full answer to this query with which one is naturally faced. At Khor Shammam there remain now a few of them (twenty tax-payers under group-leader Rajab Mohammed, clan Mburukpu), almost altogether Feroge-ised. As far as I could ascertain, only two elder brothers know their language, Sa'ad-en-nur and Ahmed Jazuli, besides Rajab's wife (clan Oro).

All agree in stating that the home of their ancestors was the hill, eventually named after them, Jebel Dango (Darfur, Nyala District, 10° N., 24°30 E.), just north of the Bahr el 'Arab, called there Umbelasha. Thence they moved in search of land better fitted for cultivating, settling near the river, at Rodom. There they had as neighbours the Binga (east) and the Kresh-Hofra (south-west), with both of whom they freely intermarried. During the dry season, Dongo still come in good numbers to visit their Binga " in-laws " west of Raga. Moreover

I understood that a Binga group-leader, Ngere Mbeya, is actually a Dongo and knows his language to perfection. Together with some northern sections of the Kresh, the Dongo fell under the sway of the Feroge sultan Hamed Musa ; my two old informants, one of whom is over sixty years of age, were both born at Ere (also spelled Eire, Eiri), the former Feroge headquarters, whereas Rajab and wife were born at Jebel Dango.

As far as the tribe is concerned, valuable information could certainly be gathered at their home in Darfur, which might eventually throw light on the problem I am going to discuss next. My two men were extremely reticent in this respect, contenting themselves with stating that they knew " neighbours," but no tribes having common origin with them. The value of the information I succeeded in obtaining from them lies all in the language.

The Language.

However scanty be the material in hand, for I secured the help of the two old brothers only on one occasion and for a short time, it is enough to formulate the following statement that sounds like a discovery in the linguistic field :—Dongo is a dialect of, or a language closely allied to, Kresh (the former I think to be right). A study of my vocabularies brings about this result : Out of a total of 337 words, there are :—

211	the same or almost the same as in Kresh.
78	differing from Kresh.
17	doubtfully differing from Kresh.
8	differ from Kresh, but are the same as in Oro.
3	differ from Kresh, doubtfully the same as in Oro.
10	the same (or almost) as in Yulu, Binga, Bongo (Bongo-group).
5	possibly the same as the above.
3	two the same as in Feroge, one doubtful.
2	one very like Ndogo (*agel* : left) and one the same as Tagbu (*maa* : slow).

With regard to personal pronouns and numbers, excluded from the above list, the former are exactly the same, only the third person plural showing a difference rather in use than in spelling ; the latter agree with the exception of a single number, two.

As far as Grammar is concerned, suffice it to say that the little material available shows either identity or close similarity of construction. the following exceptions, however, should be remarked :—

a) The possessive particle is *te* in Dongo, whereas *ka* is used in Kresh.

b) For making the future, instead of the anteposition *anda*, as found in Kresh, *l*(*a*) is employed in Dongo (the same as in Yulu).

c) The plural-making affix is *ak* in Dongo, *igi* in Kresh ; but the difference does not lie so much in spelling as in use. As a matter of fact, plural affixes are very similar to one another throughout the Bongo group languages within the Bahr el Ghazal area :— Kresh *igi* Yulu *ke* Kara *gi*. The Dongo *ak* is nearest to Yulu in spelling, but to Kara in use. In fact only Dongo and Kresh use the suffix in question to make the plural of nouns. Farthest of all is Kresh, the only language of the lot wherein the affix precedes the word it refers to (thus being a prefix).

d) The commonest demonstrative adjectives and pronouns (" this," " that ") bear more resemblance to Aja, and perhaps also to Banda, than to kindred languages :—

This = *den*: (Aja) = *den*. That = *se, sene* : (Banda) = *se, si*.

But, even taken all together, these discrepancies are very slight when compared to the amount of points agreeing often to perfection ; they are met with also with other dialects of other local groups.

The Race

I know quite well that identity of language does not imply by itself identify of race. Yet taking all circumstances together, I do not hesitate in asserting my belief that the Dongo belong to the Kresh nation, of which they may be called a subtribe. I cannot say much about their somatic likeness, although the few individuals I have seen do not differ from the common Kresh type. Their home, as already said, was not far from the Hofra section of the Kresh, with whom intermarriage was frequent, *e.g.* the mother of the Dongo headman's wife (at Khor Shammam) was a Hofra. Now as all agree that differences of language (more correctly, of " dialect "), custom and physical type are traceable amongst the latter, no wonder that equally deep, and even deeper changes, have affected the Dongo who are likely to represent an earlier offshoot from the main stock. I dare surmise that, when carefully studied, they may turn out to be less noticeable than, *e.g.* amongst the Oro, the well known Kresh sub-tribe living on the River Kuru. Nor does the fact that both the Dongo and the Kresh deny having had a common origin prove much ; the same do the Oro in connection with the latter, although some neighbouring tribes hardly make any distinction between the two.

But it is time, now that the Dongo and Oro have been incidentally mentioned together, to point out the existence—however strange it may appear to the layman—of highly interesting threads linking them up to each other. As a result of a comparative study of Vocabularies,

it was already noted that there are in Dongo several words differing altogether from Kresh but agreeing, sometimes perfectly, with Oro. A casual coincidence can hardly explain the fact. Moreover a more important common feature, permeating the whole language, is clearly apparent in phonetics ; its shows once more disagreement from Kresh. Words in this language, especially verbs and nouns that form its bulk, are mostly moulded after a unique pattern, thus :—vowel ± consonant (or group of consonants) ± vowel, generally the same as the first one. In many cases, a consonant precedes the first vowel. These vowels, at least when words are pronounced alone, are all sounded very clearly : a characteristic shared in common with Ndogo. But in Dongo and Oro a change frequently takes place : the first vowel is considerably lenghthened (so as to be often rightly spelled double), whereas the last is either silent or just lightly slurred over, resulting in an ill-defined sound (say a central " i " or " e," as the case may be). Besides that, the first vowel often acquires a very close sound in the case of " o " and " e " (which I shall represent by underlining them) ; this particular is all the more surprising as " o " never has that sound in Kresh, and " e " has it only in one specific circumstance (*i.e.* in some adjectives when used as substantives or adverbs). There is also a consonantal change from Kresh common to both Dongo and Oro, viz. " sh " replacing " c."

Herewith two short lists of words in the three languages, meant to illustrate what I have said above. The two last instances of List A show changes both in vowel and consonant, common to Dongo and Oro.

LIST A

	KRESH	ORO	DONGO
back	*go*	*og*	*og* (vowel between " o " and " u ")
brother	*ndjc*	*ndj*	*ndj*
chief	*ngere*	*ngeer*	*ngére*
skin	*tere*	*teere*	*téér* (or *teel*)
to open	*aja* (or *aya*)	*ej(i)*	*eje*
to finish	*idji*	*éri*	*er*
to refuse	*ana*	*anyi*	*any*

LIST B

moon	*sheshe*	*cece*	*ceece*
tooth	*sheshe*	*cece*	*cece*
grandfather	*ksho*	*koci*	*koc*
to eat	*sho*	*oci*	*oc*

N.B.—These two lists are meant to give only samples, without any pretence to be exhaustive ; otherwise they would be too lengthy and lacking interest for the average reader. **For a fuller study on the subject, more complete Vocabularies should be consulted.**

As a last, even if least, argument in favour of my thesis, I think worth mentioning the fact that, out of the only two names of Dongo clans I know, Rajab's and his wife's, one (the latter's) is spelled the same and sounds almost exactly the same as the name of the Kuru tribe : Oro. Here again casual coincidence might be invoked to explain, but, I am afraid with little result.

From the premises explained at some length in this chapter I think it reasonable—although not logically certain as in a syllogism—to draw the conclusion of a close affinity (implying common origin) of the Dongo and Oro who form now respectively the southermost and northernmost branches of the Kresh nation, living as they do some 300 miles apart from each other.

ZAR AND *TAMBURA* AS PRACTISED BY THE WOMEN OF OMDURMAN

By S. Zenkovsky.

(Paper read before the Philosophical Society of the Sudan in 1948)

Zar Bori

Zar is the name given to the ceremony required to pacify spirits known interchangeably as *Zar*, *dustur*, or *rih ahmar*. A person possessed by such an entity is its entire slave and has always to do its biddings and orders. The *rih ahmar* is a collective entity answering many names. If a person in a fit of possession is asked who is tormenting her or him, the answer will be in an altered voice—*nahna kutar* (we are many).

There are various kinds of spirit possession in Omdurman and each has to be dealt with in a different way, therefore it must be always remembered in dealing with a person under possession that being possessed by a *Shaitan* or *Shayatin* (devil, devils) is quite a different matter to being possessed by a *rih ahmar*, *Zar* or *dustur*—the *Shayatin* violently decline the offer of the pacifying ceremony known as *darab al Zar*, when the *rih ahmar* will just as violently demand it, since it must have blood of the slaughtered animal during the ceremony.

Before describing the actual *Zar* ceremonies, I want to tell you certain stories of *Zar*-possession which have come within my experience and which better than anything else will show you that it is a living power in the lives of many of the people of Omdurman.

A tailor was known to have such a *rih ahmar* and for many years he absolutely declined to waste his money on the ceremony with the result that his health went from bad to worse. At last his mother-in-law, alarmed at his declining condition of health, decided that at all costs he must have a *Zar* : she therefore borrowed money and his wife sold her gold ornaments. They engaged a *shaikha* or *gudya* to perform the pacifying ceremony (*darab al Zar*) ; this ceremony was performed and the man quickly regained his health and strength. Not only could he return to his tailoring but could undertake more work and was able both to recover his wife's ornaments from the pawn broker and faithfully to pay back his mother-in-law's debts. Now after performing the ceremony

on behalf of anyone the *shaikha* is considered as a blood mother to that person, intermediator between it and the *rih ahmar*. Soon afterwards the tailor decided to go to Gedaref. On the eve of the departure the same *shaikha* came to the house and offered to burn some incense as required by the *dustur*. The man rejected her offer not too politely and each went as far as to abuse the name of the *dustur* and departed the next day.

At Gedaref the old story began again. He got persistent fever and was unable to work. One day his *shaikha* came to his mother-in-law very much alarmed and said that during the night the *dustur* had informed her that because the man abused "its" name and refused to burn "*bukhur*" (incense) when asked, he was to die. The next day a telegram arrived informing the family of the man's death.

The second story concerns a girl who was betrothed to be married. The man had paid the dowry, the furniture and clothing had been bought and everything was ready for the wedding. On the eve of the day, the girl, who was known to have a *rih ahmar*, went into a mad frenzy: *dustur* was opposed to the marriage and from 6 p.m. till midnight he tormented her. The parents were reduced to desperation: the money had been paid and furniture, clothing, sweets bought; how could they possibly refuse the man and, especially, how were they to repay the money? In vain they pleaded with the *dustur* but it was quite ineffective—the girl must not marry that man, he said, or she would die. At last the mother in desperation said to the *rih*—"Alright then, the girl won't marry provided you will explain to the bridegrom that you don't want her to." The *dustur* agreed and immediately, after six hours of raving the girl came to her senses and, seeing her relations surrounding her and looking so upset, she asked in bewilderment, what was the matter? Very early next morning there was a frantic knocking at the door and the bridegroom-to-be rushed in, in a rather dishevelled condition, shouting that he absolutely refused to marry the girl as her *dustur* had given him a bad night forbiding the marriage.

They came to an agreement whereby the money was to be repaid by instalments whilst the furniture was kept for the girl's next wedding which this time was approved by the *dustur*.

Another girl had had a *dustur* for 3 years. He did not bother her very much but she was always in poor health and had occasionally to buy new cloths or ornaments when those were demanded by the *rih*. Her brother, who was in government service, refused permission for the *durab al Zar* to be performed on the grounds of not having enough money but more probably because he was an educated young man and did not share the women's superstitions. The father, who was affected

with religious mania did not count for much in this family, from whom he lived apart.

The mother found a suitable man for her daughter to wed and even promised to arrange a *Zar* after the wedding as the future bridegroom had to depart at once for a distant government post. On the night of the full moon, a few days after the preliminary agreement had been concluded, the girl went wild. She ran round the courtyard roaring like a wild beast, throwing herself on the ground and knocking her head against the mud walls. She was tall but a slim girl, yet four men could not hold her. They had to close and bar the entrance door of the *hosh* as she wanted to escape to the river. Thinking to help her by water they thrust her under the tap, drenching her from head to foot with running water. First she only roared and muttered unintelligently, but after a while she began to talk in a strange voice, rebuking and cursing her mother and her brother for not satisfying " its " request for a *Zar*. Neighbours and friends were attracted by the commotion ; women and men tried in vain to pacify the *rih* and earnestly asked it to tell them its desires. It answered—" I want them to understand, (meaning the mother and the brother) that I don't want new cloths nor wine, nor men, nor children—I want them to understand that I am angry because thay have refused to *darab al Zar* for me these 3 years." When asked to repeat its name and to be more gentle to the mother, it said :—" We are many, what are mothers, brothers, fathers to us—they are like birds in our hands or flies in the dust ! "

Somehow they got her to sit down, (as it happened, on a rubbish heap) and there she sat, dirty, wet, dishevelled, rocking herself right and left and looking for an opportunity to escape to the river.

When the confusion was at its height, with the people in the streets running to and fro to discover the cause of all the noise, attracted by the inhuman roars and realizing what it meant, the *shaikha* who lived in the neighbourhood made her appearance. Very dignified, quiet in her manner, all dressed in white, speaking in a low, gentle voice, she came and sat near the raving girl ; squatting on the rubbish heap, gently taking hold of her hand, the *shaikha* began to talk to the *Zar* within her in an even low voice :—" what is all this, don't you know me ? I am your grandmother (*habbobtak*). It is bad for you to do this—you are all dirty and wet. It would be much better to come and change, put on a nice, clean dress and lie down on a clean *angarib* ! " ..... The girl's head went in shame to the right and left and in a hoarse voice she twice repeated " *ma'lesh ma'lesh* " (I am sorry, I am sorry) and let herself be led away.

After seeing her settled in bed the *shaikha* quietly departed. The brother had now to give his permission for a *Zar* ceremony ; the money was found and the day of the *Zar* was appointed. The next day the girl woke up bruised, hoarse and without any recollection of the previous night's doings.

A woman who wants to know if she is possessed by a *Zar* goes to a *shaikha* and gives her a well-worn piece of her garment. The *shaikha* sleeps overnight with the rag, some sweets and sugar under her head. In her dreams the patient herself comes to tell her who is troubling her, reveals their names and the things they are asking from her. The *shaikha* in the morning comes to the patient, lights the incense and one of the *riyah* takes possession of the patient and in the name of all the tormentors tells by the voice of the patient all that they want.

The *shaikha* or *gudya* is selected by her reputation and not because she lives in the same quarter. Some of them may perform the ceremony in their own house if the house of the patient is inconvenient. If the *shaikha* has performed the ceremony on behalf of anyone, she is henceforth in a state of blood-relationship with them and whenever she goes to a house to *darab al Zar* her " children " also follow to support her. The *shaikha* is paid by the day ; the charge is from P.T. 30 a day, but the expenses involved in obtaining sacrificial animals, sweets, *marisa* (millet beer) and food to the *shaikha* and her staff and supporters are very high indeed. As the *Zar* are a collection of spirit-entities and every one of them requires different accessories, the assembling of the different dresses, ornaments, veils, hats, sticks, men's clothes, spears, *tobs* (women's cloths) and so on costs a lot of money. Some of the things may be begged, others are given, but they may never be lent. Nothing used in connection with the *Zar* can either be sold or given away until the owner dies. They are kept separate and can be moved at the first summons from the *shaikha*. Woe betide the woman who neglects to bring the things required at the invoking of special *riyah*—she is roundly rebuked by the *shaikha* and made very unconfortable by the *rih*.

The ceremony of *darab al Zar* may last one day, or three days or as many as the patient is able to afford. A special ceremony called *mez* required seven days.

Each ceremony begins in the same way. When the *shaikha* arrives at the house they begin to prepare the room selected for the performance, the room is cleared from all furniture and swept, and mats are spread to cover the whole floor. Near the wall in the middle is a mattress covered with a white sheet on which the patient will sit surrounded with selected friends who " have killed " or, in other words, have had a *Zar* performance

of their own. In front of the mattress is the place for the *shaikha*, her orchestra and assistants. The same night the patient has her *hinna* night as at a wedding, during which all the women who are present give money to the *shaikha* and wish the patient well.

Next day the *shaikha* begins the performance by the ceremony of *fatah al 'ilba*—" the opening of the box," which is the iron incense box which the *shaikha* brings with her. She puts some on the live coals of the incense burner. The *Zar*-incense (*bukhur al Zar*) consists of Mastica, Ouda, Gawli, Murr Hijar, Kafur Tayar (different kinds of aromatic woods etc.).

The instruments used during the performance are the big drum known as the *daluka* and round flat drums, a tambourine, two flat brass disks with holders on the inside, and a *tisht*, or tin basin, which is beaten with sticks.

Every entity has its own beat on the drum and the *shaikha* intones the names of the *Zar* beginning with the powerful ones and gradually working down to the small ones. The invoking of each entity requires special dressing up to impersonate it together with such accessories as sticks, spears, hats, cigarettes, special *tobs* or men's dress. As each entity is invoked the women present who are siting in the room get up and begin to dance. The dancing consists of wild jerks turning from right to left, throwing out their hands spasmodically. Only the women who " have killed " have the right to get up to act. Those who are possessed by a *Zar* but for some reason have not yet had the ceremony performed on their own behalf will only bow violently up and down or rock themselves from right to left while sitting. They have not even the right to sit on the mattress which is spread round the room near the wall for the selected ones.

The dance of an individual woman may not start until long after the beginning of the drumming or it may stop in the middle of it—all depends upon how and when *al dustur nazal 'alaiha*—" the spirit takes possession of her." Some may remain just quietly in the middle with the wild commotion going on around them. During the dance they go into a trance, their eyes become glazed, they fix a sightless stare in one direction with a tense, drawn face and, when the drum or their own possession comes to an end, they just stand still, and for the moment a bewildered look comes over their faces—they pass their hands over their faces as if trying to take something off it. The same movement is repeated sometimes during the dance itself. Sometimes their eyes turn up and only the whites are visible. Some continue in the trance after the drum has stopped and some ashes from the incense burner are

sprinkled on their backs and heads by the *shaikha* or her special assistant. All of them while in the trance cover themselves entirely with their *tobs*.

As soon as the drumming begins at the beginning of the ceremony the *shaikha's* special assistant goes from one to the other of the women and offers them the incense-burner. They pass their hands and arms through the smoke and the burner is put under the *tob* near the face. Both feet one by one are held in the smoke and shaken over the coal as it to shake off the dust. Everyone puts some money in the box of incense which the assistant holds in her other hand. Each beating of the drum may last from 10 to 15 minutes and when it stops every one relaxes. The patient may be fed in the intervals.

A *Zar* must not be interrupted by a quarrel involving the patient in any violent action otherwise the *dustur* will avenge itself on the patient and may even kill her.

There are many *zairan* and the names of each are called in turn. Each one has its own special drumming and dance and each involves special dressing up by the performers to represent it. The following are some of the *zairan* called up :—

Kaltum bint Nuba is a woman who requires some beads and scanty garments and performs a wild negro dance with skips and jumps, moving her behind very markedly.

Amuna al 'arabia : } require *Shubal* (dancing girls' salute),
Doriba al 'arabia : } bridal *tob* and bridal dances.

Hadra sharifa : requires *habara*—the dress worn by Egyptian upper class women : the incense required is Murr Hejaz and 'Ouda.

Habashi : requires a red dress and sticks.

Toria, Nas al jubal, or *Zurug* : all carry sticks to represent spears.

Mariam al 'azra : (the virgin Mary) requires black *tobs* ; they pretend to carry a child in their hands. The words the staff sing are : *Shalat Issa fil kanisa*—" She carries Jesus in the church."

Sometimes, when *Mariam al 'azra* is invoked, they all sit down covered with white veils whose ends they hold in their outstretched hands whilst they rock themselves in all directions. On the floor is placed a lighted candle.

Gowri or Kowri Pasha : For him men's clothes are required, either a native silk *jallabiya* or a European suit, with hats, sticks and lighted cigarettes. The dancing consists in proud swaggering to and fro with insolent looks all round the audience. Once a girl went as far as to get fresh with her own sister sitting in the audience. trying to snatch the *tob* from her breast.

al loubi : requires special rings with chains on fingers or on the side of the head.

The Banat (girls) : For them bridal *firka jarmasis* is used. The dancing consists in an exaggerated parody of the dance performed at the cutting of the *rahat* (girdle worn by virgins).
Darwish : a modest white dress is required and the dance is as quiet as possible in the circumstances.
The 'askari (soldier) : for this they dress in men's garments, if possible of some military kind, using sticks as guns, taking aim, firing, saluting, whistling, smoking cigarettes and swaggering about nonchalantly.
Sultan al Bahri (lord of the river) : the performer shouts for *marisa*, makes the motion of swimming and demands that water be poured over her.
Howata (fisherman) : The *tob* is used as a net to throw in the water and in fact is thrown over the audience.
Sid al harb Barnawi (the warrior Barnawi) : dancing with spears and arrows.
Habashiya (Abyssinian) : beads, *jarmasis* or *rahat*.
Dinka : motion with hands as if climbing a rope.
Timsah (crocodile) : grovelling on the floor a plate full of water.
Abdel Gader and Sheikh Mohammed : requires rings with their names engraved on them.

The Sacrifice.

The sacrificial animal is killed on the second day. Any man may be asked to slaughter it but after he accepts he must remain dumb until the woman for whom the animal is sacrificed has put 2 P.T., some sugar and a green coffee bean in his mouth. Before being killed the animal is dressed in a white *tob* and let into the courtyard. The *shaikha* beats the drum and the women dance round the animal which itself gets possessed and nods its head to and fro. At the end of the dance the *shaikha* takes a dish and holds it under the animal's throat, the women take hold of its four legs and the man cuts its throat. The blood is collected and smeared on the patient's hands, face, feet and head. Only after being anointed with blood has the patient the right to get up and dance during the possession. All the *banat al Zar* or the " children of the *shaikha* " get a dab of blood on their foreheads and put some money in the blood-dish for the *shaikha*. The flesh is put in a cauldron and boiled the whole day. On the third day the head and the four legs are brought into the room on a dish : the *shaikha* cuts the head open and first of all gives her patient a little piece of each part of the tongue, brains, ears and neck. Afterwards all the flesh is taken by all the *Zar*

women, but every bone is carefully collected and given to the *shaikha*. To end the ceremony of ordinary *Zar* the *shaikha* calls up all the women "who have killed"; they collect near the wall facing the door, the patient in front. All the audience has to get up and range themselves along the walls. One or two of the staff place themselves in front of the crowd with tambourine and the small flat round drum. The *shaikha* invokes Shaikh Abd el Gadir el Gilani and Shaikh Mohammed, and they all bow as in the performance of a *Zikr*: at the end the assistant in front gives the sign to the patient and she runs out of the room into the street. All those present follow throwing out their hands after her. After this the patient quietly returns to her room. Before sunrise on the fifth day after the killing, or the seventh from the beginning of the performance, the patient with all the company is conducted to the river: they wait to see the sun rise and then the patient washes her face, feet and hands in the river. All the bones collected from the sacrifice are thrown into the river together with sweets and 2 piastres.

After the end of the *Zar* performance, the patient remains at home for seven to ten days. On no account must she attend a *bika* (mourning), but if there is a marriage or another *Zar* she may go out. Otherwise her first visit out must be to the *bait al Zar* where the ceremony of *darab al Zar* is being performed.

If anything is missing from the accessories which the *riyah* have ordered the patient to provide, the ceremony will all have been in vain; not only will the patient not profit by it, but she may get worse since she has disregarded the orders.

The ceremony of the *kursi* or *mez* usually lasts 7 days, but if a patient cannot afford the expense it may be limited to 3 days.

If it is to be such a three days' ceremony the first two days after the *ferash* and *hinna* are devoted to invoking the Sudanese entities and the last day to the *bashawat* (*i.e.* Egyptian pashas) and the *afrangi* (foreigners). At the end of the third day a big table is brought into the room and 6 chairs; all kinds of eatables are piled on the table which is covered with a white cloth. Knives and glasses are provided—the table is laid in *afrangi* fashion. Roasted pigeons, fowls, sardines, green olives, all kinds of cheese, sweets all in small dishes—even flowers—are placed in the middle of the table. Beer and whisky and soda are poured into the glasses. When all is ready the *shaikha* intones an invocation to the *bashawat* and the women dressed in men's clothing, coats, trousers, hats, cigarettes in mouth, sticks in hands, dance round the table. When the drum stops six selected ones seat themselves on the chairs, take a drink and begin to eat. Whisky and beer are passed on to the other

selected followers of the *shaikha*, who are all standing behind and round the six seated. After all have drunk food is also handed round, first to the one who had " killed," afterwards if any left is to all those present. On the table is a saucer with water to receive the donations of money for the *shaikha*.

When everything has been eaten and drunk the *shaikha* beats the drum and the dance begins again around the table.

During the month of Ramadan all the " good " Islamic spirits have great powers and all the *afarit*, *shayatin* and *riyah* are hidden under the earth. Nobody can or will attempt to *darab al Zar* ; all the implements of the *shaikha* are collected on a table and covered with a cloth. On the 15th day of Ramadan the *shaikha* burns incense in front of the table and may uncover them.

Some *shaikhas* have a special staff representing the king of the *Zar* whose name is *al Makin*. This staff rests on the special table with the other objects and nobody has a right to take anything or put anything on this table except the *shaikha* herself. It believed that the staff talks.

If a *shaikha* dies the corpse is conducted to the cemetery with seven incense burners, some in front, some behind. In her house they beat the drums for three days invoking all the *riyah* but they do not possess anybody.

Note.—Further references to the *Zar* ceremony are to be found in Miss W. S. Blackman's book *The Fellahin of Upper Egypt* (p. 197 etc.) ; the Egyptian form differs considerably from that of Omdurman. Other references are to be found in *Tibb al Ruhh* by Dr. Abdel Rahman Ismail, which was published as *Folk Medicine in Modern Egypt* by John Walker : the etymology of the word is generally assumed to be from *Ziyara* (visitation) though attempts have been made to derive it from Zara, a town in Iran, or Zar, a village in the Yemen. Lane's *Manners and Customs of the Modern Egyptians* does not mention *Zar* but there is reference to the practice without mention of the name *Zar*, in Westermarck's *Ritual and Belief in Morocco*. The relevant passages from these works have had to be omitted. See also the article on " *Zar* in Ethiopia " by W. Leslau in *Africa* XIX, July, 1949.—*Ed.*

TAMBURA

There are two kinds of *Zar* practised in Omdurman. One is *Zar Bori* which we have just described : the other is *Tambura*. The ceremony of the *Zar Bori* may be performed in the *shaikha's* house or in the house of any person possessed by the *rih ahmar* ; *Tambura* never goes to the house of the possessed one, but the patient is brought to the residence of the *Tambura*. *Zar Bori* is considered masculine, *Tambura* feminine. A room in a house is selected to hold all the accessories for the performance. A guardian or keeper is installed with a big ceremony and looks after this room. This guardian is usually a woman

and if she is poor, she may sleep in the same room but if possible the room is kept exclusively for the *Tambura*. A woman may have a dream of the *Tambura* ordering her to start a new branch of worship. She will take the request to the *shaikha* under whom are all the guardians of the *Tambura* houses. If he gives her permission, the woman will select a room and gather together all the necessary accessories.

First there is the *rababa*—a musical instrument: the body is a round hollowed piece of wood, flat in front and round behind. In front are two small round holes, called " the eyes." The *rababa* has six strings fastened to an iron ring between the two " eyes," and at the upper end to a wooden frame rather like an inverted trapeze fastened to the wooden base. The base and the sides are covered with goat hide and trimmed with small many-coloured beads and small bells, including strings of beads of different shapes and colours as offerings of devotees. Each *rababa* has a name and talks by the sound of her strings in *rotana* (foreign language); a special man plucks them and sings the orders of the *Tambura* translating them sometimes into ordinary Arabic. The *rababa* is supposed to see with its two eyes.

When at rest the *rababa* reclines on a cushion placed on a stool or a table with its back to the wall. Leaning on and supported by it are two sticks, a big one called *al zait al maghli* and a small one *harasana*. The big staff is about four feet long and about 2" thick, the top is painted and the body encrusted with the same small multi-coloured beads as the supports of the *rababa*. It is used in every ceremony. The small staff is about 15" long and 3/4" thick and is also decorated with beads. It is held on special occasions by a woman who has sacrificed a sheep or a goat.

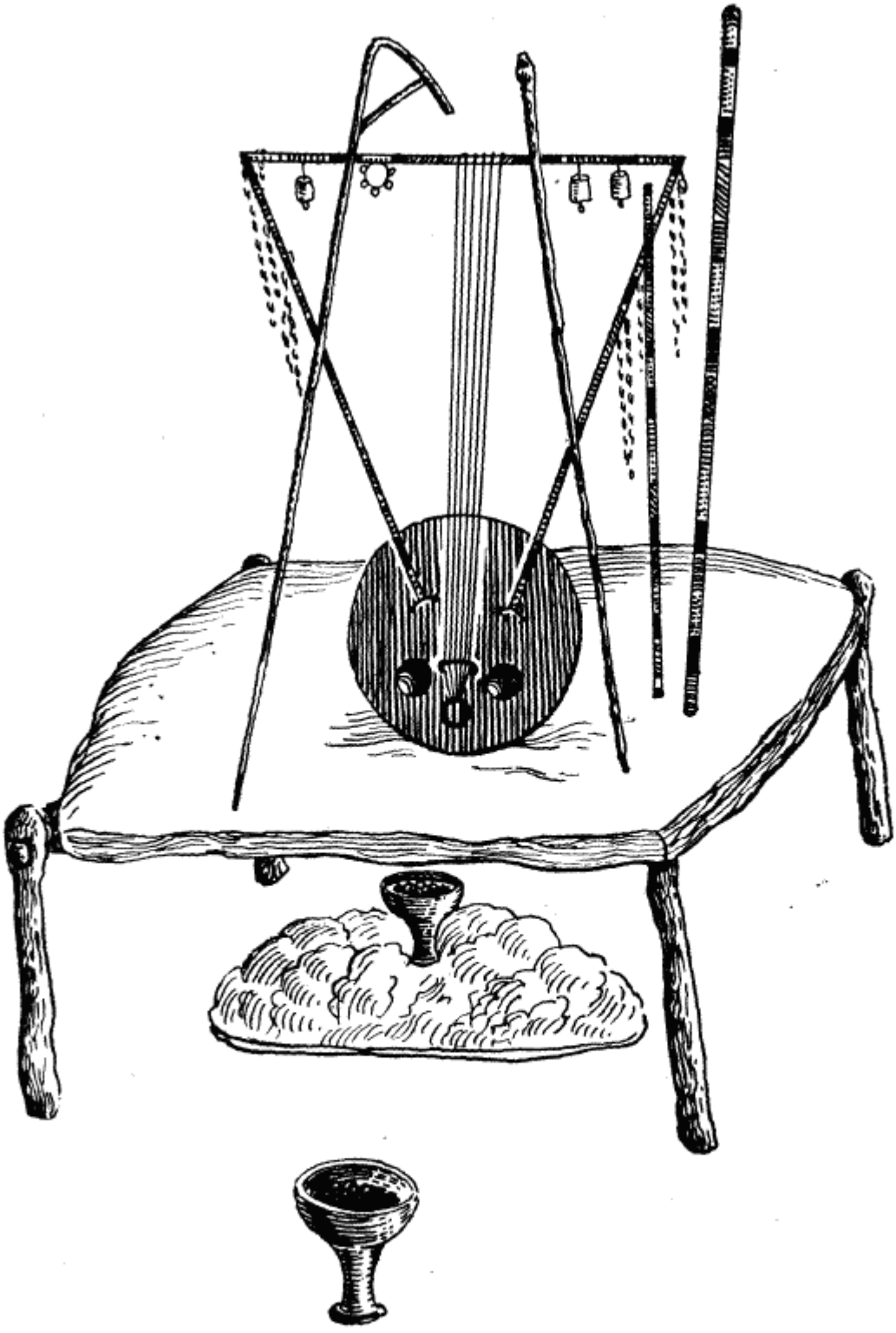
On both sides of the two staffs are the two " guardians "—one a plain stick, the other with a peculiar twist, branching off from the bent head.

Under the stool or the table is a tortoise shell about a foot or a foot and half in diameter on which is placed an incense burner collecting all the ashes from the burner placed in front of the stool. These ashes are given away as medicine.

Near the *rababa* on the floor are drums, a big and a small, made of round iron tins covered with goat hides on both sides. They are beaten by either men or women with short thick hippo whips sharply :—

Ta Ta, — Ta Ta, — Ta Ta, — Ta Ta Ta, — Ta Ta.

There is also a big belt, a piece of leather 20" wide with strings on the corners and embroidered on the top with cowrie shells in the form of crosses — four together. At the bottom edge are about a hundred



RABABA AT REST

goat's hooves (*Wadaa*). The belt is called *al Mangur*. It is worn by a man or women from the staff of the *Tambura* to help in the performance, and is tied on the hips so that rythmical twisting produces a sharp rattling sound. This performance is called *la'ab* (playing) and they say: "*ma fi la'ab, ma fi rih*" when the entity delays manifesting itself.

On the wall, supported by pegs, are the two banners. One is red with the words *Abd-el Gadir* with a star and crescent moon written on it in white lettering, the other is white with *Saidi Billali* and the star and the same moon in red. On the top of the banner staffs are rattles ending one with a crescent moon and a star: the other with a crescent moon and something like the head of a spear.

In a corner in a heap are big rattles made of tin with little pebbles inside: they are shaken by the women who are present at the ceremony as an accompaniment to the dancing. There is also a big beautifully made necklace about one yard long, composed of big beads at intervals along strings of red silk, ending with two tassels of small beads. The guardian *shaikha* wears it when in a trance for special occasions.

There are many houses of keepers or *shaikhas* of the *Tambura*: one of the oldest is Hawa Telention who has a big *rababa* called *Mabruka*. One of the present guardians Safiat had a dream in which she heard a voice calling: "*I am Mabruka, Mabruka.*" She went to the chief *shaikh*, Mohammed Ibrahim, and told him about it. He consulted *shaikha* Hawa and they agreed to give permission to Safiat to make a *rababa* and to call it *Mabruka*—this *rababa* is considered as a child of the big *Mabruka*.

The office of guardian is for life and all the time of the keepers is spent in embellishing and acquiring more accessories for the ceremony. The keeper's life must be pure without any love affairs and she must never drink in the house of her *rababa* or elsewhere so as to become drunk: if any such thing happens *Tambura* may kill her.

If something is lacking in the performance through the neglect or meanness of the keeper, the *Tambura* shows her displeasure by snapping a string: the ceremony will be repeated after 9 days. If, for instance, the guardian is poor and there is not enough incense and the *Tambura* resents this, all the women present will help to procure enough for the next ceremony. During the time between the two ceremonies the accessories can be seen; otherwise they are covered with a white *tob* or cloth, and will be uncovered only for a sick person.

If there is a quarrel between two or more of the *Tambura* people and they arrive to help in the ceremony, the string of the *rababa* will

break and cannot be mended until the guilty people have been removed and the *Tambura* pacified by the officiating *shaikha*.

It is forbidden to come to the ceremony in a dark *tob* (blue or black) : there is an entity called " Bandawi from Fertit " who hates black and blue and will persecute people wearing it.

Installation of a Shaikha.

Any woman who has applied for a post as a keeper and whose appointment has been approved has to provide a black goat and a sheep.

The procession starts from the big *shaikha's* house. First comes the sheep draped with a white cloth led by a man : a goat is led uncovered by its side. Following the sheep comes the *rababa* carried by the interpreter with the two banners, one on either side. An old woman bearing a lighted incense burner is skipping round with dancing steps: at big road crossings they stop, the woman kneels down and lifts the burner over her head. The drum goes behind beating all the time, and then come staff women bearing trays with *balila* and sweets. They all go to the river where they bathe the animals and return to the house of the new keeper. It is strictly forbidden to walk in front or across the path of the *Tambura* in the streets.

Death of a Shaikha.

When a *shaikha* dies seven days of mourning are kept. The *Tambura* orders funeral songs and lamentations. The corpse is followed to the cemetery by seven incense burners, some in front, some behind the corpse. The *Tambura* does not go with them and is covered up for 40 days with a white cloth. During these 40 days a new keeper may apply for the post.

The Ceremony to celebrate the Mulid.

If the keeper of the *Tambura* has a special room in her house for keeping the accessories the ceremony may be held in it. If it is not big enough, the verandah is used for the celebration. The floor is strewn with mats : the *rababa* with her singer is in the centre near the wall facing east, and on her left is the bearer of the big staff who is an old woman. The small staff reclines on the wall near her. In front of the *rababa* is a big incense burner with female attendant. Near the right hand wall are the two drums with their attendants and the belt : near them are more burners. Near the entrance of the veranda are seated the women and children with big rattles in their hands.

The singer tinkles the strings, the big drum gives one or two beats, the audience shake the rattles: it is the prelude. Then the singer begins his chant by a sentence ordered by the *rababa*, the choir takes it up; the drum catches the cadence and the rattles shake in rhythm. The ceremony has began.

If a woman possessed by the *Tambura* cannot come to the ceremony she may send her children who will sit in the audience and shake the rattle. If a woman during pregnancy finds out she is possessed by *Tambura*, the new born child will be called " the child of the *Tambura* " and every time there is a ceremony it will come to be censed. The *shaikha* covers it with her *tob* and puts the burner under it for a minute or two.

At some period during the ceremony all those present will get up; the incense attendant, holding the burner up, may put it on her head.

If the entity invoked is male, some of the audience will veil their faces.

The ceremony begins by invoking and singing to: all the world, Adam and Eve, Saidna Hassan, 'Abd al Gadir al Gilani, Bandawi of the Fertit (the persecutor of the Blue and Black), Sidi Bilali (of the big necklace), Roza al Haramiya (who requires a tightly bound chest), Sitt al Ragash (who requires a band with cowrie shell embroidery, on the brow), Dar el Khawajat.

The beating lasts from 10 to 15 minutes after which they relax. A newcomer may only enter during the interval and then must crawl in on hands and knees. She has first to greet the staff, the bearer of which rises to her feet and holds the staff reclining against her shoulder.

The new comer bows to the earth to the left and to the right of the burner, then still kneeling she slides her hands from the top to the bottom of the staff and on the head of the bearer, who greets her. The same is done to the *rababa* and the singer, next the drums and the drummers.

They invite the *rih* to " descend." A man or a woman puts on the belt and shakes the hips to make it rattle: only one person at a time is allowed to express him or herself and it is done in front of the *rababa*. No actual talking is allowed, only moans with the closed mouth. The jerks are very violent and they will often bang their heads on to the earth to the right and left. The possession may last a long time through many intervals and the chest is bound or the necklace placed by assistants as required by the invocation.

If the possession is specially violent, during the interval the attendants will put their hands on the possessed one's head and implore the *riyah* to be gentle with her. Some ashes from the big burner may be

put on her back. When at last the trance is ended the possessed person sits leaning with her back to the *rababa* which is softly played by the singer with one hand. With the other he brushes the top of the *rababa* and then the head of the patient and her shoulders.

As soon as the person has recovered from the trance, she crawls round and salutes the staff and its burner, the *rababa* with the singer, the two drums with the drummers—bowing right and left of them and sliding her hands from the top to the bottom.

Nobody is allowed to eat, drink or smoke during the beating of the drums during the interval, if it is time for prayers, the officiating people will go out and pray.

The Ceremony of the *Kursi*.

This ceremony lasts seven days and is done on behalf of a sick person, who has to provide a sheep. The procession starts from the house of the keeper with the sheep in front, covered with a white cloth, the *rababa* surounded by the two banners, incense-burner, drum and women carrying food.

After washing the animal in the river they all return and the sheep is killed. The blood is collected in a dish and the *rababa* and the staff anointed with it. Meanwhile a table is spread with a white cloth with a big tray in the middle full of small dishes with dates, nuts and all kinds of sweets and fruits. Tea and coffee are provided, and the *rababa* and the big staff have their share before anyone else. If a person is tempted to disregard this rule and have something to eat or drink before the *Tambura* is satisfied, it will vomit blood.

The head of the animal and the four legs are skinned and boiled for two days. On the third day the officiating *shaikh* takes a piece of each part of the head and the feet and "*feeds* the *Tambura*." The rest of the flesh is eaten by the patient and the *Tambura* staff people only. If an outsider should eat but a morsel it is believed he will die.

All the remains together with the bones are put in a big bowl and thrown into the river. If the person drops a piece of the sacrificed flesh or bone, he is fined by the *shaikh* and must bring a sheep of his own.

On the fourth day *balila* is made, a kind of gruel consisting of millet, sesame, beans and flavouring. The bowl full of *balila* is placed in the middle of the circle formed by all the women present, presided over by the old woman who has prepared it. The *balila* is first given to the *rababa* and the staff. Every woman is very carefully covered with her *tob* and eats the *balila* from under her covering.

The Yearly Sacrifice and Offerings.

The month of *Rajab* is considered the month of the yearly sacrifice to the *Tambura*. The chief *shaikh* decides the order in which the celebration will be held in all the *Tambura* houses, beginning with the eldest *shaikha* and ending with the newest. All the people spiritually connected with the *rababa Mabruka al Kabira* have to send 5 P.T. for *hinna* and a pidgeon : the devotees may bring it themselves, or send it directly or to the house of their nearest keeper, which is directly dependent upon *rababa Mabruka al Kabira*.

About 8 p.m. on the appointed day the *shaikh* begins the ceremony of the *hinna*. He takes his stand in front of the *rababa* and says three times "*Dasturak*" (with your permission). Then the singer invokes the following spirits :—Fatma, Adam and Eve, The Prophet Mohammed, Saidna Bilali.

After this the *shaikh* declares that the *shaikha* has prepared the *hinna* for the women and the *rababa*. He takes a piece of *hinna* and puts it on the *rababa*, and the various sticks. After this the *hinna* is given to all the people present, or whose behalf the ceremony has previously been performed. The remainder is distributed to people who are under *Tambura's* influence but have not yet had a ceremony of their own.

At 3 p.m. the next day the *shaikh* begins the offering. The keeper of the appointed house has to provide an animal : if it is a sheep or a goat, they go in procession to the river ; if she is poor and can only afford a pigeon, they stay at home.

The courtyard of the house is specially prepared for the occasion. Two big forked staffs called "*rayat*" are planted in the earth near the wall of the *hosh*, whilst a third is placed in the middle, the two banners stand between the three. On the right of the *rayat* are placed *marisa*, scent, fruits, *balila* and sweets, which are carried first to the river if that is part of the ceremony.

In front of the *rayat* and the banners a big mat or two are spread on which the privileged one, the one who had sacrificed to the *Tambura* (not only a pigeon), may be seated. (To "sacrifice" or "kill" means to have had one's own ceremony). On the left of the mat are the two drums, of which only one goes to the river. Behind the mat, facing the banners is the place for the *rababa* and the staffs which are surrounded by the attendants of the *Tambura* — her staff, so to speak.

Behind are the women preparing tea, coffee and *marisa*, surrounded by people who are under *Tambura's* influence and ordinary visitors. The place of the *shaikh* is between the right of the *rayat* and the mat of the *rababa*.

The *shaikh* begins the ceremony by calling aloud the names of the *Tambura* entities and brandishing his big knife. First a pigeon is sacrificed for the sake of the keeper, the *shaikh* takes the bird, which was washed beforehand, and beats the donor on the head, shoulders, chest and knees. This is supposed to prevent illness. The blood is collected in a dish and the knife wiped on the wood of the nearest banner. The big animal is dragged round the right *rayat* three times with the women following with dishes which were on the floor. The *shaikh* takes the animal by the head and tail and facing the *rababa* raises it in offering three times, then cuts its throat. The blood is collected in the dish and the *rababa* and the staff are anointed with it.

Complete silence is maintained during the killing. If the *shaikha* has offered a hen as an additional sacrifice, the *shaikh* takes it by the legs and passes it over the head of the *shaikha*, then cuts the throat.

After all the offerings are killed and all the blood collected, one of the officiating women goes round the audience with the dish, first to the privileged ones and afterwards to the others. Every one who desires the privilege of getting any affected parts of their body anointed with the blood, puts money in the dish.

Coffee and *balila* are offered, first to the *rababa* and staff, then to the people on the mat, afterwards to everyone, including visitors. The blood which was spilt on the ground during the sacrifice of the animals is carefully covered up with earth by the keeper.

After the feeding is finished the real invocation of spirits begins. The powerful beings are called up first, gradually descending in scale of power to the weaker ones.

If a woman who had a *rih* attends a ceremony of the *Tambura* or *darab al Zar* and does not want the *rih* to possess her, one ties a knot in one of the tresses which adorn her head.

Nobody can ever be quite rid of the *riyah* once they have taken possession. It is believed that in old times the *shaikhs* had more powers, or perhaps possessed some special secret words which are now lost—they could exorcise the *riyah* once and for ever. The ceremony was believed to be a drastic one but did not need to be repeated.

All the female population of Omdurman is under suspicion of being possessed by the *dustur* but it does not always manifest itself violently. As long as the *rih* does not require *Zar* people do not bother much.

RECENT DEVELOPMENTS IN *SHARI'A* LAW IN THE SUDAN.

By J. N. D. Anderson.

It has been of considerable interest during a recent visit to the Sudan to discover the extent to which the modern movement for the reform of *Shari'a* Law, active to a greater or lesser extent in almost all the countries of the Middle East, has progressed in the Northern Sudan. Perhaps, therefore, this is a suitable opportunity to review in some detail the reforms which have already been introduced and to compare them with similar innovations in Egypt, since it is necessarily with movements for the reform of the *Shari'a* in Egypt that developments in the Sudan have been most closely linked.

THE JURISTIC BACKGROUND.

In the early days of Islam there was considerable scope for the exercise of judicial discretion and legal opinion. Where no authoritative text from either the Qur'an or the Traditions (*Hadith*) seemed applicable jurists felt perfectly free to base their judgements and dicta on what they considered most in accordance with the spirit of the law or the requirements of public welfare. As time went on, however, the view gained ground that the divine law could never be discovered by human reason : it must be divinely revealed, or at least derived from a divine revelation by necessary deduction. The free scope of juristic opinion (*ra'y*) thus became more and more restricted to an application of definite rules of analogy (*qiyas*) by which the scope of revealed texts might be extended to embrace the continual diversifications of daily life. It was largely this increased emphasis on the need for traditional authority rather than judicial speculation that led to the formation of the Shafi'i and Hanbali schools (as well as other now extinct schools such as that of the Zahiris) alongside the earlier Iraq and Hijaz schools of the Hanafis and Malikis.

In course of time further developments took place. While it was always accepted that the conclusions of a jurist as to the dictates of the law in the absence of any authoritative text were liable to error, the opinion grew that where jurists were agreed in their conclusions they could not be at fault. This doctrine constituted what was virtually a new source of law, termed *Ijma'* or Agreement, around which much discussion and dispute raged. Some accepted as conclusive evidence

of the law the agreement of the reputable jurists of any age, even in cases where this agreement could only be deduced from the argument of silence on the basis that no contrary opinion had come down. Others, however, rejected any such conclusion and limited the scope of agreement as a binding rule of law to the agreement of the immediate Companions of the Prophet. Yet others, again, accepted in theory the binding force of the agreement of later generations but largely nullified the effect of this doctrine by denying, in any point of dispute, that such agreement could be predicated with any degree of certainty.

Again, with the crystallisation of the schools the right of individual jurists to go back to the original sources and reach their own conclusions became progressively limited. The opinion slowly gained ground that only the founders of the great schools of law possessed this absolute right of *ijtihad* (exercise of judgement), while their successors only enjoyed it to a steadily decreasing degree, within the framework laid down by their illustrious predecessors, until, after a few short centuries, it was regarded as completely lost. Thenceforth even the most eminent jurists were limited to accepting the authoritative decisions of their predecessors (*taqlid*), and only a few outstanding figures dared, down the centuries, to declare that the door of *ijtihad* was still open.

Another matter keenly debated, particularly of latter years, was the extent to which one who had himself no right of *ijtihad* might choose, in each particular point, which *mujtahid* (or learned jurist exercising *ijtihad*) he would follow. Was he, in other words, always bound by the predominant view in his particular school, or might he pick and choose between variant opinions—and, if so, was his freedom of choice absolutely unfettered or bound by certain restrictions ? Some later jurists went so far as to maintain that a man who had chosen his school was thenceforth completely bound thereby ; others, slightly less rigid, held that he might change his school *in toto* but must not follow one school in one particular and another in another ; while many made a distinction between the judgments of a *Qadi* acting as such and the conclusions he or anyone else might reach in his private capacity : in the former they held that he must always follow the predominant view of the school to which he belonged, while in the latter he might pick and choose which jurist's opinions he would follow in each separate particular, within limits drawn more or less strictly by different writers. Some, for instance, said he must in all cases be convinced of superior authority for the view he chose ; others, that he must not go back on an opinion he had once adopted ; yet others, that he must not follow the least exacting opinions of each school : but there were not wanting some who rejected all these

restrictions, provided his choice of views was not based on a desire to make sport of the law. Even so, argument still rages in Egypt as to whether a man may so combine parts of the dicta of two different jurists concerning a single point as to create what is, in effect, a third opinion. Some reject this utterly, maintaining that it is contrary to the Agreement of the past and constitutes an innovation (*bid'a*) or at least a form of *ijtihad* : others draw fine distinctions, and admit this combination (*talfiq*) in cases where a *mujtahid* of the past might conceivably have held the view thus formed, while they reject it in cases which go beyond this criterion ; or again, some accept it where the process results in the formulation of a logical and consistent principle of law but reject it where the result is not so satisfactory. Yet others, however, accept *talfiq* without restriction when used in accordance with public interests and from a desire to make the *Shari'a* keep pace with the developments of modern life.

All this, of course, is intimately connected with the rise of the modernist movement in Islam which refuses to be bound by the shackles forged by mediaeval theologians and jurists and claims the right to re-interpret Islam in terms of modern life. This movement has made a determined attack on both the conceptions of *taqlid* and *ijma'* : regarding the former they maintain that the door of *ijtihad* is always open ; while the latter, they argue, has been impossible of realisation, or at least of demonstration, ever since the Companions of the Prophet scattered throughout the Muslim world in the early part of 'Umar's Caliphate. Thus limited, the principle of *ijma'* obviously loses most of its force as a check on reform. While, however, many modern jurists themselves see no reason why they, at least collectively, should not exercise the right of *ijtihad*, they normally deny that they have done so and represent their most daring innovations as a mere legitimate choice of one jurist's views in one particular and another's in another.

One more point must be noted. It has been recognised for centuries that the Sovereign has the right to restrict the jurisdiction of his judges either geographically or with reference to the type of cases they may hear. The question naturally arises, therefore, whether he may so restrict their jurisdiction with reference to the school, or variant opinion within a school, which they are to apply either in general or in specific cases. This, again, has been much disputed. All these modern reforms, however, rest squarely on the postulate that the Sovereign has this right, not only in fact but in legal theory.

THE EGYPTIAN BACKGROUND.

THE DEMAND FOR REFORM.

In Egypt, as in Turkey, the path of legal reform started by the institution of non-*Shari'a* Courts, both "National" and "Mixed," which were to apply a criminal and civil law which was frankly man-made, was codified, and was largely derived from the West. The *Shari'a* Courts were thereby limited to matters of marriage, divorce, parentage, guardianship, maintenance, testate and intestate succession, *Waqfs* and (originally) gifts, and exercised their jurisdiction in most particulars only over Muslims or such others as voluntarily submitted themselves to their jurisdiction. In these Courts the divine law remained untouched by the hand of modern reformers; and even the latitude previously known in Egypt when *Qadis* of different schools each followed his own rite was abolished by the decree, in the latter part of Muhammad 'Ali's rule, that only the most authoritative Hanafi opinion was in all cases to be followed. But the reforms in other branches of the judicature could not leave the *Shari'a* Courts entirely unaffected, and complaints and criticisms soon began to multiply.

In the main these criticisms—apart from allegations of the ignorance and corruption of some of the judges and the antiquated nature of the organisation and procedure of the Courts—concerned three major defects. The first two were largely "adjectival" and concerned the obscurity and uncertainty of the law to be applied, for the "most authoritative Hanafi opinion" regarding the multifarious problems of daily jurisdiction had to be sought under diverse headings in multitudinous ancient texts largely beyond the understanding of the educated layman or even of the modern lawyer; and even then was often a matter of doubt and debate between two or more rival theories preferred by different authorities. These defects could plainly best be remedied by an authoritative code based on these ancient texts but phrased and arranged in modern form: and although conservative opinion, not to mention the vested interests of *Shari'a* lawyers, opposed the idea there was much authoritative support for such a project. But criticism also concerned the unsuitability of parts of the Hanafi law to the circumstances of modern life, especially in particulars in which the conclusions of one of the other schools, or the dicta of some other jurist, seemed much more suitable. The demand arose, then, that the projected code should not be limited to the Hanafi school but should be drawn from other schools too, according to the needs of contemporary society. This was a bold suggestion, for it involved a combination of the

individual's right of choice as to which of variant views he would follow in his private life (as supported by some jurists) with the right of the Sovereign to restrict his judges' jurisdiction regarding the school or opinion they were to apply (as supported by others). Its sponsors, therefore, were naturally willing to put their ideas into effect gradually and even tentatively, prepared as they were for the weight and fury of conservative reaction.

FIRST STEPS.

The demand for a code was partially met by Qadri Pasha's compilations, which attempted to reduce the Hanafi law of personal status, inheritance, and *Waqfs* to a number of consecutive articles after the manner of the Civil Code. These compilations, however, were never in any sense authoritative. Meanwhile the first authoritative reform concerned the organisation of the *Shari'a* Courts and the procedure which they followed: the former was put on a thoroughly modern footing, while the latter represented a compromise between ancient practice and that followed in the Civil Courts. These reforms were introduced by successive Regulations, the most important of which were dated 1897, 1910 and 1931 respectively. In matters of procedure these provided, inter alia, for the full recognition of documentary and expert evidence, for the cross-examination of witnesses and their being put on oath, and even (in 1931) for the acceptance of conclusive circumstantial evidence in addition to the ancient means of proof.

But another, and far-reaching, method of reform was also included in these Regulations. This consisted in the expedient of provisions forbidding the Courts to hear cases of certain types or in particular circumstances. The device was invoked for a variety of purposes. Some were quite straight-forward, such as provisions forbidding the hearing of different categories of cases after a specified lapse of time or unless supported by adequate documentary evidence. Others, however, were designed to introduce, by indirect means, major reforms of a highly controversial nature. Perhaps a single illustration will suffice. By successive enactments, mostly of progressive severity, this device has been used for the effective discouragement of child marriage—a particular concerning which any direct amendment of the substantive law was extremely difficult, since the Prophet himself married 'A'isha at an extremely tender age. As the law now stands however (as a result of Law No. 56 of 1923 and the relevant clauses of the Regulations of 1931) no suit arising from a marriage may be heard unless the husband has

reached the age of 18 and the wife of 16 when the action is brought; and no disputed claim of marriage, admission thereof, or other claim based thereon (except a claim of parentage) may be heard unless the marriage was properly registered by the competent authorities, which authorities are themselves forbidden, under severe penalties, to register any marriage between parties who have not reached these ages. Except therefore, for one or two loopholes (chiefly due to the frequent absence of birth certificates) child-marriage has been largely abolished in Egypt by administrative action, although its essential validity in the Muslim system has not actually been denied.

This reform at first caused a positive furore. Although it adopted this indirect method, its purpose was plainly to restrict a form of marriage sanctioned by Prophetic precedent and recognised by all the schools: and the only authority which could be quoted in its support was the contention of three early jurists (Ibn Shubruma, 'Uthman al Batti, and Abu Bakr al Asamm) that the marriage of those who had not reached puberty was invalid. Soon, however, the tumult subsided and public opinion became reconciled to the measure—a factor which naturally encouraged further projects of reform, most of which concerned the substantive law itself.

BEGINNING OF CODIFICATION.

Committees of reform had already prepared proposals in 1904 and 1915, and some part of their proposals had actually been promulgated as law in 1920, after revision by yet a third Committee. This enactment was not only the first example of legislation affecting the substantive law in matters which had always been within the exclusive prerogative of the *Shari'a* Courts, but was also the first example of the substitution, for the existing Hanafi practice, of provisions drawn from the other three orthodox schools (chiefly, in this case, the Malikis). The reforms introduced by this Law No. 25 of 1920 comprised provisions regarding a wife's entitlement to arrears of alimony and her right to a judicial divorce if current alimony was not forthcoming; her right to a judicial dissolution of marriage if her husband was afflicted with some grave disease or physical defect provided she had not explicitly or implicitly waived this right; and the right of the wife of a missing husband to remarry rather more than four years after bringing the matter of his disappearance before the Courts (together with a solution of the problem of whose wife she was if her first husband subsequently turned up). At the same time the *'idda* period of waiting decreed for divorced and widowed women was limited (in effect) to an absolute maximum of five years if they were

nursing new born infants or three years if they were not: beyond this no device would henceforth enable them to allege the continuance of their *'idda* and their consequent entitlement to maintenance, etc. Some of these provisions were peculiar to the Maliki school, while others were also of Shafi'i or even Hanbali origin. This law met with substantial approval from the first, although there was some Azhari opposition.

In 1926 a new Committee was formed to carry the process of reform a stage further. The proposals they put forward were a mixture. Some represented no more than the choice of a variant Hanafi opinion; others, like the law of 1920, adopted the rules of another orthodox school: but some were far more radical, and abandoned the practice of all the Sunni schools in favour of the opinions of certain very early jurists or much later writers of a highlyi ndependent outlook, or even in favour of a new application of some revealed text by what seems to have been a contemporary exercise of the right of *ijtihad*. These proposals raised such a storm that they were shelved; but in 1929 the greater (though rather less controversial) part were promulgated as law. By this Law No. 25 of 1929 formulae of divorce uttered under compulsion or in a state of intoxication were declared void (these clauses represent the dominant, or in some cases variant, views in the three non-Hanafi schools); ambiguous expressions of divorce were only to be operative if such was the husband's intention (this is the Shafi'i position); all forms of divorce, with certain specific exceptions, were to be construed as revocable (this is substantially Shafi'i); a wife was granted the right to a judicial divorce for cruelty or for physical desertion lasting more than a solar year (these are Maliki rules); the standard of her alimony was to be estimated exclusively by reference to her husband's means, the burden of proof in disputes about the amount of her dowry was to be hers (unless the husband's allegation was quite contrary to probability) and the *Qadi* was given the right somewhat to extend the maximum age up to which the mother, even if divorced, has the right to the custody of her children (these are all variant Hanafi opinions); while the time at which a missing person was to be adjudged dead for all purposes was reduced from the Hanafi suggestions of 70, 90, or even 120 years after his birth to four years after his disappearance or such longer period as the Court, with due regard to the probability of his survival, might decree (this was largely of Hanbali origin and repealed part of Law No. 25 of 1920). Much more daring, however, were the provisions decreeing that a triple divorce uttered at one time was to be regarded as single and revocable, while a conditional divorce only intended as an oath or threat was to have no legal effect whatever; for these

provisions, which were based on the opinions of very early jurists or the arguments of later writers such as Ibn Taymiya or Ibn al Qayyim, ran directly counter to all the four schools. Further provisions forbade the Courts to hear any claim for alimony or inheritance based on the continuance of the *'idda* period of a divorced or widowed woman for more than a solar year after her divorce or widowhood; or to hear any claim of parentage where non-access of husband to wife from the date of marriage, or for more than a solar year before the claimant's birth, could be established. These clauses (which partially repeated the relevant provisions of the previous Law) adopted the indirect method discussed above, but were based on an abandonment of the old views concerning the longest period of gestation in favour of one advocated by modern medical opinion (combined, in the case of non-access, with the Maliki and Shafi'i rules), But the most controversial of all the proposals put forward by the Committee of 1926, namely an article to limit polygamy based on what was really a modern exercise of *ijtihad*, was eventually abandoned, although approved by the Cabinet, at the instance of King Fu'ad—and the same fate also befell a draft Article allowing wives to claim dissolution of marriage if their husbands broke certain conditions sometimes included in marriage contracts but previously treated as void (*e.g.* that the husband would not contract a polygamous marriage, or make her move to another town).

A COMPREHENSIVE CODE.

With the promulgation of this Law the stage was set for something more comprehensive, and in 1936 a Committee of Personal Status was set up to prepare a complete codification of the law, based on the views of reputable jurists from any recognised school. This has not yet been accomplished, and the work still continues: but vital steps towards its accomplishment have already been taken by the passing, by Parliament, of the Law of Inheritance of 1943, the Law of Provisions of the *Waqf* of 1946, and the Law of Testamentary Dispositions of the same year. The first of these included several salutory reforms but nothing wildly controversial from the point of view of orthodox opinion: it represented, however, the first example of legislation which did not merely treat isolated points but a complete subject and was designed largely to displace reference thereon to any other authority. The Law of Provisions of the *Waqf* was less comprehensive, since it was chiefly designed to remedy the most serious defects in the existing system; but it comprised many bold and highly controversial measures of reform which must be regarded either as an exercise of modern *ijtihad*

or at least as *talfiq* of a very extreme and dubious variety. The most recent Law, that of Testamentary Dispositions, resembles that of Inheritance in the comprehensive nature of its scope and that of *Waqfs* in the radical nature of some of its provisions, and perhaps a brief reference to two of the most important of these will form a fitting conclusion to this summary of modern Egyptian legislation.

As is well known, Muslim law only allows freedom of disposition by legacy to the extent of one third of a man's property: for the rest the rights of the legal heirs cannot be put aside without their consent. Not only so, however, but from the time of the Rightly-Guided Caliphs down to 1946 Sunni Muslims have been agreed that no legacy at all can be left to an heir unless the other heirs consent. This view has been based on the belief that the "Verse of Legacies" (Sura 2^{180}) was abrogated or at least limited by the "Verses of Inheritance" (Sura $4^{11, 12}$) and on the acceptance of a Tradition which alleges the Prophet to have said "There is no legacy to an heir." True, this tradition is weakly attested; but once it had become generally accepted it was regarded as confirmed by *ijma'*. The new Law, however, has completely reversed the unanimous Sunni practice of centuries and given a testator the right to make bequests to heirs or non-heirs within the "bequeathable third" of his property—in accordance with the view of the Twelver, Isma'ili and some of the Zaydi sub-sects of the Shi'i "schismatics" who have never accepted the Sunni Tradition as it stands and regard the Verse of Legacies as still in force. The authors of the new legislation have justified their bold innovation by an appeal to this verse and to the interpretation put thereon by certain Sunni commentators (whose comments appear in fact to have been largely limited to maintaining that the verse was still applicable—either within the limits of the Verses of Inheritance, or to such of a man's relatives as were not in fact entitled heirs, or perhaps to such heirs as were more needy than others); to the views of certain "other doctors" (unnamed), *i.e.* the Shi'is; and to the needs of society. But on any view it represents a major reversal of the doctrine of *ijma'* as accepted by most Sunni jurists.

The second provision is, in a sense, even more novel, for not even a Shi'i precedent supports it. It was designed to remedy the most serious defect in the Islamic system of inheritance, namely that a son who survives his parent completely excludes the children of any sons who died during that parent's life from a share in his or her estate. Such children, then, are not only deprived of their bread-winner but of the property which would otherwise have come to them by inheritance from their grandparent. This could, of course, always be

remedied by making them a voluntary legacy : but experience has shown that this is often neglected or forgotten. The new Law, then, has introduced an unprecedented reform by making legacies in such circumstances obligatory in all cases, unless the grandparent has already given an equivalent gift during his life time ; by fixing the amount due to each such family as the share of inheritance their dead parent would have received had he survived, provided the total of such bequests does not exceed the legal third (if it does, they must be abated pro rata) ; by decreeing that the Court must execute such legacies whether or not the deceased grandparent had so provided ; and by giving such legacies precedence over all others. Within each family, such legacies are to be divided according to the rules of inheritance, and it is fundamentally as a right of inheritance that they should be regarded. By way of legal justification, this most salutary reform is referred to the Verse of Legacies, which can well be construed as making legacies in favour of relations who are not entitled heirs absolutely obligatory, together with the dicta thereon of several of the immediate successors of the Companions : more directly, however, it is based on the views of Ibn Hazm the Zahiri. Even so the new Law's specification of the 'relatives' who are to profit thereby and the amount they are to receive must either be acknowledged as an instance of contemporary *ijtihad* or represented as an order by the Sovereign enforcing what he considers to be proper conduct on the basis of this Qur'anic command (*i.e., al amr bi'l ma'ruf*).

THE PRESENT POSITION IN THE SUDAN.

THE CONSTITUTIONAL BACKGROUND.

When we examine the present position in the Sudan, it at once becomes apparent that many of these Egyptian reforms have already been applied either in whole or in part, although the path of progress has been more cautious and much less advertised. Here there have been no public debates and little or none of the popular agitation which marked the propulgation of some of the Egyptian innovations. This is partly because of the method adopted, which has simply consisted in the issue of Circulars under Art. 8 of the Sudan Muhammadan Law Courts Ordinance of 1902, which reads " The Grand *Qadi* shall from time to time, with the approval of the Governor General, make regulations consistent with this ordinance regulating the decisions, procedure, constitution, jurisdiction and functions of the Muhammadan Law Courts...." and under Art. 53 of the Sudan Muhammadan Law Courts

Organisation and Procedure Regulations, 1915, which reads " Decisions of the Muhammadan Law Courts shall be in accordance with the authoritative doctrines of the Hanafia jurists except in mattesr in which the Grand *Qadi* otherwise directs in a judicial circular or memorandum, in which case the decisions shall be in accordance with such other doctrines of the Hanafia or other Muhammadan jurists as are set forth in such circular or memorandum."[1] This wording at once makes clear that all these Circulars may be regarded as an application of the principle that the Sovereign (the Governor General, acting in this case through the head of the Muslim judiciary) may restrict the jurisdiction of his judges; that the right is claimed to direct them to follow the doctrines of " Muhammadan jurists " without further particularisation; but that no claim has been laid to the faculty of *ijtihad*. Yet another reason, however, for the absence of opposition to most of these reforms in the Sudan was that they had already, in most instances, been suggested or promulgated in a neighbouring Muslim country the learning and orthodoxy of whose doctors could scarcely be questioned.

It should be noted in passing that the Sudan Muhammadan Law Courts Organisation and Procedure Regulations, 1915, themselves betray a heavy debt to the Egyptian Regulations of 1897 and 1910. Almost all the reforms introduced in Egypt regarding the organisation of the Courts, their work, and their procedure, find their counterpart in the Sudan (sometimes verbatim and sometimes in an amended form) with two noteworthy exceptions. In the Sudan witnesses are not automatically put on oath, but only at the request of the opponent of the party who calls them; while the admissibility of conclusive circumstantial evidence, only recognised in Egypt in 1931, has not yet been accepted.

Up till now fifty three " Circulars " have been issued, as well as a number of " Memoranda." The latter comprise instructions to the Courts which have seldom introduced any real innovation, other than matters of interpretation of the law or advice as to which Hanafi dictum is to be followed in some detailed circumstance. Many of the Circulars, too, are largely administrative in character, but quite a number have introduced major reforms of the substantive law. And a detailed comparison of these Circulars with the recent Egyptian innovations reveals the interesting fact that in some particulars reforms were introduced in the Sudan before they were promulgated (although some-

[1] The tradition of the great majority of Sudanese Muslims is Maliki, and the observance of Hanafi doctrines in the courts was an innovation of the previous Turco-Egyptian regime in the Sudan.—*Ed.*

times after they had been mooted) in Egypt; in others, previous Egyptian legislation has been adopted, with or without amendment, in the Sudan: in some the Sudan has introduced changes to which Egypt has no parallel; while in others Egypt has introduced legislation which has so far had little or no repercussions in the Sudan.

THE SUDAN ANTICIPATES EGYPT.

Among points in which the Sudan has anticipated Egypt may be mentioned the provisions of Circular No. 17 (date uncertain, but probably 1916). Thus Art. 1 provides that a decree of alimony in favour of a wife may be executed out of any of her husband's property, whether money, movables or immovables. This is a departure from the Hanafi rule—which, in the case of an absent husband, only provides for execution out of property which can itself be used for alimony, or for judicial permission for the wife to find her own alimony on her husband's credit—in favour of the more liberal view of the other three schools. This was only introduced in Egypt by Law No. 25 of 1920, which provides in Art. 4 that such a decree shall be executed out of the husband's "property," without further specification.

Arts. 2-9 provide for the judicial divorce of a wife whose husband, whether present or absent, fails to provide even the poorest alimony (after a limited delay in his favour in certain circumstances). These provisions, which are also of Maliki origin, were promulgated in Egypt, with trifling differences but considerable abbreviation, by Arts. 4-6 of Law No. 25 of 1920. Similarly, Arts. 10-12 provide for the remarriage of the wife of a "missing" husband, even if he has property out of which she can obtain alimony: she must bring his disappearance before the Courts, which will then institute enquiries; if these fail, she will be told to wait four years, after which she may keep the *'idda* period prescribed for widows and then remarry. If, however, the missing husband subsequently turns up she will still be his, unless her second marriage has been consummated with no knowledge, on the part of her second husband, of the survival of the first (in which case the second marriage will stand). These provisions were enacted in Egypt by Arts. 7-8 of the Law of 1920, except that the four years' delay was there to date from her reference to the Courts rather than the failure of subsequent enquiries: but Articles 7 and 8 (not 9) were subsequently replaced, as has been seen, by the more comprehensive provisions concerning missing persons enacted by Art. 8 of Law No. 25 of 1929. The Sudan and earlier Egyptian legislation is Maliki, while the later Egyptian legislation is Hanbali in origin.

Art. 13 concerns the right of a wife whose husband deserts her for more than a year to claim a judicial divorce on the grounds of hardship and fear of falling into unfaithfulness. According to Art. 1 of Circular No. 28 of 1927, however, this is only available in cases where a claim of divorce for failure of alimony is not applicable. The Court will serve notice on the husband, if he can be contacted, allowing him an opportunity to return to his wife or send for her to join him : if he does neither, or if he cannot be contacted, the *Qadi* will dissolve the marriage. This reform was not adopted in Egypt until 1929, Art. 13, when it was simply termed ' divorce for absence,' was based on hardship without any specific reference to fear of unfaithfulness, and is not, apparently, excluded by the possibility of claiming divorce on the grounds of failure of alimony. It should also be noticed that Egypt allows a divorce to a wife whose husband is under final sentence of not less than three years' imprisonment after she has suffered not less than one year's separation, while no such provision has been introduced in the Sudan.

Similarly, Art. 14 concerns judicial divorce for cruelty, while Art. 15 provides for the treatment of matrimonial disputes by the appointment of two arbitrators, preferably one from each family. These two reforms were not introduced into Egypt until 1929 (Arts. 6-11) and then with certain minor differences. The Sudan provision mentions that the arbitrators should be learned, or else specially instructed, in the law of wifely disobedience, whereas the Egyptian legislation stresses the need for ability in effecting reconciliation : and while both provide for every effort to be made to bring the parties together and, if this is impossible, for a judicial divorce if either the husband or both parties seem at fault, the Sudan Circular alone provides for a decree of *Khul'* (or purchase of her freedom by the wife) if it appears that she is the chief offender. These provisions, again, are all of Maliki origin.

This exhausts the provisions of Circular No. 17, in all of which the Sudan anticipated Egypt, where some of these reforms were not introduced until 1920 and others until 1929. All, it will be noted, were of Maliki origin, which naturally made them readily acceptable to Sudanese public opinion. But the Sudan has also anticipated Egypt in other reforms, notably three amendments to the Hanafi practice in respect of inheritance and certain major reforms in the matter of legacies.

Thus Circular No. 26 of 28th January 1925 decreed that the spouse relict should be entitled to the whole estate of the deceased spouse who leaves no other heirs: and this entitlement to the excess over his or her legal share was preferred to that of the "universal legatee" although

postponed to that of any other heir or of the "acknowledged kinsman." This reform (which is contrary to all four schools and represents a compromise between the majority view and that of certain Companions who maintained that the spouse relict should be on a par in this respect with the other "Sharers") was not introduced into Egypt until the Law of 1943; but the spouse's right was then preferred even to that of the "acknowledged kinsman." Again, Art. 1 of Circular No. 49 of 24th May 1939 follows the Shafi'i view in allowing full brothers and sisters to participate in the special share of the estate reserved for uterine brothers and sisters in the circumstances (known as the problem of the "*Mushtaraka*") where under Hanafi law they would get nothing; while Art. 2 of the same Circular provides that full or consanguine brothers or sisters should no longer be excluded from rights of inheritance by the father's father. These reforms, too, were not introduced in Egypt until the Law of Inheritance in 1943. It is to be noted, however, that Art. 2 of Circular No. 49 introduced the view of the two Companions (which is also that of Malik and al Shafi'i and is derived from Zayd ibn Thabit) with regard to the respective shares of full and consanguine brothers or sisters in competition with the paternal grandfather, while the Egyptian law introduced a compromise between the views held respectively by Zayd ibn Thabit, 'Ali Abu Talib, and Ibn Mas'ud which can, perhaps, fairly be described as an instance of *talfiq* which leads to a thoroughly logical and consistent principle: and this was subsequently introduced into the Sudan by Circular 51 of 20th October 1943, which rescinded the previous provision.

But the innovations with regard to Legacies were far more dramatic, for Art. 2 of Circular 53 of 3rd October 1945 allowed a Testator to make a bequest to an heir in almost the very words of the Law of Testamentary Dispositions promulgated in Egypt in 1946: and this, as we have seen, constitutes a major reversal of the orthodox doctrine of all Sunni Schools. Art. 1 of the same Circular, moreover, allows a Testator to allot the different items of his estate between his different heirs by will, provided (Art. 3) that the total pecuniary advantage thus secured by favoured heirs in excess of their proper shares does not exceed the "bequeathable third" of the gross estate. These provisions were all included in the subsequent Egyptian legislation, from proposals for which they were, of course, borrowed.

It may be added that a comparison of Arts. 5 and 6 of Circular No. 28 of 16th February 1927 concerning claims for alimony on the grounds of the continuance of a woman's *'idda* period reveals that these provisions, too, are very nearly an anticipation of Arts. 16-18 of the

Egyptian Law No. 25 of 1929, although they do not go so far in the case of nursing mothers. This reservation is presumably a relic of the influence of the Maliki view as enacted in Egypt in Art. 3 of Law No. 25 of 1920 but subsequently abandoned in favour of modern medical opinion.

THE SUDAN FOLLOWS EGYPT.

The points in which the Sudan has adopted, either wholly or in an amended form, legislation already promulgated in Egypt may be briefly summarised. Circular No. 28 of 16th February 1927 not only anticipated Egypt in some points but followed the lead of the Egyptian Law No. 25 of 1920 in several others. Thus Arts. 2 and 4 provide for a wife to claim the judicial dissolution of her marriage if her husband is afflicted, either at the time of marriage or later, with some grave disease or defect of which she did not know at the time of marriage nor agree to endure if it developed subsequently. This—which is substantially the view of Muhammad al Shaibani and of the three non-Hanafi Imams—was adopted almost verbatim from Arts. 9-11 of the Egyptian legislation. Similarly Arts. 8, 16 and 17 taken together go a long way towards making arrears of alimony always actionable before the Courts. It is apparent, however, that some Hanafi influence still lingers in Art. 8, which is not so absolute in its terms as Art. 1 of the Egyptian Law of 1920, for arrears of alimony still lapse in the Sudan on the death of either party, unless judicial leave to raise alimony on credit has been given. It may be added that the Sudan also followed Egypt in subsequently limiting the period of past alimony for which the Courts might entertain pleas to a maximum of three years (Circular No. 45 of 1936, Art. 1 : c.p. Art. 99 of Egyptian Regulations of 1931).

But the outstanding example of such adoption from Egypt is to be found in Circular No. 41 of 25th March 1936. Here Arts. 1-5 are virtually a verbatim adoption of Arts. 1-5 of Law No. 25 of 1929 regarding the effect of expressions of divorce uttered under intoxication or compulsion, or only intended as an oath or threat, or where the triple formula is uttered at one and the same time, or where ambiguous circumlocutions are employed, or where some expression implying irrevocability is used. The boldness of this salutary reform from the point of view of Muslim legal theory has already been noted. Similarly Art. 6 of this Circular, which decrees that alimony is to be estimated with exclusive reference to the husband's means, is a verbatim adoption of Art. 16 of the Law of 1929. Again, Arts. 7, 8, 9 correspond exactly to Arts. 17, 15, 23 respectively of the Egyptian Law and decree that no disputed claim of

inheritance based on the existence of the marriage tie is to be heard more than one year after widowhood or divorce ; that no disputed claim of paternity is to be heard where non-access of the parents to each other, either from the date of marriage or for a year before the claimant's birth, can be proved ; and that the ' year ' mentioned in these two sections is to be solar. The basis of these provisions in a modern medical view of the maximum period of gestation has already been mentioned. Yet again, Art. 10 borrows verbatim Art. 19 of the Egyptian Law in throwing the burden of proof in a dispute about dowry on the wife, unless the husband's assertion as to its amount is contrary to all probability.

Circular No. 34 of 12th December 1932 provides a connecting link between legislation in which the Sudan has followed the lead of Egypt and that in which she has struck out on a line of her own. In the principle of giving the Court the right to extend the maximum age of *hadana* (the right of the mother, grandmother, etc. to the care and custody of children) beyond the age of seven for a boy and nine for a girl the Sudan Circular followed the lead of Art. 20 of the Egyptian Law of 1929 : but the actual provision in the Sudan goes much further than that in Egypt, and instead of raising the maximum age by only two years (according to a variant Hanafi opinion) Art. 1 has adopted the Maliki rule of puberty for a boy and removal to her husband's house for a girl. Art. 2, moreover, has only adhered to Maliki principles in providing that where the Court exercises this discretion the divorced mother or other *hadina* shall have no right to claim wages from the father for her care of his children during this extra period, since the Malikis never allow any wages for *hadana* at all.

POINTS PECULIAR TO THE SUDAN.

The earliest example of legislation in which the Sudan has made innovations to which Egypt has no parallel was Circular No. 13 of 5th February 1913. The subject concerned was contracts of gift or pledge, which are greatly complicated in the Hanafi system by the rules concerning property held in common between two or more co-owners and property which occupies or is occupied by something of which the donor or pledger retains ownership. The principle involved is whether the donor has given the donee the fullest possession of which the property is capable, for it is only by possession that the ownership of the donee (or the right of the pledgee) is established : and the " authoritative Hanafi opinion " holds that a donor who does not divide off his own share of such common property as is susceptible of such

division, and does not remove all his own possessions (*e.g.* crops or furniture) from the property given, has not completed his gift. Circular No. 13, however, laid it down that these complicated rules (of which only a part is mentioned above) were thenceforth to be disregarded in the Sudan in favour of the opinion of al Shafi'i and Malik that ownership in such cases passes by the donor allowing the donee to exercise the rights of ownership. The wording of the Circular, however, betrays the concern of the Grand *Qadi* to carry his *Qadis* with him in this innovation, for he supports it not only by the arguments of the needs of society, the experience of the Courts and the opinions of the two Great *Imams*, but also by reference to the Turkish compilation of the Hanafi law of contracts etc. known as the " Majalla," which itself omits all reference to these niceties. It should be added that the Circular confines itself to stating that *ishhadat* (certificates) of such contracts, or *i'lamat* (declarations) of heirship, may be issued in spite of the fact that they concern or include gifts or pledges which transgress these rules.

Similarly Circular No. 41 of 25 March 1935, which we have already seen to follow Egyptian legislation very closely in its earlier articles, strikes out on an entirely independent line in Arts. 11-15. These, again, concern gifts. Art. 11 states that ownership passes on the donee taking possession of the thing given, whether he does so with or without the donor's permission. If, however, possession is not obtained until after the donor's property is sunk in debts incurred subsequent to the date of the gift (Art. 12), or until after the donor has been smitten with madness or some other disease which only ends in his death (Art. 13), the gift becomes void : but if the donor recovers and possession is then taken, ownership passes (Art. 13). A gift by one spouse to another, or by a mother to a young child, of a piece of furniture etc. standing in the house they both occupy is valid if witnesses are called to the gift without any such " lifting of the donor's hand " (*i.e.* abandonment of control of the property) as would normally be necessary (Art. 14). Jewelry with which a boy or girl, major or minor, is decked by father or mother, or fine clothes in which their parent dresses them, or a mount he buys for them to ride, books for study, or weapons for self-defence or show, are all to be regarded as gifts to which the other heirs of that parent have no claim unless witnesses have been called to the fact that only the grant of their use was intended (Art. 15).

These innovations concerning gifts (and pledges) are, again, of Maliki origin, and to none of them does the specifically *Shari'a* legislation of Egypt show any parallel. It should, however, be added that all suits

regarding gifts have recently been transferred in Egypt from the *Shari'a* to the National Courts, so the rules of *Shari'a* law are no longer applicable.

Two other instances may be quoted of innovations in the Sudan to which Egyptian legislation shows no parallel, the one beneficial and the other highly controversial. Thus Art. 7 of Circular No. 28 of 1916 lays it down that in a divorce for a consideration (presumably whether called *Talaq 'ala mal* or *Khul'* etc.) no right which is not expressly named as consideration shall be held to have lapsed. Of much more questionable wisdom is Circular No. 35 which provides for the substitution of the Maliki for the Hanafi rules regarding marriage guardianship, for in this respect the Hanafi school is the more progressive. Thus Art. 1 provides that a marriage is always invalid unless the contract is concluded by the bride's guardian or his representative on her behalf. Similarly, Art. 3 decrees that the father who is *rashid* (fully competent) may marry without her consent not only a minor daughter but also a virgin daughter up to the age of 33 to any husband he may choose provided he is not impotent, insane, or leprous etc. Art. 4 states that even a feckless father (*safih*) has the same right provided he is neither insane nor irreligious. Art. 6 excepts from such compulsory marriage the virgin daughter whom the father has expressly released from tutelage; but Art. 7 provides that even a non-virgin daughter of full age may be compulsorily married by her father if she is of loose morals and her guardian cannot adequately protect her. Guardians other than her father should bring the matter before the Courts in such cases; but if instead they marry the girl, the marriage will stand. Arts. 8-9 concern the more limited right of the guardian (*wasi*) appointed by the father's will to marry his wards without their consent. Art. 12 enumerates the only circumstances in which a guardian who has no right of compulsion may give in marriage a minor girl, while Art. 13 provides that a marriage contrary to the terms of Art. 12 becomes valid by the passage of time, etc. Art. 22 lays down that when a guardian with the right of compulsion is within ten days' journey the marriage of his ward by any other guardian without his *prior* consent is absolutely void provided he is still supporting her, that her morals are not in jeopardy etc., and that communications are safe: otherwise the Court will act, not the next-entitled guardian. If, however, the compulsory guardian is far distant the Court will act for him with the girl's consent; while if her morals are in jeopardy, the Court may marry her even by compulsion (Art. 23). The remaining Articles give further details about the essential qualifications of a marriage guardian, what happens if he becomes ineligible, etc.; while Appendices make exceptions to Article 22 in cases where delay would mean the loss of a suitable match.

These rules, all of which are taken from the Maliki school, are far less liberal than the corresponding Hanafi provisions which were formerly applicable. According to these marriage by compulsion is limited to minors and the insane; but such contracts may be concluded by any entitled guardian, whether father, grandfather, or other agnate. If the contract is concluded by father or grandfather it is binding without option provided the husband is his wife's equal and the dowry is suitable (or in all cases whatever according to Abu Hanafi himself, provided the father or grandfather is not noted for bad judgment, carelessness or impiety); while if it is concluded by any other guardian the contract is void unless both spouse and dowry are suitable, and even then is liable to be rescinded by the minor on attaining majority. Major daughters may never be married without their consent and may even marry themselves without their guardians' intervention; but the guardians may annul such contracts if the husbands are not the girls' equals (while according to another report, such contracts are invalid *ab initio* if concluded without the guardians' consent) or if the dowry is less than the brides would normally expect. A change of law enabling fathers to marry grown-up daughters of even thirty years of age against their will scarcely seems consistent with the trend of progress, and is in fact condemned by enlightened Sudanese opinion.

EGYPTIAN LEGISLATION NOT YET FOLLOWED.

The respects in which the Sudan has not, as yet, introduced changes in the law parallel to those promulgated in Egypt naturally cover a wide field. As has been noted, the vast majority of the reforms included in Laws No. 25 of 1920 and 1929 have been introduced in the Sudan, some before and some after their promulgation in Egypt. Neither Law No. 56 of 1923, which forbids the Courts to hear suits arising from contracts of marriage where the parties have not reached certain minimum ages or which, if disputed, were not properly registered, nor the Law of Provisions of *Waqf* of 1946, has had any repercussions in the Sudan: but this can be explained in the first case by the primitive condition of large parts of the country and in the second by the virtual absence of private *Waqfs*. As for the Laws of Inheritance and Testamentary Dispositions of 1943 and 1946 respectively, the adoption of two or three of the most important provisions of each—but no more—has already been noted. Meanwhile the task of completing a comprehensive Code of the law of personal status is still being pursued in Egypt, and any further legislation thus produced will deserve the closest attention.

CONCLUSIONS AND SUGGESTIONS.

In conclusion it may be permissible to venture a few suggestions as to possible developments in both the near and distant future. As an immediate possibility, there are some five further innovations in the recent Egyptian Law of Inheritance which it might be advantageous to adopt. Thus, firstly, this law has abandoned the somewhat artificial Hanafi rules whereby an embryo born dead as a result of an attack on its mother is regarded as having succeeded to any right of inheritance to which it would have been entitled if born alive and as having passed the property on to its heirs. Instead, an embryo is not now entitled to inherit unless it is *wholly* (another innovation) born alive, while where an embryo is born dead as a result of an assault on its mother the compensation due from the offender is regarded as the exclusive right of the mother and the offender is punished, where suitable, under the criminal law. Secondly, the expenses necessary for the deceased's proper burial etc. are now the first charge on his estate, even before secured debts: as a result the cost of interring an impecunious debtor is thrown on his creditors, whatever the nature of the debt, rather than on public charity. Thirdly, the illogical and unethical Hanafi rules as to the circumstances in which a man will be excluded from any right of inheritance (or legacy) from one whose death he has directly or indirectly caused have been abandoned in favour of the far more satisfactory Maliki principles. Fourthly, the rules as to the division of an estate between those classes of heirs usually (but incorrectly) termed by English writers "Distant Kindred" have been immensely simplified by adopting the views of Abu Yusuf (and, in some details, the simpler of two reports as to his views) instead of the far more complex rules of Muhammad al Shaibani. Lastly, the fact that an embryo had already been conceived at the time of his father's or other relative's death (a fact on which depends his right to a share in the deceased's estate if subsequently born alive) is no longer tested by the old ideas as to the maximum period of gestation—*i.e.* two years among the Hanafis, and much longer among the Shafi'is and Malikis—but by the modern suggestion of a solar year. Thus a claim to inheritance put forward by an infant born to the deceased's wife will only be valid if it was born within a year of her widowhood or divorce, while the claim of an infant born to *e.g.* his daughter will be decided on the same principle if she was divorced or widowed before her father's death. If, however, the daughter was still married at the date of her father's death the infant will not inherit unless born within nine months—since in this case it might well have been conceived after its grandfather's death if any longer period were accepted.

It is obviously impossible in the scope of this article to discuss the legal justification for the above innovations. Suffice it to say that 1) represents the view of the three non-Hanafi schools combined, in one respect, with that of two early jurists ; that 2) represents the view of the Hanbali school; and that 5) is only consistent, in so far as the rule regarding the solar year is concerned, with reforms already introduced in the Sudan. It may be added that the estate of a missing person is divided from the date at which his (putative) death is decreed, and the date at which this is allowable is one of the very few points in which the Sudan has not yet followed Law No. 25 of 1929.

It is equally obvious that it is impossible to treat the Law of Testamentary Dispositions in any adequate detail. Suffice it to say that among much useful material the chief point that demands consideration is whether it would not be wise to adopt the provisions regarding obligatory legacies discussed above. This is, undoubtedly, a bold innovation, but scarcely bolder than the reversal of the doctrine and practice of centuries involved in validating legacies to heirs where the other heirs do not consent—and this has already been adopted. The very words by which the last named innovation was introduced by Circular No. 53 are eloquent of the increasing emphasis on expediency rather than legal niceties : " Experience has shown that people are in need of relaxation of the rules of legacy applied at present and that in the adoption of the following rules there is obvious advantage." These words could well be applied to the reform regarding obligatory legacies also. As for the reforms regarding *Waqfs*, it is appreciated that these provisions are at present largely irrelevant to conditions in the Sudan and may well so continue. But the startling innovation that not only is it now possible to create temporary *Waqfs* in Egypt but that private *Waqfs* may in no case be maintained for more than two generations or 60 years after the founder's death is a principle worth remembering for any time of need : for the dead hand of private *Waqfs* has brought economic strangulation and other evils in country after country. The only other short-term reform that seems to merit immediate consideration is whether a wife's arrears of alimony might not be made a firm debt in all respects, as in Art. 1 of the Egyptian Law No. 25 of 1920.

Among long-term measures, it seems highly advisable to work gradually towards a state of affairs when it will be possible for the Courts to refuse to hear disputed actions based on contracts of marriage which were not properly registered, at least after the death of one of the parties. This would enormously lessen litigation regarding dowry etc., particulars of which would, of course, be included in the record. A

certain foundation for such a development has already been laid, in principle, by Art. 3 of Circular No. 46 (amending Art. 11 of Circular No. 28), which forbids the Courts to hear any claim of marriage of an ex-slave woman by her previous owner or one of his descendents etc. unless the contract is evidenced by an official document or legal *ishhad*, while Art. 2 of Circular No. 46 forbids the competent officials to register the marriages of such women in certain circumstances unless specified conditions are fulfilled.

Not only would such a development effect a great simplification and decrease in the work of the Courts—as also, in time, would some parallel to Art. 98 of the Egyptian Regulations of 1931, which forbids the hearing of a disputed claim of legacy, etc. after the death of the testator unless supported by documents free from suspicion of forgery—but it would also lay a firm foundation for an eventual restriction of child-marriage by the Egyptian method. There seems little doubt that some such action will eventually be necessary, and it is remarkable that Arts. 2 and 3 of Circular No. 46 adopted exactly the same technique, although in a much more limited field.

Again, the day may well come when even Muslim countries will feel the need to restrict both polygamy and divorce. As regards polygamy, the draft Article which was approved by the Egyptian Cabinet in 1926 but never promulgated found its justification in Sura 4[3] which appears to limit a man's right to marry more than one wife by his ability to treat them fairly and to meet all his financial obligations. The proposed Law, therefore, made it a condition of any polygamous marriage that the *Qadi's* consent should first be obtained; and at the same time forbade *Qadis* to give their consent unless they were satisfied that the applicant was able properly to support all his dependents and seemed likely to be capable of treating two (or more ?) wives properly. As for divorce, it might be decreed that no divorce which did not strictly adhere to one of the two " traditional " forms would have any legal effect, for these forms were designed largely to prevent the utterance of divorce on the impulse of the moment and to provide sufficient opportunity for the revocation of a divorce once uttered. Such a reform would find ample juristic support. Alternatively, some such provision as that mooted more than once in Egypt might be devised, whereby a husband would be forbidden to divorce his wife without consent of Court, which would first investigate the circumstances and attempt to reconcile the parties : a divorce uttered without such consent would be legally valid, but the husband would be punished by fine or imprisonment. All such projects, however, are obviously dependent on much social development and must await the progress of events.

Finally, it seems reasonably certain that in time the need for a simple code of *Shari'a* law will become increasingly apparent. Such a code and would not only allow *Shari'a* judges largely to dispense with laborious frequently inconclusive reference to the innumerable and often obscure commentaries of medieval jurists (a major point with judges who have received a comparatively modern education) but would also enable the educated layman to have some adequate idea of the law which governs his family life and the devolution of his property. This will, of course, be all the more imperative if any movement towards the unification of the Courts ever develops. And when the time for codification comes, the Egyptian legislation, with all the wealth of study and debate which brought it to the birth, will prove an invaluable foundation on which an indigenous Sudanese code of selected *Shari'a* precepts can be built up with comparative ease.

THE WADI AZUM

FROM ZALINGEI TO MURNEI

By K. M. Barbour.

INTRODUCTION.

In the western part of the Anglo-Egyptian Sudan there lies at a latitude of 14° N. in the province of Darfur the high volcanic mass of Jebel Marra. The mean annual rainfall in this region varies from 15″ to 20″, but the effect of the mountain rising to some 10,000 feet is to increase the precipitation around it, and at the same time to give rise to a number of streams, many of which join together on the western side of the mountain.

In consequence while the greater part of this country north of the Bahr el Arab—north of latitude 10° N. that is to say—is a land of scanty water-supply, uncertain crops and semi-nomadic cattle-owners, along the *wadis* of Western Darfur a far more settled and prosperous existence is possible.

Of these *wadis* much the largest is the Azum, which is fed by numerous streams joining together near Zalingei, 50 miles west of Jebel Marra. From Zalingei the Wadi Azum flows west for about 50 miles until it is joined at Murnei by the Wadi Barei, the last tributary that it receives from Jebel Marra; it then continues westward for 600 miles, receiving tributaries chiefly from the Chad-Congo divide to the south, until it flows as the Shari into Lake Chad.

Along the Azum are alluvial soils that bear excellent crops: within it is a reliable supply of water sufficient for both humans and irrigation; it makes therefore a striking contrast with the stunted acacia vegetation and thin infertile soils of the adjoining country. In consequence while at this latitude elsewhere in Central Africa the population consists of nomadic cattle owners, hard put to it to find good grasses and sufficient water for their beasts throughout the year, there is a settled population of Fur along the *wadi*, which the writer visited in the winter 1948/49.

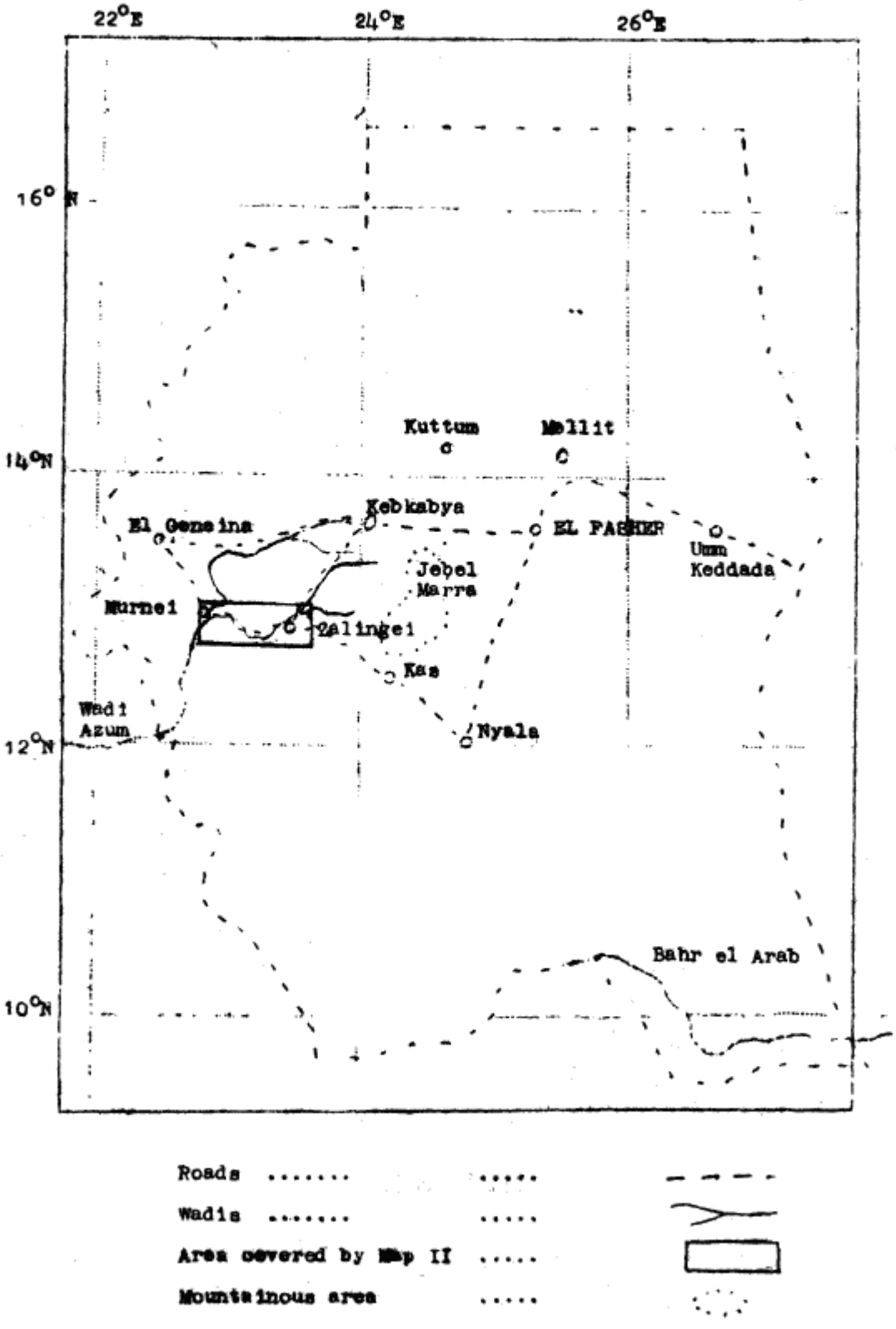
GEOLOGY.

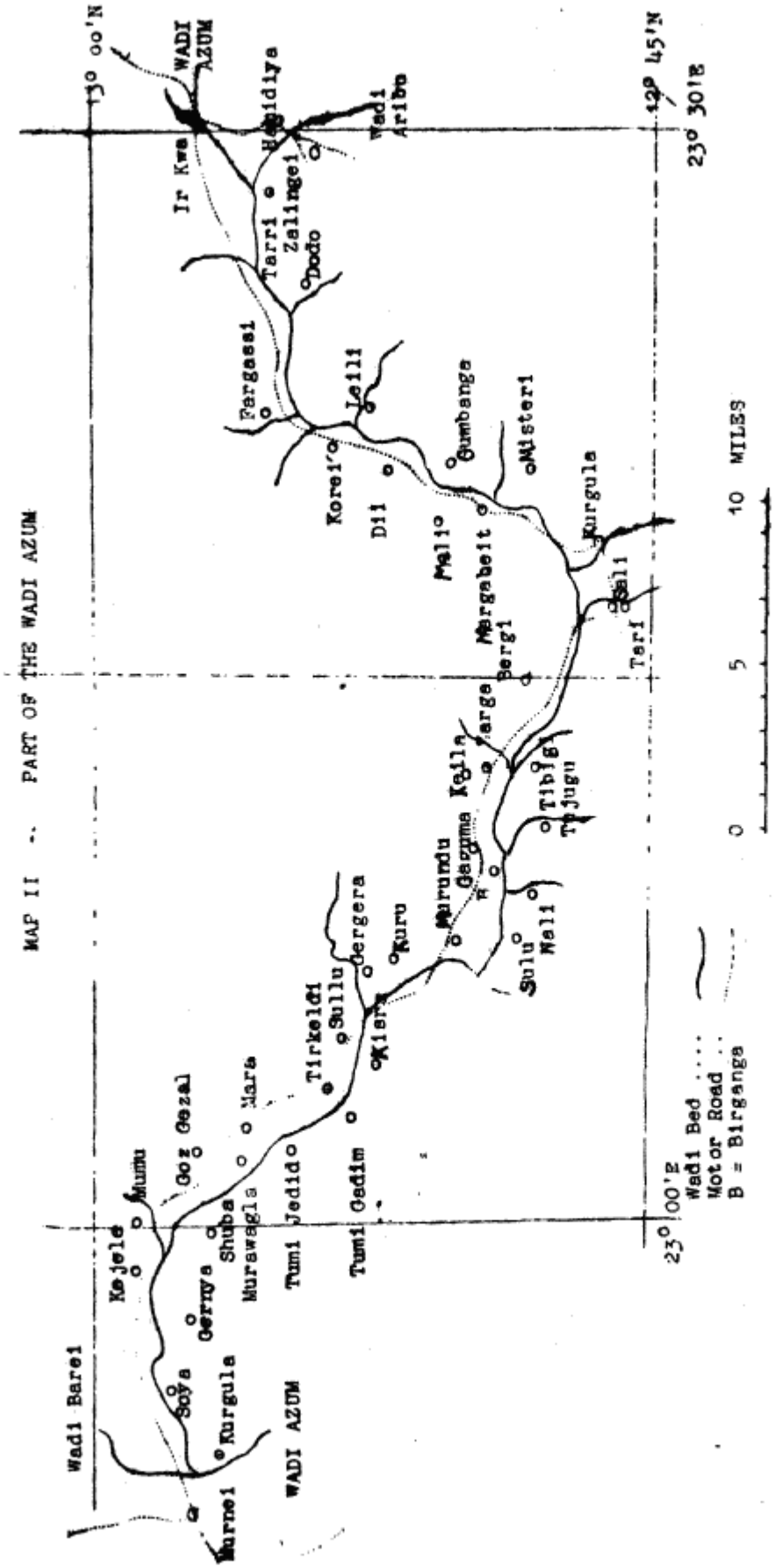
The region is poorly surveyed, and it is hard to construct an accurate picture of the natural environment. The volcanic mass of

MAP I

DARFUR PROVINCE

General Map




MAP II -- PART OF THE WADI AZUM
13° 00'N
12° 45'N
23° 30'E
23° 00'E
WADI AZUM
Wadi Aribo
Ir Kwa
Tarri
Zallingei
Dodo
Fargasai
Lelli
Korei'a
Dil
Mali°
Gumbanga
Misteri
Kurgula
Tarf
Bergi
Kulla
Tibiga
Tjugu
Murundu
Degma
Kuru
Sulu
Meli
Tirkeldi
Sullu
Bergera
Kiel
Tumi Jedido
Tumi Gedim
Kojele
Mumu
Goz Gezal
Mara
Shuba
Murawagla
Gerrya
Soya
Kurgula
Wadi Barei
Wadi Bed ....
Motor Road ..
B = Birganga
0
5
10 MILES

Jebel Marra is of late Tertiary age, being an outlier of the volcanic system of East Africa; it stands 7,000 feet above the surrounding country, and extends 80 miles from north to south and 20 from east to west. To the east of the mountain mass the country is largely overlain by the Nubian Sandstone series of late Mesozoic age, and by sand-dunes derived from them; to the west there are traces of two base levels of erosion higher than the present stream beds. Of these the older occurs as the apparent peneplain at the tops of the numerous *jebels* of crystalline rock that stand up 500 to 800 feet above the plain. The younger is less obvious, being the general level of the stony plains that lie between the *jebels* and the *wadis*: this level is most clearly seen at Murnei, where there is a marked increase of slope on the path from the town down to the *wadi* which lies about 100′ below it.

The *jebels* that stand up from the plain are a part of the basement complex that forms the main element of the continent of Africa: they consist of much metamorphosed rocks of Pre-Cambrian age, together with schists and gneisses and other crystalline rocks.[1] The strike direction of the crystalline rocks can be identified in various places, in which it shews great diversity; certainly the general N-S trend which Andrew describes to the east of Jebel Marra is not in evidence here.

The plain that forms much the greatest part of this region consists of similar rocks that have been broken down to produce a thin covering of sandy soil in which flakes of mica glisten conspicuously. In a few places a thicker sandy soil occurs, as for instance at the foot of Jebel Gernya, or where the villagers of Bergi engage in some ' *Goz* ' cultivation; these sands may be the remnant of a covering that was more general when the lower peneplained surface was established.

At the sides of the *wadis* that cross the region there are alluvial terraces of various ages: they have been cut by the rivers as they continue the work of erosion. They consist variously of sands and silts with occasional areas of clay; the width of this alluvial strip is usually $\frac{1}{4}$ to $\frac{3}{4}$ mile, of which one third to one half is occupied by the *wadi* itself.

CLIMATE.

The climate of the region is one of typical summer rainfall and winter drought; the rains may begin with an odd storm as early as February, but only set in in earnest in April or May. They then continue

[1] G. Andrew in " Geology of the Sudan " p. 92 in *Agriculture in the Sudan* ed. J. D Tothill, 1948.

intermittently, with July and August as the wettest months, until they finally cease in October. The precipitation is the result of overheating of moist air that has come from the South Atlantic, with consequent thunderstorms; as a result it is extremely local and variable in its incidence. Around the peaks of Jebel Marra the mean total is probably higher than elsewhere, amounting perhaps to 30" a year: further west the figure is 25" at Zalingei and 22" at Geneina. The greatest recorded variations from the mean shew Zalingei with a total of 37" rain in 1946, 26% above the mean, and 17" only in 1933, 30% below.[1]

A conspicuous feature of the rainfall is the way in which clouds gather over Jebel Marra in the rainy season and then are carried to the west by the prevailing counter-trade winds, blowing at a height of 10-30,000 feet. This may explain why the mean rainfall at Zalingei is higher than that at Nyala (20" only).

Temperatures and temperature ranges are high throughout the year: in Zalingei the mean monthly maximum for April is 99° F., despite the altitude of over 3,000', and for January it is 92.0°. The mean monthly minimum falls as low as 44.60° in January, and (what is more important) night frosts are common along the *wadis*, which lie considerably below the level of the recording station, from December to February. These frosts occur on still clear nights, when radiation is intense, and cold air drains down into hollows and low-lying country; apart from their obvious effect upon fruit-trees, they hamper the growing of winter-irrigated crops such as chillies. In summer when the absolute humidity is much higher the temperature range is much reduced, the July mean maximum and minimum being 87° and 62.5°.

It will be seen that at no time do the people have to protect themselves against continuously cold conditions, especially since their villages avoid the micro-climates experienced in the lowest ground. It is possible for them, even on the coolest days, to find some warm and comfortable spot in the sun, and in consequence neither the peoples' clothes nor their houses make much provision for keeping warm.

NATURAL VEGETATION.

The implication of conditions as described above is that vigorous vegetative growth is possible throughout the year if moisture can be provided, and no resting season is imposed by continuous cold.

[1] Figures for relative humidity from Zalingei are regarded with such suspicion by the Meteorological office that they are not worth quoting.

On account of the length (5-6 months) of the usual season of drought, the natural vegetation of the region, particularly away from the wadis, is typically Xerophytic; in the open country trees are not usually more than 12′ to 15′ high, common species being the *nabak*[1], *heglig*[2], *arrad*[3], *hashab*[4], and *talh*[5]. Beneath them there springs up with the first rains a variety of grasses which grow up to a height of 3′ or more before withering and dying away in March and April. In practice this grass is frequently consumed by fires, some intentional, some accidental, and if these occur too early they destroy young tree seedlings that are growing up amongst them. The vegetation of the hills differs little from that of the dry plains, except that the greater aridity, due to the rapid draining of rain water, discourages the types of trees that need more moisture and stunts the growth of the normal thorn bushes; a species more common on the hills than on the plains is the *gafal*[6] (but this may well be because it provides good straight timbers for house-building). The grasses seem little affected by the scarcity of water on the hills, and are the most conspicuous feature of their vegetation.

The lesser water-courses that cross the open country provide more favourable conditions for the growth of trees, and here often occur the Sudan Mahogany[7], and *gambil*[8], and *gameiz*[9]. Where the main *wadis*, such as the Azum, are flanked by alluvial terraces, the most striking tree is the *haraz*[10]: this grows to a height of 40′ or more if the soil and water supply are good, and its peculiar qualities have generally saved it from destruction. Having a stout single stem it is at once hard to cut down and little obstacle to cultivation: its high branches, as they spread out, provide a most welcome shade beneath but do not hamper agriculture since the leaves fall off just at the time—May and June—when the grain is being sown in the cultivations beneath. The seed pods, which fall in the spring, are of value as food for cattle and goats at a time when fodder is scarce, while the effect of both roots and branches is to reduce the eroding action of heavy rain and so to preserve the soil from being carried away. In consequence of its value the haraz has been declared a protected tree, and may not be cut down without permission: this rule is the easier to enforce in that the wood makes neither good timber nor satisfactory fuel. (Occasionally, however, when wild bees have built a hive in a *haraz*, a villager cuts it down for the honey, and then hollow bee-hives and mortars for pounding food are made from it). In addition to the *haraz*, *gambil*, sausage trees[11], and wild camel's foot trees[12] are prevalent among the alluvial soils.

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[1] *Zizyphus Spina Christi.* [2] *Balanites Aegyptiaca.* [3] *Acacia Etbaica.* [4] *Acacia Senegalensis.* [5] *Acacia Seyal.* [6] *Boswellia Papyrifera.* [7] *Khaya Senegalensis.* [8] *Cordia Abyssinica.* [9] *Ficus Sycamorus.* [10] *Acacia Albida.* [11] *Kigelia Aethiopica.* [12] *Bauhinia Reticulata.*

Of these trees the *gambil* is of some importance to the villagers: its fruit, which it bears in January and February, is sweet and juicy and most welcome in country where sugar is scarce, while its timber, despite being somewhat knotted and liable to be spoilt by worm holes, is prized for village carpentry. This tree, too, is protected by the administration, which has established some plantations of *gambil* to compensate for the many trees cut down during the war. Close by the *wadis* the natural grasses grow much taller than in the bush, and in addition tail rushes occur in wetter sites 10′ and 12′ high.

WATER SUPPLY.

The provision of a regular supply of water for human consumption depends wholly upon the *wadis*—since the nature of the underlying rock prevents the digging of wells in the open country—and chief of the *wadis* is the Azum.

From Zalingei to Murnei the Wadi Azum has a length of 55 miles as the river flows, in a distance of 40 miles direct; there live along it some 11,000 persons all told[1], dwelling in some thirty-five villages. The supply of water from the *wadi* is extremely good; moreover because the Azum receives the drainage of a large area it does not dry up completely soon after the rains in the manner of other sand rivers in Africa. Three or four times a year during the rains the river flows in spate, and when it does so it fills its sandy bed and often overflows on to much of its flood plain besides. During the rest of the rainy season it flows gently in a narrow channel, and then as the rains cease the stream is reduced to a number of disconnected strips, in which, however, the water continues to flow.

By January almost all these strips have dried up, but there remain a few places, such as at Margabit, or near Sullu, where the river crosses a rocky barrier, and in consequence its sandy bed becomes shallower: in these the water continues at the surface throughout the year. Beneath the level of the sand the water is preserved from evaporation and is everywhere available gently flowing at a depth of three feet or less; it is also to be found—slightly deeper—along the edge of the flood plain, but there it flows much less rapidly and so stagnates, besides being liable to contamination by the humus in the ground above it. The stream-bed wells are therefore preferred for domestic water supply, whereas those used for irrigation are sited by the plots they serve.

[1] This figure is an estimate, being obtained by multiplying the number of tax-payers by 5½, in accordance with the practice of the administration.

There are occasional pools of water by the *wadi* side—e.g. at Dodo, at Korei and at Mumu—where a backwater has somehow escaped silting up, and by these a lime or an orange tree is often found planted; the origin of these pools is hard to see, for the villagers do not claim to have dug them out for themselves, though on occasion they ascribe them to the scouring effect of a minor *wadi* flowing in at the point. Their relative permanence is attested by the fruit trees beside them, 4 or 5 years old, and by the general opinion of their value as sources of fish: the fact that the floods had filled in the pool on the south side of the river opposite Birganga was regarded as a grave misfortune.

Of the lesser *wadis* that flow into the Azum, only the Aribo, which drains a large area, contains much permanent water: the Barei, despite its large catchment area, is not wholly reliable, as is attested by the Survey Department map. Smaller *wadis* at Dodo, at Kurgulla, and at Sali, provide water for much of the year, and save the women time in its fetching, but these vary more from year to year than does the main *wadi*, and are usually dry by March[1]. The stream which enters the Azum just to the north of Tirkeldi is of interest in that it crosses a rocky bar about a mile from the main river, and here maintains a considerable perennial pool, with just above it a flourishing garden.

HUMAN SETTLEMENT.

Within this framework live the Fur, a people of mixed Hamitic and Negroid stock, speaking a language of their own and maintaining their own tribal organization and native institutions.

The villages in which the Fur live are mostly situated at a surprisingly long distance from the Wadi Azum, which is their source of water: Bergi, for instance, is 1½ miles, Misteri 1¼, and only Birganga is perched right by the water's edge. This is for two reasons: first it is necessary to avoid ground which may become water-logged during the rains, and so low-lying alluvial land is universally avoided. (Murundu, where the village appears to lie in the centre of the great *haraz* grove, can be seen from air photographs to lie in fact on a much eroded but still not quite destroyed portion of the rocky outcrop that gives rise to the gorge through which the Azum passes just N.W. of the village). Secondly the villagers like to keep their domestic animals, especially goats, at some distance from their crops; thus at Tarri there is a belt

[1] At Leili there are wells in the small *wadi* just to the north of the village, whose water is used for humans: it is regarded as too cold for animals, which are watered at the Azum.

about ¼ mile wide of stony ground between the village and the flood plain, on which the village might have otherwise been built. Incidentally while the women fetch the water it is the men who build the houses, wherefore the importance of a site near a well may not be given much weight. Certainly at Gernya the particularly long daily journey to the Azum is most unpopular, and the people are anxious that the government should send well-diggers to rebuild for them a 25 foot well that used to give a regular supply of water from a small *wadi* by the village.

Further away from the Azum the country is quite bare, save along some of the minor *wadis*, which may have a reliable well at some point: the bare thin bush is quite devoid of settled peoples.

In accordance with general African practice the people are entirely concentrated in villages, and there are no instances of a lone home or two sited by the owner's fields away from the rest of the houses. The villages consist of numbers of round grass huts with high conical roofs. Around each hut or group of huts is built a plaited grass or grain-stalk wall about 6′ high, making an enclosure (*hosh*) within: the usual hut is about 5 yards in diameter, and *hoshes* vary from about 400 square yards to several times this figure. Within each enclosure huts belong to relations, a father and his married sons or else an uncle and his nephews and nieces perhaps: again if a man has more than one wife he will need extra huts, and a widow living with her children will retain her own home as long as she can. In a few cases too a family will have an extra hut to provide additional sleeping space as children grow up, and in consequence the number of huts in a village is approximately double the number of tax-payers.

In addition to the huts the enclosures contain numerous erections: there are sun-shelters with flat tops and removable grass sides, which are used generally for resting during the day, especially by the men; there are grain stores built of sticks and grass matting, 4′ in diameter and 5′ high, raised a foot off the ground as a protection against white ants; some of the villagers have dove-cots, usually miniature hut roofs raised upon stilts 5′ high with grass floors immediately below the roof, while chicken houses are very common, varying in style from a pile of flat stones to a hollowed out log able to be closed at the ends at night.

Within the houses are unbaked clay grain-stores, 5 feet high, into which the remaining *dura* is brought at the start of the rainy season, usually after it has been threshed. In addition the huts contain a cooking place, with a large grindstone of carefully selected and prepared coarse-grained stone and with pots and bowls for the making of food and beer

and sleeping space with perhaps even a bedstead. Storage space is found in the roof, where useful implements such as knives and hoes can be inserted in the grass stalks and thus secured, while small objects such as spare clothing or little pots can be suspended from rafters.

While houses at the present day are almost universally built with sides of grass matting, as here described, and have a life of 4 or 5 years only, tradition has it that this has not always been the case. Before the disturbances of the Mahdia, followed later by the revolt and fall of Ali Dinar, the Fur used to build—so they declare—strong houses of stone and mud walls which would last for twenty years and more. In unsettled times they became reluctant to devote the extra labour to houses they might be compelled to abandon, and now the requisite skill is not generally available. Still however many villages have one house or two of stone or clay : at Bergi there is one round tukl with walls of stone, held together without mortar, which was built by a villager who knew the old tradition ; in several villages a round hut of clay represents the initiative of an individual who has seen the round houses that the government is building and has resolved to imitate them.

The government buildings consist of various court houses in the court centres, constructed of burnt and unburnt brick, of schools whose sleeping accommodation for the pupils consists of square huts with thatched roofs, and of houses of clay built especially for court members (both to enhance their status in the eyes of the villagers and to set an example of the possibilities of improved housing). In Birganga occurs the one square village hut of the region, built by a man who had helped in the construction of the school at Kurgulla.

For the most part the villagers recognize the advantages of the mud houses, especially their property of keeping out cold air at night, but they have not yet the ability to build them in large numbers ; moreover since it is customary for the villager to provide food and beer for his neighbours while they help him build a new home, it requires considerable accumulated wealth to undertake an enterprise that will take a week or ten days. The decent mud huts inhabited by the Hausa villagers of Northern Nigeria, however, suggest that this improvement will not be beyond the powers of the Fur.

Naturally the whole problem of housing and living standards is related to the status and degree of advancement of the women ; this lies, however, beyond the province of a geographical survey of the country and its inhabitants.

AGRICULTURE.

The main employment of almost all the Fur is agriculture, in which they conform to the general African practice in regions of summer rainfall. That is to say, as soon as the rains have well begun, towards the end of May, *dura*[1] and *dukhn*[2] are sown on land already prepared by firing and hoeing, to be reaped in November and December and to form the staple daily diet.

Of these two cereal crops *dura* is preferred as giving the heavier yield, and is sown where conditions favour it: that is, either in the open ground immediately flanking the Azum, or else in the *haraz* groves that grow nearby. The *wadi*-side land has the advantage of providing a reliable crop even when the rain fails, since the underground water of the *wadi* extends beneath it: in wet years it may even suffer from an excess of moisture. The grain under the *haraz* trees relies on rainfall, and may fail or yield little more than its seed; this is often only a very local matter, since its success depends not only on a sufficient quantity of rain during its growing period, but also upon its proper distribution. No great attention is paid to the varieties of *dura* that are sown: red, yellow and white occur together, and no attempt is made to isolate strains.

Dukhn is sown on thinner sandy soils: there are areas of it in Zalingei beneath the *haraz* trees, but elsewhere it tends to be further from the *wadi*.

Another cereal that is often grown near to the houses is maize: this is sown in the early rains on poor stony ground that has been improved by having animal droppings from the night zaribas spread upon it, and is harvested very early—in July and August—to be eaten while still soft and green; it is regarded as a delicacy, and is of value as the first staple crop of the year, coming when the *dura* may be almost finished. In some places where the ground is unlevel, a simple type of terracing is adopted to make this cultivation easier and at the same time to discourage a too rapid run-off of surface water; no actual levelling of the ground takes place, but stones as they are turned up are set in little lines across the land, and thus may also serve as boundaries between the cultivations of separate villagers.

Some of the sandiest land by the *wadis* is devoted to groundnuts, grown as a rain crop; the land which these have occupied is distinguished by being cleared and left completely bare at the harvest, whereas the

[1] *Sorghum Sp.* (Millet). [2] *Pennisitum Typhoideum* (Bullrush Millet).

land where cereals are grown is left with stalks and roots upon it : they are grazed over by the cattle and not fired until the coming year just before the rains.

Other non-irrigated crops of the Fur are *bamia*[1] and *shatta*[2] : these too are grown during the rains, being sown as occasion offers and taking about three months to mature. Their fruits are usually dried to preserve them and form a considerable article of commerce ; they are normally sown in small plots beneath the *haraz* trees, whose shade keeps the ground from becoming parched.

In and near the villages sesame is sown in summer for its oil-seed ; melons and pumpkins too are grown near the houses, the former for their seeds, the latter for their tough outer skins that can be made into strong light receptacles. Tomatoes are grown here too, and *yeir*,[3] a small creeper whose leaves are used as a relish.

In addition to these summer rain crops the Fur make use of the regular supply of water in the Wadi Azum to grow irrigated winter crops and to maintain fruit gardens. In every village some if not all of the villagers have little onion bees in plots of some 25-30 square yards only ; these plots are divided into even smaller parcels by irrigation channels, so laid out that water raised by hand from the well can be led to any of the plots at will. Here onions are grown continuously throughout the dry weather. Some are eaten fresh while quite small, others are dried when fully grown and keep well. In similar plots some winter *bamia* is grown : this crop is sensitive to frost, however, and so it is planted either in August to be reaped in November, or else in February to mature in May.

The fruit gardens are a recent introduction into the region, the result of the stimulus of the government gardens at Zalingei. They are sited either by a perennial pool or else by a well at the *wadi* side, and tend to consist of a couple of limes or so and perhaps a bitter orange and a guava. The possibilities of obtaining a more interesting diet by means of fruit gardens is well recognized by the people, who are all keen to plant trees ; in consequence bananas, grapefruit and mangoes are gradually being made available for purchase. A problem of fruit growing is the night frost of winter, which makes it necessary to protect young trees with grass matting around them, and which can kill even well-established bananas. Once well established fruit trees need very little attention, for their roots reach down to the water table and the Fur rarely prune or manure them.

[1] *Hibiscus Esculentus* (Ladies fingers). [2] *Capsicum Frutescens* (Chillies).
[3] *Momordica Balsamina*

In addition to their food crops the Fur grow fields of cotton for their own consumption: this is planted with the rains, and then left to bear for two years or longer. There is no marked picking season, the bolls being gathered intermittently throughout the year. Two varieties are sown, a native strain, introduced so long ago that it is now regarded by the people as of local origin, and an American one recently brought by the administration and known as 'Inglees' or 'Fantas': the imported has the advantage of an earlier and heavier yield.

All the above crops are essentially grown for domestic consumption, although there is naturally a considerable trade in surpluses; in Zalingei, however, and a few of the villages not far from its market there are also fields of cash crops, tobacco, potatoes and sweet potatoes. The tobacco is principally grown at Zalingei, where it has almost supplanted other crops by the *wadi* side. It is sown at the end of the rains and then planted out when the seedlings are about 6 inches high; it is given no water, and obtains its moisture by sending its roots down through the sand to the water table. In some places hollows about 6 feet square and three feet deep are dug and a dozen tobacco plants are set in the bottoms to get their roots nearer to the water: this is done, surprisingly, not at the very flanks of the tobacco-growing area but towards the stream bed, where the latest flood has left a deposit of sand somewhat higher than the old stream bed further out.

Picking the tobacco takes place from December onwards, and the leaves are then dried in shelters, where they receive a reduced sunlight through a thin straw roof. They are next taken up in bundles to the market in Zalingei, where they are bought by merchants and despatched by lorry to El Fasher and Omdurman. None of the crop is retained except seed for the coming year, since the Fur do not use the chewing snuff that is made from their tobacco.

Potatoes are grown in the same way as onions, but are not much consumed locally: some are bought by merchants and government officials in Zalingei town, the remainder are sent to El Fasher, where they are especially welcome in the spring after the local supply has run out. Outside Zalingei potatoes are only grown in a few villages; some occur at Tarri, close enough to be brought in to the Zalingei market, others at Sullu where the Shartai[1] eats them. Tobacco is grown in Dodo and Korei, being near Zalingei, in Birganga, where an enterprising villager has returned from the district headquarters, and also on both sides of the Azum at Soya, where the Barei flows in from the North;

[1] Headman of a number of villages.

here it is due to the influence of Murnei market, where there is a number of Arab merchants.

In the whole of this region there is a striking fragmentation of individual holdings: since different types of land are put to different uses, most villagers possess several plots. In this, moreover, they are encouraged by the administration, for it lessens the likelihood of an individual becoming impoverished because his whole crop fails. Land is regarded as private property, and may still be retained when a villager removes to a nearby village; if he dies leaving no heirs, however, or quits the district entirely, his land may revert to the village *sheikh*, who allots it anew. In this way it is often possible for a person who comes to join a village to have land assigned to him, on a payment, so that he can become a complete member of the community. The limits of each village's land are well recognized, and there is no unclaimed 'waste' lying between settlements; land is plentiful, however, and the fields furthest from the villages are likely to go out of cultivation if each man has as much as he and his family can work.

At present it is certain that the land could support a larger population the unused areas are, however, in small divided lots, and so no large-scale settlement of nomadic or semi-nomadic peoples could be readily achieved.

Plots of land are recognized as being either men's or women's cultivations, for in addition to their domestic duties the women cultivate one or more plots of their own. These women's lands are smaller than those of the men, and generally nearer to the villages; on them is grown *dura*, but more often cotton, *bamia* and chillies, together with onions in beds by the *wadi*.

That the women should find time to cultivate land in addition to their other tasks is at first perhaps surprising: in fact it reflects the sense among all the villagers of the importance of their cultivated crops, especially grain. Instead of feeling that in watching over the children and preparing the family food she is doing her share of the work, the wife could not be happy seeing good lands moistened by the rains of summer and not brought into cultivation because the men of the village were wholly occupied during the hours of daylight upon their own fields. The amount of time that she can devote is limited by the continuing necessity to prepare her family's food, of which the main meal is eaten in the evening as the men return from the fields: she will probably also carry a lesser meal to the men where they are working during the heat of the day.

ANIMAL HUSBANDRY.

The Fur keep a variety of domestic animals, some to supplement their diet, others as beasts of burden : these include cattle, sheep, goats, donkeys, horses, dogs and chickens. Numbers kept vary considerably between villages and individuals, not everyone, for instance, possessing a single cow or bull, and not many persons more than five or six.

The cattle, of the humped African strain, are kept principally as a source of milk : no regular business is made of slaughtering them for meat, and they are only likely to be killed on the occasion of a feast or celebration. The supply of milk tends to dry up in the winter and spring, and then the presence of the Arab cattle owners (who will be discussed later) is most welcome. During the day the cattle are sent out with the children, and feed upon the wild grass and upon the stalks and leaves of the grain crop that lie in the fields after the harvest ; about every second day—this interval varies according to the season—they are taken down to the *wadi* to drink. At night they are brought to enclosures that are established around the villages, chiefly as a protection against, thieves : this also enables their droppings to be collected as manure which is spread upon the cultivations near the villages.

The sheep and goats are kept for the wealth they represent, and for their meat upon special occasions : their hides, like those of the cattle, bring in a little cash when they are sold to the tanners. No use is made of their wool, for the Fur only wear cotton clothing. They are tended in just the same way as the cattle, and are at present rather reduced in numbers, having succumbed to footrot after the recent wet year of 1946.

The donkeys serve for riding and also as beasts of burden, carrying loads of grass fuel and grain when required : most villagers possess a donkey, but horses are much rarer since they need expensive grain to eat, are more liable to diseases, and are never used for carrying loads.

Chickens are kept running about the enclosures for the sake of their eggs and meat : the dogs serve to warn the villagers of the approach of strangers. Pigeons are kept to be eaten, and the dove-cots already described are built for them.

TRADES.

While agriculture is the principal occupation of the Fur, and while it is considered shameful for a man not to cultivate his own land, there are some villagers who supplement their living by plying a trade which occupies their time during the idle hours of the dry weather.

Most noticeable among them are the smiths, who supply the villagers with the iron implements that they need, principally hoes, axes, spears and daggers. These they hammer out to traditional patterns on their anvils, using as their raw materials charcoal which they prepare for themselves and iron which they buy in odd pieces from merchants (a broken spring or back-axle from a lorry, perhaps) or else smelt from iron sands which occur in many of the local hills. In summer, when the people are continuously busy in the fields, the smith will set up his fire among them and repair broken tools as they are brought to him; in some cases he will also be busy in working his own fields.

The smiths are very often the husbands of the pot-makers: these are women who, working in villages where there is a good supply of clay, make earthenware pots for sale to the surrounding peoples. They do not use the wheel, but press the pots out by hand upon a rope mat that gives them a characteristic pattern. The pots are fired in large holes in the ground, heaped over with dung[1] as fuel: some thirty of various sizes are baked in one hole, and at Zerga, where firing takes place from one to three times a month, according to the press of other business, as many as ten holes may be fired at once. The pots are used for carrying water from the wells, as well as for holding and cooking food; they are brick-red outside and black within, varying little from village to village.

Other receptacles of local origin are hollowed out pumpkin skins, used as dippers in wells and as containers for goods taken to market, wooden bowls used for serving food and woven baskets of grass caked with clay. Most of these are made by their users, except that at Tibigi there is a tradesman making the wooden bowls.

Most villages support a leather-worker: he either buys goat, sheep and cattle hides, ready tanned, or else cures his own. From these he makes slippers, coarse sandals, and sometimes harnesses, sewing them with gut and cutting them to shape with scissors made by the local iron-smith; only his needle is likely to be imported.

The making of clothes from the local cotton occupies many members of the community: picking the cotton and cleaning it is principally the work of the women, but men and boys occasionally do this work too. The ginning is then chiefly done by boys, who squat on the ground briskly turning the handles of the wooden ginning machine; the cotton passes between the two rollers while the seed falls to the ground. Such of the seed as is not required for the coming year may be fed direct to the

[1] Chosen for its lightness, since it does not damage the pots before they are baked hard.

animals, or else pounded for its oil, when the goats alone will eat the residue. Once ginned the cotton is cleaned and fluffed out with the aid of a bow-like instrument, and then spun by hand to make a coarse thread : the thread is woven into cloth by the men, who set up looms which they operate by hand and foot, making rools of cloth 9" wide and up to twenty yards long. So far the tasks are performed by almost every villager : from the cloth the women make themselves garments merely by sewing numbers of strips side by side to produce a wide *tob*, while men's clothes are made by individuals who ply as tailors. The most important garment is the *jibba*, which has wide half-length sleeves and reaches down to the knees. Another kindred trade is the making a skull-caps by a kind of crochet work : this too has its particular skilled workers.

ALIENS.

With their variety of agricultural products and their artisans supplying their needs for everyday articles, the Fur may appear to enjoy an almost self-sufficient economy. The good qualities of their land, however, which make it so superior to the territory both to the north and south of it, attract numerous alien groups, with whom the Fur come into regular contact.

Within the villages themselves there are usually small groups, some half dozen families, of Zaghawa who come from Northern Darfur. These people leave their homes when their supply of water dries up, and migrate each year to live in a Fur village by the Azum. Coming only for the dry weather—December to April—they do not have cultivations and only build for themselves stout flat-topped grass shelters quite unlike the huts of the Fur that are designed to stand up to the rains : they are generally poorer than the Fur, since their land is drier and less fertile than the *wadi* silts, and they bring only a very few animals including perhaps one camel. They pay a small fee—about ten piastres a family—to the *sheikh* of the village to which they come, and earn what money they can by helping in laborious tasks such as threshing and grinding grain, carrying loads or fetching fuel. Physically they appear the same as the Fur, who do not seem to resent their coming, although of course as strangers they are more likely to steal grain and animals than are the natives. When, as often happens, the rains have been poor in the north, the Zaghawa come in larger numbers, and being particularly impoverished present a problem to the administration : away from their traditional chiefs and restraints they are likely to

make considerable trouble, besides being reluctant to return to their homes when the rains begin again. This is likely to be a permanent problem, since with the spread of civilising influences the standard of living of the Fur is likely to rise much faster than that of their northern neighbours, and there may prove a tendency to desert entirely the marginal lands that fringe the desert. Such a move might be economically rational, but it would need a complete change in the system of land tenure among the Fur before it could be effected.

From further north still there come in winter to the Azum groups of nomadic camel owners: these groups make their own settlements, and come down to the wells to draw water. Their need is grain for the coming year, which they buy in the markets: they have little to sell except camels' milk, and so they also make their living carrying government grain and other commodities if they can. They often bring with them only the she-camels that are in milk, and leave many of their animals with the older members of the tribe in the north. Both the nature of their animals, whose pads are harmed by moisture underfoot, and also their own ignorance of any occupation save those intimately connected with camel-breeding keep these camel-owners from wishing to stay down by the *wadi* when the rains begin or to settle permanently outside their tribal areas; they can still, however, be a nuisance stealing grain before it has been collected from the fields and trying to evade tax-listing by crossing the district borders. In consequence they are not much welcomed by the administration, though it is recognized that they cannot wholly be forbidden.

A group somewhat similar to the camel-owners in their relations with the Fur, but of much more importance because of their greater numbers, is that of the cattle-owning Baggara. Groups of Baggara; of the Beni Helba and Southern Rizeigat tribes in particular, come each winter and set up their camps in sites near thr *wadi*, making a small payment for them to the *sheikh* within whose village lands they lie, and so continue from December to March or April. They sell milk and butter to the villages at a most welcome time, when their own supplies have dried up, and if short of money perhaps take a bull to slaughter at one of the local markets: in exchange they buy—or more often get by barter—grain, onions, chillies and other foodstuffs, and also cloth, knives and spears. Their huts are extremely mean, consisting of half a dozen mats made from palm leaves that have a natural curl in them and so can be set up to make semi-circular dwellings: they have the advantage that they can very easily be dismantled, rolled up and carried by the bulls when the group decides to move. The Baggara carry

little other equipment with them, only churns for making butter, cooking utensils, spears and the necessary furniture for riding on their bulls and carrying their goods upon their backs. They do not work as carriers, and are much too proud to perform menial tasks for the Fur in the way that the Zaghawa do; in consequence, since they generally have no skills save those connected with their animals, they are poor, backward and extremely conservative.

They belong to the great group of Baggara, Arabic speaking Semites with an admixture of Negro stock, who occupy the area between the Bahr el Arab in the South and lat. 14° N. in the North, from the White Nile westwards into French Equatorial Africa. Their main area is thus in Southern Darfur and Kordofan, and it is their normal custom to winter in the south by the Bahr el Arab, coming north with the advance of the rain-belt, thus incidentally avoiding the tse-tse fly, which becomes active during the rainy season. These particular groups, however, prefer to winter by the Wadi Azum, and in doing so are coming into conflict with the District administration: this latter is naturally based upon the settled Fur communities, who are always at hand, and whose way of life admits more easily of improvements and of the development of responsible native institutions. While the Baggara regard the land as being as much their land as that of the Fur villages—incidentally despising them somewhat as nomads often do despise settled peoples—the administration regards the Baggara as somewhat uncontrolled intruders, likely to make trouble by stealing the villagers' grain and animals, and generally incapable of being led through education and example to becoming members of a more modern type of society.

In consequence the Baggara have been forbidden to enter Western Darfur District without permits, and even then are required to wait until January before doing so. Plainly the administration has a difficult problem here, when it must appear to be favouring one group at the expense of another. Quite apart from official policy, however, it is inevitable during settled times that the condition of the nomads should fall behind that of the sedentary peoples; with current advances in weapons and communications, moreover, the lawless days when the nomads were powerful may not readily recur. At present, however, these problems are by no means serious; the Baggara are content with their way of life, and have no desire to change it for that of the cultivators.

Another quite distinct alien group is the settlement in Zalingei of loosely styled Fellata, i.e. migrants from French Equatorial Africa and further west. These persons have come into Darfur as a stage on their way to Mecca, but have allowed themselves to be at least temporarily

diverted ; they find employment working in the tobacco fields, where a petty capitalism is already springing up on the basis of the cash crops grown, while they also have cultivations of their own where sweet potatoes and cassava are distinctive crops. The fact that tobacco growing provides employment during the winter fits this economy most conveniently.

MARKETS.

Contact between the several groups of Fur, camel and cattle owners chiefly takes place at the markets. That at Zalingei is held every day of the week, with Friday the most important day ; others at Kurgulla, Sullu, Gernya and Murnei take place twice a week, on days chosen to avoid coinciding with others nearby. The Gernya market is the smallest, that at Murnei is second only to the Zalingei one : probably 500 persons are to be found at a market at one time.

The markets are attended by persons from a radius of twenty miles or more, and being an occasion breaking an otherwise rather dull daily round they are most popular. They function essentially as places of exchange of agricultural products, both between individual Furs and between members of the different groups. To them the women bring grain, chillies, vegetables and raw cotton, which they either sell for cash or exchange for milk and butter from the Arabs. The men come riding on their donkeys, and bring rolls of cloth, if they have a surplus after supplying their families' needs. The various artisans also bring their wares, hides and slippers, iron implements clothes and skull-caps, while some of the women may bring plaited food-covers, either plain or brightly coloured ones that have taken months to complete.

The Arab women who come to the market bring butter and milk, and some from further afield bear fried locusts, collected on the sandy areas of Dar Masalit ; they may also sell some of the hanging baskets and leather saddle-bags that form part of their travelling equipment. In the butchers' section cattle, sheep and goats are killed for meat : they are purchased by the butchers from both Fur and Arabs, their meat being bought by the villagers and their hides by the tanners. In another section of the market private sales of live animals take place.

Such are the local wares and their sellers ; in addition numerous itinerant merchants attend, carrying their imported wares from market to market. There is little specialization among them, for each has the same opportunities of buying goods and of observing where profits are most easily made.

A common commodity is cheap cotton cloth, the blue *zarag* that the women wear, coming mostly from Egypt, and plain white cotton made in India or Spain. The former is worn by the women as their 'best,' and with age becomes lighter and softer : it is thus to be preferred to the local *damur* which becomes steeped in oil and dirt until it is almost black. The white cloth, however, is not much bought by the men, for though it is cheaper, area for area, than the local cloth it is less strong and does not last so long.

As important in the eyes of the women as the cloth are the beads the merchants sell : of these the big, yellow amber beads are the most popular, being generally regarded as more important than clothing. They cost 5 to 10 piastres each, and are plaited into the hair or else worn on necklaces ; originally amber, they have since been replaced by artificial resins from Germany and Czecho-Slovakia, which is also the source of the other beads that are widely sold. The merchants also sell razor blades, matches, mirrors, soap and coloured thread, all of poor quality, together with sheets of white paper (though these are not much used in country where the vernacular has no written form and only at the new schools is Arabic taught). Now rationing has been generally abolished the merchants bring sugar and tea, neither of which is much bought yet ; coffee is only to be found at Zalingei and Murnei where there are persons who have the taste and the money to buy it. In addition to these articles a few merchants sell cloves, cinnamon and sandalwood, which are burnt for the sweet smell they yield.

EXTERNAL TRADE.

The Zalingei market, besides performing the functions of the others, differs in that, instead of being held in an open space where there happens to be some shade, it has a fixed space with brick lock-up shops around it. The shops are owned by Arab merchants who usually buy their wares in El Fasher and have them brought by lorry. The lorries run occasionally to Zalingei from Geneina and Nyala, but much more frequently,—two or three times a week when the road is open—from El Fasher via Kebkabia : on their return journeys they carry loads of tobacco, potatoes, hides and a little *semn* (clarified butter).

Now the government rate for the carriage of goods from Zalingei to El Fasher is 183 milliemes per kantar,[1] whence presumably the open market rate is almost twice as much. While, therefore, tobacco can

[1] Approximately 100 lbs.

stand not only this charge but also that for the journey from El Fasher to El Obeid, which costs approximately twice as much, potatoes can only be taken economically as far as El Fasher, and grain, whose retail price in El Fasher is usually the same as that in Zalingei, can rarely bear the cost of carrying it even that far.

In determining, therefore, which cash crops the Fur peasant is likely to grow, there are several conditions to be fulfilled: first some enterprising person must come to their village and start growing a new crop, so that they can learn how to cultivate it, while secondly the village must be fairly near a collecting centre where some merchant is engaged in buying commodities and in arranging their transport. There is no doubt that most villages do have more good land than they use, and so it might seem there was a prospect of producing a considerable grain surplus from the Azum lands. Apart, however, from the additional labour that with existing methods this would entail, the best grain years would often be those when demand in El Fasher was least and prices lowest, and the peasant might gain very little, especially since the poor keeping qualities of grain make building up stocks to await a rise in prices impracticable. Probably the cultivation of tobacco, however, will spread: already several villages between Zalingei and Kurgulla grow it, and being a winter crop it does not interfere with the grain cultivation.

Quite apart from the export of commodities by lorry there is a small flow of goods from the district by an older means. When it is reported that prices for chillies or grain or onions are favourable in centres as far off as El Fasher or Geneina, certain of the cultivators collect together a supply which one or two of the families take on their donkeys' backs to sell for cash. They may be away for a month or more, but this is immaterial in the winter, for they know their possessions are safe in the villages: even if the profit on the whole outing is small it does not matter much, for living on the road will not have cost them more than it would have done at home.

The money thus obtained is probably required for the payment of the annual combined poll and animal taxes, which are due in the spring. During most of the year, it may have been noticed, cash is not greatly needed: much of the trafficking at the markets is done by barter, and the occasional purchases made from the itinerant merchants are likely to be made with cash immediately obtained from the sale of produce. For two or three months before the taxes are due, however, the villagers begin to realise they must save up to pay them; naturally nobody wishes to sell off an animal, and so prices of commodities sold by the Fur

fall, making the accumulation of sufficient money all the more difficult.

Viewing the circulation of money in the district as a whole, therefore, it will now be seen that money comes into the region in a variety of ways: as wages of government officials, school-teachers, policemen, etc., as payment to the Baggara for the cattle they sell and to the merchants for the local produce that they export. It goes out as payment by the merchants for the goods they bring in, and also as taxes and fines paid by the villagers.

For their daily purchases the people require small change only, milliemes and half-piastres often, and of these there are often not enough (so that at times merchants may even make a small charge for providing the people with change). The purchase of considerable items such as a sewing machine or even a tin tray or a tea-pot does not enter at all into the calculations of the Fur, (much less of the other groups of the region), nor does anybody save money with a view to difficulties ahead: in consequence money itself is regarded as merely a commodity, varying in demand and in price at different seasons, and is not at all employed as a criterion of value.

In so far as prices are related to a fixed standard, this appears to be the *reka*[1] of threshed *dura*, for since *dnra* is cultivated by all and eaten daily by all, it figures largely in the peoples' thoughts and estimates of value. While it varies itself considerably in the ease with which it can be obtained, its relevance is constant to people who use it as a source of both food and drink.

CONCLUSIONS.

The most striking features of the Fur economy are its self-sufficiency and its isolation: as has been observed, while a number of commodities is bought and sold by Arab merchants, none of these is very necessary to the people and all could be dispensed with without seriously disturbing their lives. Similarly it is where Arab influence and enterprise are greatest, around Zalingei and Murnei, that the trade in exporting tobacco and potatoes has grown up, and this cannot be regarded as the spontaneous response of the Fur themselves to the possibilities of their territory.

Whether this state of affairs will long continue will, it would seem, greatly depend upon future government policy in the establishment of

[1] A variable measure equaling approximately 15 lbs.

rates for poll and animal taxes. These do not at present greatly affect the lives of the Fur, who are able to settle them out of their surplus agricultural produce fairly easily ; if they have to kill an animal to raise the required sum, this is no great hardship when the total of a man's contribution averages less than 50 piastres.

Now since the markets that are at present supplied with commodities from this Azum region are all somewhat limited—Omdurman cannot absorb immensely increased supplies of tobacco, nor El Fasher very many more potatoes—an expansion in the flow of cash and a considerable raising of tax rates cannot be seriously contemplated. When the proposed schemes for a meat-canning factory on the White Nile mature, they may have an influence throughout the Baggara that will slightly affect the Fur, but in this case the conversion of the cattle-owners in general to the idea of a money economy has yet to take place, and until it does they may persist in their practice of selling as few animals as they need. Moreover though in this case the ultimate demand for their products is considerably greater, the conservatism of the nomads is at least as powerful as that of the cultivators.

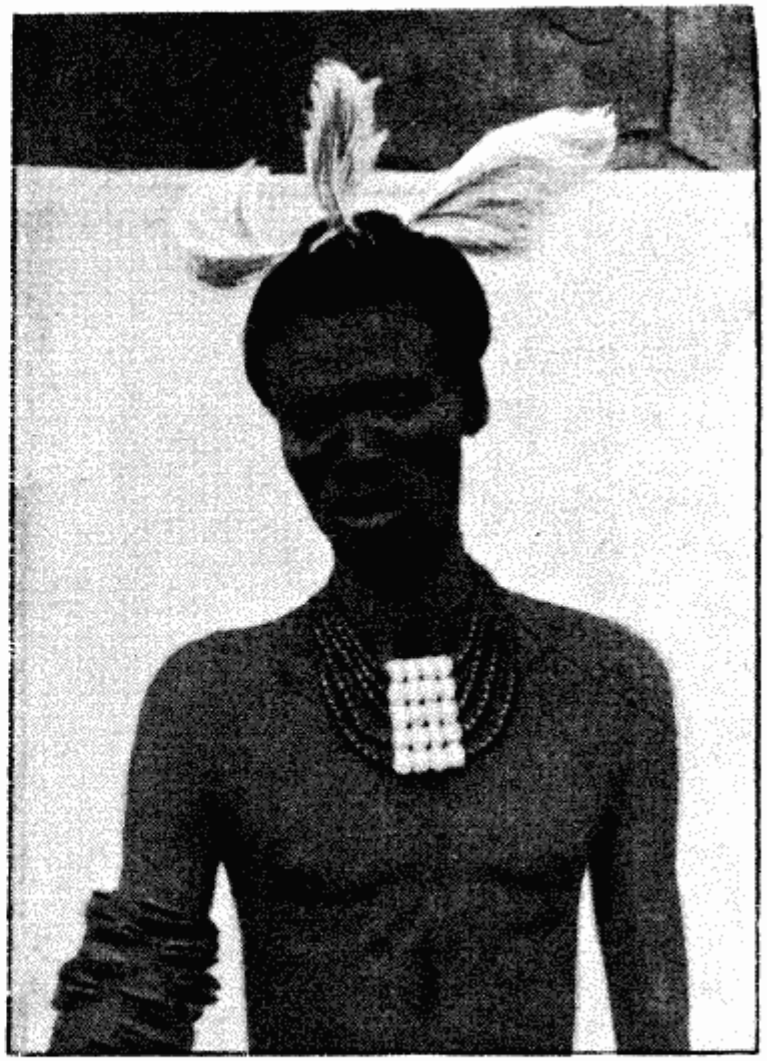
There is thus no obvious line of development that would bring an immediate increase of prosperity to the Azum lands : not only the poor quality of the roads leading to main markets but also their length is discouraging to commerce.

To make a valid estimate of the likely effect upon the Fur of improvements in communications or of the introduction of new trades into the province, it would be necessary to make a more extensive study of their culture and economic relations with their neighbours. At present this description of the population to be found along the Wadi Azum stands somewhat isolated from its surroundings, and many points of interpretation can only be regarded as tentative and liable to reassessment.[1]

[1] A previous description of the Fur from a more anthropological angle is to be found in *Sudan Notes and Records* Vol. XXIX, Part I.—*Ed.*



1



2

1, 2 — Toposa Man



3



4

3, 4 — Toposa Woman



5

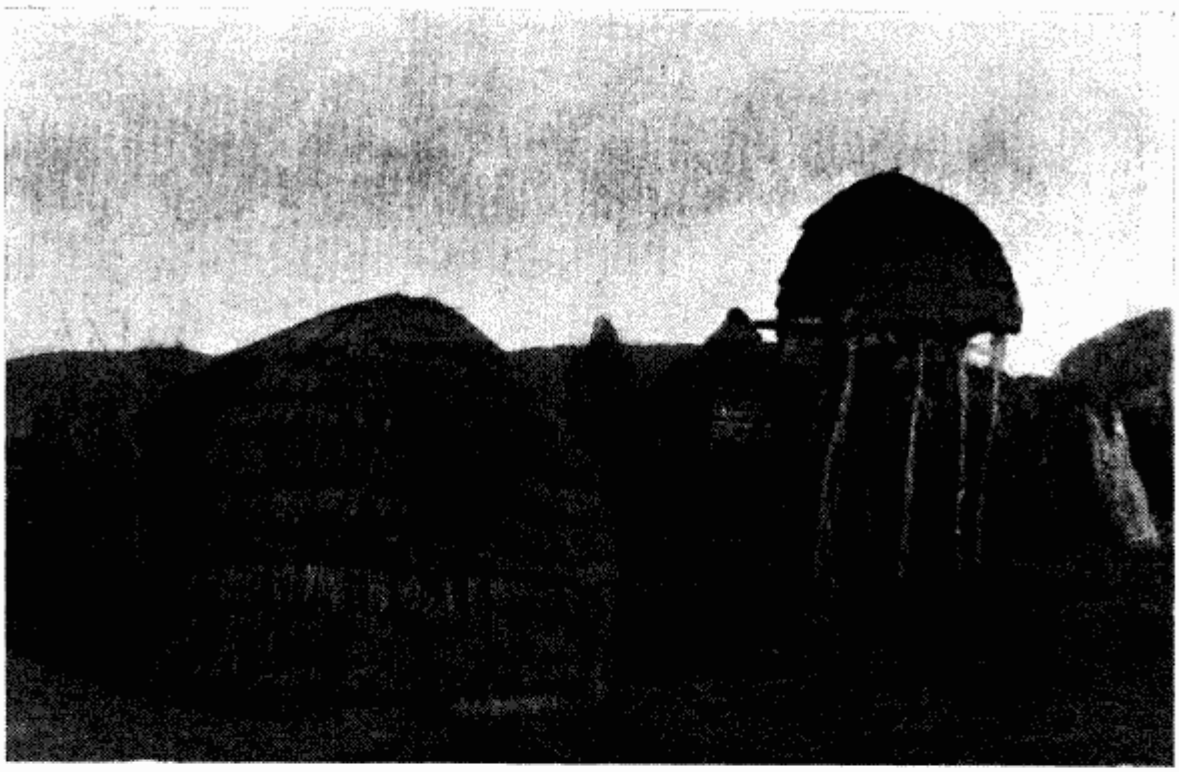


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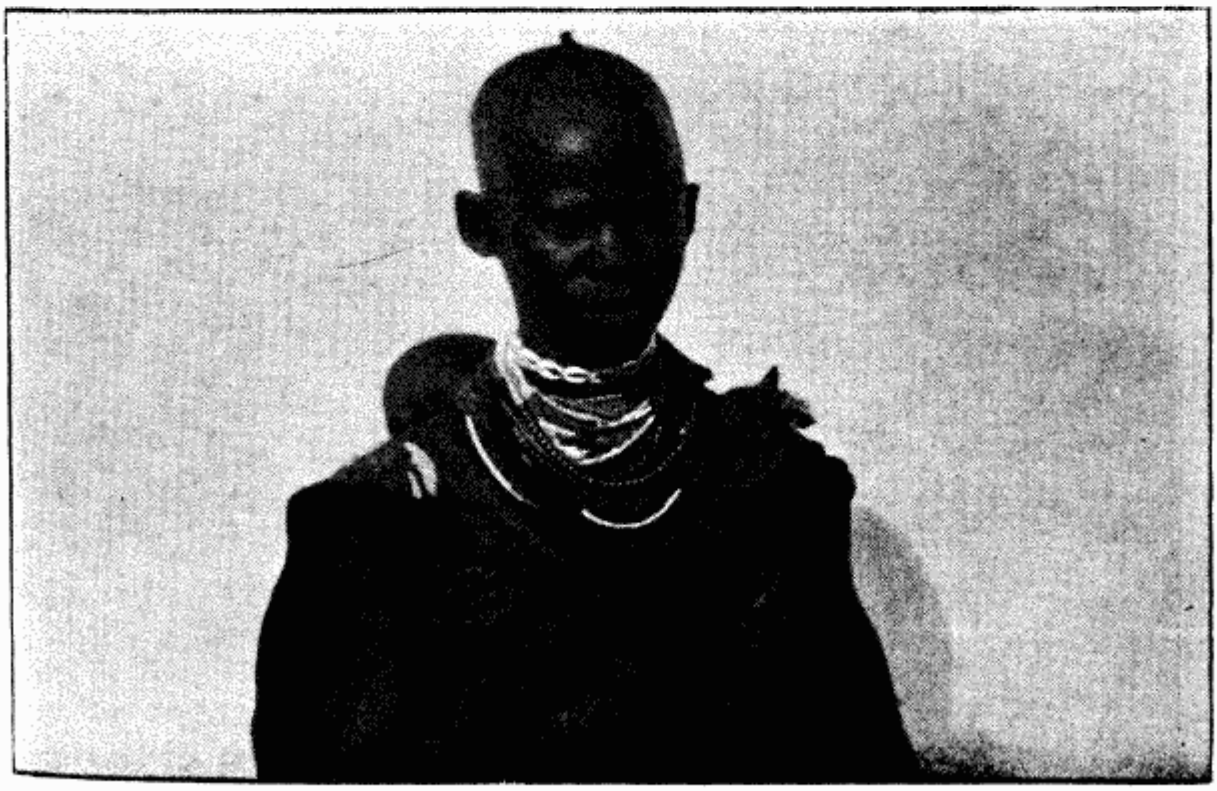
5, 6 — Toposa Boy



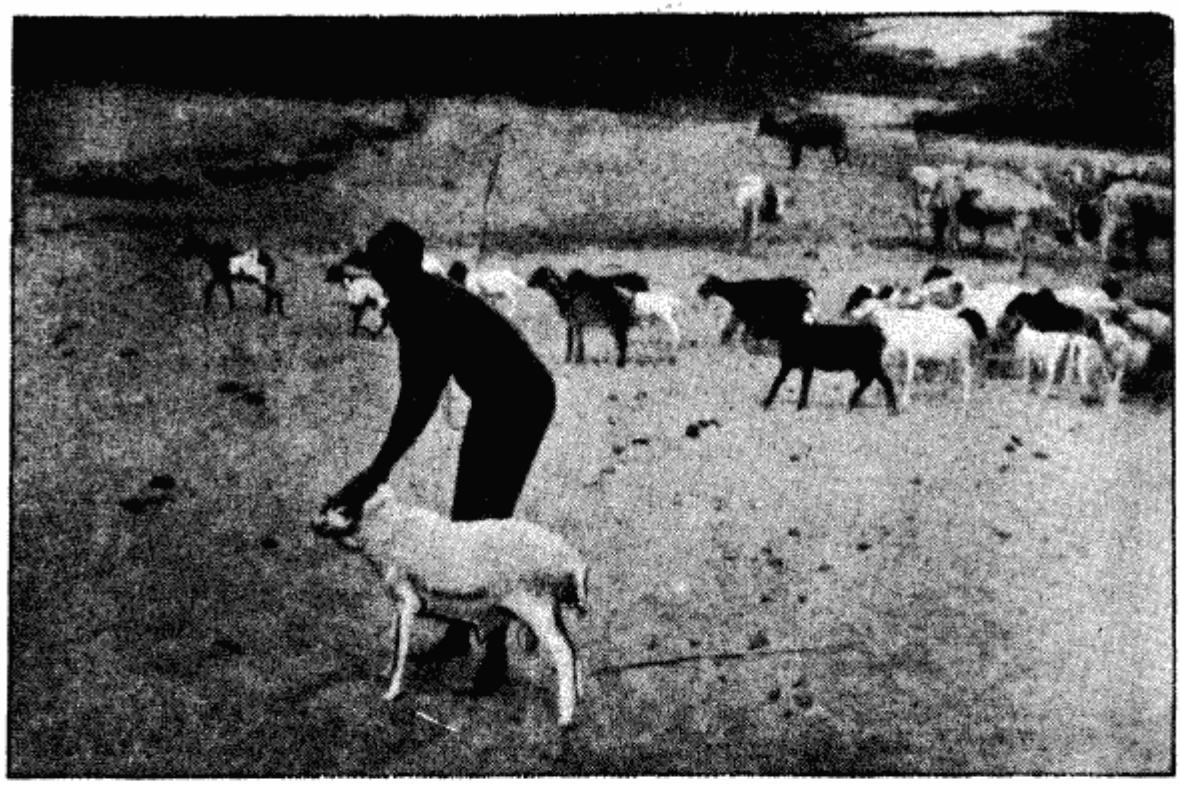
7 — Toposa Girl



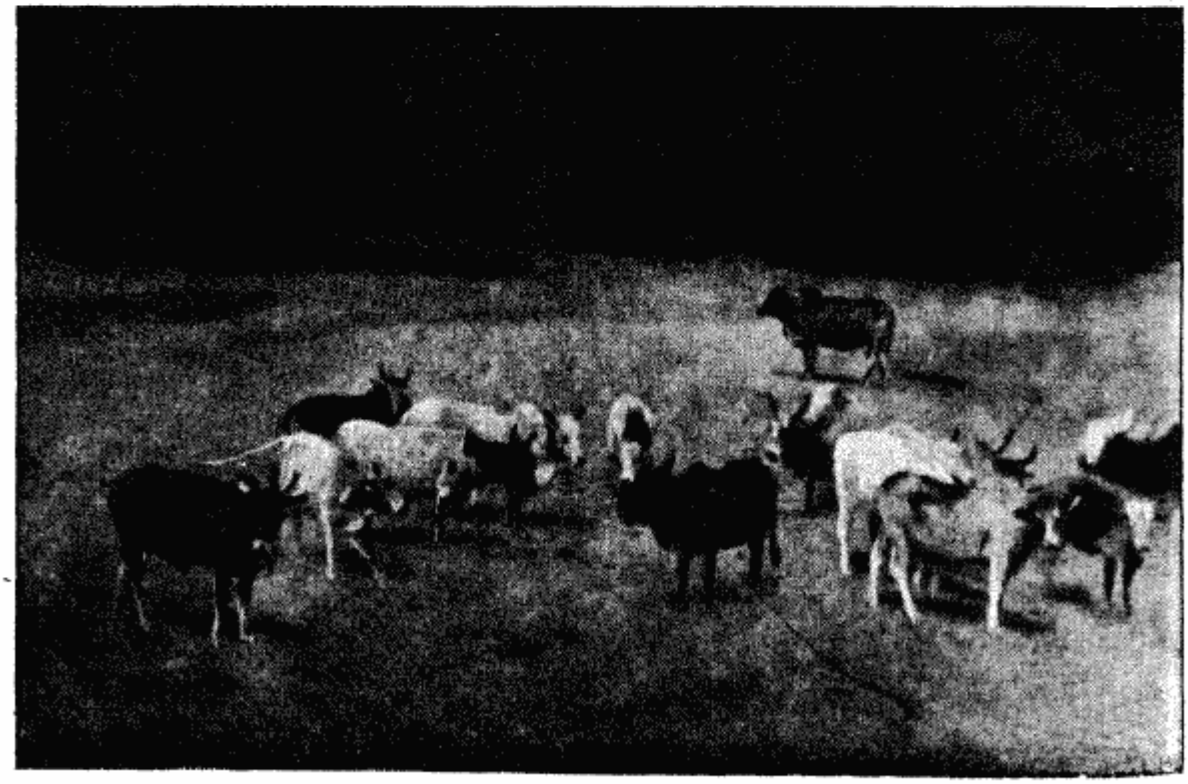
8 — Toposa Village



9 — Toposa Girl



10 — Toposa Fat-Tailed Sheep



11 — Toposa Cattle

NOTES

RECORD OF THE TOPOSA TRIBE

By A. C. Beaton,

D/Governor, Equatoria Province.

1.—Geographical position.

The Toposa or Topothe are a cattle-owning tribe of the Eastern District of Equatoria Province living in the neighbourhood of the intersection of 34° East and 5° North.

2.—Names.

The Toposa or Topothe (shown in older maps as Dobosa), the easternmost tribe of Equatoria Province, inhabit the flats to the north-east of what are now known as the Didinga hills.

They call themselves Nyitopotha ; they are called Huma or Khum by the Didinga, Kum or Kumi by the Beir and Epeta, Karra or Nakarra by the Dongotono, Lafit or Latuka, and Abo by the Acholi, (Nalder, *Tribal Survey of Mongalla Province*).

3.—Numbers.

In 1935 they numbered 6,000 adult taxpaying males, which represent a total population of about 28,000. By 1948 the taxpayers were reckoned at 7,870 and the tribal total at about 34,000.

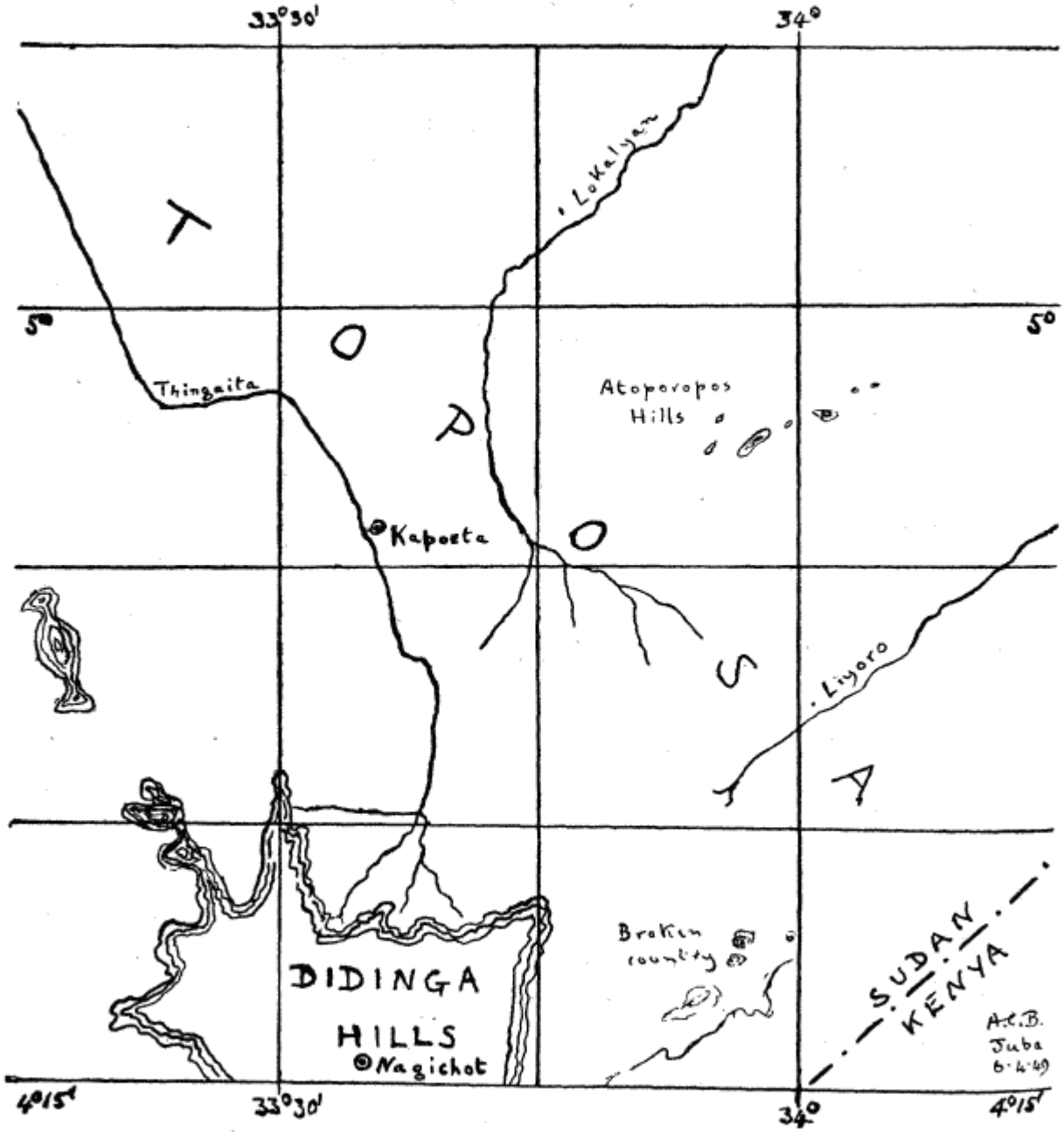
4.—Language.

The Toposa speak a language almost identical with that of the Turkana, a big pastoral tribe living in the north of Kenya Colony to the west of Lake Rudolf ; the Jiye of the Sudan, and the Dodoth and Karamojong of Uganda also belong to the same language group.

5.—Anthropological Characteristics.

In common with the Latuka, Lango, Lafit, Lokoiya, Bari and Mandari, who inhabit the country west of the Toposa area and extend as far as the river Nile, they are Nilo-Hamitic by race, keeping to a pastoral and semi-nomadic way of life.

EQUATORIA PROVINCE
Eastern District



Nalder in his *Tribal Survey of Mongalla Province*, quoting Captain King who has been D.C. in the District since 1931, writes :—

Originally, according to their own account, they were one of four stocks in Karamoja—the Jiye, Topotha, Karamojong and Dodoth.... From their home.... a sacred stone called Kathingotere was carried... and set up on the Llyoro where it still stands today a centre of Topotha ritual.

Their exogamous clans are fairly numerous and include the Nyikuren which is a firemaking clan. Hereditary firemakers play an important part in war, hunting, the initiation of new bull-classes among the youths and at times of such emergencies as drought and sickness.

Age grades, age classes and bull classes regulate a man's position in society—the first cover such divisions as boys, youths, young men, warriors, elders and old men ; the second, which cut across the clans are groups of co-evals at roughly four year intervals and the last are a sublimation of the age classes when the members are raised to warrior status. Every man has a favourite bull which is the centre and focus of his being.

The idea of a secular and hereditary chief is foreign to the tribe, whose affairs were formerly conducted by councils of elders.

Rain chiefs are of minor importance, but the spirit doctor (*nyimerun*) has a certain vogue.

Bridewealth to the value of 3 to 10 cattle is normally handed over on marriage.

Shields, spears and circular wrist-knives are the usual weapons.

Cattle, sheep, goats and donkeys constitute the tribal wealth.

Agriculture is almost entirely a female pursuit and is of the limited type common to pastoralists.

The Toposa god, Nakwuge, is believed to live in the sky, but beyond deciding how long a man should live, takes little interest in the affairs of mankind.

They share with other tribes the creation legend, which recounts how the earth was peopled by those heavenly begins who managed to slide down a rope carried up to heaven by a bird before a female pregnant with twins broke the rope with her weight.

6.—History.

From a study of tradition and the age classes it is computed that the Toposa moved from Karamoja to Liyoro about 1780 and from there on to their present habitat about 1875. Their innate hostility to surrounding tribes is still very evident. The Abyssinians previously exerted great

influence on the Toposa and the Nyangotom are an offshoot of the original migrants into the Sudan. Before 1927 the Toposa often organised or joined poaching raids into the Sudan. Toposa country was first occupied by the Sudan Government in 1927, since when the tribe has been very friendly and loyal to the Government.

7.—Economics.

The economic importance of the Toposa lies entirely in their herds of cattle. In 1933 these were estimated at about 75,000, a figure which, with a combination of natural increases and disastrous epidemics of cattle plague, is computed at about 60,000 in 1948. In 1944 their herds of sheep and goats were estimated at 175,000 and their donkeys at 10,000. When the Topotha have learned the value of vaccine and antrycide, their economic future appears to lie mainly in the export of their animals.

8.—Authorities.

Captain G. R. King, O.B.E., M.C., 4 N., District Commissioner, Eastern District as recorded in Nalder's *Tribal Survey* and the Equatoria Province files are the authorities used in the compilation of this note.

A CASE OF MAGICAL POISONING IN A LOTUKO VILLAGE

By Fr. C. Muratori, V.F.M.

I HAPPENED to be at Oronyo, a Lotuko village some 20 miles north west of Torit, on the morning of April 16, 1947. Having settled my goods in a room of the stone-built school, I climbed with some school boys the hill Kitobok (around which the village is built) to look for some herbs. About half-way up my attention was caught by a loud noise of people shouting outside the village. It was about 10 a.m. When I asked what was the matter there, the answer was : " *Atwari* " (a funeral). The boys saw that I was dissatisfied with their answer and added : " *Atwari oburyerek emumwalani* " (a funeral held against a poisoner).

Emumwalani means in Lotuko " poisoner " from *imiolyo* (to poison) but this root has a very wide meaning, as it may mean the evil produced in the body of a man by a proper poisonous medicine, or by a certain action which may produce the same effects in the body of people without giving any proper poison to a single individual. Such a wide meaning is not a Lotuko peculiarity ; for instance the corresponding Bari word *sumba* has the same elasticity of meaning.

I watched the scene from the hill and from the school, and two days later I went inside the village to inquire about the case. It concerned only a hamlet, viz. Isarru, one of the six hamlets into which the Oronyo village is divided. The case can be reconstructed as follows :—

On the very morning when I reached Oronyo a *monyomiji* (a member of the warrior class) of Isarru found on a path not far from the main road some *nemimolita* (poisoning objects), viz. two pieces of split bamboo, put across the road, and ashes of burnt sheep dung, which had been taken there on a piece of broken gourd. This gourd had been broken into pieces and the ashes were scattered beside of the bamboo. The place is called *Amolol* from a tree which is on the road close by. *Amolol* is a special name given to the tree, because it is formed of two trees joined together, *nawayi*, (*Tamarindus indica*), and *abiyongi* (*Ficus glumosa*), and does not refer to the species.

The young man at once referred the matter to the *monyomiji* of

Isarru, who immediately gathered together at a signal, much excited and repeating : " Who has brought such a thing to the outskirts of the village to poison us ? These people are vexing us continously ; this is not the first time they have brought poison so that people were dying." So they decided to put an end to the matter. Not knowing who was the *lemumwalani* (poisoner), they decided to hold a funeral as a fatal curse against him, to let him die.

They took the drums to *Amolol*, to the very spot where the pieces of bamboo were found and still remained, to hold a funeral as had been decided. They took there six drums, each one of which is called by a proper name, viz. *Kaworu* (the biggest one), *Ikute*, *Illafa*, *Ojukon*, *Odwalang*, *Orrwati*. Four *akanga* (trumpets shaped from long gourds) were brought there by Attari, a *monyomiji* of the same hamlet. Then the *natwari* began : this part of *atwari* is called *naburyo*. The drums were beaten with a funeral rhythm and the songs were the usual funeral songs. The funeral signal was for a man's funeral. The drummers each beat 3 drums.

When, half-way up the hill, I turned my eyes to the scene, women and girls were dancing (*isuttai*, were jumping) around the drums, sometimes near to them, some times far off. Some were dancing in groups. Others advanced and retreated without any apparent order. Children were there dancing too, but only in imitation of their elders. One of the songs of the women was the following, which I got from a girl, Iyafuk Ajali of Isarru hamlet :—

Erryomore ko ngotira I idyofo	The Ngotira group (of Loppit tribe) fought in the bush.
Eeee, Otuko ve kerumi	Eeeeh ! the Lotuko are still fighting
Iyyalara tulo iko agai ?	To whom is (that) man like ?

This song was repeated many times, and others were sung after it. But I did not succeed in getting her to repeat these.

When the women had finished singing, they went to rest for a while under the tree *Amolol* on the road, and then they continued dancing a dance called *akitiyang*, while the drums on the spot of the *nemimoli* (poisoning) were still beating, though now the women were not singing. The dance *akitiyang*, continued roughly up to 1 p.m.

About 2 p.m., the *monyomiji* of Isarru from the drum-house of Isarru began to run to the spot of the *nemimoli*, their spears moving jerkily in their hands, and they began to dance the funeral dances around the drums, singing funeral songs, that is, war songs, while women and girls were moving about and uttering their shrill cries both inside and outside the circle of the male dancers.

Their first song (a war song) was the following :—

Tali Lanyim ? A baka olongere katai	Where is Lanyim (Sesame—a leader). Your strong man was knocked down.
Alo ni takoryo li twa mana wakka	I am going to save him at the field dug on the cotton soil.
Kadeli Lokila	Kadeli of Lokila (Kadeli is a warrior class of Lokila Carrum, on Kinatye river).
Anyurak ni Kadeli ta nakil-fanni	I found Kadeli at midday.
Oyyoi angorwo	The women were crying for mourning.

The *naburyo* (part of the *natwari*) was to bring about the death of the *lemumwalani*, the still unknown poisoner.

While the *monyomidji* were still dancing and singing the *naburyo*, about 3 p.m., a man called Calamini, of the Kiyyu hamlet and of Igago clan, an official go-between for the Kiyyu hamlet and the rainmaker, came from his fields. Seeing the *monyomiji* dancing as at a funeral in the place where he had thrown pieces of bamboo that morning, he at once realised his danger. He went straightaway and told the elders who were there : " I made a sacrifice inside my compound, and I did not poison the *monyomiji*. The thing for which *monyomiji* are making the funeral is mine, which I yesterday used for the sacrifice inside my compound. There is a sickness in my family ; my son is sick, and I made a sacrifice in the compound and threw the objects of the sacrifice on the waste land outside the village."

The *monyomiji* believed his assertions, and ordered him to bring a ram for the sacrifice of atonement. To this he agreed. As soon as the *lemumwalani* was known, the dance stopped.

The following day he brought the ram to sacrifice at the drums, as ordered by the *monyomiji*. The drums were left on the spot all night, and brought again into the drum-house the following afternoon. But the *monyomiji* in the meantime had killed a ram of their own. Okide, *lamonye dongi*, (master of the drums) cut the ram on the navel, and with the chyme sprinkled the drums four times, and then the drums were brought into the drumhouse.

When Calamini arrived with his ram, he found everything over, and the *monyomiji* had changed the order to ten sheep for a fine. Calamini agreed. It was true that he had a sick child and that he had performed the sacrifice : but the *monyomiji* in a later meeting changed their minds and their sentence. They said to Calamini : " Why did you throw the objects of the sacrifice in the path of the people, and not

elsewhere ? Because you know these things signify poison." The *monyomiji* considered poor Calamini as guilty, and consequently he was obliged to pay a fine. The ten sheep will be taken to the *monyomiji* of Isarru, and later will be eaten by the *monyomiji*, or given to the rainmaker when gifts are due to him.

Calamini was then left undisturbed, and when I left Oronyo he was still looking for the sheep.... !

CROCODILE HARPOONING IN THE BAHR EL GHAZAL

By T. R. H. Owen,

Governor, Bahr el Ghazal Province.

THE reputation of West Africans for magic practices is widespread. *Omne ignotum pro magnifico*, and many of their unusual activities and achievements are deemed by the populace to be the result of hocus-pocus. Their capacity for quiet infiltration is equally a commonplace, and in Wau as elsewhere the authorities' eyes have to be ever open for surreptitious accretions to the existing and old-established West African colony.

For more than a year now, however, there has been a small party of Hausa immigrants who, so far from being evicted, have been welcomed, their operations extending beyond the ordinary fishing from which they get their livelihood to the catching of crocodiles, Their success in the latter practice was naturally attributed to magic, since it was indulged in nocturnally, with a torch and curious noises, and all the public knew was that a score of crocodiles, ranging up to twelve feet, had at intervals been brought in to the market for sale by their captors. The flesh is like rather tough and dull cod, and though insipid to the European palate is acceptable to all tribes in the neighbourhood.

Near the river Loll, 150 miles north-west of Wau, is a long pool, possibly a bed of the Loll itself in past ages, some two miles from end to end and seldom more than 100 yards across. It is a pleasant spot, kept as a little fishing camp and game-reserve : and there cannot be many stretches of water in Africa which hold more crocodiles. They consume enormous quantities of fish, and when therefore the Haussa came to me and asked to be taken to Ashana pool, where an inter-district meeting was to be held, and to operate there, I was only too glad to acceed.

They arrived in the afternoon and proceeded to work the same night. Only two from their party of six carried out the hunt and they had no objection to three of us coming with them in the dinghy provided that we kept quiet and stayed still.

The properties were simple,—a powerful electric torch and four or five harpoons. These latter consisted of a stout wooden rod, its haft fixed in a thick handle of 'ambatch' (*Herminiera Elaphroxylon*) which has the buoyancy of cork. The haft was tipped with a nine-inch iron point, barbed on both sides, detachable from the haft and attached to it by a long rope whose other end was connected with and wound around the 'ambatch' float. The whole weapon was about nine feet long.

A waning moon was not due to rise till nearly midnight, and we started at 9.30. The oarsman stood in the bows and propelled the boat backwards, *i.e.* stern first, with a paddle like a gondolier. The spearsman stood in the stern, *i.e.* in front. Almost as soon as the boat was under weigh the two hunters began their calling. Spearsman clapped his hands in a reverberating manner. Oarsman repeated a curious, bubbling bleat. Then both uttered a humming, chesty noise, with grunts; and finally oarsman, who throughout did most of the "noises off," gave vent to a throaty drawn-out roar. There were several answering grunts and roars from crocodiles further along the pool, and the oarsman swooshed his paddle noisily and heavily, like a beast plunging, finishing with a smart slap on the water.

The spearsman began shining his torch from side to side, and within a minute two pairs of eyes appeared on the surface and the oarsman manoeuvered in perfect silence towards them. The first pair of eyes disappeared; the crocodile had dived. The second remained, like luminous red coals, until as the boat slid forward the head and neck of a fair-sized crocodile showed ghastly white. He remained still, apparently fascinated. At the last moment the oarsman swung the boat gently to starboard while his companion, turning half left, plunged the harpoon from a range of 7 or 9 feet straight into the crocodile's neck. There was a swirl and a threshing and the beast disappeared, the float bobbing convulsively as it was towed about the pool. After following for a few moments and noting the spot the hunters left it and we proceeded further along the lake.

A number of failures followed. In most cases the crocodiles must have scented danger and sank. In several instances they remained until almost the last second, while at two of them the spearsman had a fair chance but seemed to us to wait a fraction too long, the quarry doing a crash-dive when only six feet from the stern, pursued by a hazard thrust. At least a second beast, a larger one, was truly spiked, and leaving him the hunters returned to look for the float of the first victim. The torch soon picked it up and it was collected. Then began



CAPTURED CROCODILE AND HARPOONS

the fun. The crocodile was drawn up, fighting, by main force to the surface, the harpoon being firmly fixed in the flesh of the neck. There followed a lashing of the great tail and plunging of the body as the captors hauled his head gradually up vertically from the water and leaning over the gunwale bound his snout with cord. It was an amazing process, and almost as amazing was the way in which the two men dragged the great bulk of a crocodile more than ten feet long right over the side and, belly uppermost, into the bottom of the boat, where his legs were pinioned and we sat with our feet on his chin. The other float was then sought and a second fight ensued; but this time the enemy, a heavy one, pulled loose from the harpoon and escaped, whether to live or die we could not tell.

In securing one of his later victims by the rope the harpooner's left thumb became caught in the beast's jaws; luckily the teeth did not meet through the flesh but clamped down so that they held the joint firmly and he could not withdraw it. He seemed in no way disturbed: his mate continued to hold the head perpendicularly out of the water while he inserted his other thumb into the beast's eye-socket and quietly worked it around under the eyeball. This ocular massage went calmly on for at least two minutes before the jaws gave a convulsive spasm, the Hausa withdrew his thumb apparently not even bruised, and proceeded again with the noosing of the snout.

The proceedings continued, the calling, clapping and bleating, the flashing of the torch on fiery eyes, and the attack. Once a cob, on the plain above the bank, uttered its reedy whistle of alarm, and the oarsman whistled back in perfect mimicry. Once as the boat slid under the boughs of overhanging trees there were squawks and flappings as roosting ibis flopped noisily out, while others showed up, black and white and picturesque on their perches. The craft was rather too big: the hunters (though not their audience) would have preferred a Dinka dug-out canoe, for the crocodiles usually saw the hull before the necessary point-blank range was attained, and sank. Several shots however were made and another crocodile of seven feet secured before a hump-backed moon rose at 11.30 and we made for home, our captures being hauled up alive, to be killed in the morning and sold to the local Dinka at a *ta'rifa* (1¼ d.) per pound. It seemed to be an accepted point that the crocodile must be thus kept, tethered to a tree and strangely dormant though occasionally grunting or attempting to make for the bank, until the morning hours when sufficient customers gathered to make it worth while dispatching him.

Next night a two-hour hunt provided similar sport,—several near-misses, a six-footer and a great twelve-footer in the boat (the latter a female with over seventy eggs in her), while a real sockdologer of maybe 14 feet was too cautious to await the harpoon.

No narcotic or poison is used on the spear. The attaching of the rope to the spike is attended by certain religious rites; and the hunters also swallow certain herbs, obtainable only in the West, which are claimed to make their vocal blandishments irresistible to the quarry. They attach importance to these roots or herbs, for one of them had applied for a pass the previous year to enter French Equatorial Africa and obtain a fresh supply; but they were naturally reluctant to disclose their identity. Apart from this there is no magic or wizardry; it is a question of experience and skill alone, the latter not infallible, for the marksman had many a miss.

The bubbling bleat the Hausa averred to be the noise made by young crocodiles, which stirs the motherly feelings of the big females—a theory open to doubt. They were certainly nearer the truth in saying that the chesty roars and swooshing were fighting noises which roused the responses of the male. What struck us most was, firstly, the perfect understanding between the two men. They spoke seldom, and never when going into action: the oarsman could bring up his principal for the strike without a whispered order. Secondly we were struck by the comparative ease with which a twelve-foot crocodile could be subdued. Whether the closing of the jaws can affect the whole muscular system is an anatomical puzzle I cannot answer, but the fact remains that once the snout was secured there was little resistance nor any violent activity with the tail.

Once, after the above episode, I went out again with the same practitioners, this time in the home pool at Wau where, when the river first begins to rise in May, there are always one or two big saurians on their migration upstream. On this occasion they spurned the iron dinghy and used their own dug-out canoe, a fairly stable craft as they go (which is not saying much). A large beast was located, dazzled and spiked at a range of four feet. This time it took half an hour to secure him and he "played" and towed the canoe up and down the pool. He did not use the tail for offence, but once his jaws came down on the gunwale with a crunch which seemed likely to penetrate even mahogany. He had to be beached and lassoed before he could be finally mastered, and proved to be nearly fourteen feet, the biggest one caught so far.



1



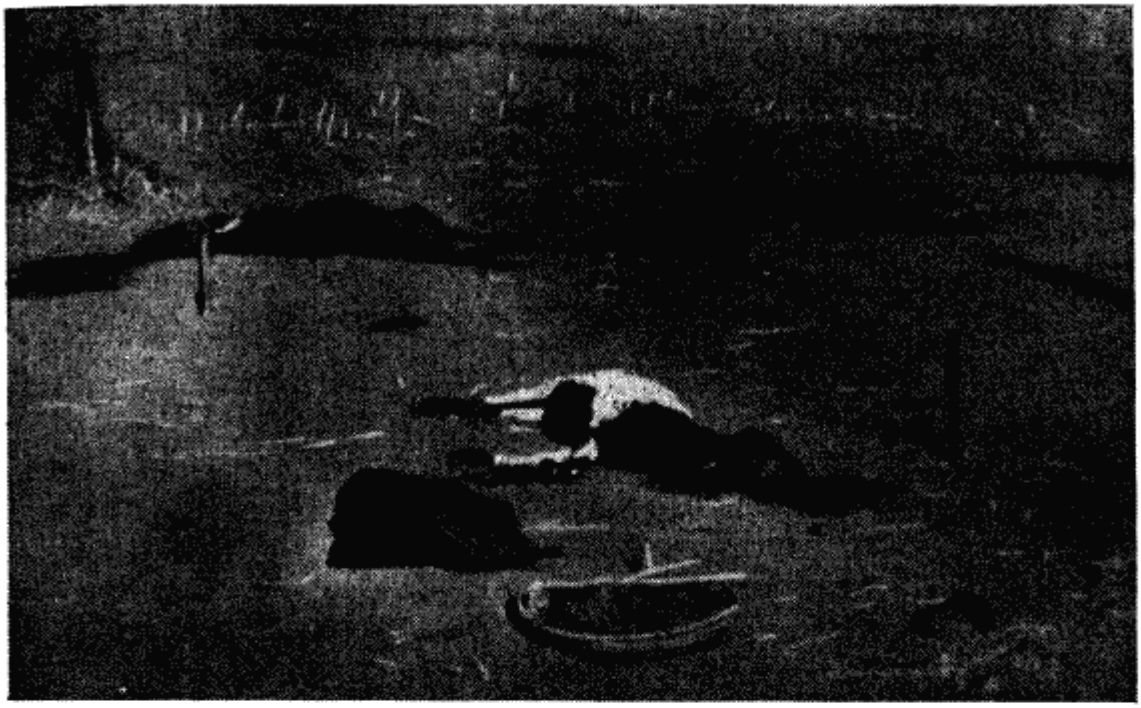
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A DINKA SACRIFICE

By N. Nunn,

Sudan Interior Mission.

THIS ceremony was carried out on 2nd April 1942 in a small village called Pakech near Banjang on the White Nile in the northern section of the Dinka tribe.

A child of about two years had died rather suddenly. When consulted about the matter a *tiet* (Dinka claiming to receive communications from the spirit-world) stated that Ayuel, the dead husband of the child's mother, was responsible for the tragedy. Though deceased for several years, this man would be regarded as the child's father. It was supposed that he felt aggrieved because his surviving relatives had neglected arranging sacrifices and beer-drinking parties in his honour. Furthermore, about the time of the child's death a son of Ayuel, aged about eighteen, had been taken seriously ill while visiting friends in a distant village. He, too, was told that his sickness was due to his family's neglect of Ayuel, who might cause his death if not speedily appeased.

1. The first photograph shows the bull-calf chosen for the sacrifice tethered outside the hut that used to be Ayuel's abode, and in the vicinity of which his spirit is still said to linger. The ram is to be sacrificed as well, though on behalf of the dead child.

2. The chiefs and elders from nearby villages lined up facing the hut with the bull and sheep immediately in front of them. They solemnly commenced to intercede with Ayuel for his living relatives, particular reference being made to Ajuer, the son who had recently been taken seriously ill, though now recovered, and Shan, the dead man's brother, who, in accordance with the usual custom had taken Ayuel's wife to raise up children on his behalf. Without any apparent pre-arrangement, about six of the men took it in turns to lead the praying. They addressed short ejaculatory statements and requests to Ayuel, emphasising their words with movements of their spears. The others repeated the leaders' words in chorus. Here are some of their prayers :—

" Ayuel ! you have taken the little child."

" He is with you now."

" You love him."

" Very well, that is alright." (as though acknowledging that the deceased had a perfect right to take the child's life).

" Do you see this cow ? " (motioning towards the bull-calf, which was frequently referred to as a cow).

" It is all for you."

" The blood is all yours."

" Leave Ajuer alone."

" Leave Shan alone."

" Be satisfied with your cow."

3. & 4. The calf was then slain by cutting its throat with a spear, very great care being taken to wipe all traces of blood from the weapon upon the animal's skin. When the man who had performed the act was moving away another man drew his attention to a little blood still remaining on the spear, and he returned to the sacrifice to wipe it a second time upon its skin, apparently a literal compliance with the statement. " The blood is all yours."

5. The sheep having been similarly slaughtered, the two carcasses were left to bleed dry upon the ground. The next step was to cut away the animals' foreskins and puncture their stomachs with a spear. Several of the old men then picked up a little of the bull's stomach contents as it oozed out, and threw small quantities of it on the ground around the entrance to the hut, on the outside walls of the hut and just inside the small entrance porch. Some of the same material from the ram was thrown on the bag and tray of trinkets, shown in the foreground of the picture. These belonged to the relatives of the dead child, and had been removed from their bodies in accordance with the mourning custom. The relatives were also instructed by the old men to take particular care to tread upon a little of the ram's stomach contents with their bare feet.

6. After this several young men skinned and dressed the carcases, while the older men sat down to drink a liberal supply of native beer and to make reverent and appreciative references to the deceased Ayuel. The ceremony closed with the cooking and eating of the meat of the sacrificed animals.

PROPERTY AND INHERITANCE AMONG THE BARI

By G. O. Whitehead,

Late Church Missionary Society.

GENERAL REMARKS.

BARI ideas of property are very different to our own; some of our difficulties in understanding Bari arrangements come from trying to fit their practices into our conceptions. There seem to be among the Bari three types of property :—

a) What is shared by all in common. The word for this seems to be *röki* or *surakat*. Canoes and drums though they have been made, and in a sense are owned, by a particular man, are yet common. So is the village grazing ground, the wood, and the fruit trees in it. These things are in fact what we call common property.

b) What is exclusively one's own. The word for this is *lomore, lomoriot*. Thus a man while he hoes separate gardens for his several wives, also has a garden of his own, on which no wife has a call, and this is called *melesen lomore*.

c) There is a third class of property which we should better understand as a right of use without the enjoyment of complete control. It is this limited right which a man possesses in the cattle he obtains when his children are married off. So many persons have an interest in the bride wealth, that the father of a family is little more than the steward who administers a trust. The distinction between *kisuk lomoriot* (cows that are one's own individual property) and *kisuk yemesi* (cows obtained in marriage negotiation) is probably always in the mind of the Bari.

THE DISTRIBUTION OF THE BRIDE PRICE.

The bride price may be regarded as a fund, which has to bear various calls upon it. These are paid off in a given order, and the remaining cows (*kisuk kolot*), await less immediate calls.

The first call to be satisfied is that of the mother of the bride, and her share of the marriage wealth appears to become her own individual property, over which she has full rights. She receives a cow and a cow calf, and sometimes sheep and goats, and all these are *lomoriot*.

The next call to be satisfied is that of the father of the bride, and he receives a cow and a bull calf. It is not certain whether this is his full personal property or not. It probably is.

The brothers and sisters of the bride's parents have next to be satisfied. A Fajelu speaking says: "My relatives, this child is being married. You are the *waso*; take these two of yours. *Mananye*, take these two cattle of yours." Then next he gives one to each of his brothers and declares that the rest are his.

It also seems clear that the eldest son of the bride's father, whether the bride is his full sister or not, gets one animal.

Yet at the conclusion of the disposal of the cows there should still be some unassigned cattle which will form the marriage wealth of the bride's own brothers. This remainder (*kisuk kölöt* or *kisuk ti teng*) may be viewed as brothers' bride wealth held in trust for them by their father. He cannot dispose of it as he likes. The Bari see the wealth brought to her family by a girl very clearly in this light. "When thou art born with a sister, the cattle of thy sister are thine; another also has a sister, the cattle of the sister are his; another also has a sister, the cattle of the sister are his." Perhaps it is this relationship which tends to set up a strong relation between brother and sister, which is afterwards perpetuated in the *mananye-ngörinyi* relationship.

The relationship may of course lead to abuse, as when brothers try to force their sister to marry an old and rich man, instead of a younger man of her own age.

THE COLLECTION OF THE BRIDE PRICE.

Not so much is known of the collection as of the distribution of the bride price. But it is clearly a family arrangement; the father calls his brothers to his assistance, ("Come, your son is going to marry, you are his *komonye*"). The son too appeals to his *longaserik*, brothers or paternal uncles, and between them they find the complement of cattle: "Let such a one drive up five cattle, let that one as well drive up his, and make ten, and that one as well drive up his, and it comes to fifteen." It is this dependence of the brothers upon each other that perhaps accounts for the rule that they must be married in order, the elder before the younger.

Contributions outside the clan come from the *mananye* and very likely from the *waso*. Further the lad may himself have acquired several animals with his own money.

Generally speaking those who had benefited by a previous distribution of cattle, must contribute to a collection of cattle.

INHERITANCE.

As property in cattle is with the exception of the *kisuk lomoriot* really nothing more than the administration of a family trust, the change brought about by the death of the father of the family are not so great as they would be if the Bari managed their property according to European ideas. Inheritance becomes only an aspect of the distribution of the family marriage wealth.

At the death of a head of a family his wealth in cattle consists of two kinds :—his *kisuk lomoriot* or private property in cows, and the *kisuk ti teng* or the cows of the herd which have been acquired by the various marriages his daughters have made.

All the cows are already, before the father's death, appropriated to various women of the household to whom and to whose children they yield their supply of milk. Thus there is already an economic division of the cows based on the needs of the family. There is good evidence for this. A man will support, for example, a mother-in-law who has no male relative, and say ; " Here are two cows, you may drink their milk and nourish yourself." He will loan other cows to his clients, or members of his *langet*, and they will take the milk, and in return help him in his work.

The important point is that under this system each wife is fitted out with a complement of cows for the support of herself and her children ; and she has as good a claim to possess a right in these cows as her husband.

When the father of the household dies the position seems to be this : the eldest son acquires :—

(*a*) The *kisuk lomoriot*, his father's private cows, unassigned as bride wealth and possibly also unassigned as food supply, cows in fact with no charge upon them. The eldest son " inherits the cows which the father seeks with his own power, the cows of his own hard work which are all his."

(*b*) The bride wealth of half sisters who have no brothers. " The girls who have no brothers are given to him ; he eats those cows of those girls, because their brother, of whom their mother is one and the same, does not exist."

He does *not* acquire :—

(*a*) The cows assigned to any of his father's wives who have families. " When other wives are left, and there are their offspring, and their cows also, then that head son is satisfied to see to them simply like a father."

(*b*) The bride wealth of half sisters if their brothers are about to

marry. But if the brothers are quite young, the eldest son seems to acquire them.

We can thus deduce from Bari practice a Bari conception of property which is not quite ours, but which if borne in mind gives a useful clue to inheritance customs. Property as well as mere titular ownership means the rights and advantages enjoyed from use. If we wish to find out the owner of property, we should ask: "Who does it belong to?"; a Bari would say: "Who uses it?" Now a man cannot enjoy the use of all his cattle or gardens, but his wives and their children can, so that for practical purposes we shall want to know what cattle and what gardens are assigned to which wives and children, and we shall then be able to trace the descent of this property.

To take an example: a man dies, the garden and complement of cattle which were his wife's during his lifetime are still his wife's. The wife's eldest son will work the garden, if he is himself unmarried and manage the cattle. The villagers may even call them his cattle, but they are in reality, and for purposes of use, his mother's.

If his mother dies in the lifetime of his father, then this eldest son inherits the garden set aside for his mother's use, it becomes his *melesen lomore*, that is his own private property with no charge assigned to it. The cows become his *kisuk matiat*, that is, he (and his brothers) drink the milk of those cows. If he is married, his wife steps into his mother's position both for the garden and for the cows, while the younger sons are compensated with a cow each out of their mother's complement. This shows how little a head of a household can call the family property his own, when he can see the goods which he allocated to his wives pass out of his control to his sons and their wives during his lifetime.

Among Nigerian tribes, a sister's son will sometimes inherit a man's property, only leaving to the man's own sons what the Bari would call things that are *lomoriot*, i.e. personal property such as spears, etc. There seems to be no trace of this type of inheritance among the Bari, but the *ngörinyi* certainly has a privileged position, and possibly once had a call on the use of cattle. The following story suggests something of the sort;—

"Logworong (uncle to Lotole) went away to the place of cows. And he found cows and he drove them home, and he became with cows. And when Letole heard the cows lowing he said: Janja (his mother), we will go to your brother over there, and we will drink milk. Come let us kill these cows of ours utterly. Then we will go to your brother over there. The mother said: Good. And they utterly destroyed those cows. And the mother pounded the dried meat, (and put it)

in the *gugus*, and that person (*i.e.* Lotole) went and said: Mananye, we have come with your sister. I myself will herd the cows. And Logworon said: Good. And Logworon gave Lotole a cow which was fierce, and Lotole went to herd the cattle, and when Lotole had come from herding the cattle, he said he would milk the cow, and the cow overturned the milk, and Lotole said: "Ah! Janja, really you don't hold the calf (*tagwok*) well? And Lotole struck his mother sharply with the halter."

Lotole bit by bit destroys the whole of his uncle's cattle, killing and eating them, while he persuades Logworon that they have been eaten by crocodiles. At last Logworong suspects the truth, but takes no measures against his nephew and goes sadly away.

PHILOSOPHICAL SOCIETY OF THE SUDAN.

REPORT UPON THE 1948/9 SESSION.

1.—OFFICERS.

The following officers and committee were elected at the Third Annual General Meeting held on 11th January 1949 :—

Officers:

President	G. W. Ogden
Vice-President	R. C. Wakefield
Secretaries	A. W. Ireland L. S. Cobley
Treasurer	G. C. Wood

Committee:

G. Andrew	J. T. R. Evans
Dr. M. A. Haseeb	R. L. Knight
P. L. Shinnie	J. W. Wright

2.—PROGRAMME :

The programme comprised seven lectures and three field days :—

21st Meeting	Speaker :	J. W. Wright.
26th October, 1948	Subject :	*Modern Developments in Air Survey with particular reference to the Sudan.*
22nd Meeting	Speaker :	Miss S. Zenkowsky.
23rd November, 1948	Subject :	*Zàr & Tambura as practised by women in Omdurman.*
23rd Meeting	Speaker :	J. Smith.
28th December, 1948	Subject :	*Gravity.*
5th Field Day		The Sudan Survey Department.
12th January, 1949		
24th Meeting	Speaker :	J. B. Hutchinson.
25th January, 1949	Subject :	*Notes on the dissemination of Cotton in Africa*
6th Field Day		The Gezira Research Farm.
3/4th February, 1949		
7th Field Day		The Khartoum Water Works.
17th February, 1949		
25th Meeting	Speaker :	O. H. Myers.
22nd February, 1949	Subject :	*The Gordon Memorial College excavations at Abka.*
26th Meeting	Speaker :	R. A. Hodgkin.
29th March, 1949	Subject :	*A Theory of Dreams.*
27th Meeting	Speaker :	G. Andrew.
26th April, 1949	Subject :	*Water Supply in the Sudan.*

3.—HONORARY MEMBERS.

The following were elected Honorary Members of the Society in recognition of their services to the Sudan in general and to the Society in particular :—

A. J. Arkell, Esq.	Dr. E. S. Horgan
G. W. Grabham, Esq.	Dr. J. D. Tothill

BOOK REVIEWS.

ISLAM IN THE SUDAN. By J. Spencer Trimingham. *Oxford University Press.* 1949. 21/-

Canon Trimingham, who has already given us a scholarly grammar of Sudan Arabic, is well qualified for the task he has undertaken. He has read the basic Arabic texts and the writings of western scholars in the field of Islamic studies; he has, moreover, made good use of the work of his predecessors who have recorded many aspects of Sudanese life in the pages of this journal and elsewhere, and it would not be unfair to describe his book as the synthesis of fifty years of study to which government servants and professional scholars have made such notable contributions. This is not to say that the book is a mere compilation since it shows everywhere evidence of first-hand knowledge of the northern Sudan, and it contains a good deal of material which has not been recorded before. The "general reader" may find *Islam in the Sudan* somewhat overloaded with erudition but serious students will appreciate the full documentation, and the care which has been taken to achieve precision and accuracy of statement.

The chapters on "The Land and the People" and "Historical Outline" (which between them occupy more than a third of the space) give a judicious summary of the ethnological and historical back-ground.

Islam, like other religions, has within its essential unity of doctrine and ritual permitted the growth of local forms which bear the imprint of the earlier cultures which it displaced. What then are the essential characteristics of Sudanese Islam, and how do the beliefs and practices of Sudanese Muslims differ from those of other countries? Canon Trimingham, after a brief account of the part which "orthodox Islam" plays in the life of its Sudanese adherents, gives a full description of the popular elements which to him, as to many observers, appear to be distinctive and characteristic of the country. As a record of facts the chapters devoted to the cult of saints, Mahdism, social customs, and superstitions associated with religion are admirable, and the account of the Religious Orders is as full and accurate as can be desired.

It would have been worth while to examine more fully the relations between the popular Islam of the Sudan and the corresponding beliefs

and practices of other countries. "The Sudanese," Canon Trimingham writes, "moulded Islam to their own mentality, they brought their own festivals into it, and they paganized it a good deal." The Islam that developed, it is contended, was strongly imbued with African tendencies and its characteristic elements were emotionalism and superstition. This formulation, it would appear, overstresses the Sudanese contribution to the religious and social pattern, and it obscures the fact that the basic elements were received ready-made as part of the new dispensation. Neither the cult of the saints nor the religious orders grew up on the soil of the Sudan, though they naturally acquired a local colour from the social environment, and many of the superstitions listed by Canon Trimingham are the common property of the Muslim masses everywhere. There is syncretism of Muslim and pagan rites in the debatable land on the frontiers of Islam and paganism in Darfur and elsewhere but, in so far as the Islamic core is concerned, it is generally true that every trend of Sudanese Islam and every extravagance of its hagiology and its superstition has its origin and its parallel in the popular religion of other Muslim countries. What is characteristic of the Sudan is the luxuriant growth of such elements, a fact accounted for by the absence of that cultural background which in more favoured surroundings kept superstition and popular fancy within certain bounds. Though the later middle age was a time of intellectual stagnation throughout the Muslim world, the tradition of learning, and rationalism survived in the schools, and its representatives were able to restrain the spurious growths of superstition and pseudo-mysticism with some measure of success. The Sudan was cut off from the centres of learning and culture, and the pathetic attempts of some earnest men to transplant the scholastic tradition to the barren soil of their country were not very successful. From the little we know of Christian Nubia we may justly infer that its isolation from Rome and Byzance was no less complete than the isolation of the Fung Kingdom from the intellectual centres of Islam.

When Canon Trimingham strays from the sober and scholarly recording of facts into the field of criticism, he adopts a censorious attitude towards Islam which will not commend itself to all his readers. His strictures fall on all classes of the community. "It is the religio-social environment," he writes, "which blunts the personality of the young vital Sudani who is surrounded by crass ignorance, superstition, and religious bankruptcy. If he were freed from his religious inheritance, his intellectual, imaginative and aesthetic development would be easy." ..... "The religion of the masses, with all its redeeming features, yet stands largely

for the things that obstruct rather than for forces which promote life." The " conservative Muslims " of the middle class fare no better : they " prove their orthodoxy by turning away from all modernistic ideas, finding satisfaction in the mechanical formulae of scholastic theology." They are tainted, moreover, with hypocrisy, for those who perform the ritual prayers either " belong to the teaching class, or they are merchants who find a reputation for piety good for business." The *effendiya*, that is to say the more or less westernised group, are castigated for moral instability which " arises from the fact that his (the *effendi's*) early religious training did not teach him that religion has anything to do with the ethics of every day life."

These and similar passages, based as they are on an implied or expressed contrast between Sudanese society and the civilization of western Christendom (or should I say " the English way of life " ?), betray a lack of historical perspective.

An historical approach would have tried to evaluate Sudanese Islam in its relation to the religion of societies on a comparable level of intellectual development. Gibbon, it will be remembered, contrasting the civilization of the Roman Empire with the dark ages that followed, said that in the *Decline and Fall* he had described " the triumph of barbarism and religion." His paradox reminds us that the profession of Christianity was not incompatible with the barbarism of the dark ages, just as to-day it is not incompatible with a relatively backward state of civilization. Islamic society also has known the ebb and flow of progress and retrogression, of vigorous intellectual life and periods of stagnation. In the matter of superstitious credulity there is little to choose between the lives of medieval saints and the *Tabaqat* of Walad Dayfallah : on the other hand it would not have occurred to St. Thomas Aquinas to think of Al Ghazzali as his intellectual inferior. Whence we may conclude that society interprets and practises its religion in a way which is appropriate to its cultural climate, and that the state of religion in the Sudan is a symptom of the country's backwardness rather than its cause.

In analyzing the effect of "westernism" on the Sudan Canon Trimingham is severaly critical of a system of education which, in his opinion, neglects ethical values and " leaves the spirits hungry." His censure of the *effendiya* follow the conventional lines ; the effect of their training is disruptive rather than integrative ; they are taught how to do clerical or technical work but not to live ; the training they receive does not lead to integrity of character or the development of a spirit of service, and they cannot learn responsibility ; they value

education only as a means to obtain government posts; and finally they are intellectual cowards because they dare not free themselves from the inhibitions and repressions of their environment.

A more sympathetic observer might have been less blind to the credit side of the account, and he might have recognised both achievement and promise in many of the men now prominent in the intellectual life, the administration, and the politics of the Sudan. Canon Trimingham's opinion, moreover, is at variance with the policy of prudent and experienced administrators in entrusting great responsibilities to the educated Sudanese. The discussion of the many problems presented by westernization is not materially advanced by a superficial analysis confined to the Sudan. These problems are world-wide since in different measures they affect all Asia and a large part of Africa, and an approach to their solution can only be attempted by the hard way of trial and error. While there is room for endless varieties of opinion it may be regarded as certain that new culture-patterns cannot be imposed from without, and in the long run the native elites will decide, which elements of western civilization their peoples will accept, and which they will reject. Whether the result will benefit either the peoples concerned or mankind at large, is another question.

The value of Canon Trimingham's book as a scholarly record and as a repository of facts is not unduly impaired by the onesidedness of his judgments. Everyone interested in the Sudan will read it with profit and, since a new edition may some day become necessary, it seems worth while to mention a few small slips which call for correction :—

p. 56 : for " gifts of elephants " read " gifts or ivory."

p. 106 (note) : the fall of the ' Abbasid Caliphate is usually dated in A.D. 1258.

p. 150 : it is incorrect to describe Muhammad b. Tumart as " the Shi'a Mahdi," and his doctrine as Isma'ilism. Ibn Tumart's teaching was basically Ash'arite, though here and there influenced by Shi'a ideas.

p. 155 : for *jism* (area) and *muttahidin* (contractors or tax-farmers) read *qism* and *muta'ahhidin*.

p. 240 : Shaykh Madi Abul-Azaim also wrote treatises entitled *Ma'arij al Muqarribin* and *Mudhakkirat al Murshidin w'al Mustarshidin* (the latter printed on the margin of the former, Cairo A.H. 1331).

S. HILLELSON.

THE OLD STONE AGE IN THE ANGLO-EGYPTIAN SUDAN by A. J. Arkell, M.B.E., M.C., B. Litt., F.S.A. Sudan Antiquities Service, Occasional Paper No. 1, 1949, pp. 52 (figs.), 250.m/ms.

The serious study of palaeolithic archaeology in the Sudan begins as late as 1933, when the work of W. J. Arkell and K. S. Sandford was published by the Institute of Oriental Studies of the University of Chicago. This work, carried out in the winter season of 1928/29 in the Nile valley upstream of Cairo, reached the Second Cataract, and demonstrated the former existence of palaeolithic man as far as the survey reached. At a later date in 1932 Sandford identified " middle palaeolithic " implements found near Atbara and at Abidiya, and " older Sebilian " implements in the reaches near the Fourth Cataract. This remained unpublished until 1949 (Geol. Mag. Vol. 86, No. 2, pp. 97-109). In the meantime Wayland recorded flakes of early type at Sarsareib on the Atbara in 1943.

Mr. A. J. Arkell, as first Commissioner for Archaeology and Anthropology, had therefore a virgin field in most of the Sudan with little or no indication as to where to start in such an area, but with the stimulus of an abundant field of palaeolithic records on either side of the Sudan, in Kenya—Uganda and in Egypt.

The record shown by this first publication, on the palaeolithic Sudan as a whole, is impressive, especially as it is the result of work done as a side-line to exacting war-time duties during a period of restricted mobility. Mr. Arkell's publication is a model of clarity, and also an example of what can be done by enthusiasm and persistence in spite of difficulties. For the first time a clear picture is given of the distribution of older palaeolithic man—the Chelles-Acheulean " culture "—along two of the present main rivers, the Atbara and the main Nile, extending up the White Nile a little south of the Jebel Aulia dam. The publication includes also a summary of " mesolithic " and neolithic prehistory, to the study of which Mr. Arkell has himself made recent noteworthy contributions.

The main basis of palaeolithic studies in the Sudan for the present will be the Khor Abu Anga, fortunately easy of access from Khartoum, but the very meagre thickness of the deposits which covers cultures beginning with the Chelles type and includes artifacts identified as extending into late Acheulian and Tumbian suggests that we still should hope to find a site where the various stages are more widely separated vertically, by thicker sediments, so that further progress can be made in the study of the evolutionary series.

A blank patch, revealed by the distribution-map, is that no implements have so far been found in the terrace-like deposits of the Red Sea coastal area, and the valley-traces of the drainage from the Red Sea hills are also devoid of records. If absence of implements can be proved eventually by further diligent search in these areas, another significant feature of the distribution, already hinted at in the publication under review, will have been demonstrated: palaeolithic man did not wander far from water and the drinking-places of the game on which he lived, and the aridity of the area during much of the palaeolithic period will have an additional proof.

As well as being the first comprehensive précis, of great value to the specialist, this publication is designed and illustrated in such a manner as to encourage and instruct the interested amateur, and should provide the starting-point of fresh records being obtained over the whole country. The illustrations are clear and sufficiently abundant to enable even those unfamiliar with stone-age artifacts to derive interest from keeping an eye open. A short section might well have been included on " tricks of the trade " which Mr. Arkell himself discovered or learned—such as choosing a time to search when the sun is low, so that the outlines of pebbles and artifacts on the ground show up best; looking at all rubbly gravels in or near stream courses and the river, and in *wadi* beds; examining banks of *wadis* where cut into small greyish-white cliffs; and the like. It is to be hoped that the Museum may be able to issue such hints to those casually interested and to the traveller.

With a publication of such importance and value it may seem invidious to offer cricicism. However, it is surprising to find that the rules for transliteration are not invariably followed. especially in a publication of this character. On the map, Goz Regeb instead of Qoz Regeb,[1] Lagiya instead of Laqiya (also in the text, p. 37) and (p. 37) Wadi el Ga'ab instead of Wadi el Qa'ab, have been noticed.

There is still much uncertainty in the interpretation of what is known on the variation of climate during the Pleistocene in the Sudan. In the past there has been a tendency to extrapolate current hypotheses founded on observations in Egypt and the north African coast on the one hand, and in Kenya-Uganda on the other. The Sudan occupies a critical position between these two areas, and it is essential that variations in climate should as far as possible be worked out independently

[1] Qoz Regeb is accepted by convention in the same way as Khartoum (which should ‹El Khartoum).—*Ed.*

—not only in the country as a whole, but zone by zone from south to north, to supply a valuable if not essential check on correlation by means of typology and on the routes of possible migration. Lack of data from the countries east of the Sudan is a further handicap, to be either circumvented or eliminated by work in those countries. Not only do we now need records of the presence or absence or artifacts in Ethiopia and Eritrea, but also knowledge of the development of the drainage, as far as possible dated with reference to both artifacts and to climatic variations.

In the section on the development of the Blue Nile (p. 48 seqq.) the argument that the Blue Nile, the Rahad and the Dinder are all post-Acheulean seems unconvincing. Even if the drainage from the Tana region escaped in Acheulean times via the Atbara, there would still be the runoff from the present headwaters of the Dinder and Rahad which, together with the Didessa and its tributaries from the part of the Abbai for some 50 km. upstream of the Didessa-Abbai confluence, would give rise to a "Blue Nile" of considerable volume during the rains, but without the regulator-effect and additional flow from Lake Tana, this "Blue Nile" might conceivably be reduced to a series of pools without flow in the dry season, like the present Atbara. The diversion of the drainage, from what is now the Lake Tana basin, from being the head of the Atbara to being the head of the Blue Nile could have been due to damming by lavas, as suggested by Nilsson, as easily as by earth movements. Too little is known about this area, apart from Nilsson's studies of the pre-Tana Lake Yaya, which itself would have provided a regulator effect as long as it existed, to allow more than a very free speculation on this part of the Blue Nile system, but it seems reasonably probable that the Blue Nile valley near Roseires is a part of the original drainage system inaugurated by the mid-Tertiary elevation of the eastern margin of this part of Africa (post-Cretaceous and pre-Miocene).

Apart from variation in rainfall on the Ethiopian highlands, any interpretation of the past régime of the Blue Nile and Atbara must take into consideration the effect of Nilsson's Lake Yaya, regarded as of Kafuan Pluvial age, and drained in the pre-Kamasian interpluvial, and also the later inauguration of L. Tana, considered by Nilsson to belong to the last Pluvial or Gamblian.

If one assumes constant rainfall, the effect of these lakes as "regulators" of flow of rivers draining from them to the Sudan should be to reduce the level of high flood and to maintain flow in the dry season. The absence of any lake in the river system, on the other hand would result in relatively higher floods and reduced flow in the dry

season. There may have been similar interferences in the Didessa valley, still undiscovered. Variation in rainfall on the highland would of course exaggerate effects or modify them.

The Sudan Antiquities is to be congratulated on this first publication of a nature more ambitious than the customary "Annual Report" of the Museum, in which records of work done and results achieved do appear, but in a disjointed manner which renders them likely to be overlooked by those outside the Sudan, and by those whose own work is not on Archaeology but on a parallel subject which can use the results of Archaeology as a stimulus and as a check on interpretation and hypothesis.

G. ANDREW.

SURVEY OF LAND RESOURCES IN TRIPOLITANIA by Capt. J. W. Rowland, Staff. Sgt. W. R. Wright, Corpl. L. Vassallo and S. Castaldo, pp. 156 + land-use map (2 sheets). Dept. of Agriculture Tripolitania, 1945.

This survey of a coastal desert area includes a chapter on the history of the region (pp. 61-74) so essential to the appreciation of what has happened to the area and why it has reached its present condition. A chapter on livestock surveys the present and makes recommendations for the future, with useful comparisons between the territory and Australia, S. Africa, America and Tunisia.

The water resources are treated exhaustively, as the subject demands, in a well illustrated chapter of 15 pages.

Education and research are noted (pp. 147-8) and an interesting "Arab report" is also included (pp. 151-5) submitted by Mustapha Serrag, former sub-editor of the Arab daily in Tripoli *Tarabulus al Gharb*.

The remainder of the volume surveys land-use, future development and the formation of a long-term agricultural policy, with special chapters on the olive (pp. 117-126) on cereals, fruits and other crops (pp. 127-138) and on afforestation (pp. 139-144).

THE GEOLOGY OF THE BRITISH EMPIRE (Second Edition) by F. R. C. Reed. Arnold & Co. 1949. 70/- net.

This valuable reference-work includes chapters on Palestine and on the Anglo-Egyptian Sudan, as well as on British Territories. The

description of the Anglo-Egyptian Sudan (pp. 26-33) is based on work published up to 1939.

It may be useful to place on record some corrections which can be made now as a result of checking certain statements which have appeared in the past.

The reference to " schistose serpentinous rocks " of the Sabaloka area (p. 27) quoted from Hume's " Geology of Egypt " (1934 p. 212) seems to be erroneous. Hume's remark may refer to serpentinous-crumpled or convoluted banding in some rocks ; serpentine rocks have not been found during recent surveys in that area.

The record of volcanic rocks of Tertiary age (p. 28) from Gule southwards to Keili is incorrect. Keili may be identified as the place lying at 10°51 N., 34° 19 E. The nearest Tertiary lavas in the area lie south of 9° 35 N. mainly across the Ethiopian frontier. There is no lava in the clay plain except J. Ahmed Agha. This record appears in Krenkel's " Geologie Afrikas " and was probably derived from prospectors' reports (London and Sudan Development Syndicate, 1901-1905 ; see Dunn, Bull. 1 of Geological Survey of Anglo-Egyptian Sudan, 1911, pp. 52-55).

So far as is known, no Tertiary volcanic rocks occur in Kordofan, the lavas of J. Katul and Haraza being allocated to a pre-Mesozoic age.

G. ANDREW.

CORONA : The Journal of His Majesty's Colonial Service Vol. I, No. 7, August 1949. H.M. Stationery Office, London. 1/- per month.

Communism in Africa, public security and social science in Malaya, Trade Unions in the Colonies, colonial news from England, service notes and news—these are but a few examples of the variety of fare to be found in this number of a most interesting Journal. It is the junior member of a veritable family of publications which comprises not only improved Reports on colonial territories but also the important (though severely technical) Journal of African Administration. Just as the " Devonshire " scheme has revolutionised the training of British officials serving in the colonies and prolonged it to cover a large period of their service, so do these publications set out to provide reading material for the public and for the official to stimulate and instruct the new spirit in Britain's Colonial Empire.

Corona must obviously stand or fall by the interest and liveliness of its contributions and its editing. It provides a wide variety of interesting

reading in non-technical language and some good photographs. It can be warmly recommended to all those who wish to take an interest in the affairs of the widespread territories, so many of whose problems find parallels in the Sudan. One's only regret is that the Sudan cannot support any comparable publication.

T. H. B. MYNORS.

THE PRACTICE OF SOIL CONSERVATION IN THE BRITISH COLONIAL EMPIRE. By Sir H. A. Tempany. Commonwealth Bureau of Soil Science. Techn. Comm. No. 45 pp. 87+Pls. 18. 1949. 10/-

This publication follows a review (*Emp. J. Expt. Agric.* 12, pp. 121-153) of the subject by the same author, G. M. Roddan and L. Lord, published in 1949.

A clear statement of the factors affecting the incidence of erosion is given, followed by detailed description of anti-erosion methods: protective earth structures; cultural methods in cultivation; protective measures by planting and forestry; various agricultural systems including pasture management, control of burning, provision of water for livestock, rotational systems and mixed farming; and finally administrative provision for the application of conservation.

The methods and experiences of Colonial Dependencies are quoted in full, with a critical commentary and much constructional detail.

The introduction of mesquite (*Prosopis sp.*) near Khartoum is mentioned (quoted from Dr. Keen's *Agricultural Development in the Middle East*, 1946) but otherwise the Sudan does not figure in the volume. Much of the matter of the volume might well figure in the Sudan.

The clearness and soberness of presentation is noteworthy and the book should be in the hands of all administrative and agricultural officials.

G. ANDREW.

THE DIVINE KINGSHIP OF THE SHILLUK OF THE NILOTIC SUDAN. By E. E. Evans-Pritchard, Cambridge Univ. Press, 1948. 1/6 d.

Unfortunately a review of this work was omitted at the time of publication. It is the Frazer Lecture for 1948 and in it Professor

Evans-Pritchard, desparting from the Frazerian interpretation of divine kingship, seeks to stress the interrelation of political structure and religious cult in the light of the fresh material recently published in this Journal.

THE CHRISTIAN CHURCH IN POST-WAR SUDAN. By J. S. Trimingham. London, World Dominion Press, 1949. 1/6 d.

This is No. 4 in a " Post-war Survey Series " of studies in the position of the Christian religion in various parts of the world. It is to be recommended as a realistic presentation of a growing problem.

Mr. Trimingham gives a short factual study of the post-war political and social changes occurring in the Sudan, especially the South. He then describes recent developments in the field of the Protestant Christian missions and finally outlines the " Church's Unfinished Task."

The history of the Middle East does not encourage great hopes of that religious tolerance which is the mark of a far more stable and homogeneous society. Yet Mr. Trimingham hopes that the Christian church, based on increasingly selfsupporting Christian communities in the South, may be able to maintain themselves throughout the Sudan of the future and to form nuclei for spontaneous expansion. There can be no doubt that spiritual and moral values are largely absent from the present material progress of the country, and any enrichment by contributions from a Christian section of the community should be welcome, if that community can be integrated in the whole. The importance of the whole problem far transcends the summary treatment possible in this short pamphlet.

T. H. B. Mynors.

CORRESPONDENCE.

Editor, *Sudan Notes and Records.*

Dear Sir,

The following specimens of grasses and other plants were collected by me in Nuerland, mostly in the vicinity of Abwong on the Sobat River in September 1935, and were identified at the Royal Botanic Gardens, Kew. Unfortunately the Nuer names were lost ; but you may care to have the identifications.

Rottboellia exaltata L.f.
Sorghum dimidiatum Stapf ?
Sporobolus pyramidalis Beauv.
Setaria Lynesii Stapf & Hubbard
Eriochloa nubica Hack. & Stapf.
Oryza Barthii A. Cheval.
Setaria pallide-fusca Stapf & Hubbard.
Brachiaria obtusiflora Stapf.
Echinochloa pyramidalis Hitche. & Chase.
Dinebra retroflexa Panzer.
Cynodon Dactylon Pers.
Sorghum lanceolatum Stapf.
Setaria verticillata Beauv.
Pennisetum ramosum Schweinf.
Ischaemum brachyatherum Fenzl.
Ophiuros papillosus Hochst.
Andropogon Gayanus Kunth.
Vetiveria nigritana Stapf.
Cymbopogon giganteus Chiov.
Urochloa sp.
Eragrostis cilianensis Lutati.
Digitaria marginata Link var. fimbriata Stapf.
Amaranthus Blitum L.
Gynandropsis gynandra (L.) Briq. (G. pentaphylla DC.).
Clitoria Ternatea L.
Crotalaria spinosa Hochst. ex Benth.
Chrysanthellum procumbens Pers.
Crotalaria polysperma Kotschy.
Justicia matammensis (Schweinf.) Oliv.
Emilia sagittata DC.
Asteracantha longifolia Nees.
Trianthema pentrandra L.
Vigna sinensis Endl. forma.
Abutilon graveolens (D.C.) Wight & Arn.
Tribulus sp.
Ipomoea reptans Poir.
Striga hermonthica Benth.
Solanum aethiopicum L. ?
Bauhinia Thonningii Schumach.
Coleus sp.
Cyperus rotundus L.
Hibiscus vitifolius L.
Digera alternifolia (L.) Aschers.
Strigs gesnerioides Vatke.
Justicia flava Vahl.
Caperonia palustris St. Hil.
Melothria sp.
Cassia Tora L.
Tragia cannabina var. Brouniana Prain.
Boerhaavia repens L.
Indigofera subulata Vahl.
Euphorbia inaequilatera Sond
Leersia hexandra Sw.
Echinochloa sp. aff. E. haploclada Stapf.
Hyparrhenia rufa (Nees) Stapf.
Aristida hordeacea Kunth.
Achyranthes aspera L.
Crotalaria Petitiana (A. Rich.) Jackson.
Celosia argentea L.
Sphenoclea zeylanica Gaertn.
Boerhaavia diffusa L.
Hibiscus ficulneus L.
Rhynchosia minima D.C.
Merremia emarginata Hall.f.
Sonchus cornutus Hochst.
Cissus quadrangularis L.

Scleria foliosa A. Rich.
Borreria Kotschyana K. Schum.
Leonotis pallida Benth.
Tephrosia uniflora Pers. forma ?
Commelina sp.
Lactuca taraxacifolia Schum & Thonn. ?
Caperonia serrata Presl.
Portulaca quadrifida L.
Ocimum americanum L.
Teramnus sp.
Erlangea cordifolia (Benth. ex Oliv.) S. Moore.
Sesbania sp.
Glycine Borianii Bak.
Thunbergia annua Hochst. var. Ruspolii Burkill.
Hibiscus surrattensis L.
Solanum xanthocarpum Schrad.
Trapa bispinosa Roxb.
Caldesia reniformis (D. Don.) Makino
Nicotiana Tabacum L.
Zizyphus spina-Christi Lam.
Cucumis pustulatus Hook.f.
Indigofera parviflora Heyne ex Wight & Arn.
Coreopsis Borianiana Sch. Bip. ex Schweinf.
Ipomaea aquatica Forsk.
Centrostachys aquatica (R.Br.) Wall.
Ethulia conyzoides L.
Euphorbia hynericifolia L.
Nicotiana rustica L.
Aristolochia bracteata Retz.
Hibiscus cannabinus L.
Crotalaria intermedia Kotschy var. abyssinica Thub.
Dicliptera sp.

Yours Sincerely,
E. E. Evans-Pritchard.

All Souls College,
Oxford.
5th December 1949.

Editor, *Sudan Notes and Records*,

Dear Sir

A few years ago there was correspondence in *Sudan Notes and Records* about the origin of the name Mongalla. Wau is much older than Mongalla, dating at least from Lupton's day and 1880, and I have come across a number of explanations of the name which I give below. Perhaps some readers may be able to indicate which is the true one or to make alternative suggestions.

1.—Corruptive Theory. The name is a corruption of a local Bongo word "*jyow*" meaning a *suk* or urban centre.

2.—Philological Theory. The slave-raiders who permeated the South, having no maps and being unable to cope with the tongue-twisting local names, hit upon the expedient of describing the principal centres by letters of the Arabic alphabet. All have now fallen into desuetude save two only—YEI and WAU.

3.—Historical Theory. When the Ansar were raiding in this area they had a *zariba* near the present site of the town. The Dinka staged a night attack on them, defeating them with great slaughter and dispersing them. It was a pitch dark night, on which it would be impossible to distinguish friend from foe. The Dinka therefore agreed to rush to the conflict shouting a distinctive battle-cry, which was "WOW, WOW, WOW!" The battle-cry which accompanied the victory has stuck to the site.

4.—Botanical Theory. A tree which has spread out and then regrown from the top (rather like a pollard willow) is said in Dinka to have "Wau'd" (*tim ci wau*). A number of ficus trees of this kind grow on the west bank nearly opposite Nyinakok and that stretch of the river was known and is still known as Wau. This was the original seat of Government in Turkish times and the present capital was called War Cok (foot of the river). When Government moved to the new site the name of Wau was carried with it.

5.—Anthropological Theory. Wau lies on the edge of the Jur ironstone country, an area which produces a considerable amount of honey. The word "Wau" is a Beja word, signifying "honey" in the Hadendowa tongue. But what is even more convincing evidence is that the majority of Jur names begin with 'O' or 'U,' as U'cwir, U'shallah (itself manifestly of Muslim origin), U'dici. This provides a striking similarity with the Hadendowa names which begin with 'O' or 'U' which is the Beja form of the definite article, as U'haj, O'sham, O'nur (names which also suggest Celtic or Erse origins). Add to this the Hadendowa tradition of a Southern origin, and the Jur coiffure of ringlets which, if only they were to turn up instead of down, would form an exact replica of the Beja *tiffa*. From the above evidence the trained anthropologist will easily conclude that the Hadendowa and the Jur are of common origin and that the former, before their migration to the inhospitable Red Sea Hills, made Wau their headquarters for the honey-hunting which formed so important a feature of their livelihood.

6.—Plain Theory. It is simply a Dinka name.

T. R. H. Owen.

WAU,
December 20th, 1949.

Editor, *Sudan Notes and Records*,

Dear Sir,

Since translating *An Unpublished Itinerary to Kordofan*, 1824-1825[1] I have learned that the original document was presented by Professor A. W. Lawrence, Professor of Classical Archaeology at Cambridge, to Professor E. E. Evans-Pritchard from whom it came into the possession of the Sudan Government Commissioner for Archaeology and Anthropology. Mention of this should have been made with the translation.

Yours faithfully,

RICHARD HILL.

Department of Oriental Studies,
University of Durham, DURHAM.
13th November 1949.

[1] See Vol. XXVIII.—*Ed.*

LIST OF BOOKS AND ARTICLES RELEVANT TO THE SUDAN.

The following bibliography includes all known publications about the Sudan itself, or those noted for their value for comparative study. It covers the period roughly 1948-1949, following two lists published in Volumes XXIX and XXX. Readers are asked to notify the Editor, *Sudan Notes and Records*, of any omissions or errors, particularly Government publications, which are very hard to trace. Books etc. reviewed are omitted here. The Editor's thanks are due to many officials who have supplied information.

A. HISTORY, LINGUISTICS, SOCIOLOGY.

ADDISON, F.: Jebel Moya. (The Wellcombe Excavations in the Sudan). Vols. I & II Oxford U.P. 1949. 126/-

AKRAWI MATTA: Education and Cultural Changes in the Arab World, Washington, D.C., 744 Jackson Place, N.W., 1949.
Summarizes the problems and trends in education and culture in six Arab states during 1945-46 against the background of political, social and economic life in the Near East. Describes the various movements instituted to overcome illiteracy and notes the percentage in school of school-age population, namely 72.7% in Lebanon, 51.6% in Palestine (Arab), 47.4% in Egypt, 39.4% in Syria, 28% in Transjordan, and 20% in Iraq. (Accuracy of figures can, of course, be contested).

AMER, ABD EL LATI: Agricultural and co-operative credit in Egypt. L'Egypte Contemporaine (Cairo) 39, Mar. 1948.

ANONYMOUS: The Sudan's first Parliament at work. Afr. World Ann. 1949.

—— : Local Government for the Sudan. Afr. World, Nov. 1949.

ARKELL, A. J.: Discovery of neolithic polished bone axeheads in Africa. Nature, Vol. 164, No. 4170, 1949.

AZAM, P.: Les limites de l'Islam Africain. Afr. et Asie (Paris), 1943.

BATE, D. M. A.: A new African fossil long-horned Buffalo. (*Homoiceras Singae* gen. et sp. nov.). Ann. Mag. Nat. Hist. Vol. 2, No. 17, 1949.

BROCKELMAN, C.: History of the Islamic Peoples. Kegan Paul 1949. 25/-

BULCK, G. VAN.: Les recherches linguistiques au Congo Belge. Mem. de l'Institut Roy. Col. Belge XVI. Brussels 1948.
Describes the diffusion of languages in the Congo including the Nilo-Hamitic and Sudanic languages of the N.E. region.

—— : Niloten en Sudantalen. Handlingen van het XVIIde Vlaamse Filologen-congres. Leuven, 1947.

CRARY, D. D.: Geography and Politics in the Nile Valley. Mid. East J. July 1949.

CRAWFORD, O. G. S.: Some Mediaeval theories about the Nile. Geogr. J. 114 Nos. 1-3, 1949.

EMERY, W. B. : Nubian Treasure. Methuen, 1948. 30/-
An illustrated account of tombs of Nubian Kings at Bullana and Qustul, a little north of the Sudan frontier.

ENKIRI, GABRIEL : Ibrahim Pasha (1789-1848). Cairo : Imprimerie Française, 1948. p.p. 483.
An account (in French) from the Egyptian and pan-Arab point of view.

EVANS PRITCHARD, E. E. : Nuer modes of address. Uganda J. XII, 2. 1948.

—— : Burial and mortuary rites of the Nuer. Afr. Affairs 48, Jan. 1949.

—— : The Nuer *Col Wic*. Man XLIX, Jan. 1949.

—— : Two Nuer ritual concepts. Man XLIX, July 1949.

—— : Nuer curses and ghostly vengeance. Africa, Oct. 1949.

—— : The Sanusi of Cyrenaica. Oxford U.P. 1949. 25/-
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(subordinate State officials are the most fanatical of all nationalists)—all this is depressingly familiar. Attempts to strengthen national unity crush political liberty: the stage of pseudo-parliamentary secular rule, which succeeds the initial struggle for independence, yields inevitably to the third stage, that of pure dictatorship. There is a moral here for the Sudan.

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Sudan Notes and Records

INCORPORATING المندمجة فيها

وقائع الجمعية الفلسفية بالسودان

Proceedings of the Philosophical Society of the Sudan.

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Transliteration of the Arabic Alphabet

adopted by the Editors of *Sudan Notes and Records*

ا	at beginning of word omit, hamza (') elsewhere	ذ	dh (coll. d)	غ	gh
		ر	r	ف	f
		ز	z	ق	q (coll. g)
ب	b	س	s	ك	k
ت	t	ش	sh	ل	l
ث	th (coll. t or s)	ص	ṣ	م	m
ج	j or g	ض	ḍ	ن	n
ح	ḥ	ط	ṭ	ه	h
خ	kh	ظ	ẓ	و	w
د	d	ع	'	ي	y

VOWELS.				DIPHTHONGS.
fatḥa	a,	lengthened	ā	ى—ai (as in aisle).
kasra	i,	„	ī	و—au (as in mauser).
ḍamma	u,	„	ū	

The ل of the article always remains *l*.

The silent *t* (ة) is omitted.

NOTES.

1. The system is not applied to well-known names, such as Khartoum, Omdurman, etc.

2. The vowel sounds of *e* in "get" and *o* in "hot" with the corresponding long vowels (*a* in "gate" and *o* in "home"), which occur only in the colloquial, are expressed by e, o, ē, ō.

e.g. beled, Moḥammed, bēt (or beit), ḥōsh.

Ei may be used as alternative to show the long ē.

3. In geographical names the conventional spelling used by the Sudan Government Survey Department is followed, although not always agreeing with the above transliteration.

4. At present phonetic type is not available for proper reproduction of non-Arabic African languages.

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EDITORIAL NOTES

ONCE more the old argument has been raised (this time by a Press notice) whether the contents of this Journal are to be low or high-brow. The answer is perhaps "Both." We are interested primarily to publish serious work of a scientific nature calculated to promote knowledge in, and of, the Sudan, and therefore have welcomed publication of the Proceedings of the Philosophical Society of the Sudan. We are also glad to publish Notes of a humbler nature. It is our endeavour to provide an assortment of material in each number to cater for a wide choice of readers.

But there are two requests we must make to our readers. The first is for a copious supply of material, factual or controversial, about some of the many developments now taking place in the Sudan in so many fields and which may not be known outside a small circle.

The second request is for friends of the Journal to assist in maintaining and enlarging the list of subscribers, especially amongst Sudanese. Our circulation is, indeed, increasing and now ranges across the Continents, from Australia to China, India, U.S.A., Sweden, even Russia. But costs are heavy. With the kind assistance of the Government the Committee has tried to keep the subscription at its original level, but has now with regret to announce that from 1st January 1951 this must be raised to 75 P.T. (18/–).

The old Price of 50 P.T. had stood since 1918.

NOTES ON PRINCIPAL CONTRIBUTORS.

G. D. LAMPEN: recently retired from the Sudan Political Service, having spent many years of his service in Darfur, ending up as Governor of the province.

J. K. JACKSON & M. K. SHAWKI: of the Forestry Division, Sudan Ministry of Agriculture.

A. PAUL: Sudan Political Service, now Deputy Governor, Kassala Province and recently District Commissioner at Tokar.

G. W. OGDEN: Director, Department of Posts and Telegraphs.

A. B. THEOBALD: Vice Principal and recently Dean, School of Arts, Gordon College; has a book on the Mahdia under publication.

A. B. MISKIN: A.R.S.M., F.R.I.C.S.; Senior Inspector of Surveys.

O. G. S. CRAWFORD: Editor of *Antiquity*.

SUDAN NOTES AND RECORDS

INCORPORATING

PROCEEDINGS OF THE PHILOSOPHICAL SOCIETY OF THE SUDAN.

VOL. XXXI PART II DECEMBER 1950

HISTORY OF DARFUR

By G. D. Lampen

GEOGRAPHY

DARFUR has long had an identity of its own due primarily to the conquests of the Fur race, but also determined by its natural boundaries. To the north Darfur ends in the Libyan desert which runs for nearly 1000 miles to the Mediterranean, waterless and without vegetation save for a few oases over which Darfur's claims were limited to those at the southern end, and even over these were shadowy and unsubstantiated. To the east a broad belt of sand hills provides an almost equally effective barrier against its neighbour Kordofan, while to the south the tsetse fly limits movement of domestic animals beyond the Bahr el Arab. Only to the west do we find a continuation of the same geographical conditions, and here the frontier has been decided by political and racial events rather than by conditions of soil, vegetation and climate.

Roughly speaking, the country is divided internally into three great lateral zones. The northern, down to latitude 14° 30′, is rolling steppe country broken by hill ranges from which emerge *wadis* with good tree and shrub grazing. This is the country of the nomadic or semi-nomadic camel-owning tribes, Arabs, Tibbu or Nubian. The rainfall averages less than 10 inches a year, which provides good grazing, but precarious cultivation.

The central belt, which is in parts very mountainous, but sandy at the east and west ends, has a heavier rainfall and is mainly the land of the cultivator and mixed farmer. Its rainfall ranges from 25 inches in the hills round Jebel Marra to 12 inches on the plains.

The southern belt lying mainly below the 12th parallel has a rainfall of 25-35 inches, and this is the nomadic cattleowner's country. He moves down to the river-grazing in summer and comes up to the cultivator's high lands in the middle belt during the rains.

A word must be said about the main feature of the province, the Jebel Marra range. A huge massif with a large plateau of over 6,000 feet and rising at its highest to just under 10,000 feet, it is a respectable landmark from El Fasher, Nyala and Kebkabiya. Having been the home of the Fur race it became less a barrier than a *point d'appui* whence they debouched onto the surrounding plains, and the original administrative divisions of the country ran out in wedges from the mountain down the great valleys. Though its cultivable area is small it provides crops not grown elsewhere in Darfur, or even in some cases in the northern Sudan. Potatoes, wheat, coffee and olives will all flourish, and its perennial water-supply is a delight.

While these defined limits to Darfur on three sides have in the past given the province a separate entity, they have not been such complete barriers as to exclude contacts with its neighbours in trade, religion and war.

Until firm control of the Nile valley by one power was followed by the opening of communications in the Sudan, the most highly developed trade routes were those across the desert to the north. Hard as these were, their difficulties were known, and it is notable that W. G. Browne in 1793 and Omar al Tunisi in 1803 did not encounter any unexpected obstacles on the way. The stages were long, there was some fear of missing the way, some tribute was demanded by Arabs, and the fare was bad. But Browne dismisses stories of caravans being lost as nonsense, and says that a large caravan had not much to fear from Kababish, unarmed with guns. On the other hand he emphasises the difficulties of the route to the east through warring and uncertain tribes.

Two of the great trans-desert routes led to Darfur. The Darb el Arba'in, or Forty Days' Road from Assiut in Egypt, passed through Jebel Ramli (3 days), Kharga (1 day), Bulak (1 day), Beiris (1 day), Esh Sheb (5 days), Selima (4 days), Laqiya (5 days), Bir el Milh (8 days), Mazrub (11 days) to Kubbe, the merchants' depot (5 days). The other route from Tripoli and Cyrenaica came through the oases of Jalo to Zighen (7 days), Kufra (4 days), Beshra (3 days), Sarra (4 days), Tekro (5 days), Abu Junga (1 day), el Weiti (4 days). Thence the road divided, the western branch going to Abéché (8 days) and the eastern through Fada (5 days) and Umm Geras (6 days) to Darfur.

These two routes were in use until the coming of the railway to El Obeid finally diverted most traffic, even to Tripoli, via the Nile. They had given Darfur links with the north, not only in the exchange of slaves, ivory, rhino horn, gum and ostrich feathers for beads, cloth,

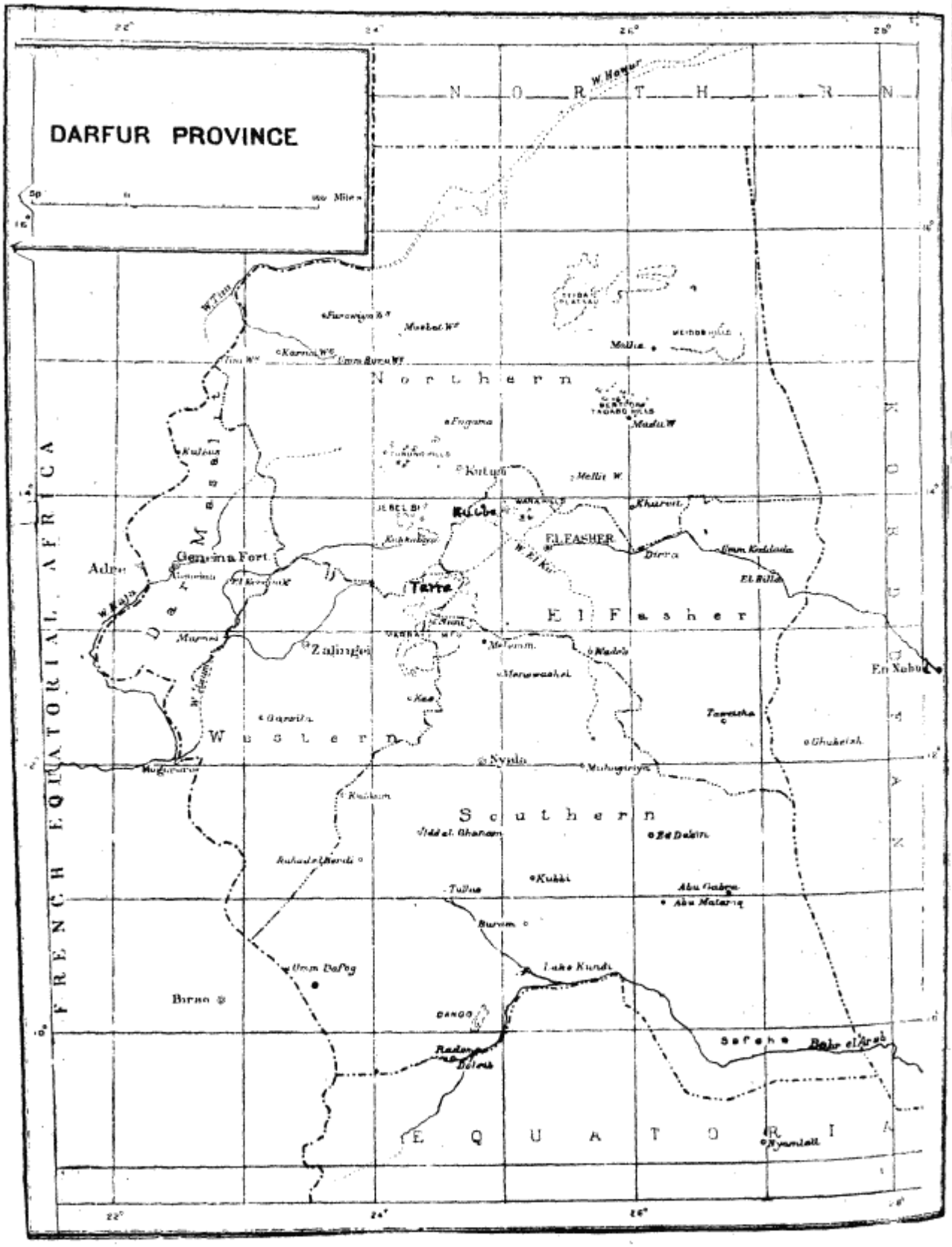
arms and coffee, but for the dissemination of ideas and religious influences, of which the effects still remain. The messages of Napoleon to the Sultan, and the Turkish propaganda for Sultan Ali Dinar came by these routes, and they were finally abandoned only when the conquest of Darfur in 1916 made the eastern route easy and free from suspicion by the Sultan. The merchant community at Kubbe, 40 miles north-west of El Fasher, remained in being until the Mahdia; men still living have travelled in trade via Kufra from the Fezzan.

As one enters Darfur from the east along the main west road the sandhills of western Kordofan roll in their monotonous rises and falls. There are a few hills of no great magnitude and the view is limited by the *heglig* (*Balanites aegyptiaca*), *kedad*, *arad* and *sayal* (*Acacia raddiana*) trees which lie interspersed among the *mikhait* (*Boscia senegalensis*) bushes, with the occasional *tebeldi* (*Adansonia digitata*) as a landmark. The grass grows long and is usually the *heskanit* (*Cenchrus biflorus*) or *bayad*. The outlook, though monotonous, is occasionally broken by a forest of *tebeldis*, or a pool in a muddy bottom in the rains, and agreably varied by the village with its clearing for grain and melon cultivation. This country stretches down to the 11th parallel, where it begins to merge into the great mud plains of the south, while in the north it goes up to Jebel Meidōb, where the rolling sand dunes gradually change to wider steppes with sparser vegetation and more frequent ranges of sandstone, granite and lava hills, culminating in the volcanic massive of Jebel Meidōb, and the granite peaks of the Tegābo Hills.

Proceeding along the main road to El Fasher, one enters a range of sandstone hills round Umm Keddada and then the Archaean hills east of El Fasher. Here the country changes again, for the Fasher plain lies ahead up to the foothills of Jebel Marra in the west and the Kuttum hills to the north. Deep *wadis* and mud plains now predominate with their *haraz* (*Acacia albida*) trees and *tundub* (*Capparis decidua*) bushes, though the sand dunes and steppes appear in blocks and fingers providing the cultivating grounds for millet and sesame.

Further to the west we now enter the main mountains with Jebel Marra as their crown in the centre, formidable spurs running far to the north, and isolated foothills to the south. Broad *wadis* with good water, mighty *haraz* trees and good valley cultivation, spread out in all directions.

To the south lie the great plains of the cattlemen with many pools and lakes and bounded by the Bahr el Arab. The villages cling to the southern fringes of the sand dunes, and the plains and river are left for the nomads' summer grazing.


DARFUR PROVINCE
N O R T H E R N
K O R D O F A N
F R E N C H E Q U A T O R I A L A F R I C A
Northern
Western
Southern
E l F a s h e r
E Q U A T O R I A
Genaina Fort
Adre
Tarra
Zalingei
Kutum
El Fasher
Kulbus
Kebkebiya
Mellit
Kharoni
Dirra
Um Kaddada
El Rilla
En Nahud
Nyala
Buram
Kubbi
Tullus
Um Dafog
Lake Kundi
Sarha
Bahr el Arab
Rashad
Mukjar
Mellum
Tawesha
Ghubeish
Abu Gabra
Abu Matariq
Ed Daein
Yambio
Birao
Bango
Radom
Belanu
Kamur W.S.
Um Ruwa W.
Mukbat W.
Mellit W.
Mudu W.
Kulbus
Fiyama
Kebkebiya
Kharoni
Dirra
Um Kaddada
El Rilla
Mellum
Nyala
Buram
Kubbi
Tullus
Um Dafog
Lake Kundi
Sarha
Bahr el Arab
Rashad
Mukjar
Tawesha
Ghubeish
Abu Gabra
Abu Matariq
Ed Daein
Yambio
Birao
Bango
Radom
Belanu
Genaina Fort
Adre
Tarra
Zalingei
Kutum
El Fasher
En Nahud
Nyala
Buram
Kubbi
Tullus
Um Dafog
Lake Kundi
Sarha
Bahr el Arab
Rashad
Mukjar
Tawesha
Ghubeish
Abu Gabra
Abu Matariq
Ed Daein
Yambio
Birao
Bango
Radom
Belanu

In the north the hills break into broken gravelly country with enough grass and desert scrub for the camel. This provides a scanty living in normal years, replenished in years of exceptional rains by the *Gizzu* grazing which then comes up in the northern desert.

HISTORY

Pre-Mediaeval Period

Prehistory awaits the full attention of the archaeologist. We get glimpses of a period before dates and names when we see the tombs round Jebel Meidōb, the rock drawings and cave dwellings in the Tagābo and Daju hills, and the traces of old settlements on the Teiga plateau. The " Awlad Anag " and the " Awlad Ganaan " are credited with the deep rock wells or other feats of engineering beyond the abilities or perhaps the manpower of the present inhabitants. But for present purposes we need not look for detailed early history until the spade and the camera have made its outlines more clear.

No doubt the black man at one period was undisputed master of the area we now call Darfur. These were, we may assume, the ancestors of the Fur, whose claim to the central hills has never been disputed. But they may also claim as their descendants the tribes of the extreme south such as the Shatt, the Kara, Binga, Feroge and Fungoro whom the Fur recognise as cousins through their ancestor Firat, the brother of Fir the begetter of the Fur.

But at the earliest period in which tribes began to have some distinct entity, new invaders from northern and Mediterranean races have appeared upon the scene. Some of these probably came from the river Nile, across what is now inhospitable desert, only retaining its association with human life in the traces of an abandoned camel route. It seems likely that at any rate the Meidob and possibly also the Birgid moved across from Dongola, while the Bedayāt and Zaghawa came down a more westerly route from north Africa. The latter retain their semi-nomadic life and indeed have hardly yet finished their south-easterly migration. No doubt the superior intelligence of these tribes enabled them to dominate the northern areas of Darfur, and eventually with their new superior weapons and the terrifying aid of the horse to drive the black races into their mountains and in their turn to found the chain of kingdoms which stretched across this middle belt of north Africa in the Middle Ages — Kordofan, Darfur, Wadai, Bagirmi and Kanem or Bornu. If the subjection of the negro to the north African in war was one element in the foundation of such kingdoms,

there was another which was more gradual but not less ruthless. We know from Idrisi (d. 1153 A.D.) that the slave trade from central to north Africa was highly developed in his day, and no doubt northern traders either established themselves in central Africa and carved out little kingdoms for themselves, or allied themselves to some existing chief whom they supplied with horses and weapons in exchange for slaves.

The main arrival of the Arabs accelerated these processes. They were never strong enough to overthrow the non-Arab strongholds in the north and centre, but they were allies who could be brought in by the highest bidder among the kings and sultans, and their presence gave a foothold to the Arab trader who came for the slave and ivory trade. The main immigration of the Arabs appears to have been from the west:[1] they had pushed down into Wadai from the Fezzan or across the steppes between Nubia and Chad soon after the Arab invasion of north Africa, and tradition says they entered Darfur in the days of the Tungur who preceded the Fur, and if so this places their arrival in the 14th and 15th centuries. There was Islamic religion and Arab influence before this period, and some tribes may have entered Darfur from the east at an earlier date, but the main influx may be fixed at this time.

Whether they came in two streams, camel and cattle owning nomads separately, or all arrived with camels in Darfur and then changed their herds as they moved south, is unknown, but there is every indication that they had divided into "Baggara" and "Fezzara" before they entered Darfur. Yet this division is so comparatively recent that there is not only an alliance between tribes back from Kordofan to Chad among the Baggara, but the Rizeigat Baggara are closely related to the camel-owning tribes of the same name in the north. Even down to our own day the movement from camel to cattle owning goes on. The Beni Helba had a big camel-owning section 100 years ago which has now moved south and merged in the Baggara, while Ali Dinar's ravages on the Northern Rizeigat have turned the Awlad Yasin into cattlemen within the last 40 years.

Though the Arabs in Darfur were never strong enough to command the course of history, they were able to drive a wedge between the black men of the south, penning the Fur into the mountainous centre, overruning some of the tribes such as the Shatt, on the plains, and driving

[1] This is a doubtful question. Tradition among the Juhaina group in Darfur is that they came across the northern desert to Wadai and thence into Darfur, but they do not specify always that they came along the North African coast and then down to Wadai. Many consider they came across by Bir Natrun. At any rate I am inclined to think from the relationship of the tribes west to east, and their traditions, that however they got to Wadai they did come to Darfur via that province.

Binga, Banda and Feroge down into the swamps. These tribes still claim to have lived formerly in Darfur.

Mediaeval Period

Traditionally it is believed that the Daju were the first to rule in Darfur.

If we are to connect them with the Tajuwin of Idrisi and the Taju of Ansari Abu al Fida and Ibn Khaldun, they must have come from the north, as they are placed west of the Egyptian oases, and between Nubia and Kanem and next to the Zaghawa in the 12th to the 14th centuries. But for our purpose in giving the history of Darfur it is clear that when they were the predominant race their habitat was in the south-east, and that they never had any power in the north, in the west or in Jebel Marra.

Tradition says that they were replaced by the Tungur, but though the latter were certainly the predominant race by the 16th century their power was rather in the north and never in the south and the kingdoms of these two powers may have overlapped in time, each in their own sphere.

With the Tungur we are getting to firmer ground. There can be little doubt that they came originally from the Dongola region and entered Darfur in the 15th or 16th century, and took up their residence in the northern and central areas where they still have their colonies. The Tungur did not remain long in Darfur and in less than a century they were either being pressed out of Darfur or had extended their conquests over Wadai, and lost their grip on Darfur. But at any rate they left one substantial memorial of their rule of Darfur in the palace of their last Sultan Dorshid at 'Ain Farah in northern Darfur.[1] Their *Shartai* (headman) now no longer wears the black '*imma* (turban) of mourning for a lost Empire as he did in Omar al Tunisi's time.

The Tungur have a traditional link with the Fur sultanate as the first putative Fur Sultan was born of a Kayra (the Fur royal house) mother, and of a Tungur father; and it is extremely likely that the succession in the hegemony of Darfur came by intermarriage and matrilinear descent.

But with Dali we pass into the Royal House of Kayra which continued to rule the Fur Sultanate until 1916. Doubts have been thrown on the reigns of Dali and Kuru, but on Turra in Jebel Marra are the fortified palaces associated with these two and with Kuru's son

[1] See *Sudan Notes and Records*, Vol. 3 Part 1 and Vol. 19 Part 2.—*Ed.*

Suleiman Solong, and a little further east in Turra another ruined palace on Wadi Tulzum is ascribed to Tunsam who was defeated by Suliman and driven out of Darfur to form the Musaba'at tribe in Kordofan. As Arkell notes, the dismantled state of Tunsam's palace and the heavy defensive walls of all these buildings would be consonant with a period of civil war and a defeated prince.[1]

From Mediaeval Times to the Egyptian Occupation

Suleiman Solong, like Dali, is said to have had a foreign father and his second name means "Arab" in Fur. The details given vary, and all we need assume is that some ancient Fur stock first intermarried with the Tungur royal house, and then with someone of Arab blood, but as the succession is matrilinear the Fur element predominates.

At this point it will be convenient to give a list of the Fur Sultans with their dates, which are fairly well established after that of Suliman. With the exception of Omar Leil, who died in Wadai, all the others down to Mohammed Hussain are buried in Turra.

	Probable Date
Suliman Solong son of Kuni	1640-1670
Musa son of Suliman Solong	1670-1682
Ahmed Bukr son of Musa	1682-1722
Mohammed "Dowra" son of Ahmed Bukr ..	1722-1732
'Omar "Leil" son of Mohammed Dowra ..	1732-1739
Abul Gasim son of Ahmed Bukr	1739-1752
Mohammed Teirab son of Ahmed Bukr	1752-1787
Abdal Rahman al Rashid son of Ahmed Bukr ..	1787-1802
Mohammed Fadl son of Abdel Rahman	1802-1839
Mohammed Hussain son of Mohammed Fadl ..	1839-1874
Ibrahim son of Mohammed Hussain	1874-1875
Egyptian occupation	1875-1883

Nachtigal collected traditions about the reigns of the Sultans and with the aid of W. G. Browne and Omar al Tunisi we can get an outline of their character and career.

Suliman Solong (1640-1670) emerged victorious from a period of civil war, reconstituted the kingdom and perhaps reintroduced Islam, as Nachtigal says, for the mosques of 'Ain Farah must date before his time, but there may well have been a relapse to paganism during the

[1] See *Sudan Notes and Records* Vol. 20, Part 1.—*Ed.*

years of civil war that preceded his succession. His name "Solong" in Fur means "Arab" and may connote the Arab's peculiar tongue, religion or physical appearance. Thus bronze coinage bearing the head of King Fuad recently introduced in Darfur became known in Jebel Marra as "Solonga," of which the nearest translation seems to be "red faces." (The coins were all in mint condition). His palace still stands at Nami in Turra. According to Nachtigal he led 33 campaigns in person, and brought the Birgid, Zaghawa, Berti, Beigo and some of the Masalit under his sway, and had to subdue an attempt by the Tungur to regain the throne. He was buried in Turra.

Musa (1670-1682), his son, was of peaceable disposition. He was, however, forced to fight the Gimr and Musaba'at. He also resided at Nami and was buried at Turra.

Ahmed Bukr son of Musa (1682-1722) ruled some 40 years, revered by his people and feared by his neighbours. He endeavoured to make Darfur a Muslim country. (Since the time of Suliman Solong Islam had been confined to court circles). He introduced religious teachers, built mosques and schools, and compelled the people to adopt the three essentials of Islam, circumcision, fasting in Ramadan, and the five daily prayers. In view of the low state of civilization of his people, he persuaded educated foreigners to settle in the country by granting them exemption from taxes and other privileges. He resided at Gerli in Dar Kerne, Murra in Dar Fia, and Abu Asal in Turra.

After a seven years' campaign he secured the north-west frontier by conquering the Gimr. He also repulsed an invasion of Darfur by Arus, the sultan of Wadai. He had to retire to Abu Asal and spend two years organizing resistance by obtaining firearms from Egypt, and then, descending from the hills, he dealt the invading army a crushing blow in the pass through the hills to the west, in the vicinity of what is now Kebkabiya, and which gained its name from this battle, for "*kebi kebia*" in Fur means "they threw away their shields."

Mohammed Dowra, (1722-1732) the eldest son of Ahmed Bukr was a brave but cruel man. He killed many of his brothers, and waged a nearly unsuccessful civil war against his own son Musa Angarib. He died of leprosy, and was buried at Turra.

'Omar (1732-1739) his son, nicknamed "Leil" "the Donkey," was cruel and godless like his father: his bad temper and military

ambition strained the loyalty of his subjects to the limit. He moved the royal residence to Kogurma some 20 miles west of Kebkabiya, where the remains of his red-brick palace can still be seen.

He defeated an attempt made by one of his uncles, with Rizeigat help, to dethrone him. Continued military expeditions made the people tired of him, and he was finally deserted by most of his army when invading Wadai ; he died there in captivity and was succeeded by his uncle.

Abul Gasim, son of Ahmed Bukr (1739-1752), was not a popular ruler, for he was given to favouritism, and preferred giving office and advancement to slaves rather than to free men. He made great preparations to revenge the defeat of Omar Leil, but the Fur army was again heavily defeated, and in the rout it was thought that Abul Gasim had been killed. The country was relieved to be rid of him and his brother,

Mohammed Teirab (1752-1787), who had also been wounded in the battle, was at once proclaimed sultan. Soon after that Abul Gasim reappeared, having recovered from a severe wound in an Arab encampment. The elders refused to allow Teirab to resign in his favour, and Teirab had him strangled. Abul Gasim, who had resided at Gerli, was buried at Turra.

Teirab was an outstanding ruler, who was respected at home and abroad. He, however, gave some dissatisfaction by the preference which he showed for Zaghawa, to which tribe his mother belonged. He made an uncle sultan of the Zaghawa Kobe, and in all appointed nineteen Zaghawa to high posts. He resided at Gerli, Kogurma and Shoba in turn (all in the vicinity of Kebkebia).

During his reign there was á rising of the Bergid, who believed he had been selling as slaves a number of the girls they had to deliver to the palace to be brought up as royal concubines or servants. After this rising, Teirab moved his residence to Ril in the south east. Thence he made expeditions against the Rizeigat and the Musaba'at. He eventually died in Kordofan on a campaign on which he had reached the Nile. He was a learned man, and imported books from Tunis and Egypt. He was, however, also a lover of women and wine, and his subjects became heartily weary of his military expeditions. There was therefore, considerable objection to his son Isagha, whom he had designated as his successor, for he promised to resemble his father in every way.

When Mohammed Teirab fell sick after his successful campaign against Sultan Hashim of the Musaba'at and died in Kordofan, there were still three sons of Sultan Ahmed Bukr who had claims to succeed, as well as Teirab's own son Isagha Doldum who had been left in command of Darfur; but the able Mohammed Kourra, eunuch and palace favourite, backed the youngest son of Ahmed Bukr, Abd al Rahman al Rashid, had him appointed after some cunning diplomacy, and then returned with him to defeat Isagha at Tebeldia and Taldauwa, and drove him into northern Darfur. Isagha there won two victories on Wadi Bawa against the *Tekanyawi* and *Basi Ryfa*, but was finally defeated at Girgo just west of Kebkabiya.

Abd al Rahman al Rashid (1787-1802) was a patron of the *Jellaba* (immigrant merchants) and of religion, but perhaps his chief interest for us is that, as was natural after the conquest of Kordofan, he moved his capital further east to El Fasher. He was also visited by W. G. Browne, the first Englishman to visit Darfur, and Omar al Tunisi came just after his death ; both recorded their observations so that his reign is the best documented of any until Turkish times. He also had the curious distinction of receiving a letter from Napoleon, and of nearly being overthrown by a Mameluk who fled to Darfur after the Mamelukes' defeat by that conqueror.

The only big event of the reign seems to have been a war against Sultan Hashim in Kordofan who nearly conquered the country but was driven out by Mohammed Kourra, now the *Abu Sheikh*, who became the Viceroy of Kordofan. Mohammed Kourra spent seven years in Kordofan, sending pillage back to Darfur, but, as was inevitable, he was finally accused to the Sultan of wishing to make himself independent. Abd al Rahman al Rashid sent down a force with orders to bring him back in chains, but the discreet Viceroy put on the chains without protest and made his way to El Fasher wearing them. If he thus disarmed criticism for a time he was still doomed to suffer the fate of many *Wazirs* in Darfur.

On the death of Abd al Rahman al Rashid in 1802, Mohammed Kourra, by removing the guards of all opponents, presented them with a *coup d'état* and placed *Mohammed Fadl* (1802-1839) on the throne. He then had all possible claimants rounded up and slew them to the number of 60 on the Qoz al Sittin outside the town, and confined the rest in Jebel Marra. Kourra then ruled Mohammed Fadl and the country with a strong hand, until finding that the Sultan meant to get rid of him, he moved his residence to a remote part of Fasher, was cut off from

the water supply, attacked and defeated and killed with his stepson Shilfut.

As a youth Mohammed Fadl was dissipated, and as he grew older he became unjust, cruel and vindictive. He lost Kordofan, which was taken by the Egyptians. He was particularly hard on the Darfur Arabs, decimating first the Beni Helba and then the Ereigat, and continuing to raid the Rizeigat. One of his brothers Abu al Median fled to Kordofan in the hope of being put into power in Darfur by the Egyptians. Towards the end of his reign Mohammed Fadl sent an expedition against Wadai when there was a famine in that country, and as a result the Wadai prince Mohammed Sherif, who had taken refuge in Darfur, was installed on the throne of Wadai.

Mohammed Hussein (1839-1874) succeeded his father. His was a long and peaceful reign, but he was not a popular ruler. He had neither the royal manner nor military sense. He was looked on as a dreamy miser, and despised for his interest in trading. He got rid of enemies by sending them on expeditions against the Arabs of the south, particularly the Rizeigat, Habbaniya and Ma'alia. During his reign there were eighteen expeditions, most of them unsuccessful.

He succeeded in keeping peace with both Egypt and Wadai and was appreciated abroad for his generosity to learned travellers and pilgrims. He obtained firmans from Constantinople, confirming the independence of Darfur under the suzerainty of the Sublime Porte. He became blind during the closing years of his reign and his direction of internal affairs became in consequence increasingly weak, with the result that his relations secured an inordinate number of estates (*Hawakir*).

Ibrahim Mohammed Hussain (1874) succeeded his father. His reign was brief and only lasted one year. As soon as he came to the throne the slave raider Zubair entered Dar Rizeigat from what is now Bahr el Ghazal Province where he had his bases, to avenge some interference with his passage of slaves north through the territory of this tribe.

Zubair quickly dispersed the irregular forces of the Rizeigat, who at that time were not united under one leader while Madibbo and Egeil were both striving for the Maharia headship, and he established himself on 20th August 1873 at Abu Sigan (between Abu Gabra and Abu Matariq) with a loss of 700 men. He had, however, by entering this territory infringed the rights, however ineffective in practice, of the Sultan of Darfur.

Sultan Ibrahim " Gerad " therefore despatched his three *Magdums*, Ahmed Shatta of the south, Saad al Nur, the *Magdum Dali* of the east and Abdalla Runga, the *Magdum* of the west, to attack him in his *zariba*. The Fur numbered 10,000 horsemen and had 3 guns, and attacked Shakka on 21st January 1874. The result was disastrous as all three *Magdums* were killed and their army defeated after an action which lasted only an hour and a half. Zubair lost only 200 men. Zubair then advanced through Kalaka defeating a second Fur army on 19th June 1874, and then turned back and advanced to *Magdum* Ahmed Shatta's headquarters at Dara occupying it on 7th August.

Sultan Ibrahim now arrived in person leading his main army. He found Zubair strongly entrenched in Dara and armed with cannon. Evidently non-plussed by the strength of the invader he hesitated to attack and was jeerd by some of his army with the cry "The bull won't fight." In a fit of rage he turned his *jehadia's* (bodyguard) fire on to those who mocked him and the army broke up. He himself with a few relatives was caught and killed at Menawashei on 25th October 1874, where he was buried in the wayside mosque.

The Egyptian Occupation

When Zubair Pasha defeated Sultan Ibrahim Hussain " Gerad " at Menawashei, he advanced and occupied El Fasher on October 29th. The Egyptian Government who had already had differences with Zubair in the south, but had overlooked this and sponsored his invasion of Darfur on their behalf, were not prepared to let him hold this reserve of grain and men, and Ismail Pasha Ayub the Governor General arrived in el Fasher on 7th November only a few days after Zubair. Zubair was given leave to complete the conquest of Darfur and pursued Ibrahim's uncle and successor Hasaballa into Jebel Marra, where he captured him; he then sent him with Abd al Rahman Shatut (Ibrahim's brother), Abd al Hamid (his son) and other members of the Royal Family to Cairo, where the first two died but the third-named lived to return to Darfur in 1929 for a brief reign in Zalingei. In a further campaign Sultans Bosh and Saif al Din were killed on 19th July 1875 at Seraf el Gidad near Kebkabiya. After this campaign Zubair disappears from the Darfur scene. He quarrelled with Ismail Pasha and they were both summoned to Cairo to lay their case before the Khedive.

Harun, a grandson of Sultan Mohammed Fadl and son of Saif al Din, now took the Sultanate and continued to hold out in Jebel Marra. He made many sorties from the hills on the Turkish-Egyptian garrisons, being credited with raids as far as Dara, Jebel Hereiz, Tina and Murtafal.

The Turko-Egyptian forces gradually closed in at the exits, and the remains of their forts can be seen at Doba and other places. They are remembered by the older people as having moved slowly but with a resonant tramping when on the march. Actions took place at Sarandito (in the borders of Turra), Dobo, Nyuringa, Killing (where the Egyptians left tomatoes to start the thriving cultivation of that vegetable in the hills), Kigima and Kulkul, whence Harun was chased by al Nur Angara, the Governor of Kulkul, into Dar Gimr and killed at Abter in March 1880. It is a relief to discern among the shadowy lines of fugitive or puppet Sultans of this period this living and gallant man with his horse Derb al Rigala which was hairless from the bullet wounds it received. His son Ibrahim seems to have inherited some of his character and became one of Ali Dinar's commanders. After a brief rule by Sultan Bukr, who was killed by Slatin, his son Abdullahi Dud Banga, a cousin of Harun's, became Sultan.

Meanwhile other notable figures had for a moment crossed the stage in Darfur. General Gordon had been appointed Governor-General of the Sudan in 1877. The Fur under Harun had taken the offensive against the Egyptian garrisons in February 1877, and at the same time Suleiman, Zubair's son, had crossed the southern border in an aggressive mood. Gordon in May hurried to Darfur, and when Harun had withdrawn into his mountains he was able to bluff Suleiman into retreating back into the Bahr el Ghazal, but in the next year Suleiman openly revolted, cut up Government troops and declared his independence. Gordon called in his ablest lieutenant, Romolo Gessi, who marched in the rains from Rumbek through the swamps and beat Suleiman into flight round Deim Idris, west of Wau. Suleiman fled to Darfur, but found Gordon on his flank and after a meeting[1] between Gordon and Gessi at Taweisha, the former returned to the east while Gessi caught Suleiman at Gharra south of Dar Beni Helba, defeated him and shot him and nine of his lieutenants early in July 1879. This gallant Italian, worn out by his exertions, had to be carried to Suakin and died on his way home in 1881. His name is commemorated by a street in Khartoum, and was borne by at least one Baggari born in the year of his defeat of Suleiman.

Meanwhile the Austrian, Slatin, had been sent in July 1879 to Dara in Southern Darfur as *Mudir* of that sub-district,[2] whence he waged

[1] It must have been at this time that Gordon met the Khalifa's father with his family and pupils near Abu Gabra on their way east. (Emir Musaid Gaidum, one of the party, told me of this meeting).

[2] Messedaglia was Governor of Darfur at the time.

a desultory campaign against Sultan Harun. Slatin now had a year of peace but early in 1881 Raouf Pasha, the new Governor-General, appointed him Governor-General of Darfur. Slatin moved to El Fasher in April 1881, where he found the affairs of administration in a terrible state of confusion. He reduced them to some semblance of order, and then found time for a visit to the Zaghawa and Bedayāt in the north-west, but greater events were at hand. On his way out he got news of the Mahdi's revolt, and by the time of his return to El Fasher there were serious disturbances among the Baggara in the south. Early in 1882 Slatin left El Fasher again for Dara, to which circumstances immediately compelled him to transfer his headquarters, leaving Said Bey Guma as Governor in El Fasher.

The Mahdia

The trouble in the south was serious. The Mahdi had called on Madibbo, the Sheikh of the Maharia Rizeigat, to occupy the southern Government outpost of Shakka (Abu Sigan). Collecting his own people and the Ma'alia, and distributing the Mahdist proclamation, he fell on a detachment of 200 men at El Alali and annihilated them in July 1882. An attempt by Slatin to relieve the Shakka garrison, though it held off the Rizeigat at Ed Da'ein, had to be abandoned, and the garrison of 300[1] at Shakka withdrew, fought a rearguard action on the *Qoz* country and proceeded towards Dara. Slatin made a second attempt to re-establish the Shakka post with the aid of friendly Bergu, Bergid, southern Zaghawa, Messeria, Daju and Ma'alia (who were hostile to their Sheikh Abu Salama) numbering in all 7,400. Proceeding via Hashaba, Ed Da'ein, Kindiri (near Kurriu) to Umm Waragat they were ambushed by the Rizeigat and though they held off the rebels the position in thick forest was untenable, and Slatin withdrew to Dara after heavy losses. A fierce action on the way back, however, resulted in heavy losses (2000 men) to Madibbo, who thereafter remained quiescent. Slatin now received information that the country to the north was in revolt and put Dara into strict defence. Sultan Abdullahi Dud Banga had seized his opportunity to emerge from the mountains and create this diversion, and the central tribes were in revolt. A campaign in which the Mima were defeated at Wadaa and the Khawabir at Umm Luai, subdued the north temporarily and reopened communications with el Fasher and Umm Shanga.

The relief was only temporary and early in 1883 el Fasher, Dara and Kebkabiya were practically isolated; Said Bey Guma'a trying to

[1] Wingate says 600, Slatin 300.

clear the neighbourhood of el Fasher was heavily defeated in August 1883 and only 99 of his men returned. Slatin got orders to concentrate his men in El Fasher, hand over to one of the Fur Sultans and retire to Khartoum, but never received this message. He managed to visit Umm Shanga in the midst of continued fighting, but by October he was penned into Dara, and was awaiting relief from Hick's force. He nominally adopted the Muslim religion, wrote offering to surrender the province to the Mahdi, and at the same time wrote to inform Hicks of his straits. The letters were entrusted to Mohammed Khalid Zogal, a Ja'ali, the *Mudir* of Dara, and a connection by marriage of the Mahdi's. Zogal arrived at El Obeid when there occurred the terrible disaster to Hicks at Shekan, and he threw in his lot wholeheartedly with the Mahdi.

The Mahdi nominated Zogal Emir of Darfur and in December 1883 he left El Obeid on his mission. Umm Shanga surrendered without a shot, and Slatin, after consulting his officers, handed over Dara, and advised Said Bey Guma'a at El Fasher, and Adam Eff. Amer, the Officer in Command at Kebkabiya, to follow his example. Both these officials agreed, sent in the keys of the treasuries and said they had taken the Mahdist uniform into use.

Now occurs one of the few comic notes in this grim story. The bearer of Zogal's letter, a Feki Abd al Rahman, imbued with the new puritanical doctrines of the Mahdists, rebuked Said Bey Guma'a for smoking a cigarette. The irascible Governor ordered the *feki* to be shot and his troops to strip off their *jibbas* and don the Egyptian uniform again. So Zogal, instead of an easy surrender, had to bombard the town from where Sultan Ibrahim's palace stood. But the garrison numbered 1,000 men with 10 guns and one machine gun, and it was not until January 14th 1884 that Zogal filled in the wells under the walls, and the town surrendered on the 16th. The officers were cruelly treated, but as some satisfaction the *feki* was shot. By Slatin's intercession the life of the Governor, Said Guma'a, was spared. Both were sent to the Mahdi at El Obeid.

The Emir Zogal was now installed in El Fasher with 1400 (black) Sudanese troops and *Bazingers* under Emirs Babikr, Wad al Hagg, Omer Wad Shair, and Ali al Nur Imam, and with local arab forces numbering 20,000 at his command. He was free to devote his entire attention to the Fur revolt. In June 1884 the late sub-Governor of Kebkabiya, now Emir, Adam Amer was despatched to Jebel Marra with a mixed force to defeat Sultan Abdullahi Dud Banga. The Sultan is said to have replied to an invitation to surrender that he had withstood

the Egyptian Government since Sultan Harun's death and was not going to surrender to Zogal, who had been a slave in his father's time. He repelled Adam in his first assault on Killing, but with reinforcements Adam was able to reduce him after a siege of two months, and Sultan 'Abdullahi Dud Banga was sent to El Fasher in September 1884 and on to the Mahdi. (He eventually joined the Khalifa, lived in Omdurman for many years and died at Gedaref in 1907).

Resistance from the Fur was now temporarily at an end and Zogal was able to turn his attention to administration, which he is said to have run well, and to amassing wealth, which he did even more successfully. Darfur was temporarily out of the main run of events, and Zogal was left in uninterrupted possession of the province until the death of the Mahdi on 22nd June 1885.

The first trouble in Darfur came from Madibbo of the Rizeigat who no doubt disliked the assumption of power by the Ta'aishi Khalifa, and openly refused to obey his order that he and his family should proceed to Omdurman. The Khalifa thereupon despatched the Emir Karamalla, who was in charge of Bahr el Ghazal, to join forces with Karkasawi, the Emir of Shakka, and to bring the recalcitrant chief to his senses.

Karamalla sent the Emir Katemburu to Shakka with 600 riflemen and surprised Madibbo at Ed Da'ein[1] capturing 200 prisoners and many cattle. Madibbo failed in a counter-attack, and Katemburu despatched part of his force to attack the camps on the Bahr el Arab while he himself attempted to round up Madibbo. The latter however fled through Dara and took refuge with the Beni Helba. At the end of the year Karamalla himself arrived with reinforcements at Dara and began a campaign against the Beni Helba, who deserted Madibbo and his 500 men. Karamalla dispersed this force and Madibbo fled to Jebel Marra, but he was caught and handed over to Sultan Yusif who sent him to Karamalla at Taweisha. The latter sent him to El Obeid, where he was beheaded.

Zogal had been induced to leave Darfur in March 1886 after most peremptory summons from the Khalifa who thought he was collecting forces to proclaim independence. Zogal was in fact chiefly occupied in making money, but Abu Anga was sent to meet him at el Obeid and Zogal found himself deprived of troops, money and liberty. Before leaving Darfur he appointed Sultan Yusif as Emir in his place, but took all forces with him.

[1] According to Wingate 40 miles N.W. of Shakka. Shakka was really the name of the Rizeigat country as a whole, but the fort occupied by Zubair Pasha was at Abu Sigan.

Meanwhile Karamalla had received the submission of the Ma'alia, beheading Mohammed Bey Abu Salama and his three sons at Nyeleila, and had subdued the leaderless Rizeigat. He then despatched a force to Dara to raid for cattle and slaves, with the result that he clashed with Yusif's authority. The latter told his *Magdum* Imam Jarut of the Bergid to offer resistance, and in May 1887 a raiding party of 500 under Wad 'Alim were annihilated by Imam. Yusif then sent *Magdum* Abu Dembo (of the Messeria) with 4,000 men to Taweisha. Abu Dembo overwhelmed the garrison under Hassan Agha and proceeded to Dara. The opposing army of 2,000 led by Katembur met Abu Dembo in Wadi el Masria (Messeria), defeated him and forced him to retire to Jertobak near Ghor Abeshe: there he entrenched himself and applied for reinforcements to Sultan Yusif who sent a Sultan Zaid with a large force. Katembur was completely defeated on 29th June 1887 and fled to Dara. Karamalla then evacuated Dara and fell back on Nyeleila where he entrenched and wrote to the Khalifa for immediate assistance. The Darfur forces were now in almost complete command of their own country once again, but the Khalifa at once despatched Osman Adam (Gano) the Emir of Kordofan, who joined Karamalla at Nyeleila, assumed command, invited Sultan Yusif to meet him and when the latter replied by sending 10,000 men under Adam Bosh and Rahma Goma, completely defeated this force at Khumma, just outside Dara.

Zaid was again despatched with an army to defeat the Mahdist Emirs, but was heavily defeated on December 16th 1887 at Wadi el Masria. Zaid with a remnant of the army escaped to El Fasher, but in a last stand on Wadi Baira or Golo on January 8th 1888 he and Sultan Yusif were defeated. They fled to Jebel Marra but were pursued by Wad al Khatim who killed Yusif and brought his head to El Fasher on 14th February.

The Mahdists were now again in complete control of Darfur, and started a campaign of recruiting which drove the people to revolt. The revolt had a religious leader, which made it all the more dangerous.

The Fur leaders had after the death of Sultan Yusif fled to the west and taken refuge in Dar Tama, where they appointed Abu al Kheirat Sultan of Darfur. They found the people here ripe for rebellion against the Mahdist overlords, under the leadership of a *feki* whose real name with either Ahmad or Mohammed Abid Zain, but from his place of teaching was universally known as "Abu Gammeiza." This man, whose father had been imprisoned by the Mahdists, proclaimed himself a Khalifa with a mission to overthrow the Khalifa Abdullahi. He first wrote a letter, apparently recognising that Abdullahi was his co-equal, and when this was spurned, determined to drive him out,

Early in October 1888 Abu Gammeiza and Abu al Kheirat started their advance from Dar Tama and at Kebkabiya they met the Emir Abdal Gadir Dalil whom they heavily defeated. On October 16th, and a week later a second force under al Khatim suffered the same fate.

Osman Gano now prepared for a siege in El Fasher but Abu Gammeiza retired to Dar Tama and consolidated his force. In February 1889 he advanced to El Fasher but was struck down by smallpox near Kebkabiya, where he died. His second-in-command, Feki Adam, continued the advance, halting at Magdub west of El Fasher for two days and then, when he found that Osman Gano awaited him in El Fasher, advancing to the attack on February 23rd. The battle was fought on the plain just outside El Fasher. The western host was described by Osman Gano as being " in such numbers that they covered the whole plain and the dust raised in their march rose to the sky. They advanced with their women and children behind, beating the drums." The battle was between a multitude ill-armed with spears and throwing sticks, and a fairly disciplined army with firearms, and though the western army broke into El Fasher on one wing they were in the end utterly defeated ; in the words of Osman Gano " We followed them even as far as the caves and the forests where they tried to conceal themselves, but they were all killed ; even those who transformed themselves into apes, wolves, dogs and rabbits (for the natives of the western countries can be so transformed), were all killed even to the very last."

Sultan Abu Al Kheirat escaped to take refuge once more with the western Sultans.

Ali Dinar

In Dar Sila however, they were such unwelcome guests, so quarrelsome and even scheming against their host—the Sultan Abu Risha of Dar Sila, that they were told to leave for Darfur. Here perforce they were confined to Jebel Marra and the western hills and with the Mahdist control becoming firmly established on all sides their position became constrained. Abu al Kheirat in 1890 was faced with a revolt, reportedly engineered by his cousin Ali Dinar, and was murdered at Kajko. Ali Dinar assumed the crown, but by 1896, deserted by his men, he surrendered to the Messeri Emir Abd al Gadir Wad Delil in El Fasher. He is reported to have attempted to kill the Emir and been condemned to death and only to have been saved by the Khalifa's instructions that he should be sent to him at Omdurman.

Meanwhile Osman Gano led a punitive expedition to the west following the Abu Gammeiza rising and had reached Kulkul when an

epidemic fell on his force, so leaving one of his Emirs, Fiki Senin, at Kebkabiya he retreated on El Fasher, but died on the way. His death was concealed, his body brought to El Fasher and buried in his house (now Ali al Senussi's house), and a request for a new Emir sent to the Khalifa. The Emir Mahmoud Ahmad arrived in 1889 and took over Darfur.

Mahmoud Ahmad appears to have been a better administrator than Osman Adam Gano. He completed the subjection of a broken country, and overran Dar Tama in 1893, but though he waged continuous war against the Masalit he never conquered their Sultan, Abu Bakr.

Mahmoud was recalled to El Obeid about 1896, but returned to make the great recruiting drive in 1897 which finally depopulated Darfur, and was a prelude to the battle of the Atbara in 1898.

Ali Dinar was a very small man in the Khalifa's army but he never relinquished his intention of ruling Darfur. He was sent on an expedition under Ibrahim al Khalil against Mek Geili of Tegale, but returned to Omdurman before the British and Egyptian forces drew near. Sizing up the probable course of events he fled with a handful of followers on the night before the battle. Some say he had only seven companions at the start, but he collected followers as he went and by the time he arrived at the borders he had sufficient forces to dispose of his rivals. The first was Ibrahim Ali, a nephew of sultan Abu al Kheirat and grandson of sultan Ibrahim Gerad. He had deserted from Mahmoud's army in February 1898 before the battle of the Atbara and had been despatched by the Sirdar to hold Darfur. Ali Dinar, however, outmarched and outwitted this ineffective claimant, seized el Fasher from the Emir Umm Beddi al Radi, and defeated his general, the Rezeigi Kieran and the remaining Mahdists with their puppet "Sultan" Abu Kauda, whom Ali Dinar made King of the Blacksmiths. He then turned his attention to consolidating his kingdom.

There were four threats to his power. The Rizeigat and Ma'alia in the south-east were not inclined to submit to him, the Beni Helba in the south-west were equally recalcitrant, and Feki Senin, the Mahdist commander, held Kebkabiya and barred the door to the west. Lastly, across southern Darfur the Mahdist Emir from Rejaf, 'Arabi Dafaalla, was retreating to Dar el Ta'aisha followed by a mixed force under the leadership of the Hamar chief, Abdal Rahim Abu Duggal, and the army officer, Hassan Warrak.

The first expedition was against the Beni Helba whom he attacked with success in the winter of 1900/01, killing and capturing many, including the Nazir, and scattering the rest to Dar Sila. He then turned

his attention to Feki Senin in Kebkabiya. Feki Senin resisted the attack behind his barrier of hills, and isolated though he was, managed to hold out until 1908, a serious obstacle to Ali Dinar's control of the west.

The Sultan was not much more fortunate against the Rezeigat. Their Nazir Musa Madibbo had visited Fasher soon after Ali Dinar's arrival and was detained for a while. But having been allowed to depart he made such haste that the Sultan's pursuit party, sent on the monarch's change of mind, failed to catch up with him, and Ali Dinar was left to regret his momentary generosity. Repeated invitations and threats during 1900 and 1901 met with no response and in September 1901 the punitive expedition was launched. The general Teirab Suliman advanced against Musa Madibbo and Subahi Ogeil with 1,000 rifles and 500 horsemen. They first fell on the unsuspecting Ma'alia after marching from El Fasher in five days, and killed 400 of them, driving off women, children, slaves, camels and other animals (including ostriches). After looting for three days they advanced on the Rizeigat, who retreated into Dar Humr. Subahi, however, eventually surrendered to Teirab, who was looting Abu Gabra, and was beheaded. Teirab now returned but suffered much from the harrassing tactics of Musa Madibbo on his flanks and rear.

Emboldened by these campaigns Ali Dinar now attacked and burned villages in Kaja Serug, whence Nuba and Kababish had been robbing and raiding. The timely appearance of a Company of the Camel Corps deterred this force from raiding further into Kordofan.

Meanwhile 'Arabi Dafaalla had withdrawn to Mandua in Dar Ta'aisha and encamped there. The Government-sponsored force under Abd al Rahim Abu Daggal and Hassan Warrak dispatched letters inviting him to surrender; but Abu Daggal's men who took the letter tried to loot 'Arabi's animals and were driven off. In December 1899 the two forces lined up at Mandua, but while Hassan Warrak was conducting negotiations Abu Daggal attacked, and when a further meeting was arranged Abu Daggal said he would loot 'Arabi whether he surrendered or not. Rather naturally 'Arabi Dafaalla broke off negotiations. A fight ensued which, though indeterminate, forced the Government party to retire as they were short of provisions. Abu Daggal then withdrew his men, looting Kalaka (from Hambali) though the people had welcomed the Government forces.

'Arabi Dafaalla now retreated to the Kara river and opened negotiations with Sultan Abu Risha of Dar Sila, but his troops gradually deserted him and on 9th July 1902 'Arabi marched into El Fasher, was disarmed, given the *amān* (safe conduct) and swore an oath of allegiance.

(He was put to death in 1915 or 1916 on suspicion of complicity in the Government's intention to occupy Darfur).

The Sultan started early on the policy of removing his ministers and generals on the all too frequent suspicions sown in his mind.

His first general, Kierain, was suspected because he left El Fasher marching eastwards in 1902 when his objective was the Rizeigat in the south. He was recalled and carved to pieces by Ali Dinar's slaves at a dinner party.

In 1901 Salih Gibril, an agent, found that the first *Wazir* Mohammed Wad Fadl had fallen into disgrace following a visit to Khartoum, and that three men shared the power of *Wazir* Somit, Teirab, and Sollum Idris, a Habbani. Teirab fell into disgrace in 1904 and was banished to Jebel Marra where he was imprisoned for two years; after this he mysteriously disappeared and is said to have been thrown down a well to die. Adam Rigal now became *Wazir*. Sollum lasted on as head of the Sultan's bodyguard until 1912, when he was killed by the Sultan's order at Nyala. Adam Rigal himself was arrested in 1911 for being too popular, and disappeared.

The power was then shared between Ramadan Burra, Suleiman Abu Hawa and Hassan Sebil in the inner Councils, while Mahmoud al Dedingawi was an influence outside.

Meanwhile the Sultan had consolidated his power by expeditions against Sultan Idris of Dar Gimr in 1902. Sultan Idris had rashly refused to give his daughter to Ali Dinar till the latter had conquered Feki Senin. The latter proving too tough, Ali Dinar sent his army to annex Dar Gimr, drive out Idris and bring back his daughter, all of which was done.

Early in 1904 the Sultan sent Adam Rigal against the Zaghawa Kobbe in the north west, capturing Sultan Abdel Rahman Ferti. He still had Feki Senin on his left flank in Kebkebia but having subdued the north he felt at liberty to put pressure on Dar Masalit, which had been in the Fur Sultanate before the Mahdia. As early as 1903 he had put to death the Emir Karamalla for intriguing with the Masalit, and in 1904 some indecisive actions took place against that tribe. But in 1905 he seized his first good opportunity. The Masalit had murdered some tax collectors sent to them by Mohammed Salih Dud Marra, the sultan of Wadai, and the latter sent a force against them. Ali Dinar simultaneously attacked them with a force under Mahmoud al Dedingawi, who captured their sultan Abukr at Dergeil, whereupon the Wadai army withdrew without fighting. Mahmoud al Dedingawi remained in Wadai for 2 years, and with the Masalit defeated a second Wadai army sent against them.

Ali Dinar was highly elated by this success and wrote reporting his victory and captive to the Governor General of the Sudan. But in 1906 Tag al Din, the son of the captured Abukr, who had fled to Wadai, returned with help from Sultan Dud Marra, defeated the Fur and killed Mahmoud al Dedingawi's successor, Gamr al Din. Ali Dinar promptly executed Abukr and sent Adam Rigal to restore order which was done at the expense of recognising Tag al Din as a tributary Sultan.

Sultan Mohammed Salih Dud Marra of Wadai from this time on was engaged in concentrating against the steadily advancing French, and Ali Dinar found the time propitious to try to extend his influence in the West. In 1906 the Fur invaded the Wurada District and Ali Dinar encouraged Bakheit Abu Risha of Dar Sila to refuse tribute to the French. The French heavily defeated Dud Marra in March and June 1908 and Capt. Fliegenshuh occupied Abéché in the latter month driving out Dud Marra and installing a certain Asil. The French then complicated their task by claiming Dars Tama and Masalit as part of Wadai and thereby provoking violent opposition from Ali Dinar. The position was still further exacerbated when the French on invitation from Sultan Idris visited Dar Gimr in October 1909.

In reply to these moves Ali Dinar in concert with Dud Marra, who was fugitive in the north, and with Sultan Tag al Din, invaded Dar Gimr in January 1910. Sultan Idris as usual fled, but his son Hashim was captured and kept in El Fasher, (buried alive, it is said) for some years. Ahmed Beida was installed in his place. In February the Masalat invaded Dar Tama and drove out the French nominee Hassan, who was reinstated by the French and then again driven out by the Fur under Adam Rigal. (It was during these events that Boyd Alexander on his trans-African journey was killed by the Fur at Nyera on 2nd April 1910).

The French pressure gradually proved too much for Ali Dinar and his confederates. Senussi influence could never combine Adam Rigal, Tag al Din and Dud Marra for long.

The Fur and Masalit however made one big raid in conjunction, penetrating west of Bir Tawil in March 1910. On 7th April 1910 Commander St. Julian following them up heavily defeated a large Fur force at Gereida in Dar Tama and then caught up and defeated Tag al Din at Umm Gorain. As a result both French nominees were reinstalled, Idris in Dar Gimr and Hassan in Tama. The arrival in May 1910 of Dud Marra as a refugee in Dar Masalit was followed by Masalit raids across their border and brought a French expedition to that area in November. An action at Daroti on 9th November resulted first in the

death of Colonel Moll and many French troops, but the rest re-formed and defeated the Masalit, killing Sultan Tag al Din, who was succeeded by Endoka, the present ruler.

In January 1911 the Fur again tried to re-establish themselves in Dar Tama and Dar Kabga but were chased out by French in May. From this time on Ali Dinar and Endoka seem to have accepted the position on the western frontier. In 1911 Dud Marra quarrelled with Endoka who allowed a party of French to come to Daroti to recover the remains of their dead. He appears from this time on to have been on good terms with the French, who with ambitions for further expansion in this area fostered his friendship. Active measures by the French were, however, confined to the occupation of Loz Beida on the borders of Dar Sila on 1st January 1912; this lead to a treaty with Sultan Bakhit Abu Risha of Dar Sila, and to an attack on the Zaghawa Kobbe where the French sponsored an usurper Haggar Toke against Sultan Abdel Rahman Firti. They surprised and killed the latter on 2nd December 1912. In May 1914 their ambitions in this area culminated in an attack on the Zaghawa whom they chased into Darfur as far as Musbat Wells.

Sultan Ali Dinar had meanwhile been fully occupied elsewhere, and we must revert to the year 1904. After his defeat of the Zaghawa the Sultan was able to open the route to Kufra and to obtain more modern firearms, but it was not until 1908 that he felt able to mount a full attack against Feki Sinin, who still held out in Kebkabiya, under Adam Rigal and Mahmoud al Dedingawi, his best generals, and it was not till the end of 1908 that this gallant old man's defences were broken down, and his head sent to the Sultan.

Ali Dinar thereafter became embroiled in affairs on the French border, as previously recounted, but by 1910 these affairs were having their reaction elsewhere. Beni Helba, Fellata and Habbaniya were being called on to supply many recruits and were fleeing to Dar Sila. Nazir Abd al Rahman Abu Habbo took 2,000 men off to Sultan Bakhit Abu Risha in March 1910. When his western campaign finally collapsed Ali Dinar found that he had to re-establish his authority over the Arabs.

His *Wazir* Adam Rigal, in spite of his heavy defeat at the hands of the French, remained Commander-in-Chief, but the armed regular infantry probably only amounted to some 3,500 men. The cavalry were much depleted by the Beni Helba emigration, and consisted of 600-700 Zayadia and Zaghawa. Basi Tahir, a Furawi, and Tigani Mahidi were the other generals. Armed posts were at Jebel el Hilla under Mustafa Gelgham, at Kuttum under Beshir Wad Nasr, and a

Kebkabiya under Mansur Abdal Rahman, but before Ali Dinar's preparations to attack the Arabs were completed he had fallen foul of his general Adam Rigal, who was becoming too popular for his master; Adam was arrested in June or July 1911 and was put to death before the end of the year.

[*The latter part of Ali Dinar's reign* 1911-1916 *is to be dealt with in a later article.*]

ADMINISTRATIVE SYSTEM

THE FUR REGIME [1]

The early Fur administration was based in Jebel Marra with its headquarters at Turra, and the first stage in organisation seems to have been the appointment of four regional Governors whose names derived from their situation in relation to the Sultan if he looked south-east from the mountain. The *Tekanyawi*, or left arm of the Sultan, was overlord of the north and was of Tungur stock. The *Dimangawi* was lord of the south-west, and was the right arm, the *Umangawi* of the south-east was his trunk. Even more important than these seems to have been the *Abu Sheikh Dali* who was lord of the eastern marches, though he was a slave and sometimes at any rate a eunuch. The post of *Abu Sheikh Dali* lapsed after the revolt of Abu Sheikh Kurra Gabr al Dar in the reign of Mohammed Fadl, but the others exist in some form today. The *Tekanyawi's* office is a sinecure in Kuttum, where his duties seem to have been completely absorbed by a hereditary *Magdum*, but the *Umangawi* is still a chief of some importance, while the *Dimangawi* emerged recently to become the paramount chief in Zalingei, when it was thought his position and prestige had disappeared for ever.

We get evidence of other State officials, some of whose names remain, without the power, until today. The *Abu Forei*, or Sultan's neck, who was chief of the rear-guard; the *Abu Gebbai*, or Stomach, who was in charge of the granaries, the *Urundulung*, or face, who stood before him, but had a special and powerful position as Governor of El Fasher; the *Konyinyawi*, who had charge of the war drums; the *Kerningawi* who was overlord of Kerne, Fia, Madi and Kunyar; all these men retained throughout the first Fur regime (however their powers varied or decreased) their position as members of the Council of *Muluk* (rulers), who in the last resort decided who was to be Sultan. Without their backing, voluntary or compulsory, no Sultan could have established his claim.

[1] See also *Sudan Notes and Records* Vol. 29 Part 1.—*Ed.*

The household officials who were so evident in Sultan Abd al Rahman's time seem to have largely disappeared by this century, but it is of interest to record the important positions once held by the *Kamni* or King's shadow, who had to die if the Sultan perished in battle, the *Iya Kuri* or principal wife, the *Iya Basi* or sister of the Sultan, the *Basi* or chief male relative. Of those only the two last seem to have held their old positions under Ali Dinar, and his sister, Meiram Taga, was a dominating figure as *Iya Basi*.

The old organisation of four regional governors, the state officials and the household staff, underwent a gradual mutation in the course of time. The regional governors whose position was hereditary were reduced or superseded by appointed *Magdums*. These in their turn tended to become hereditary holders of office, and when they eventually became too powerful were broken. Thus the *Abu Dima* continued to hold something approximating to his old position in the west, though his original twelve shartaiships were gradually reduced to eight—Dima, Wana, Nyoma, Surra, Kubra, Kutiu, Zami Baya, Zami Toya and Tabella. A *Magdum* of the west came in to hold Fia, Kerne and Madi and Koinye to the north of this area, and the *Abu Dima* found himself for a time under the *Magdum* of the south.

The *Abu Uma*, whose control of the south-east can never have been effective over the southern Arabs, was also subjected to the *Magdum* of the south, and gradually reduced to a command of the hill-men in the south-east of the Jebel.

The *Tekanyawi* in the north was in time completely subjected to the *Magdum* of the north, while the *Abu Sheikh Dali*, who was *Magdum* of the east, had a wide command in the central and eastern marches.

This "Magdumate" system seems to have come into being late in the eighteenth century, but it had a short life. The last *Abu Sheikh Dali*, the famous Mohammed Kurra, was killed in fight against Sultan Mohammed Fadl, and his office not renewed. The last *Magdum* of the south, Ahmed Shatta, and of the west, Abdulla Ranga were killed by Zubair in the reign of Sultan Ibrahim Gerad. Only *Magdum* Hassan Sherif of the north survived into and through Ali Dinar's reign.

The Egyptian Regime and Mahdia

The Egyptian was perforce a military government, primarily interested in collecting taxes and maintaining public security. They had a Governor at El Fasher, Sub-Governors at Dara, and Kebkabiya or Kulkul, and smaller military forces with junior officers at various posts such as Shakka (Abu Sigan), Barakandi, Abu Qorain, and Umm

Shanga. Later the Governor Slatin moved his headquarters to Dara, and El Fasher became the seat of a Sub-Governor.

We may say that the system was based on a line of communication to the east and a cordon against the recalcitrant Sultan in Jebel Marra and the Rizeigat in the south, rather than on any administrative plan. This system was handed over complete to the Mahdists, who in fact took on many of the Egyptian Army officers. The Egyptian method of dealing with the tribes was to give suzerainty with the title of Bey to leading Sheikhs, who then presumably became responsible to collect taxes, or fall on the defaulters.

There were many intentions and plans for development under the Purdy Mission, but the Mahdia prevented such plans being put into effect.

The Mahdists, who simply used Darfur as a reservoir for recruits, seem to have made no attempt at administration and to have abandoned the various posts as they yielded neither men nor money. El Fasher was retained to the end and Kebkabiya handed by Osman Gano to the redoubtable Feki Senin, but no trace of their administration remains if we except the bitter memories of their punitive expeditions and driving off of the population.

Administration of Ali Dinar

Sultan Ali Dinar greatly modified the old Fur administration. As has been said, the old layout of *Tekangawi*, *Umangawi*, *Dimangawi* and *Abu Sheikh Dali* had, if it ever existed in the neat arrangement reported by tradition, been largely superseded during the 19th Century by the appointment of *Magdums* in the north, south and west. The older chiefs remained in name with truncated areas but under the *Magdums*; and during the 19th century the *Magdums* themselves had tended to decline.

Sultan Ali Dinar did nothing to revive the older system, though he allowed the *Dimangawi* and *Umangawi* to hold their reduced commands. But he gradually abandoned the Magdumate system also. The *Magdum* Sherif Adam in the north was never given much power. His *rub'a* of troops (200 men) was one of the smallest. The Magdumate of the south was not revived; The Magdumate of the west was largely in abeyance because of the wars first with Feki Senin at Kebkabiya, and then with the Masalit, and Abdulla Runga in the time of Sultan Hussein is the last famous figure. Mansur Abdel Rahman Shartut and Osman Mohammed Abu el Gama did however hold some such office over the *Dars* (regions) of Madi, Fia, Koingya and Kerne under Ali Dinar.

But in effect this was not Ali Dinar's system. He had been brought up under the Mahdia and he believed in military and personal government. *Mandubs* were sent out with the troops who were quartered in various areas, to " assist " the *Shartais* and *Dimligs* to collect taxes. They were frequently moved, and as their commands varied in size according to the Sultan's whim, overlapped with the commands of old hereditary authorities such as the *Dimangawi*, and were cut across by the private domains of the Sultan, his family and the *Muluk*, it is not possible to discern any consistent system, or worth while trying to unravel the history of who ruled in each area.

Below these personal envoys of the Sultan we came on the more stable orders of *Shartais* and *Dimligs* or *Sheikhs* who no doubt lost or gained power according to the energy, greed and proximity of the local *mandub*.

Above this local administration the old central government by the Council of *Muluk*, who had great traditional power, also suffered a decline. Of the old hierarchy, only the *Abu Gebbai* (Mohammed Fadl), the *Malik* of the Drums (Tibn Saa al Nur) and the *Urun-Dulung* remain. The *Abu Forei* is a nonentity and the *Kamni* has disappeared.

In their place we find a new Council composed of a few officials, personal favourites and household slaves. In the former class were :—

The *Qadi* .. .. Idris Abdullahi (still alive)
The *Wazir* .. .. Successively Teirab Suleiman, Adam Rigal and Ramadan Ali Burra.
The Chief Minister. Mahmud al Dedingawi
The *Magdum* of the North—Sharif Adam.

Among personal favourites were :—

Nazir Ali al Senussi
Sullum Idris .. Head of the Body Guard
Melik Mustafa *Gelgham*
Hassan Sebil .. Court Chamberlain.

But power latterly tended to get into the hands of the Sultan's slaves such as Ramadan Ali, finally *Wazir* and Commander-in-Chief, and Bakhit Omdurman, and these two with Hassan Sebil were the real council of state in the latter days.

Justice was administered by District *Qadis* subject to Qadi Idris. But the *Muluk* and *Mandubs* also saw many cases and even *Shartais* and *Nazirs* dealt with minor crime. The Sultan alone punished with death or maiming, which were the penalties awarded for theft, adultery, wounding or the selling of male slaves.

Taxation consisted of *Zakat al Bahaim*, which was 1 *rial* (20 P.T.)

per camel, 10 P.T. per cow, 1 P.T. per sheep and 1 or 1½ P.T. per goat. These taxes were paid each year in the month of Dahia, often in kind, and one fifth went to the *Masakin* i.e. the *Jehadia* (bodyguard) and native levies.

Futra was collected in the month of Ramadan, and was a poll tax of one *mid*[1] of corn on every man, woman and child. When collected in cash it of course cost more in a bad year than in a good one.

Each tribal group paid a cloth tax to clothe the army (*Takia Takaki*) at the annual festival of 'Id al Dahia, and there were many other imposts in kind, grain dumps for the army, ropes, horses, ivory and slaves as the occasion demanded. The most unpopular imposts seems to have been slaves to feed the Sultan's armies.

The people had also to support their local chiefs who took *Ushur* (tithe) on the crops and dues on gum. They also of course inflicted minor fines and "ate" the proceeds.

There were also royalties (*Khums*) on natural produce, such as tobacco, pepper, ivory, or ostrich feathers, often of course collected in kind. Trade and export was subject to *Tasrih* (lit, permit). while imports were subject to *Mubrak* (the place where the camel kneels down or "barraks") as well as frontier dues. In theory Ali Dinar's system was not unsuited to Darfur, but when we examine it more closely we see that the ordered system of a Sultan with a powerful hereditary Council at the top and an administrative hierarchy of *Magdums*, *Shartais* and *Dimligs* or *Sheikhs* was giving place to a personal autocracy run through military channels. Of the old *Meglis al Muluk* only a few of the hereditary office-holders remained while personal favourites and slave officials were taking their place. *Mandubs* who were army commanders were replacing the old rulers as administrators. The taxation system was vitiated by bargaining and *diafa* ("hospitality," i.e. a present) to these officers, who if well bribed only collected and remitted to the Sultan the minimum they thought he would expect.

The legal system is so shadowy and was so beset by bribery that it is difficult to set it out as a coherent system. The *Mandub* figures more largely in the peoples' memories than the Assistant *Qadis*.

This is not to paint the old Fur regime as a golden age, but at any rate tax restraints imposed by the traditional Muluk or the Sultan were disappearing, and the attempt to finance a large army and an extravagant household on Darfur alone without the tribute and slave of Kordofan, Wadai and the south, was breaking down financially in Ali Dinar's time.

[1] About 12 lb.—*Ed.*

The Sudan Government

Administration under the present Government followed the main lines adopted elsewhere in the Sudan. There were Districts based on El Fasher, Kutum, Umm Kedada, Zalingei and Nyala. Sub Districts were formed under Kutum at Mellit and Kebkabiya in northern Darfur. Dar Masalit was not fully taken over until February 1922, but a Government post was placed at Kereinik in March 1918 before Geneina was occupied.

The personnel in the British section was for some time military. The first Governor and all the first District Commissioners in 1917 were military except for Gillan at Nyala. All Departments, (although those represented were only Medical, Veterinary and Public Works), were run by soldiers.

The Governorship passed to a civilian, Munro, in 1923, but there were soldier District Commissioners in some districts until the late twenties. The work in the earlier years was primarily maintenance of public security, judicial and tax collection.

Administration below district level was run through *Nazirs* and *Shartais*. They received no pay at first, but got remuneration for taxes, were allowed to " eat " fines, and of course large customary dues, which, as military commanders and *Mandubs* no longer competed for them, were probably larger than under the Sultan.

Their judicial powers were limited to a small fine which was later legalised under the Powers of Nomad Sheikhs Ordinance. This Ordinance of 1922 was not so revolutionary a law in Darfur as elsewhere, for the State courts and magistrates had never attempted to hear all cases there. It did, however, shift a great burden of legal work from the District Commissioner to the Sheikh's Courts which had hitherto had no powers of imprisonment. The new Ordinance was accompanied by better salaries, and later by payment of all fines into Government chests, and soon after by a simple form of Native Administration budget in certain areas.

Darfur was, however, to go through a period of trouble in tribal administration before a reasonable system was evolved. Whereas in the eastern Sudan, customary powers of tribal chiefs had never been recognised and the exercise of new powers to fine and imprison was accepted with caution, in Darfur the very reverse was the case. The *Shartais* and others had long been used to punish their subjects, but only as subsidiary authorities. The official presentation to them of Warrants, and a mistaken policy which taught that their authority must be upheld by seldom reversing their decisions, led to overmuch fining

and imprisonment, often for the vague offence of "disobedience of orders." Not only were appeals often rejected, but the last refuges of the subject, voluntary exile or revolt against his chief, were repressed when possible. From 1926 to 1928 and later in some places, some injustice, nepotism and selling of posts were allowed under this mistaken policy. By 1930 more sensible counsels had prevailed, and tyrannical chiefs were being punished. or dismissed

Another false step at a higher level was being taken at this time. It was clear that the grouping of tribes under regional Courts which tended in time to develop administrative powers, was not the last step in devolution. Such groups were limited by physical factors to fairly small areas, and these areas could not support a sound budget. On the analogy of Nigeria, there was an attempt to form Emirates which would be at least the size of an administrative district.

The Sultanate of Dar Masalit was already in being when we took over the area in 1922. The son of the old *Magdum* of the North was returned to Northern Darfur with his father's title first on trial in 1926 and then in 1930 with full court powers. Next Southern Darfur was invited to accept one of the Khalifa's sons as Emir in 1929, but the proposal came to nothing. An Emir was found for Western District in the person of the aged Abd al Hamid, the son of Sultan Ibrahim Gerad, who was drawn from his retirement at Kosti in 1928. A respected old official was offered the headship of the Eastern District, and the dominance of Feki Salih in El Fasher seemed to promise another autocracy there.

Now there was much to be said for this plan, yet barring the Sultan of Dar Masalit, not one of these Emirates or Magdumates survives today except in name. It was right to think that the old tribal administrations were too small financially and economically to form self-supporting local government units. There was also some historical justification for re-introducing the higher grade of local government which had always existed in the powers of *Magdums* and *Mandubs*. But there were some fatal flaws.

The old hereditary Magdumates had disappeared except in the north, and the new occupants proposed for Eastern Darfur, Nyala and El Fasher had not the traditional prestige which would have ensured their acceptance. The Magdumate system had in any case been broken by the Sultans and it was too late to reinstate it. The Chiefs and people were looking for something based on justice and ability rather than divine right, and this wrecked even the two administrations in Northern Darfur and in Zalingei where the hereditary system gave prestige to the

new ruler. The revival of tribal administration under the Sudan Government had, in the measure of justice to be obtained from the District Commissioner, given the people and chiefs an insight into something better than the old hereditary autocracy. Emir Abd al Hamid Ibrahim reigned with the respect of his people if without marked ability from 1929 to 1931, but the son Mohammed Fadl had to be dismissed in 1936. The *Magdum* of the North never succeeded in establishing his authority except over the few *dars* round Kutum, and remains only *primus inter pares* with the *Maliks* of Zaghawa and Meidob, the *Shartais* of Mellit and Kebkabiya. The Eastern Emirate never took shape at all, and El Fasher's history developed on different lines recorded below.

The attempt to institute these emirates lasted on for some time. The *Magdum* of the North was nursed until 1944, but it was clear before that date that he was never going to command the allegiance of the chiefs. With the fall of the Emirate of Zalingei in 1936, Abd al Rahman Adam Rigal, son of the Sultan's one-time *Wazir*, was appointed as *Magdum* of Nyala and Zalingei, an impossible amalgamation geographically. The void in Southern Darfur was to be filled by appointing Ibrahim Musa of the Rizeigat as *Nazir* of all the Baggara, but it was another impossible geographical unit, apart from personal considerations. *Malik* Mohammed Mahmud al Dedingawi at least kept his title in El Fasher, while *Shartai* Daw al Bait Abd al Daim established a supremacy by his ability and integrity in Eastern Darfur. But the system was kept going by accident of ability or by Government insistence; it had no hope of prolonged survival.

The coming of more formal local government in 1944, and the creation of the Advisory Council with its foreshadowing of a Legislative Assembly based on constituencies, marked the end of the attempt to create Emirates based on personalities rather than on history. The Nyala and Zalingei Magdumates were disassociated in 1945, and the idea of a Baggara confederacy reduced to a combined court. The *Magdum* at Kutum was formally confined to control of the home *dars*; the title of *Malik* was withheld from the new President of El Fasher Central Court. Administrative powers are now being vested in councils for the various areas and independent local "budgets" have been granted by the Central Government. It is still too early to assess what the next stage in Darfur will bring.

The chief published sources for these notes are :—

W. G. Browne : Travels in Egypt ;
Omr el Tunisi : Voyage on Darfur ;
R. Von Slatin : Fire and Sword in the Sudan ;
Wingate & Slatin : Mahdism in the Anglo Egyptian Sudan ;
G. Douin : Reign of the Khedive Ismail.

The Author has also drawn largely on papers in theDarfur Province records, and must express his great indebtedness to unpublished notes by Sir Harold MacMichael and Mr. A. J. Arkell which have been largely incorporated in certain sections of the article.

SHIFTING CULTIVATION IN THE SUDAN

WITH PARTICULAR REFERENCE TO FORESTRY

Compiled by J. K. Jackson and M. K. Shawki from accounts of shifting cultivation in their respective districts supplied by members of the Forestry Division, Sudan Ministry of Agriculture, and by others.

INTRODUCTION.

THE area of the Anglo-Egyptian Sudan is about a million square miles, lying between latitudes 21° 55′ N. and 30° 53′ N. and longitudes 21° 48′ E. and 38° 30′ E. The population is about eight million. It is essentially a country of vast plains with some areas of rolling country and a few widely separated groups of hills and mountains. The rainfall varies from almost nothing in the north to over sixty inches in the south, and in consequence the various types of vegetation tend to lie in broad bands running very roughly east and west parallel with the isohyets. The following classification of the vegetation is based on *Agriculture in the Sudan* edited by Tothill (Oxford University Press, 1948):

1. Desert : rainfall 0 to 50 mm.		approx.	230,000	square miles.
2. Acacia desert scrub : 50 to 300 mm.		„	230,000	„ „
3. Acacia short-grass scrub : 300 to 500 mm.		„	90,000	„ „
4. Acacia tall-grass savannah woodland : 500 to 1000 mm.		„	250,000	„ „
5. Broad-leaved savannah woodland and forest	1000 mm. and over	„	115,000	„ „
6. (Closed) Forests (*a*) Gallery forests (*b*) Bowl & depression forests (*c*) Montane or cloud forests				
7. Swamps and rivers		„	50,000	„ „

Shifting cultivation takes place in all these types, except the first two, where there is insufficient rainfall to permit unirrigated cultivation except in occasional years, and in the permanently inundated swamps. It is indeed the principal type of cultivation practised, except in the artificially irrigated plantations of the Gezira, the Gash and Tokar cotton schemes, and the areas irrigated from the Nile by pumps, water-wheels, or *shadufs* (counterbalanced dippers).

Vernacular names for various types of shifting cultivation are given in the detailed descriptions below, but there are no names for shifting cultivation as opposed to static cultivation.

TYPICAL DESCRIPTIONS OF SHIFTING CULTIVATION

A.—**The Gum Arabic "Gardens."**

These areas, characterized by the occurrence of *hashab* (*Acacia senegal* Willd.) and *talh* (*A. seyal* Del.) from which the Sudan's very important export of gum arabic is obtained, extend over large areas of Kordofan and Darfur Provinces, and parts of the Blue Nile and Kassala Provinces.

The soil generally forms a flat plain of dark cracking clay. In the north of Kordofan and throughout most of Darfur sand dunes, now static, mark the area invaded by sand from the north in recent geological times. On these dunes crops are grown and gum is produced in what is in some parts a well-defined rotation. The following is a typical cycle on the sands close to the Nile north of Kosti :—

(1) *Cultivation period.*

This period begins with the clearing of the acacia scrub, leaving a characteristic vegetation of sparse grass and stunted *heglig* (*Balanites aegyptiaca*). The dunes are cropped with *dukhn* (*Pennisetum typhoideum*) and *dura* (*Sorghum vulgare*) for four to ten years, when the soil becomes exhausted and infested with *buda* (*Striga hermonthica*) a root-parasite of these cereals. Finally the land is abandoned and passes into the next stage.

(2) *Colonization period.*

The ground begins to be colonised by *heskanit* (*Cenchrus biflorus* Roxb.), *talh* (*Acacia seyal*), and *hashab* (*Acacia senegal*), all of which regenerate best on freshly worked and cleared soil. In three years the acacias reach about a metre in height, and in eight are ready for tapping for gum.

(3) *Period of dominance of acacias.*

This period, known in Arabic as the "*geneina*" (garden) phase, is that during which the trees are tapped for gum. It lasts from six to ten years.

(4) *Deterioration phase*

Finally, as a result of heavy tapping, the trees begin to die almost simultaneously. They do not regenerate themselves except occasionally from the stump, and neither does *heskanit* (*Cenchrus biflorus*), which is gradually replaced by denser-growing grasses protected from grazing by the fallen acacia trees. Inflammable conditions thus prevail, and eventually the land is burned over and is taken over again by the cultivator. The fire helps to clear the land, without as a rule endangering the existence of still productive gum gardens which are fairly fire-proof due to the fire-resisting qualities of these two acacias. Fire may, however, if intense, ruin the gum yield for a season.

On the whole the effects of this system are probably beneficial. *Hashab* (*Acacia senegal*) being a leguminous plant is believed to improve the soil during the bush fallow period, and the working of the soil for cultivation facilitates its natural regeneration. Both the forest crop and agriculture form a productive part of the rotation.

B.—**Village Periphery cultivation in the acacia zone: "*Bildat*"**

'*Bilad*' ('*bildat*') is the Arabic name for village periphery land on which cultivation is virtually perennial, often without resting periods. It can be included under shifting cultivation because when the land is worn out the whole village is sometimes moved to a new site, although this is of rare occurrence. The exhausted soil is gradually recolonized by trees and eventually regains fertility.

With increasing population there is a tendency for this recuperative period to be reduced, and the fertility of the soil is thus in turn reduced. Also the effects of cropping to exhaustion often result in the soil becoming badly eroded, even in the sands, before it is abandoned, and the effects of this erosion may be permanent.

A similar form of cultivation is carried out by mixed Arab and Nuba cultivators on the dark cracking clay plains at the foot of the Nuba Mountains. This is less deleterious, as here the rainfall is higher, and a re-growth of *Acacia seyal* soon occupies the abandoned cultivation.

C.—**"*Harig*"**

Harig is the Arabic word for fire or conflagration, and is applied to a type of cultivation based on the firing of the old stand of grasses

before cultivation. It is practised in the areas of grassland which often lie between belts of *talh* (*Acacia seyal*) or *kitr* (*A. mellifera*). After one or two crops of sorghum have been harvested the land is left fallow for a period of two to four years, until it is covered with a dense mat of grass if by chance or protection it has escaped fire. After the first rains have caused the previous year's grass seed to germinate the mat of old grass is set on fire. The heat is sufficient to kill off all the newly germinated grass leaving the ground weed-free for sowing again with grain.

It appears probable that the fertility of the soil can be maintained by this method, though there is by no means universal agreement on the point. The practice is definitely inimical to forestry, as it tends to perpetuate grassland rather than forest, and fires are liable to spread into forested areas. The dominant grass of the areas most sought after for this *harig* cultivation is *anis* (*Sorghum purpureo-sericeum*).

D.—**Terraced cultivation on Mountains.**

This is practised by the Nuba on the slopes of their rocky hills, which carry a type of stunted savannah vegetation. Despite elaborate terracing, over-cultivation and erosion are gradually denuding the mountains, and resettlement of the population on the plains will probably be necessary.

On Jebel Marra, in Darfur, erosion is even more severe and the old terraces have been abandoned in parts.

E.—**The Nilotic Tribes of the Upper Nile Province.**

The country inhabited by these people consists of permanent swamps near the rivers; seasonally flooded areas (*toic*) above the swamps; and acacia tall-grass forest on the higher land away from the rivers, in which *talh* (*Acacia seyal*), *kuk* (*A. sieberiana*), *heglig* (*Balanites aegyptiaca*), *dom* (*Hyphaene thebaica*), and *doleib* (*Borassus aethiopium*) are the commonest species.

Of the Nilotic tribes the Shilluk cultivation (vernacular "*podh*") is chiefly near the river where there is easy access to water. The villages are stable and the cultivation spreads round them. Areas are cropped for three to four years, after which the land is left to recover and new areas are opened. No rotation of crops is practised.

The Nuer plant year after year till the soil is exhausted, when the whole village may be moved to a new site. This is not always true of their "gardens," however, which are often situated away from the villages. Here sometimes a new piece of virgin ground is cleared at one end of the cultivation while an exhausted piece is abandoned at the other.

The northern Dinka, with the Mabaan, are the most industrious cultivators among the Nilotics. They do not clear the ground of trees but usually lop and top them. Cultivation may last five years before the area is abandoned. Dinka cultivation may be many miles from the permanent village sites. Open spaces are reserved for sorghum, but forest land with the trees lopped and topped is preferred for sesame.

In general the effects on forestry of shifting cultivation in this area are not of great importance. The Nilotics are chiefly interested in keeping cattle, although exports of grain from Dinka country are increasing. There are local areas where serious soil deterioration has arisen from a combination of over-cultivation and over-grazing, but widespread deforestation to provide land for cultivation has not yet occurred. Abandoned cultivations are re-colonized by *talh*.

F.—**Cultivation in the savanah woodland of Equatoria.**

The following description taken from *Agriculture in the Sudan* gives a good general idea of the practice in this area :—

> " Certain areas are brought under cultivation for a time and then the farmer moves to new ground, preferably untouched or virgin. After a few years the process is repeated. One man may work several such farms each of which may be under a different crop. The farms may be widely scattered in the forest and generally average two feddans [about two acres] each.... [Eventually] diseases or a greatly reduced yield forces the owner to move elsewhere. The move consists in cleaning an adjoining area of forest, and so the process goes on until the original farm, through having been allowed to go back to nature and thus to regain most of its old fertility, will once more be brought back into cultivation. The main crop to be grown throughout this period will be grain of some sort, but the first crop sown on newly cleared land may be a subsidiary crop, this may be ground-nuts or sesame depending on the district. Before finally abandoning an area another subsidiary crop will be sown which may be a one season crop or may possibily be cassava which will remain in the ground for two or three years before being dug up. As the area of cultivation shifts, so may the houses, but it is more usual for the houses, probably situated near a domestic water-supply, to remain permanently in one place."

The fallow period is often short, from as little as two years upwards. This is not due to land-shortage, but rather to the desire to keep cultivation areas near to existing villages and also to avoid the heavy

work of new clearance. Probably four to five years is the average fallow ; by this time coppice shoots of trees will be ten to twelve feet high.

Typical rotations are :—

(1) Acholi : The trees are felled usually in August and left to dry on the ground. The grass is protected from fire till late in the dry season, when it and the trees are burnt together. The crop is then sown with the rains. The crops would be first year, sesame ;second year, eleusine ; third year, sorghum, after which the ground would be allowed to revert to fallow. This is practised in tropical savannah woodland of the *Albizzia zygia-Terminalia-Combretum binderanum* type.

(2) Bari : Carried out in thorn scrub (perhaps a secondary formation) of *Acacia seyal, A. senegal,* and *Dichrostachys* after clearing and burning ; first year white drooping sorghum, perhaps mixed with sesame ; second year red sorghum ; third year groundnuts.

(3) Lotuko : Near their villages the Lotuko sometimes crop the soil to exhaustion, and very severe erosion can result, particularly on red detrital soils at the foot of the hills.

(4) Zande : The Zande practice three years cropping followed by a fallow of varying length. The crop rotation would typically be :—

Year 1. 1st crop groundnuts, 2nd crop eleusine.
Year 2. 1st crop maize and pumpkins, 2nd crop eleusine.
Year 3. 1st crop sweet potatoes and beans, 2nd crop sesame or eleusine and cassava.
Year 4. Cassava.

In addition to the short-term fallow periods of two to five years described above, there is evidence of a longer-term cycle. After the short-term cycle had been practised for, say, twenty years, crop yields generally would begin to fall seriously, and the whole village would move to a completely new site, perhaps twenty miles away. Of recent years this type of movement has been masked by the general desire to stabilize villages in the interests of good administration and sleeping sickness control.

The effects of shifting cultivation here are deleterious to the forest growth in that rain forest has been converted into fire-climax woodland in many places, and this woodland is in turn prevented from reverting to high forest. Also in the drier savannah there is evidence that cultivation is tending to convert broad-leaved woodland into thorn forest on sites near the transition between these two zones,

The effect on the fertility of the soil depends on the length of the fallow period and the length and intensity of the cultivations between the fallows. Providing the fallows are long enough no permanent

damage will be done to the soil, and, in the absence of proper crop rotation and manuring, shifting cultivation would appear to be the only, effective way of stopping soil deterioration. However, in many cases, especially where villages have been ' anchored ' and the area of cultivation restricted in the interests of tsetse control, there has been inadequate land for a proper fallow and serious soil deterioration and erosion have taken place.

G.—Shifting cultivation in Equatoria high forests.

This is now of unimportant extent as the area of high forests left in the Sudan is extremely small and the more important areas are, or soon will be, forest reserves. In the basin and gallery forests the effect of cultivations is to convert the forest permanently into savannah ; the reverse process is so slow as to be almost non-existing. With the exception of the Didinga Hills, shifting cultivation has now been stopped in all the montane forests. There is no doubt that in a country with as little good forest as the Sudan the use of the remnants of high forest for cultivation is a luxury which cannot be afforded.

H.—Cultivation on gerf lands and basins.

Most bends of the Blue Nile from Khartoum to Roseires, and of its two tributaries the Rahad and the Dinder, hold pieces of land liable to periodic inundation, cut off from the main stream by banks of silt; these silt-banks are locally known as *gerf*. The basins contain a climax forest of *sunt* (*Acacia arabica* Del) while the *gerf* often has a tangled growth in which *sidr* (*Ziziphus spinachristi* Wild) is one of the chief species. These *gerf* land are very fertile, but previously were cultivated only to a very small degree. Now, however, controlled shifting cultivation is largely used on them in conjunction with the raising of *sunt* plantations, which will be described later.

SUBSEQUENT MODIFICATIONS

A.—General.

On the whole there is no land hunger as yet in the Sudan. But the rise in the standard of living, the increase of the population and the mechanisation of agriculture are increasing the pressure on the land. In a few places there is local over-concentration of population, which has often been unavoidable, as for example where water supplies are restricted ; but it has in some places been brought about deliberately by concentrating people in villages for sleeping sickness

control. This causes the fallow periods to be shortened, and dangers of soil-erosion to arise. The formation of new settlements by the creation of new water-supplies is one method of alleviating this local over-concentration, but control is needed to ensure that these new water supplies do not simply mean new areas of denudation.

The modifications described below are mostly those introduced by the administration.

B.—**Modifications in the Gum Belt.**

Nothing much has been done here so far, but suggested modifications include the adoption of expensive and difficult fire protection, the regulation of the tapping to lengthen the period of gum production, or alternatively the speeding-up of the process of tapping to death, and thus bringing about the return of cultivation sooner. Further research is needed into the whole question.

C.—***Harig.***

In some places the firing of the *harig* grasses is being replaced by disc harrowing after the germination of the new season's grass. This (among other benefits) reduces the risk of fires spreading from cultivation.

D.—***Bildat.***

Experiments are being carried out in laying out rotational *bildat*, the areas round villages being surveyed and worked on a system of cultivation for varying periods followed by resting periods. Where possible, villages situated away from the river are being made permanent, instead of seasonal, by the provision of *hafirs*, i.e. reservoirs dug in the clay plain to store rainwater. The introduction of *kitr* (*Acacia mellifera* Benth) into the rotation is being considered, but this, if in fact it can be achieved, will entail a longer resting period.

E.—**Nilotic.**

The only modification so far is the replacement of scattered small plots of cultivation with larger areas managed on the *harig* system mentioned above.

F.—**Equatoria.**

The most important modification is seen in the Zande scheme near the Belgian Congo frontier. This scheme is one for the commercial development of the Zande country, a region far from ports and lines of

communication, on the basis to a large extent of internal self-sufficiency, including the provision of cotton spinning and weaving plant, sugar refineries and so on.

The system of cultivation adopted under the Zande resettlements consists of survey and subdivision into plots, each plot being from 30 to 40 acres, depending on the quality of the soil. Cultivation of any piece of land within this plot is only allowed for three years, after which the cultivator must allow it to revert to bush-fallow, another area of land within his plot being cleared. Cultivation is forbidden on bare slopes, and along or near stream valleys, rivers and springs.

The plots are located in dispersed groups of fifty family units known as *gbaria*. During the process of survey and resettlement land is also selected for forest reserves.

The possibility of introducing mixed husbandry into this area is also being investigated. At present tsetse fly makes this impossible, but the development of Antrycide and similar drugs may alter the position.

A similar scheme, on much less ambitious lines, is being tried at Kajo-Kaji, near the Nile.

EXTENT OF SHIFTING CULTIVATION.

As will have been seen, shifting cultivation is universal on non-irrigated land in the Sudan, wherever there is sufficient rainfall.

It is completely prohibited in reserved forests except in conjunction with the raising of tree crops.

INEVITABILITY : MEASURES OF CONTROL

Shifting cultivation appears to be inevitable for many years to come in the Sudan. In much of the country, especially on the leached soils, no practicable method of maintaining the fertility of the soil has so far been found except by allowing the land to revert for a period to bush-fallow. The widespread use of rotational farming, manures, and so forth lies many years ahead.

The population that could be maintained in the Sudan under shifting cultivation is undoubtedly much greater than the present one, provided new areas can be opened up by provision of water supplies. There is very little data, however, of the actual area needed to maintain a family or individual. One authority quotes the following example, with a host of reservations : " A community of about 50 families is said to have lived on a clearing of about 250 *feddans* (approximately 250 acres) for the last 15 years in the south of the Upper Nile Province.

There is no sign that the community wants to leave." This area appears to be very small for the population concerned. The riverain land along the Blue Nile from Khartoum to Roseires has been estimated to carry an adult male population double that which the existing village lands can properly carry, having regard to soil conservation and permanency. There is here, however, abundant uncultivated land away from the river, which only needs drinking water supplies for its development.

Some measures of administrative control have been described in the preceding section. Closure of certain catchments to cultivation is being brought about by making them into forest reserves; the very important area of the Imatong Mountains is expected to have the reservation formalities completed very soon.

Burning has been successfully controlled in parts of the Nuba mountains; in the southern provinces of the Sudan attempts to prohibit burning have been ineffective, and an early-burning policy has taken their place. Early fires are less fierce and in consequence cause less damage to trees. It is permitted, however, to late-burn areas actually to be cultivated, as long as the fire is not allowed to spread from these areas.

THE LEGAL ASPECT.

Forest reserves are mostly constituted under the Central Forests Ordinance, 1932; in a minority of cases the Provincial Forests Ordinance is employed. All rights are extinguished when central reserves are created, and no shifting cultivation is practised, except in the form of "taungya"[1] for regeneration of the forest — a permissive privilege which is withdrawn when the needs of silviculture have been satisfied.

Outside the forest reserves control of deforestation comes under local standing orders, issued with the authority of Local Governments. Such standing orders deal among other things with ownership and rights over land, nomadic movements, new cultivation, and lapse of cultivation rights. Early-burning is also controlled by these standing orders.

Under the Provincial Forest Ordinance the Local Government Authority may declare species of trees to be "protected trees" and these may not be cut down or destroyed without permission, even in the course of cultivation. In practice this provision is very difficult to enforce because of the scattered nature of cultivation.

[1] A Burmese word adopted by English-speaking foresters to denote reafforestation by planting trees with agricultural crops.

DATA ON RATE OF ECOLOGICAL CHANGE

Very little information on the rate of ecological change has been collected in the Sudan. In the acacia tall-grass region there is evidence from comparison of old maps and reports that the spread of acacia during the last 20 years has more than compensated for the loss of forests due to cultivation.

In the southern Sudan, however, there is considerable evidence that during the last century great areas of closed forest have been reduced to fire-swept woodland by shifting cultivation followed by fire. This evidence is mostly ecological, including the presence of strips and patches of high forest and of isolated trees of high forest species in present-day open woodland; the fact that much open woodland will, if protected from cultivation, revert to forest; and the occurrence of some of the fauna of closed forest country in places where closed forest no longer exists. An interesting example of the last point is the occurrence of the Casqued Hornbill (*Bycanistes subcylindricus*) at Kajo Kaji — a region now almost completely denuded of forest, but in which there are local traditions of a much greater extent of forest in the past.

This process of conversion of high forest to savannah has now ceased, largely because there is very little high forest left and because the principal remnants have been created forest reserves.

ADAPTATION OF SHIFTING CULTIVATION TO FORESTRY.

This has reached its greatest development in the Sudan in the riverain *sunt* (*Acacia arabica*) forests of the *gerf* and basins of the Blue Nile. These forests are worked by clear-felling followed by immediate resowing of *sunt*. Since 1944 the increase in the price of maize has enabled its cultivation as a "taungya" crop to be introduced economically.

The system now in force in the more southerly, and more fertile, basins, is to employ paid labourers to sow the maize crop and the *sunt* seed together. At the harvest the crop is shared between the labourers and the Forestry Division. By this means the Forestry Division retains complete control of the operations, and is able to procure labour relatively cheaply at a period of seasonal scarcity when wages tend to be inflated.

Cultivation is only carried on for one year, and after the crop is harvested the trees are allowed to grow on.

The labourers are mostly West African Hausa (known in the Sudan as "Fellata," though few of them actually belong to this tribe) who are

slowly working their way on pilgrimage to Mecca. They live in villages outside the forest reserves and have no land permanently allotted to them. They are engaged for the cultivation season only, after which they are discharged, although there is often other employment, such as firelining, available for them.

In the more northerly basins an experiment — which has met with varying success — has been tried by allowing contractors to sow and harvest a maize crop free, in return for sowing the acacia seed with the crop.

The systematic management of the *talh* (*Acacia seyal*) rainland forests is likely to be undertaken soon, to provide for increased demand of fuel and building poles. Here it is hoped to introduce a " taungya " system of regeneration also.

Elsewhere in the Sudan, owing to the absence of land-hunger, " taungya " is still in an experimental stage. In general the cultivators are reluctant to take part in this system while they have ample land which they can cultivate at will without the restrictions necessary when tree crops are raised among their own crops.

In the Imatong Mountains experiments have been made in growing *Cupressus* together with maize and chick-peas to avoid the excessive amount of weeding necessary in this very wet climate. It seems, however, that the *Cupressus* is very sensitive to over-cultivation of the land, and care is needed to find the happy medium between too much weed growth and too much exposure of the soil.

CONCLUSIONS.

There are, in the Sudan, local areas where the population is excessive and where shifting cultivation is doing harm to the land. On the whole, however, there are at present ample reserves of land, and provided sufficiently large areas are set aside now as forest reserve for the production of timber and fuel, and for the protection of vulnerable places such as steeply-sloping land and watersheds, shifting cultivation need do little harm. In any case, its continuance seems inevitable for many years, and it would be useless to try to prohibit it. Instead, attention should be paid to removing such evils of the system as a too short fallow period, and too lengthy cultivation of the same area without a rotation of crops.

The system of managing gum " gardens " on a definite cycle of cultivation and tree-growth appears to be an efficient form of land-use, needing improvement in minor detail only.

These notes were originally compiled in answer to a questionnaire circulated by the Commonwealth Forestry Bureau. They make no claim to be an exhaustive treatment of the subject, which would virtually amount to a treatise on native agriculture in the Sudan; and doubtless a number of inaccuracies and omissions will be found. While this compilation was being made it became very obvious how scanty was our knowledge of native agricultural methods, and how difficult it was to obtain reliable information about them. Readers of Sudan Notes and Records *could collect very useful information not only by questioning cultivators, but by checking later to confirm that the information given did agree with the practices actually followed.*

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NOTES ON THE BENI AMER

By A. Paul.

Historical Background

The history of the indigenous peoples of that part of the Red Sea coast which lies between the latitudes of Massawa and Agig is obscure. Conquered, dispersed, and enserfed as they were by stronger alien groups from the interior, their descendants have largely lost all historical perspective, and moreover, since their adoption of Islam are concerned only to claim a spurious Mohammedan ancestry. All that can be said is that to-day they show obvious traces of a mixed Hamito-Semitic origin, and that their language connects them with a civilisation as venerable as that of the Sabaeans in Southern Arabia.

There were many Sabaean colonies in Africa, but in the second century B.C. both the coasts of the Red Sea were invaded by Ptolemy Euergetes, one of whose captains reduced most of Tigré to subjection. Out of these colonies and conquests grew the Kingdom of Axum, with its veneer of Graeco-Egyptian civilisation, which flourished until the seventh century A.D., when the last of its princes was deposed by the Negus of Shoa.

From the eighth century onwards Ethiopia was severed completely from the outside world by the Islamic conquests in North Africa. Little is known, therefore, until sometime in the fourteenth century the Habab descended from the highlands of Abyssinia, and overran all the peoples of the coastal area. They made short work of the Almada, Targeila, Meikal, Rigbat and other kindred tribes, and imposed upon them a feudal system which was later to be borrowed in its entirety by the ruling caste of the Beni Amer, whose origins were Arab and Islamic, whereas the Habab remained nominally Christian until well on into the 18th Century.

The conquered territory was divided between two brothers, Asgadé, who took the southern part, and Bahalyai, who took the territory which is now inhabited mainly by the Tokar Beni Amer. The Beit Asgadé are to-day the aristocratic caste of the Habab, the Beit Bahalyai have vanished from history almost as completely as the Picts of Scotland, and are remembered only in the name given by Beni Amer to any ancient ruins in the hills.

Upon the peoples whom they conquered the Habab imposed a feudal system by which in return for payment of dues and performance of certain services, the nobility granted protection and exercised a general patronage. Judging by modern conditions a complete tribal fragmentation must have taken place. Tribes, clans, even families, were torn ruthlessly asunder, and so sundered were divided arbitrarily among individual members of the nobility. The wonder is that after centuries of such treatment the tribal consciousness of the serf peoples should have retained such strength as it has.

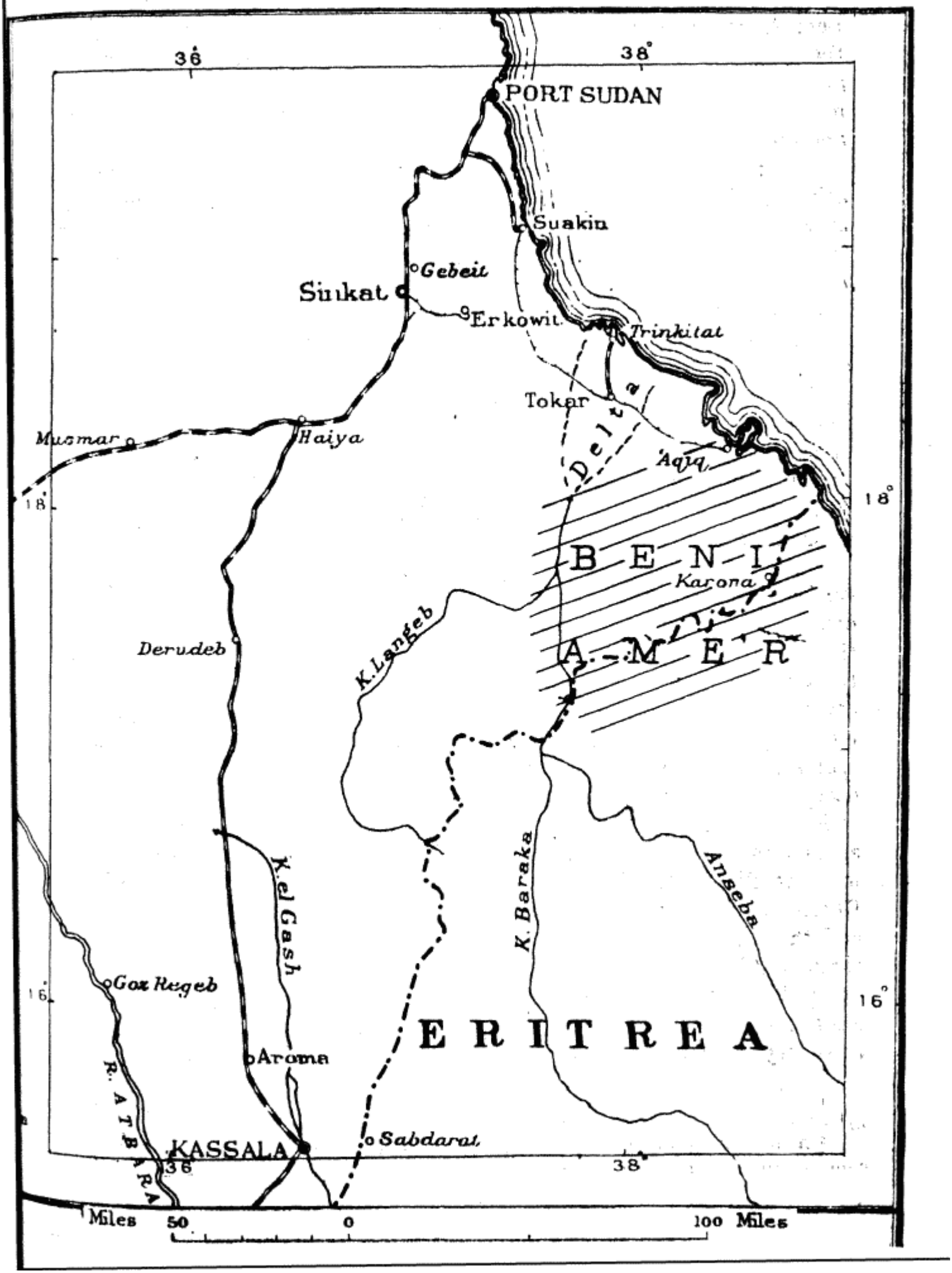
On the north and west the Beit Bahalyai had for neighbours the Bellou, a people of ancient Beja stock, whose kingdom at that time stretched south from Suakin to the Gash, and who a century or so later were to be destroyed by the forebears of the present aristocratic caste of the Beni Amer.

It is related that in the early years of the 17th Century a certain Ali Abu Gasim of the Sha'adinab/Jaaliin ventured into the hills east of Khor Baraka, and so made his mark that within a short time he was able to marry a grand-daughter of the Bellou King, Idris Mohammed Adara, to whom he had explained on his first appearance that he had " sprung from the earth " (*nabata min al ard*), thus earning the nickname Nabtab to pass on to his descendants, who are to-day the aristocratic caste of the Beni Amer[1]. The advancement of a stranger caused considerable jealousy among the Bellou, and as a result of intrigue Ali Nabit was killed at J. Malhab about a year after his marriage[2], but not before he had begotten a son called *AMER*. This son on attaining manhood went to the Nile valley and returned with an army which revenged his father's death by extermination of the Bellou[3]. This aetiological relation is based on the historical fact that some time in the 16th Century a Fung army, which possibly contained a contingent of Sha'adinab, penetrated the hills, and established an overlordship over a large number of indigenous peoples to whom is now given the generic name of BENI AMER, the invaders borrowing from the Habab the complete feudal system of a superior caste. Fung influence appears to have remained strong for a number of years. The " Diglel " of the

[1] He was not of pure Jaaliin descent, though his father may have been. His mother was of the Gummud section of the Melhitkinab in the Gash, among whom his father may have settled. He was also known as Ali Bilhas (he of the prayer mat) as this was his only property when he appeared among the Bellou.

[2] It is said that King Mohammed Idris Adara conceived the intriguing idea of using his skull as a grain measure.

[3] They have not altogether passed out of history. They are still to be found in the vicinity of Massawa, and the Ragabab of Suakin and some of the Agaiga claim a Bellou ancestry.


36°
38°
PORT SUDAN
Suakin
Gebeit
Sinkat
Erkowit
Trinkitat
Tokar
Delta
Aqiq
Musmar
Haiya
18°
BENI
AMER
Karora
Derudeb
K. Langeb
K. Gash
K. Baraka
Ansaba
Gos Regeb
16°
ERITREA
Aroma
R. ATBARA
KASSALA
Sabdarat
Miles 50 0 100 Miles

Beni Amer (a title derived from the Hafara) was permitted to wear the *Tagia Um Gerein*, and to call himself *Mangil*[1]. Ali Akassa, a grandson of Amer was deposed by the Sultan of Sennar for cruelty and misrule, but after that Fung influence appears gradually to have lapsed and died.

Early in the 18th Century the Diglel was sufficiently powerful to afford protection to a Melhitkinab family who had fled from the Gash as a result of a blood feud, and who settled eventually on the coast south-east of Agig. Out of this settlement grew the Aflanda, now a *badana*[2] of the Tokar Beni Amer, but then an independent tribe, owing doubtful and alternating allegiance both to the Diglel of the Beni Amer and the Kantibai of the Habab. They are remarkable mainly for their extermination of the Beit Bahalyai, most of whose serfs, however, and particularly those of Hamasein stock, were appropriated by the Nabtab. The Diglels also were at that time intent on building up their own personal serf following in order to strengthen themselves against the powerful and turbulent Nabtab nobility, and it seems probable that the Hamasein " tribes " in the present day Diglel *badana* were incorporated about then.

The Beni Amer were by this time probably the most powerful tribal confederation between the Gash valley and the sea. They had absorbed or conquered all the smaller peoples in their vicinity, and not even the Habab cared to indulge in open conflict with them. Nevertheless, there was that in them that made them always remarkably amenable to constituted authority. The Nabtab, established as they were originally by the power of the Fung, no doubt had some respect for Sennar, and found connections with it occasionally useful. When the Egyptians occupied Taka (Kassala) and pushed on beyond it, the Beni Amer made no resistance and agreed to pay tribute. They provided auxiliaries for the army and the reigning Diglel (Hamid Mohammed) was present and lost his life in the Egyptian defeat at Gundet in 1875. With the Dervishes, however, they do not seem to have been able to come to terms, and throughout the Mahdia the tribe suffered heavily and even showed signs of disintegration. From this fate it was saved by the Italian occupation of Eritrea, and the Anglo-Egyptian re-occupation of the Sudan, but at the price of being cut in two by the administrative boundary agreed upon by the occupying powers, about two thirds being

[1] For an account of these institutions of the old Fung Kingdom see *Sudan Notes and Records* Vol. 15 (1932) Part 2.—*Ed.*

[2] A *badana* is the equivalent of an *omodia* (Arabic), i.e. a small tribal and administrative group or area.—*Ed.*

left in Eritrea, and a third, containing only a few of the Nabtab caste, in the Sudan.[1]

Idris Hamid, a son of the last Diglel to rule the united tribe, was appointed *Nazir* of the Sudan Beni Amer by Lord Kitchener, but apart from a small nucleus of Nabtab and their serfs of the Ad Hasri, he fell heir to a very divided inheritance. His first task in Tokar was to regroup the scattered serfs who had escaped or wandered away from their masters during the Mahdia, and had found a livelihood cultivating grain in Tokar delta. He constituted two new *badanas*, the Khasa Tokar and the Beit Maala, so that as immediately reorganised the Tokar sections of the tribe were as follows :—

The Ad Hasri : composed of the Nabtab aristocracy and their serfs.

The Aflanda : composed of a small aristocratic caste (the Egeilab) and their serfs, much depleted and enfeebled by the Mahdia.

The Diglel : The *Nazir's* own personal fief, composed of Hamasein and mixed clans of Beja origin.

The Beit Maala : composed of Beit Maala who had established themselves in the Delta during the Mahdia as cultivators.

The Khasa Tokar : scattered serfs of various origins also established in the Delta during the Mahdia.

Two more *badanas* were created later :

The Faidab : a small Levitical caste, allied by marriage to the Nabtab, and their serfs.

The Agaiga : a mongrel community inhabiting some villages on the coast who joined the Nazirate in 1926.

The Feudal System in the Ad Hasri *Badana*

The notes which follow describe a state of affairs which has only recently passed away. Serfdom exists no longer among the Beni Amer, but social distinctions in regard to intermarriage, and the ban on milking of cattle, still survive as relics of a system established some four hundred years ago, which until only yesterday continued to bind the serf to his master, and to deny him complete and absolute freedom.

In the Sudan the aristocratic caste of the Nabtab is to be found only in the Ad Hasri *badana*, in the proportion of about one to every five serfs.[2] All serfs were socially dependent upon individual members of the Nabtab nobility, and these Tigré, as they are called, were born

[1] An article on the Eritrean Beni Amer appeared in *Sudan Notes and Records* Vol. 26 Part. 1. — *Ed.*

[2] The Aflanda *badana* also has an aristocratic caste, the Egeilab, but caste distinctions were never so wide, or so strictly observed as in the Ad Hasri.

into serfdom, an inferior state from which there was no escape short of abscondence or revolt.

Their condition, however, was not that of pure slavery, in that they had certain inherent rights, were allowed to own property, and might not be sold or alienated from their masters, although transfer of serfs was allowed for in such transactions as marriages and blood settlements.

Moreover the system in theory, and at its best in practice, was one of mutual obligation. The serfs paid tribute, and rendered certain aids and services to their master, in return for which he was responsible for their general welfare, for protecting them in time of war, for provision of animals and the wherewithal to marry, food and clothing in time of want, and above all with the customary gifts on such occasions as births and marriages.

One of the most striking features of the whole system was the complete fragmentation of the serf class, and it would seem probable that the aristocracy deliberately followed a policy of splitting serf groups in order to keep them weak and divided, and to secure an equal division among themselves. Whatever the reason the process was a thorough one, so that it was common to find serfs of one clan or even of one family widely scattered in different *hissas*[1] and under the control of different masters.

The herding and milking of cattle was one of the main services still rendered by serfs until only very recently, for by custom no Nabtabi may milk, and this remains to this day as a principal distinction between those of aristocratic and serf origin. It is a distinction that applies only to cattle, and not to other animals, and the reason must be, I think, that the forebears of the Nabtab, the Sha'adinab/Jaalin, were not cattle owners, and that the cattle were owned originally by the indigeneous tribes who became their serfs. The Nabtab, coming of camel owning stock, would know nothing about cattle, so that the milking and herding of them would be left to the serfs, until the fact that Nabtab never milked hardened into a caste distinction.[2] There may, however, be some deeper significance, for not only would a Nabtabi who so far forgot himself as to milk a cow lose caste, but it is also believed firmly that the fingers which touched the udders would wither and die.

Among the serf clans also there is division between those who milk and those who do not. So far as I can ascertain, those who milk are the

[1] *Hissa* = sheikship, the smallest unit in the tribe.—*Ed.*

[2] It is significant also that the Nabtab caste have a distinctive camel brand, whereas the Beni Amer as a tribe have none.

clans of Almada stock, the Ad Kai, Agdoob, and Um Or, as well as the Asfada, Targeila, Meikal and Rigbat, and those who do not are the Hamasein clans, the Beit Ba'asho, Ganifro, Beit Indul, etc., and some others such as the Wilinnoho and Abhasheila. As to how this distinction arose between the serf clans no one appears to be certain.

Serfs were always allowed to own cattle and other animals, and in this respect many of them became wealthier than their masters, but they were always under obligation to supply them with a milch cow at need, with butter, and with various other milk products such as curdled milk and fat. On the occasion of certain feasts, marriages, deaths, etc. they were obliged to make an offering of beasts for slaughter, of milk or other produce in kind, or of cash, and even of personal labour, and when their masters moved camp they had to provide animals for his transport.

Most of these obligations and services had latterly fallen into disuse. The gift of butter, known as *madhanat*, was rarely offered, and the custom of *halagein*, that is of gifts on ceremonial occasions, was if anything more strictly observed between the serfs themselves than between them and the Nabtab.

The most jealously guarded privilege of the latter, however, was their right to collect tribute from their serfs, payment of which had come to be regarded as a mark of serf status, and the right to collect an adjunct of nobility. At one time the laws of inheritance in regard to serfs was no different from the usual *shari'a* laws as to division of property, but about 250 years ago it became the practice for the eldest son to inherit all serfs, being at the same time under obligation to see that they performed the necessary services, such as milking, for other members of his family, more particularly his brothers. In this way the serfs were accumulated gradually in the hands of a few heads of families, and the majority of Nabtab became serfless.

At a time when there were no *hissa* sheikhs, and tribute was an aid collected for the benefit of the tribal head (the Diglel), each Nabtabi collected from his own serfs, with an extra aid for himself known as the *rial mashangal*. The difficulty of collecting from a large number of widely scattered serfs led to a system of division whereby the head of the family divided his serfs for purposes of tax collection between his relatives (nephews, cousins, etc. but never brothers) who were known as *sharafiif*, the plural of a Tigré word meaning a fragment, and who were allowed to retain for themselves the *rial mashangal* collected from their particular group of serfs. The system relieved the family head of a great deal of trouble, and satisfied the needs and *amour propre* of numbers of serfless relations.

When the Egyptian Government imposed a fixed tribute, and appointed *sheikhs*, the system did not greatly alter, and the *sharafiif* continued to flourish. Under this Government, however, and with the introduction of remuneration for collection of taxes they fell foul of the *hissa sheikhs*, and to an increasing degree all Nabtab claimed the right to collect, with a view not only to asserting their superiority, but to increasing their revenues by unauthorised aids under the guise of Government taxes. The result was that the serfs suffered heavily and were fleeced twice, once by the *sheikh*, and a second time by the *shirfaf*, each claiming to collect tribute, and this abuse of authority was one of the principal causes of unrest among the serf population.

In the early years of the 19th Century the Diglels themselves had followed a policy of attaching as many serfs as possible to themselves in personal allegiance, as a means of strengthening their hand against an unruly Nabtab aristocracy. Out of this policy grew the Diglel's own personal fiefs (in the Sudan the Diglel and Dagga *badanas*) and to these they were adding continually. This was done by championing and protecting serfs who had quarrelled with their masters, but more generally by impounding serfs *en bloc* from lesser or weaker tribes such as the Beit Maala or Aflanda, for they dared not touch the serfs of the Nabtab. It was also possible to acquire serfs by marriage. Thus one Diglel acquired the present Beit Awat and Beit Goreish *hissas* of the Diglel *badana* from the Aflanda by the former means, and a considerable number of Wilinnoho from the Beit Bahalyai by marriage with a daughter of the ruling house. The Diglel's serfs enjoyed much greater freedom than the serfs of individual Nabtab, and were allowed eventually to organise themselves as *badanas* under their own sheikhs, the Diglels' lordship becoming largely nominal.[1]

It was uncommon in the old days for serfs and Nabtab to share the same encampment. The leisurely and indolent Nabtabi rarely moves far afield, and his encampments (*dagga*) tended to become fixed in a particular area, such as that of the Barhamai/Ad Hasri at Gamarota, or the Ad Ali/Ad Hasri in Taggat. The serfs, continually in search of grazing for cattle, moved far and wide, and were thus so far outside Nabtab control that it might seem surprising that any connection was maintained at all. This, however, was provided for by the appointment of a *ba'ala 'ad* or master of the camp, for every serf group.

[1] Since the division of the Beni Amer by the Sudan-Eritrean frontier there are two tribal heads. The title Diglel has been retained by the Eritrean chief. In the Sudan the head of the Beni Amer has the title of *Nazir*: he is of the royal house, and has all the attributes of the Diglel.

He was usually a Nabtabi, but he might on occasion be a trusted serf. His tent was pitched in the centre of the camp, and he was responsible for maintaining discipline, settling disputes, and entertaining guests. He was appointed usually by the Nabtab, but it was possible for him to be elected by the serfs themselves. Among his perquisites was the right to collect a *rial shifr* from the father of every girl married in the camp.[1]

When a serf was injured or killed by a Nabtabi, the matter was one for adjustment with his master by payment of compensation. Should a serf kill a Nabtabi, he was not himself punished, but his master was required to offer compensation by transfer of the serf and his family to the dead man's relatives.

Inter-marriage between serfs and Nabtab is unknown, at least in the Ad Hasri *badana*, where caste distinctions have always been insisted upon more rigidly than elsewhere (e.g. in Eritrea) and the Nabtab take particular pride in the elaboration of their marriage ceremonies, and in the fact that the dowry of a Nabtabi girl is three to four times that of a serf.

Other and outward signs of caste distinctions are not so common as they once were, and it is now impossible to distinguish a sophisticated, well-to-do serf from a Nabtabi. Dress, weapons, use of animals, are now more a matter of taste and convenience than of custom, and it is no longer obligatory for the serf to wear the *tiffa*[2] instead of a turban, to saddle his camel with a pack saddle, or to abstain from carrying a sword. The Nabtab tent is larger and stronger than that of the serf, but only because, being more sedentary he moves it less often, and can indulge in better quarters.

In the ideal the old relationship between serf and master was a purely voluntary one. The services rendered to a Nabtabi were prescribed by custom, and though he might request them, he had supposedly no right to command or enforce them, and if he illtreated his serfs he was liable to be dealt with by the clan council (*mahabbar*).

Such relationship broke down under modern conditions. The serfs began to realise the limitation of their position, the Nabtab to enforce their superiority with ever growing harshness and rapacity. The recent war and its disturbing influences hastened a process which had already begun, and the serfs have at last asserted themselves and achieved emancipation in the teeth of Nabtab opposition.

[1] He was also known as *ba'ala shifr*. *Shifr* is the Tigré word for dung, but it may also mean that part of the camp where animals are corralled, or indeed the whole area of the camp itself.

[2] *Tiffa*: the characteristic "hayrick head of hair."—*Ed.*

The latter remain aristocrats still, conscious of their tribal superiority, "*min 'ad Tigré hayis*" ("better than the mere Tigré.") The serfs, on the other hand, are not unaware that but for them Nabtab economy must have crashed completely, and it will be interesting to see what economic as well as social and administrative adjustment the Nabtab will find necessary as the result of serf emancipation.

Marriage Customs of the Nabtab Caste.

The ceremonies attendant upon the marriage of a Nabtabi are extremely elaborate, and were no doubt so designed in order to emphasise caste superiority. Until very recent times also no Nabtabi girl might marry outside the caste, though men were not so bound, and might take wives from tribes such as the 'Ad Sheikh or Arteiga, which were looked upon as having equal aristocratic status.

Following normal Arab custom it is usual for a Nabtabi to marry a cousin as a first wife, the first step being payment of *madharrat* consisting of a sack of grain and a roll of cloth to his future father-in-law. His suit being accepted, he then pays what is known as *fiteh* to the bride's mother, which recent usage has fixed at L.E. 10 in cash. It is then obligatory on the mother-in-law to provide the furnishings of the house, the bed (*arkai*) the matting screens (*karaar*), the bead embroidered hangings (*kalau*) and the litter (*utfat*) in which the bride will travel in the seasonal migration from grazing ground to grazing ground.[1]

Before the bridal takes place the dowry (*sigaad*) must be paid in full, and this since time immemorial has been reckoned as the equivalent of seven slave girls (*ammat*). The difficulty, even in the days of unrestricted slave-trading, of obtaining so large a number led to a system of substitution, and the actual dowry paid over used to be :—

one she-camel	=	one slave girl
ten cows	=	two slave girls
one hundred rials	=	three slave girls.

The seventh slave was at one time handed over in person, but more recently a second she-camel has been substituted.

The day before the marriage ceremony takes place a temporary house known as the *ingalhadeib* is erected in the bride's encampment, its main features being that it is hastily thrown together, and that the main ridge pole of the tent, the *kasla*, is inverted. The bridegroom and his companions, arriving after dark, sleep in it for the one night only.

[1] The *utfat* is used only by the Nabtab. It is a most elaborate structure, and should not be confused with the *bashuur*, a smaller type of litter used by the Tigré, and which is fitted on a young bull or donkey instead of a camel.

Next morning the bridegroom emerges and, mounted on a camel, rides back and forwards seven times between the *ingalhadeib* and the bride's tent. A small boy, both of whose parents must be alive, then takes a roll of white cloth (*mugalbab*) with which he rides towards the bride's tent. As he does so the bride's attendants emerge to meet him, and he throws the roll over the roof of the tent. They catch it and return it, and this again is done seven times, after which it is used to clothe the bride, and is worn by her for forty days.

In the meantime the *ingalhadeib* is pulled down, and the bridal house proper, the *dallala*, is erected, and unlike the usual Beni Amer house, is made of unsmoked mats, so that it is a conspicuous feature of any encampment. The same small boy draws an imaginary line round the edges of the mats used in its construction with a drawn sword, and the front and rear mats are marked with the *hajrat*, a cross within a rectangle thus |—|—| in red. Originally the marks were made with the blood of a slaughtered bull, but more recently a paste made from a haematite to be found in Eritrea is used instead. The inside of the tent is decorated with mats embroidered with stripes and crosses of red cloth, cowrie shells, and bead work known as *kollau*. The centre pole of the tent is further adorned with miniature camel hobbles and war drums, and on the outside a plume made of *dom* palm fronds bound with wool, is erected over the roof. This is the *shankebai* which is made by the bridegroom's female relatives, and which remains *in situ* wherever the tent may be erected until, eventually, it falls to pieces.

The sword ceremony is said to commemorate the fact that the *Nastab* won their position by conquest, and the camel hobbles and war drums signify wealth and power. The *hajrat* commemorates the death of Ali Nabit at the hands of his wife's grandfather, as also does the lapse of a year between the marriage ceremony and consummation.[1]

The bridal house being complete and divided down the centre by a matting screen, the bride enters it with her companions to await the bridegroom. He rides seven times round the house and is then carried into the unoccupied half by his friends, care being taken that his feet do not touch the ground. Before entry he is also required to make a payment known as *birakot* to his mother-in-law. Once inside he is

[1] Ali Nabit, of Sha'adinab/Jaaliin origin, married a granddaughter of the King of the Bellou, by whom he was killed about a year after the marriage. His son Amer avenged his father's death by overthrow of the Bellou and established the Beni Amer tribe with the Nabtab as its aristocratic caste. The rites described, however, are not peculiar to the Beni Amer. The sword ceremony and the *hajrat* are both in use by the Hababb, and the drums, hobbles and *shankebai* are essential to the marriage ceremonies of all Beja tribes. (See W. T. Clark "Manners, Customs and Beliefs of the Northern Beja." *Sudan Notes and Records*, Vol. XXI (1938) Part 1, p. 11).

placed on a bed, and a mixture of grain, water and scent is poured over his head. He is then dressed in new clothes, which he must wear for 40 days, and adorned with a silver bracelet and a necklace of beads. A lump of camel's dung is then bound in a turban about his head and he is carried out and replaced on his camel. The rest of the day is spent in feasting and singing with his companions outside the camp, to which they return before sunset. The party race their camels through and round the encampment to the accompaniment of a shower of dung thrown by the bride's attendant, and at sunset the bridegroom re-enters the bridal house, where he and the bride spend seven nights and days each in their own half, the nights being wiled away by almost continuous song from the bridal party. During this time it is essential that neither should look upon the stars, nor upon each other, and the marriage is not consummated until a year later.[1]

The bridegroom then pays what is known as *sikabat* to his mother-in-law, possibly in cash, more probably a couple of she-camels, which he and the bride will later share between them. Seven pods of a *sidr* tree are pounded up in a cup of *semn* (butter) and the bride and bridegroom each with seven companions all sip of the mixture.[2] The bridegroom then takes down the camel hobbles and war drums from the roof of the tent and crushes them underfoot, but the *shankebai* remains until it falls of its own accord. It is also forbidden for any of the participants in the final ceremony to eat or drink of any fruit such as *sidr* (*zizyphus spina Christi*) or *aradeb* (*tamarindus indica*) during the year of waiting.

Life and Customs of a Beni Amer *badana*: the Diglel.

A.—Habitat and Origins.

The Beni Amer being less a tribe than a loosely knit confederation of tribal units of widely differing origins, no general picture of tribal life and custom is possible, but the account here given is perhaps most typical in that it concerns a group which has been affected less than others by outside influences.

Those sections which compose the Diglel *badana* are nomadic in habit in that they migrate seasonally in search of water and grazing from the seaward slopes of what, for want of a better name, are known as the Beni Amer hills in the Sudan, (which they inhabit for a few months

[1] In *Sudan Notes and Records* Vol. 2 Part 1, p. 76, Fleming states that on the seventh night the bridegroom visits his bride and sets a foot on her neck. This is a Tigré custom, not practiced by the Nabtab.

[2] The significance of the number seven, which appears repeatedly throughout the marriage ceremonies, appears to be unknown.

in the winter), to the valleys of the upper Baraka and the Gash, and the high plateaus of Eritrea. They and their animals thus benefit from the normal rainfall of the Sudan and the Bassopiano of Eritrea (June-September), as well as the winter rains of the Red Sea littoral, which may begin as early as November, but fall most heavily and consistently from early January to mid-March. During this period the hills provide ample grazing and water, and are invaded not only by Beni Amer, but by other tribes such as Habab, Ad Sheikh, Beit Maala etc. from Eritrea.

When in the Sudan the Diglel are to be found mainly in the higher and more inaccessible valleys. A few may graze their cattle on the lower levels near Gamarota and Andel, but for the most part they prefer the seclusion of their remote mountain glens, where there is grazing for both cattle and goats, and little disturbance, whether from raiding Hadendoa, or a tax-gathering *'Omda* and his retainers. Their attachment to their hills, and their distrust of foreign influences are extreme, and I remember on one occasion vainly trying to persuade one of the Beit Goreish that he was required urgently as a witness in case of cattle theft before the *Nazir* at Agig. He replied that he could not possibly leave the hills, his cattle would go off milk, and his neighbours would steal his goats. He added as an after thought that he was uncertain of the fidelity of his wife, though her frailty appeared to be of little consequence compared with loss of goats or milk.

Most *hissas*, and within the *hissa* most families, return to the same area year after year, always providing that the grazing is sufficiently good. Tauneit, a delightful amphitheatre, over 4000 feet above sea-level, is the main habitat of the Beit Awat. The wilder clans, the Beja-speaking, goat-owning Labat, Libis, and Sogeit, live mainly in the fastnesses of Jebel Koba, Khor Charag, and Khor Ghetub. The nomadic sections of the Hamasein frequent the tangle of valleys round J. Aidak and Gad'ain, and I have found some of the Beit Musa at nearly 6000 feet on the fringes of the juniper forests which crown J. Auda and the Diris Pass.

The *hissas* which compose the *badana* are widely diverse in origin (for fuller details see appendix A), and only a few, the Hamasein and the Ad Hassān, speak Tigré. The Beit Awat, Beit Goreish, and Ad Kokoi (Kokoyab) are bi-lingual, and the remainder, deriving as they mostly do from the Hadendoa, speak only Bedaweit. These are the Hadaarab, a name given to all Bedaweit speaking clans of serf origin, as opposed to the Tigré, the serfs who speak the language of that name. All are regarded as being of serf status, though it is doubtful if at any time they were in fact bound in serfdom to any Nabtabi master. They have thus

been able to retain a homogeneity and distinctiveness which other Beni Amer serf peoples have not, and they have altogether escaped the disintegrating effects of serfdom to individual members of the aristocratic caste imposed by conquest and *force majeure* on other less fortunate clans, which were dispersed and fragmented to a remarkable degree. It seems that they are classed as serfs only because they have not the status of Nabtab, and because by long tradition they are nominally the personal serfs of the *Nazir* himself. The name Diglel[1] derives from this association, which was probably once much closer than it is now. Their serfdom consists only in a vague personal allegiance to the head of the tribe. They have their own *hissa Sheikhs*, and the *Nazir's* representative has come to be regarded as *'Omda* of the *badana*, and is paid a salary as such.

B.—**Family Life.**

The Beni Amer are non-gregarious, and it is only the idler and less pastoral sections which are to be found herded together in large encampments.[2] Each family, comprising often not more than three or four houses, has its own glens and watering places. It is usual before moving to new grazing grounds to send out a scout (*tawrai*) to discover the state of the pastures. If he reports favourably the camp is first moved, and the animals follow behind. The camping site (*maskab*) is nearly always the same, the tents being pitched in the vicinity of the permanent goat houses which are a feature of all such sites. This type of *maskab* is more accurately known as the *mahader*, there being another (*kor*) which is situated on high ground on the routes over the passes and is occupied in transit for perhaps only one night at a time.

The tent, in shape not unlike an inverted whale-boat, consists of five or more mats of woven palmleaf fibre stretched over a central ridge pole (*kasla*)[3] which is itself bent over four of five supporting arches. The mats (*takaib* : sing : *takobat*) are smoked on both sides by placing them over a green wood fire until they are impregnated thoroughly with soot. It is claimed that this process makes them water-tight, and gives them a life three times as long as that of unsmoked mats. Inside almost the whole area is occupied by the bed (*arkai*) which is raised from

[1] The title, which is still borne by the Eritrean chief, was borrowed from the Hafara, in whose language it meant " elder," and was first assumed by Ukud ibn Nasih, a grandson of Amer.

[2] These generally belong to the Nabtab, and are known as *dagga*. The smaller serf encampments are called *ad*, which also means " people."

[3] *Kasla* or *gesla* is the local name for the tree *Zizyphus Spina Christi*, of which such poles are made.—*Ed.*

the ground on short supports. On this is spread the family bedding (*nitaaf*) and assortment of bowls, gourds, bags, etc. the most important of which is the milk bowl (*'amuur*) woven of palm fibre smeared thinly with clay and baked and blackened over a fire : a most insanitary looking utensil, but one in which milk is said to remain sweet longer than in any other.

The outstanding characteristics of these hillmen arise naturally from environment such as theirs. Shy, aloof, independent, credulous, they have been called inarticulate, but once their initial reserve is penetrated they have a lot to say for themselves and are apt to be verbose. Lean, shock-headed, scantily clothed, they have the outward appearance of physical toughness, combined with an odd effeminacy of manner. They are, however, often undernourished, and though capable from long practise of sustained effort on very little nourishment, their flesh is heir to innumerable ills, and they suffer particularly from malaria, tuberculosis, and chest complaints.

The characteristic " gollywog " head-dress at once catches the eye, and there appear to be two main styles of dressing the hair. One, which might fashionably be described as " wind swept," is favoured by the Hadaarab, and is no more than a fuzzy tangle, clothed liberally with mutton fat, and skewered by a long pin of wood or ibex horn (*kullaal*) with which the otherwise peaceful existence of the inhabitants of the thatch from time to time can be enlivened. The other form of coiffure, affected mainly by the Tigré, is more elaborate, and consists of a carefully trimmed fuzz, finished with a row of curls on the nape of the neck and over the ears. This (the *ra'as*) can be achieved only with the help of an expert hair dresser (*gedlai*). In process of growth it is called a *digdiga* and is encouraged to frizz with the help of a scratching pin (*madargaf*) carved out of hard wood with as many as four to nine prongs, and decorated in geometrical designs with a red-hot needle, though I have also seen one or two with realistic designs of weapons and animals. Once the head-dress is full grown the *madargaf* is abandoned, and replaced by the *kullaal*, another sartorial adjunct being a special wooden head-rest (*matarass*) which is used in place of a pillow. It resembles a small curved stool, carved out of hard wood, and is placed under the neck to avoid disarrangement of the head-dress while asleep.

Some Tigré are to be found wearing what appear to be tribal cuts (*mashaidal*) on their cheeks, but their purpose, except in women, is not decorative. Weakly children (and anaemia is common owing to an ill-balanced diet) are treated by being wrapped in the skin of a newly slaughtered goat, their cheeks are gashed to draw off the blood, warm

fat is poured over their heads, and the back of the neck is pricked with a knife. Judging by the number of men with faces so gashed, this ordeal is a not uncommon one. A knife is worn on a broad leather belt at the waist, but the hillmen prefer a short curved blade to the twisted *shotaal* generally associated with the Beni Amer. Swords are carried only occasionally, the usual weapons being a short, heavy, spear and a round shield of bulls' hide.

When a son is born he is at once given a gift of a cow or of goats. This is known as the "suckling wealth" (*maal it'ib*) and seven days later a male and a female goat are slaughtered and he is given a name. This ceremony, known as *tambaleit*, is not performed at the naming of a girl, and a boy receives a further present of animals (*maal allat*). Circumcision is performed on both sexes while fairly young, and a boy once again receives a gift of animals, the "circumcision wealth" (*maala kishboh*).[1]

Marriage takes place between the ages of fifteen and seventeen, and later for boys than for girls. It is usual practice to marry a paternal cousin, and to set about it by presenting *madharrat*, consisting of a sack of grain and a roll of cloth, to one's future father-in-law. This is handed on to the bride's mother, and is followed by the "*fiteh*" a payment of about L.E. 4 in cash. The bride-wealth (*sigaad*) varies very considerably from group to group and may consist of as few as 3 or as many as 9 cows. Some sections, moreover, have a custom whereby bride wealth is shared by the husband in proportion to the number of animals paid. If it consists of only three cows there is no division, but if five, two go to the husband, if seven, three and so on. Where cattle are not available goats are substituted at the rate of ten goats for a cow.

The wedding takes place as soon as the dowry has been paid, a special bridal house (*dobaigau*) is built in the bride's encampment, and invitations are sent round to all within reach. The guests bring small presents (milk, *semn*, a kid, coffee, sugar, etc.) and assist generally in the preparations. This custom is known as *halagein*. When all is ready the bridegroom arrives from his own encampment to the accompaniment of much singing and hand clapping, bringing with him the *shankebai*, the plume of *dom* fronds bound with wool, which is erected over every newly married couple's tent.

The festivities last from three to seven days, and before consummation the bridegroom makes another payment (*sikabat*) to his mother-in-law.

[1] The Nabtab, as a sign of caste distinction, do not circumcise their boys until they are thirteen or fourteen years old.

On the last day the *ki'ida* ceremony is performed. The bridegroom's boon companion (*ma'adai*) carries the bride from her mother's tent and places her on the ground before the bridegroom, who is waiting outside the bridal house. He places his foot on her neck and steps over her. The *dobaigau* is then removed bodily with the bride to her husband's encampment, and henceforth she becomes of his family. At weddings both men and women dance, but in separate groups, and the performance of the former can hardly be described as dancing at all, consisting as it does of leaping about with a drawn sword and waving it over the head.

Avoidance of mother-in-laws is observed most strictly, and it is also taboo for the *ma'adai* to enter his friend's tent after he is married, or to meet his wife.[1]

When a man dies he is wrapped in a winding sheet and buried in a shallow grave with his head to the East. His heirs, if sufficiently wealthy, will slaughter several bulls, and invite their neighbours who bring with them small gifts known as *rigaad*. They then set to and build a circular stone wall round the grave leaving sufficient room for other family burials, and finish it off with a *mihrab* (niche) facing towards Mecca, and rows of white pebbles along the surface of the wall. The effect is most striking, but the custom appears to be without significance, except that when a man dies by the sword no pebbles are scattered on his grave or on the wall, at least not until such time as his death has been avenged.

The mourning ceremonies (*nigtaaf*) do not last usually more than seven days, but the deceased's womenfolk, must refrain from wearing ornaments for a year. This custom is known as *habai*. They must also perform a funeral dance in which are featured the dead man's sword and shield, while male relatives express their sorrow in mournful playing of a lute-like instrument (*masanko*).

All Beni Amer are extremely superstitious, and one of the reasons for the reluctance of the hillman to leave his hills is his belief in "*jinns*," which inhabit the sea coast, and the thickets of Khor Baraka, where a man cannot see his neighbours. They are much given to wearing charms, bracelets of palm fibre, and rings with cabalistic signs, the commonest of which is the *batadi*, a square-faced ring engraved with

[1] For some of the details on family relationships I am indebted to a note by Mr. A. C. Beaton.

numbers, whose use was enjoined by Sayed Tag al Sir Osman al Mirghani :—

٤	٩	٢
٣	٥	٧
٨	١	٦

It will be noted that whichever way the three numbers are added together the total is always fifteen.

Certain days are luckier than others, and a hillman making a journey would prefer to start on a Monday, a Thursday, or a Saturday. Camp should be moved only on Thursdays and Mondays, and no one would think of indulging in any important activity on a Friday or a Tuesday, which is regarded widely as a day of misfortune, bloodshed, and misunderstanding.

The oath is administered seldom. It is enough for a man to say "*kitab rebbi dabatko*" (I have struck God's book) for his word to be accepted, but the Labbat have a custom whereby a man accused of theft may clear himself by throwing an earthenware pot on a holy man's grave. If the pot breaks he is guilty. The ordeal, whereby a man accused of a serious offence may clear himself by licking the red hot blade of an axe, no longer survives.

Coffee drinking has also acquired an almost ritualistic significance. Materials for making it are carried on all occasions, and none but the most utter sceptics would consider the day well begun or ended without making coffee, spiced liberally with pepper, reciting a "*Fatha*," and drinking not less than six cups, associating each with the name of a holy man or saint.

They say :—

Kolot fingaan min Ra'as	..	two cups for the Sheikh
Salsai min Digam ..	..	the third for Digam
Rabai min Akhadar ..	..	the fourth for Khidr
Himsai min Alyas ..	..	the fifth for Elias
Sasdai min Himad Sheig	..	the sixth for Hamid Sheikh[1]

The Sheikh in whose name the first two cups are drunk is Sheikh Hassan Abu Shazli, venerated as the patron saint of coffee drinkers. Digam (the story teller) is in the nickname given to el Amin Hamid, one of

[1] It is said also that the first cup is called "*digam*" and the second "*ra'as.*"—*Ed.*

the forebears of the Ad Sheikh Hamid of Eritrea. Of Khidr and Elias nothing is known (Khidr has, I believe, associations with Girgis or St. George), but Hamid Sheikh of the sixth cup is well known locally. He was the ancestor of the Faidab/Beni Amer, and lies buried at Fitfito near Agig.

C.—**Animals and Economics.**

Certain of the Diglel sections, the Hamasein, Beit Awat, Beit Goreish, etc., who winter on the seaward slopes of the hills where there is ample grazing, own a considerable number of cattle, a small, plump, hill type, usually red, red and white, or dark tan in colour, though black, and black and white are not uncommon, and I have seen occasionally, as nowhere else in the Sudan, a real brindled cow (*wa'at halaweit*). Milk is the staple diet of all hill Beni Amer and their cattle, while not prolific, produce very rich milk in season. They are greatly prized and almost never sold, though a few gelded bulls may be sent to the Keren market as plough animals for the sedentary tribes of the plateau. The Beni Amer claim to distinguish three main types of cattle: the small hill type (called black, because that colour was said at one time to predominate); a very similar type (called red) to be found on the lower hills and the Maadam plain; and the light coloured, heavy, long legged type (called white), to be found in the Gash and Baraka valleys.

Cattle are herded and milked by men only, and there is a further custom by which the milker may not take first drink of his own milking, but must allow someone else to take at least three mouthfuls before he can drink himself. This custom is, I believe, common to all cattle owning tribes of the Red Sea coast.

In a year of good grazing the herds descend to the lush upland meadows where the grass grows fetlock deep for three months of the year, but if the rains are poor they keep to the higher levels, ascending to enormous heights in search of the greenery induced by night dews and heavy mist. As the grass begins to dry up in April they require frequent watering, and this entails the labour not only of bringing the herds long distances to the water-holes in the valley beds, but also the back-breaking task of lifting the water by hand once they are there. Strength and skill are required, and yet a boy of fifteen or sixteen appears to find no difficulty in jerking a water-filled skin bucket two feet or so through the air to be caught and emptied by a companion standing on the level of his head on the edge of the hole. The labour is lightened by songs (generally in praise of cattle) of which examples are given in Appendix B at the end of this article.

Cattle are branded by punching and slitting of the ears. At one time each clan had its own distinctive mark, but as the results of intermarriage and clan dispersals most brands are now common to all, it being the custom to mark offspring with the same brand as their dam. It is thus possible for a man to own cattle with several different brands. Most common are the Mateila (originally the Bargili brand) Shangouli (Almada) Habram (Alaabya) and Mahadariit (Ad Hassan).

All sections of the *badana* own large numbers of goats, small, supercilious-looking animals, whose colouring ranges from tan to tan and black, and tan and white. Some sections, the Libis and Hadoigoboyab, own nothing else. They find excellent grazing on the higher slopes of the hills, but are alleged to be sensitive to damp, for which reason every evening, and when ever rain threatens, they are herded into the goat houses which are to be found on nearly every camping site. Of these there are five different types, of which by far the most common is the *digé*, a beehive construction of wood, floored with stones. Another type, *resit* is similar to the *digé* except that it is usually much larger, and yet a third, *dingat*, is raised off the ground on short poles. When there is a convenient river bed with steep banks adjacent to the camping site caves are hollowed out and the goats shut in by closing the mouth with thorn. This type is called *ba'at*, and young kids, which are segregated from the main herd, have special enclosed pens built of stones known as *makal kolotaat*. In cold weather large fires are kindled at the doors of these houses as a further protection against damp, and the resultant mound of ash and goat dung which collects on the site is known as the *midga*. When on the move goat owners pitch their tents in a ring with the goats corralled in the centre, cattle owners pitch their tents in a straight line. Such temporary encampments are known as *maklal*.

Donkeys, and more rarely camels, are kept for transport work only, and are looked after by the women, whose task it is to strike and pitch camp, and to arrange the loads when a move is made. Young bulls are also used for transport, but not so frequently as before. The younger women are sometimes allowed to ride in a *bashuur*, a small litter, mounted on a donkey or a bull, and protected by a screen called *kabot*, but more often they have to walk, and carry their children as well.

The Beit Awat, alone of all the Diglel clans, possess a few sheep, but they do not do well at high altitudes.

Until recently these people had no cash economy, and such little trading as they did was by barter. It was usual to purchase a year's supply of coffee, a little grain, some sugar, and some cloth, including

bright coloured *futas* (cloths) for their women, on credit from a merchant in Agig. In return they would supply him at intervals throughout the winter, when milk is plentiful, with skins of clarified butter (*heisaas*). This butter is of high quality (in normal times it fetched about 8 P.T. per *rotl*) and is brought to market in small untanned goat skins with the hair outside (*eikak*).

The other principal item of barter is the kid skin (*hawat nawéit*) in which a trade has grown up during the last decade, the price of a skin being 7 or 8 P.T. at Agig. Goat skins (*garbat*) fetch about 15 P.T. each, but are less readily sold as they are used for making water skins and every sort of household utensil.

Cattle are sold but rarely, and such ready cash as may be required is earned by sale of goats, or by a few weeks work in the cotton fields of Tokar Delta: but here again payment may often be in kind, especially for harvesting the grain crop.

The staple diet of the hillman is milk, and even this is sometimes scarce in the dry summer months. *Dukhn* (*Pennisetum typhoideum*) is eaten sparingly, on special occasions, or by invalids. Meat they are extremely fond of, and will gorge themselves to capacity on all such occasions as funerals, weddings, and tribal gatherings, but no animal is killed simply to provide food. Eggs are unknown as they keep no fowls, and they are only just beginning to acquire a taste for sugar, which, however, they use but rarely in coffee, a beverage to which they are passionately addicted. So long as he can drink his fill of milk in the evening, and have his cups of coffee in the morning the hillman considers he is well fed, and appears to flourish on it.

APPENDIX A.

ORIGINS OF DIGLEL HISSAS.

A.—**Of Beja Origin (the Hadaarab).**

1. *Labat*: a mixture of Hadendoa, Bilein, and Badein.
2. *Sogeit*: believed possibly to be of the same origin as the Abalhaman, a serf clan of the Aflanda.
3. *Hadoigoboyab*: Hadendoa.
4. *Sinkat Kinab*: originally Arteiga, but intermarried with, and absorbed by, the Hadendoa.
5. *Libis*: believed to be Tambillab/Hadendoa. Derive their name from the Tigré word "*itlabbasa*" = "to travel by night," this section being notorious for its thieveries.

B.—**Of Tigré Origin.**

6. *Beit Awat* (or Awadab) : said to be Sigolab from the Gash, long settled with the Aflanda, and then taken over from them by one of the Diglels.
7. *Beit Goreish* : of the same origins as the Beit Awat : both sections are bi-lingual.
8. *Beit Musa* : claim a Fung ancestry which is admitted by no one else : possibly connected with the Hamasein.
9. *Ad Kokoi* (Kokoiyab) : an offshoot of Beit Awat.
10. *Hamasein* : a large *hissa* consisting of sections of Hamasein origin, too small to form administrative entities of their own.
11. *Ad el Khasa* : said to have the same origins as the Agduub, an Almada sub-section.
12. *Ad Hassān* : Hamasein.

APPENDIX B.

WATERING CHANTS

All Tigré herdboys sing songs to wile away the long hours of herding. They are most tuneful, however, when they bring their cattle down to drink, and lighten the tedious task of bringing water to the surface by singing the praises of their cattle, or of the herd leader (*wa'at um matai*) This is the swiftest and handsomest cow (never a bull) in the herd, and wears a leather necklet (*matai*) to which is often attached a cow bell (*madawan*).

To understand the technique of the chant it is necessary to know something of the conditions under which the cattle are watered. Water holes are dug in the bed of a sandy *khor* to a depth of as much as eight or ten feet. Mud troughs are built round the edge, and a herd boy descends with a skin bucket furnished with cross handles, which he fills and jerks to a companion standing on the lip of the hole, who fills the troughs and throws it back.

As the first bucket is jerked to the surface the thrower intones the first line of the song, and the receiver replies with the second. They may sing any one couplet several times over before going on to the next, and there are, moreover, many variations and permutations of the same chant.

I

Ya wo rasoul	—	*Sali anto*
Walat dambai	—	*arwahata it' mai*
Sigaad hawai	—	*la gamal farrai*
Walat laeta	—	*la sineita*
Kimsil agir	—	*shaliil wagir*
Kim abota	—	*hariir bosha*

etc.

Oh thou the Prophet, to you I pray,
cow with the down-curved horns, whose
life is water, with the graceful neck,
like a swift camel. Daughter of
the clipped ear, the beautiful one, like
a virgin, tossing back her hair, and like
her grand dam, clothed in silk.

II

Ya wo rasoul	—	*sali nebi*
Hidai mabal	—	*hayisou jahal*
Sa'aro bilo'a	—	*maiyo seito'a*
Mabal la hada	—	*eidai fada*
Hidai agir	—	*shaliil wagir*
Hidai dingil	—	*gumfa wa idir*
Kima Aflandai	—	*seri' tigba dabai*
Sa'ara mahagai	—	*toro Gash toro Bakai*

etc.

Oh thou the Prophet, to whom I pray.
Marry no widow, better remain
unwed. Like grass that is eaten,
and water that is drunk, who marries
a widow, pays another man's debt.
Marry a young girl, tossing her
hair, to marry an old woman is
like catching a cold. Like the
Aflandawi, there is no chance here
to eat the summer grass, let us
go to the Gash or Bakai.

The second chant would appear to have been composed by some one with experience of the dangerous charms of widowhood. At the end there is a change of theme and the herd boy is addressing his cattle, and is referring to the Aflanda herds which rarely leave the coastal plain and thus get no summer grazing in the Gash and Baraka valleys.

SOME NOTES ON THE MEASUREMENT OF TIME

By G. W. Ogden

(President of the Philosophical Society)

(First presented to the Philosophical Society of the Sudan as the 1949 Presidential Address).

BEFORE we discuss its measurement we must at least ask ourselves "What is Time?" But I do not think that it is a question to which we shall find a satisfactory answer Out of the three dozen or so definitions given in the Shorter O.E.D. (ranging from "a term of imprisonment" to a highly technical disquisition on the goodwill value of horse omnibus services) I select this one for consideration:— "Indefinite continous duration regarded as that in which the sequence of events takes place." A question-begging answer, I am afraid, but it does at least bring out the ideas of "continuity," of the occurrence of "events," and of "sequence." Although we may agree that it is difficult to define "time" in precise terms, we may all think that we have a rough practical idea of what we mean by it. But I wonder whether we all really mean exactly the same thing; there are probably many areas in which our private unexpressed definitions overlap, but there are also no doubt fringes where our ideas on the subject diverge widely.

To take what I believe to be common ground, we all think of time as something that we travel through together, experiencing together certain events as we travel, in much the same way as fellow passengers in a train encounter together the stations through which they pass. And for practical purposes it matters little whether we are grown-ups who think we know that we are moving past the telegraph poles and trees by the line-side, or whether we are children who imagine that the poles are rushing past us. In either case there is the idea of relative travel or flow.

The human necessity for the measurement of time arises from the fact that so many of the phenomena which affect our lives are, as the mathematicians put it, "functions" of time; in some cases (to a rough order of approximation) simple functions; in other cases highly complex functions. As we travel through time together we progress (in the strict sense of that word—even if not in its more usual derived sense) from infancy to senility; as time passes our teeth fall

out and our hair turns grey. In similar fashion all biological processes in nature are functions of time. All motion is a function of time; it takes time to fly from Khartoum to Wadi Halfa by aeroplane, and even more time to go by train; the globe on which we live takes time to perform its rotation about its own axis, and to trace its orbit round the sun. Water flowing through a tap takes time to fill a bath. Most chemical processes are functions of time; the combustion of fuel, the exposure of a photographic emulsion, the corrosion of a metallic wire are all examples of this. And, last but not least, it takes time to establish an electric or magnetic field in space.

Now, for various social purposes, we have to agree upon a conventional unit of time, together with its multiples and sub-multiples, and to find some means of counting and recording these. But, having chosen a unit, we must satisfy ourselves that successive units are all equal to (*i.e.* contain the same quantity of time as) the original one; in other words we must be sure that the function of time that we make use of to measure the unit is a uniform one. This is not as simple as it might appear at first sight; to make the difficulty more apparent let us take a rather ridiculous example.

Suppose a primitive tribe of dog-worshippers decides to base its time unit on the life of dogs. The elders of the tribe meet and select a certain newly born puppy, and decree that the period of its survival shall be called Doglife No. 1. On the death of this animal another newly born puppy is selected to start the era to be known as Doglife No. 2. And so on. (Although this is ridiculous, don't laugh too much at it—many of our social institutions are built upon just as precarious a basis—if one thinks deeply about it, it may appear that money is one of them). Now, unless the tribe is a singularly stupid one it will soon realise that the number of cycles of sowing and harvest or of sunrise and sunset, are not the same in successive doglives; or that one man may survive through many doglives (which we, with our superior knowledge, know happened to be unusually short ones) and still appear young, while another will live through only a few (long ones) before showing signs of old age. This inconsistency between the length of successive units of time may or may not be socially inconvenient in the life of the tribe; certainly if there were any advanced scientists in it, their work would be seriously hampered if for short intervals of time they could employ only sub-multiples of doglives.

In fact, since the dawn of history, men have chosen astronomical phenomena to mark beginnings and ends of their intervals of time. The rotation of the earth gave them their days, the revolutions of

the moon their months, and the revolutions of the earth around the sun gave their years. The fact that these three units bear no integral relationship to each other is highly inconvenient ; from the earliest calendar makers to the French revolutionaries men have attempted to bring the day, the month, and the year into better harmony ; a historical trace of one of the greatest of these attempts is to be found in the festival of Twelfth Night, which we shall celebrate in a few days time by taking down our Christmas decorations and putting away the Christmas cards that we have received.

For measurement of sub-multiples of the smallest astronomical unit, the day, the earlier civilisations made use of primitive instruments to sub-divide the apparent angular motion of the sun and stars, such as the sundial. In the situations where these were inconvenient, they used water clocks or graduated candles (based respectively upon the facts that the flow of water through an orifice, and combustion, are both functions of time).

At a much later date (in the thirteen hundreds) came the " verge," which was, I believe, the first adaptation of a mechanical oscillatory system to time measurement. The type of oscillation was what is known as a " relaxation," resulting from the interaction of the inertia of a weighted iron bar, the impulse given to it by the escapement, and the friction of its bearings ; as may be imagined, the last is a very unpredictable and variable quantity, and the time-keeping qualities of the verge clock were accordingly very poor.

All these methods, sundials, water clocks, graduated candles, and verge-controlled weight-driven clocks, have one feature in common. This is that the order of accuracy with which the " clock " could be read was low ; it was difficult to estimate the time as shown by these instruments to anything much closer than a quarter of an hour or so.

This reading inaccuracy tended, I suspect, to obscure a very fundamental difference between the sundial and the other forms of primitive clock. This was that, because the sundial hours were based upon the rotation of the earth about its axis, they were essentially consistent with the day of which they were fractions—there was always exactly the same number of hours between successive mid-days. But the graduated candles and other clocks, being based on completely independent phenomena, were not thus consistent, and the number of " hours " as shown by them in each day might vary from one day to another.

If one day as measured by the candle contained twenty hours, and the following day contained twenty-five hours, are we to say that

the length of the day is varying, or the rate of burning of the candle ? This same question was posed earlier, when we said that one year might consist of 10 centi-doglives and the following one of 12. In other words, which is the most uniform function of time ; the revolution of the earth around the sun ? the rotation of the earth on its own axis ? the rate of combustion of a tallow candle ? or the life-cycle of a dog ? Before we dismiss the last two too summarily, we should, I feel, examine the logical basis for such dismissal. I suggest that the only reason why we distrust them is that by experience we have found them to be inconsistent *inter se* ; that if we light two apparently similar candles at the same time, one will burn down before the other, and that of two puppies born simultaneously, one is likely to live longer than the other. A good argument, so far as it goes, but it may lead us into difficulties later ; in any case, it has still left part of our question unanswered.

Some centuries after the introduction of the verge came the discovery of the pendulum, and the present chapter in the history of horology was opened. The pendulum is a mechanical oscillatory system which depends upon the exchange of energy between the kinetic and potential states in a swinging mass. In a free pendulum, swinging through a very small arc, the periodic time of swing is dependent only upon its length, and upon the value of the gravitational constant, g. In the early days of pendulum clocks there were considerable inconsistencies in the number of swings beaten out in successive days, and similar inconsistencies between individual pendulums. These could be ascribed to mechanical imperfections ; the arc swung through was not sufficiently small, the length varied with temperature or other extraneous conditions, the pendulum was not truly ''free'' in that it was subject to damping (*i.e.* loss of energy) through its suspension or the air in which it swings, and was subject to disturbance by the 'escapement' (the means adopted to replace lost energy, and to count the beats). Gradually these imperfections were reduced, and the performance of the pendulum improved, culminating some 25 years ago in the production of the 'Shortt' electrical remontoire-driven free pendulum clock. Clocks of this design were installed in observatories throughout the world, and in the '30s many of these were running at 'rates' of less than half a second—that is to say that they were, on an average, gaining or losing less than half a second a day, or about three minutes a year. But the actual rate of a clock is not really a matter of great importance ; a steady gain or loss may easily be allowed for ; it is the constancy or inconstancy of the rate that matters. And

the rate of many of these clocks was found, by comparison with star-transit observations, to vary by as much as a fifth of a second, over a period of a few days. Groups of 'Shortt' clocks were, however, found to exhibit great consistency amongst themselves; by averaging the small inconsistencies occurring within the group, observatories were able to speak of a "mean clock" whose performance was so good that the effect of "nutation" on the length of days could be detected. Nutation is a kind of wobble of the axis of the earth, akin to the wobble of a dying top; it has a major period of about 10 years, together with lesser periods, one of about half a year being of some importance; the length of days at opposite half cycles of this period differs by as much as a fifteenth of a second.

At the same time as the 'Shortt' clocks were putting up such wonderful performances, and measuring variations in the length of the day that had been calculated by astronomers, but which it had not been expected would ever be measured by clocks, another new clock was being developed—the quartz crystal clock.

This clock depends upon the piezo-electric effect observed in certain quartz crystals. If an electric force is applied to opposite faces of a piece of quartz cut from such a crystal, the crystal expands or contracts, depending upon the polarity of the electric force. And, conversely, if the piece of quartz is expanded or contracted by mechanical pressure, an electro-motive force, capable of causing a current to flow in an external circuit, is produced at the faces. If the voltage applied to the crystal is an alternating one, the crystal will be forced to expand or contract, *i.e.* to vibrate, at the frequency of the applied voltage.

A block of quartz has a natural frequency of its own—the frequency at which it would vibrate if given a mechanical shock—which depends upon its physical dimensions, and also upon its specific gravity and elasticity, but these are fixed parameters of a very high degree of constancy. At resonance, *i.e.* when the frequency of the applied alternating voltage coincides with the natural frequency of the crystal, the vibration rises to its maximum value; this is never very great, although if a sufficiently high voltage be applied it may be sufficient to shatter the crystal; in clocks, however, it is deliberately kept down to a low figure —a usual amplitude would be about 60 millionths of a millimetre.

By means of suitable electric circuits it can be arranged that the voltage produced by a crystal vibrating at its natural frequency is applied to the grid of a thermionic valve, and amplified; part of the amplified output from the valve is returned to the crystal to maintain

its vibrations, and part is taken to drive the rest of the " works " of the clock.

It is usual to cut and grind the piece of quartz to such a size that its natural frequency of vibration is 100 Kc/s. Flat bars of quartz are frequently used, and a bar for this frequency would have dimensions of the order of a small domino. Other shapes, such as rings, or discs are sometimes used. By cutting the piece at certain angles to the axis of its parent crystal, it is possible to obtain a bar whose temperature co-efficient is practically zero. It is then mounted *in vacuo* in a glass tube in such a way that the least possible constraint is applied to it, and leakage of energy (for instance. by friction with the surrounding air, by the radiation of sound, or by friction with its supports) is almost entirely eliminated. Although quartz is chemically very stable, the vacuum mounting also prevents any contamination of the surface by impurities in the atmosphere. Although the crystal has been cut to have practically zero temperature co-efficient, as a further precaution the glass container is fixed in an oven whose temperature is thermostatically controlled within very close limits. By these means an extremely high degree of constancy in the frequency of the crystal is obtained. The short period constancy may be considerably better than one part in 100 million.

The electrical output from the valve which is controlled by the crystal is of the same frequency as the natural vibrations of the latter, that is, in present day practice about 100 Kc/s. This is, of course, far too high to drive directly any form of electric motor and gear train. It is therefore fed to a series of circuits called " frequency dividers," the output from each of which is some exact simple fraction of the frequency applied to it. The overall divisor applied by the chain of frequency dividers is 2,000, and the final output is at some frequency (very close to the normal standard mains frequency of 50 c/s.) which is exactly one two-thousandth of the original crystal frequency of about 100 Kc/s. This 50 c/s. output is applied to an ordinary synchronous electric clock.

Shortly before the beginning of the war, quartz crystal clocks were installed in many observatories. They have shown themselves outstandingly fine timekeepers, a daily variation of rate of the order of one milli-second is not unusual. This constancy is some 20 times as great as that of a Shortt pendulum. With an accuracy of this order it becomes possible to check variations in the rate of the earth's rotation that passed unnoticed when timed by less accurate clocks. One effect, which is shown up by a comparison of the quartz clocks and the Shortt clocks

is the diurnal variation in the value of g, the gravitational constant, caused by the revolution of the moon about the earth. Because the period of the pendulum is dependent upon g (to be precise, is inversely proportional to the square root of g) a pendulum clock runs faster when g is increased. The quartz clock, on the other hand, is independent of gravity. The change of rate of the pendulum due to the diurnal variation of g amounts only to a few tenths of a milli-second, but can be detected by comparison of the two clocks.

A further stride in the development in horology is now in sight. So called "atomic" clocks have been constructed. In these, the natural period of vibration of the molecule of ammonia is the controlling element. The frequency of this vibration is of the order of 30 thousand Mc/s., which is the frequency of very short wireless waves of 1 cm. wavelength. If such waves, of exactly the right frequency, are directed through a tube of ammonia gas, they set the molecules into vibration and are themselves absorbed. This effect is used to control the generated frequency which, by a process of frequency division similar to that employed in the quartz clock, is reduced to a fractional frequency, of the order of 50 c/s., and used to drive a synchronous clock.

It appears that the first models of this clock have proved rather disappointing, having a performance inferior to that of the quartz clock. After a further period of development, however, it is expected that they can be improved upon. In any case, whether it be the atomic clock, or an improved quartz clock, or some other form of clock not yet conceived, the science of horology goes forward, and an ever greater degree of accuracy can be expected in the future.

It has been calculated by astronomers that the rate of rotation of the earth is slowing down, and that our days are lengthening by some one milli-second per century. The clock-makers are still a long way from being able to detect this change, but it is there as a constant challenge to them.

I opened this address with a question "What is time?" I shall close it with another one, that sounds easier to answer, although I am not sure that it really is. "What is an hour?" And to make it easier (or, perhaps, more difficult) I shall give a selection of alternative answers, in the fashion of the popular magazine quizzes. Is it (*a*) one-8765th of the period of the earth's revolution round the sun?, or (*b*) one-24th of the period of the earth's rotation on its axis?, or (*c*) 3,600 beats of a second pendulum?, or (*d*) 360 million vibrations of a quartz plate? or (*e*) 108 million million vibrations of an ammonia molecule?

DISCUSSION.

During the discussion which followed Mr. Ogden's paper *Mr. Wood* said that it was convenient to have a standard unit of measurement and he thought that standardisation of the unit of time could be achieved by using the vibration time of an ammonium molecule. *Mr. Grabham* thought that practical usage did not demand absolute accuracy, and *Mr. Harrison* expressed his appreciation of the time system of the Nilotics based on seasonal exigencies of agricultural and animal husbandry. *Mr. J. W. Wright* pointed out that the value of any inaccurate measurement of time depended on how well it served its purpose. The adequacy of the earth's rotation period for domestic purposes did not render an enquiry into fundamental units unnecessary or undesirable.

THE KHALIFA 'ABDALLAHI

By A. B. Theobald

(First presented to the Philosophical Society of the Sudan at its Twentyeighth Ordinary Meeting on 27.10.49).

You are all no doubt familiar with the broad outlines of that romantic, dramatic, but sombre period of the history of the Sudan from 1881-1899, which is known as the Mahdiya. You will remember how Mohammed Ahmed, an obscure *fiqi*, raised the standard of revolt on Aba island in August 1881 against the corrupt and degenerate Turco-Egyptian government, and proclaimed himself to be the Expected *Mahdi*, who, according to the tenets of Islam, will one day come to purify religion and to restore the ancient glory of the times of the Prophet. You will recall how he won a series of apparently miraculous victories which laid the whole of the western Sudan at his feet ; how the British and Egyptian governments sent General Gordon to evacuate the remaining Egyptian garrisons ; how Gordon found himself shut up in Khartoum, and how a relief expedition was eventually sent to extricate him, but arrived too late to prevent either the death of Gordon or the fall of the city, after a remarkable defence lasting eleven months. Eleven years later, the British and Egyptian governments began operations for the rescue of the hapless Sudanese from what they regarded as the brutal tyranny of the Khalifa 'Abdallahi, and this campaign culminated in the total defeat of the Khalifa at the battle of Omdurman on September 2nd., 1898, and his death in mopping-up operations a year later.

But while a whole library of adulatory literature has been written about General Gordon, and while the story of the reconquest of the Sudan has been graphically described in the pages of Churchill's *River War*, the intervening period of the regime of the Khalifa 'Abdallahi has been almost totally neglected by historians. It is those years, between the death of the Mahdi in June 1885, and the beginning of the reconquest in March 1896 which I am going to scrutinise tonight.

The sudden death of the Mahdi only six months after his supreme triumph, the capture of Khartoum, must have seemed an irreparable disaster to his fellow-countrymen, for he was indeed at the summit of success and power, all his immediate aims accomplished. Before him lay the opportunity of consolidating in peace what he had won by war, and of leading his people forward to prosperity and progress. All this

bright prospect was suddenly dashed away by his untimely death. Fortunately, the question of his successor had never been seriously debated, and indeed the Mahdi had left specific instructions that 'Abdallahi, the first of his three Khalifas, and his right-hand man from the beginning of his movement, should succeed him. There was no one else with sufficient power and personality to challenge his claim, and the succession passed peaceably into his firm grasp.

But the difficulties that faced the new ruler would have daunted a lesser man. To the north lay Egypt, backed by the hesitating but incalculable strength of Britain. Both these countries were smarting under their recent reverses, and their friendship could not therefore be expected; on the contrary, their open hostility was more than likely. To the south was Abyssinia, vast, inscrutable, warlike, a major African power. Egyptian garrisons still held out in Sennar and Kassala, and Emin Pasha, the eccentric little German doctor whom Gordon had appointed as Governor, in distant Equatoria. The British still held Suakin, and so long as they did so, pointed a dagger at the heart of the country. The Sudanese themselves had only been lightly and superficially united by the Mahdi's call to arms. The great tribes obeyed their tribal leaders first; and the tribal leaders were jealous of their own power and rights. To them the Khalifa 'Abdullahi was a self-made man, with no traditional right to rule over them. The country was vast and inhospitable. Communications could be maintained only at the pace of a camel's trot. There was no industry, no developed mineral wealth. Agriculture was primitive, and during the years of fighting had been much neglected. There was no machinery of government in the modern sense—no constitution, Parliament, Cabinet, State Departments, political parties, elections, no press or informed public opinion. The inefficient corrupt system of the Egyptians had been swept away, but the Mahdi had barely begun to organise his new theocratic State. Medical services were totally lacking, and the only schools were the primitive Qoranic *khalwas* in the villages. The only education which the Khalifa himself had received had been from his father, who had been a *fiqi*, and it appears that he had almost totally forgotten such reading and writing as he had ever known.

What then were the Khalifa's assets? He could only fully rely on his own tribesmen from the west, fierce fighters who despised the riverain people as much as they were in turn despised by them. He could rely on them, on his brother Ya'qub, and most of all on himself, on his own shrewdness and ruthless strength. There is indeed no sign that 'Abdallahi ever felt himself unequal to the task.

In these circumstances, it is not surprising that the Khalifa's rule was essentially personal. His policy, not, I think, in any way carefully formulated, was a struggle for survival. He sought first to establish an unchallenged authority, and then to maintain it. No one can criticise such an aim, for it was natural, instinctive, and was, in fact, the only possible way in which the Sudan could be governed at all. It is possible only to criticise his methods; but in doing so, the very different standards of values of the time and place must constantly be remembered. That the Khalifa succeeded in his aim for thirteen years, and that he also succeeded in fashioning a rough, but workable system of administration, should be cause for wonder and admiration. Only a man of outstanding ability and personality could have achieved so much; an achievement less spectacular, but perhaps as remarkable, as that of the Mahdi himself.

The beginning of the Khalifa's rule was marked by the capture of Kassala and Sennar in July and August 1885 respectively, thus liquidating the last islands of Egyptian resistance in the interior of the northern Sudan.

There then followed a series of challenges to the Khalifa's authority which were each in turn firmly grappled and subdued. The members of the late Mahdi's family and their adherents, known as the Ashraf, who were headed by the third Khalifa, Mohammed al Sharif, had accepted the Khalifa's succession as gracefully as could be expected, but their continued acquiescence was unlikely. So at least 'Abdullahi believed, and so long as Mohammed al Sharif maintained his own private army, he was always a potential menace. On a show of force, however, it was clear to the Ashraf that their power was the weaker. Fortunately, the second Khalifa, 'Ali Wad Hilu, was primarily a man of religion, and not of politics and war. He acted as mediator, and peace was made on 'Abdullahi's terms. Mohammed al Sharif handed over his men, stores, flags and war drums to be incorporated in the command of Ya'qub, while he himself was allowed to retain only 50 men as a personal bodyguard.

In Darfur, there remained another of the Mahdi's relatives, Mohammed Khalid Zoghal, who had become Governor of the province on the fall of Slatin. Separated by enormous distances from Omdurman, he had been living almost as an independent ruler, and growing rich on the produce and trade of his province. Early in 1886 he set out for Omdurman with a considerable force. 'Abdullahi believed that he had been in correspondence with Mohammed al Sharif, and that he was planning to unite with him. In any event, his presence in the capital

with a large armed following, would have been a source of encouragement to the Ashraf, and of danger to 'Abdallahi. The latter decided to forestall any inconvenience that might arise, and again he struck first. He instructed Hamdan Abu Anja, the most trusted and capable of his Emirs, who was then at El Obeid, to seize Zoghal and take over his army. Abu 'Anja moved swiftly and overtook him at Bara. Again there was no battle, for many of Zoghal's followers deserted him to the other side. Zoghal himself was temporarily imprisoned and his considerable wealth confiscated, but when the Ashraf had entirely ceased to be a menace, the Khalifa pardoned him and indeed once more used his services.

The year 1887 saw the Khalifa, supported by the people of his own country, the west, whom he had brought in great numbers to Omdurman, consolidating his position against those of the tribes that still held out, or that dared to raise their heads in sporadic rebellion against him. The Kababish, a great nomad tribe, living mainly in the desert of northern Kordofan and Darfur, had never accepted Mahdism. Their Sheikh had been executed after the Mahdi's capture of El Obeid, and they had helped the Gordon relief expedition with large supplies of camels. Salih Fadlalla Wad Salim, brother of the executed Sheikh, had succeeded to leadership of the tribe and had remained in passive isolation and opposition in the early days of the Khalifa's rule. Early in 1887, he made a successful raid on a convoy of camels on its way to join another of the Khalifa's great Emirs, 'Abd al Rahman Wad al Najumi. Knowing the vengeance that would fall upon him, Sheikh Salih got in touch with the Egyptian government, and was granted 200 good Remington rifles, ammunition and L.E. 200 in cash. Najumi, however, had his spies who observed and reported the departure of the caravan. In the desert west of Dongola, a successful ambush was laid and the arms and money captured. The failure of this plan spelt death to Sheikh Salih. The Khalifa at once despatched a force from Omdurman to annihilate him. His head was sent to Omdurman to be exposed on the public scaffold as a warning to other potential rebels, and the Kababish tribe was systematically destroyed.

A similar fate overwhelmed another recalcitrant Sheikh and tribe shortly afterwards. Yusif al Mardi Abu Rof, head of the Rufaa al Hoi branch of the great Juhaina group of tribes controlled a considerable stretch of the west bank of the Blue Nile in the Sennar region, from which Omdurman drew its chief supplies of grain. He levied taxes on the boats going north, he refused to go to Omdurman to swear allegiance, and he killed isolated parties of the Khalifa's men in his territory. He

behaved, in fact, like a great feudal chieftain, scornful of the Khalifa's authority. Accordingly, 'Abdallahi sent an expedition against him, the tribe was defeated and destroyed, and al Mardi's head joined Salih's on the gallows at Omdurman.

By now it surely should have been clear who was master in the Sudan, but in distant Darfur, very far from the Khalifa's stern eye, men could still be found to dare the ultimate test of armed rebellion. Such was Yusif, son of a former Sultan of Darfur, whom Zoghal had left as acting Governor while he was away. Combining with Sultan Zaid of Jebel Marra, he gained some initial successes, but in January 1888, both were hunted down, slain, and their heads despatched to Omdurman.

But no sooner had this threat been removed, than a fresh storm broke. As in the early days of the Mahdi's rebellion, it appeared that no mass movement in the Sudan was possible without the sanction of religious fanaticism. Such a spur was now suddenly applied to the shattered and dispirited people of Darfur. Among the backward and fierce Masalit tribe of the extreme west, arose a new holy man. His origins were obscure, but he was universally known as *Abu Jummaiza* from his habit of preaching to his followers under a wild fig tree. At any rate he was anti-Mahdist, and he could perform miracles. It was said that the shade of the fig tree accompanied him wherever he went ; people had seen him produce milk from his finger-tips ; he could raise a palm-tree from the desert ground and cover it with fruit. Moreover, he was invincible in battle, and the crowded streets of Omdurman hummed with rumours that El Fasher had fallen, then El Obeid, and that he was advancing on the Nile and Khartoum.

Alas, when the fogs of rumour and conjecture began to lift, it was seen that there was little justification for such extravagant hopes. What had actually happened was that Abu Jummaiza's forces had defeated in turn two sections of the army of Osman Wad Adam, the Khalifa's Emir of the west, but instead of following up his victories and marching immediately on El Fasher, he had retired again to await further reinforcements. Early in February 1889 he again resumed his advance on El Fasher, but now an unexpected disaster occurred. Abu Jummaiza contracted smallpox and died, and thus he was not there to inspire his followers when the final battle was fought within a mile of El Fasher and they were totally routed. Osman Wad Adam, writing to the Khalifa after his triumph, said " It had been my intention to send the heads of all their chiefs to you, but as they have by this time decayed and would be heavy for the post, I must be satisfied with sending you two only.

together with some of the enemy's flags and other articles of plunder, which may serve as a proof of our glorious victory."

In a series of bloody but decisive operations, the Khalifa had thus, by the beginning of 1889, imposed his rule on the Sudan. The bridling of the Ashraf, the destruction of the Kababish and Rufaa al Hoi tribes, the defeat of Sultan Yusif and then of Abu Jummaiza in Darfur—all this was surely enough to employ his energies to the full. Yet simultaneously with handling these internal revolts, he had to bear in mind the threat to his frontiers from Egypt in the north and from Abyssinia in the south. Nor did he face these dangers in any passive spirit. From the beginning, he looked forward to invading Egypt himself, and as for Abyssinia, while he did not deliberately seek an offensive war against her, he did nothing to placate her, and indeed readily accepted the challenge to a trial of strength.

Of all the Khalifa's wars, that with Abyssinia, which continued intermittently from the beginning of 1887 till the beginning of 1889, seems the most unnecessary, the most easily avoided. One seeks in vain for any important cause of quarrel between the two countries. Each was vast, remote and ill-organised. There was no territorial dispute between them; there was no clash of commercial interests. A brisk local trade in each other's products could be carried on with mutual profit over the frontiers. Otherwise there was no sphere in which they needed to come into contact with one another. This alone they shared in common—that the ruler of each was warlike and proud, and one is forced to the conclusion that it was a haughty desire to prove himself the greater man that drove the King of Abyssinia and the Khalifa of the Sudan into a desperate conflict.

Into the details of this war I cannot enter. Suffice it to say that Abyssinia was invaded by the mighty Abu 'Anja with an army of 60,000 well-armed, well-trained men—easily the largest and most formidable force that the Mahdists ever put into the field. The Abyssinians were heavily defeated on the plain of Debra Sin, 30 miles north of Gondar, and the city itself was sacked and burnt. King John of Abyssinia swore a bloody revenge. Again prodigious exertions were made on both sides to raise huge armies; again Abu 'Anja was to command the Khalifa's army. But this time, he who had never lost a battle, was defeated by an unexpected enemy, for he died suddenly while attempting to treat himself for indigestion with a local herb. The Abyssinians attacked Gallabat in greatly superior strength, but in the moment of victory, King John was struck down by a stray bullet, and the Abyssinians, suddenly losing heart, lost also the battle.

This critical and extraordinary battle ended the Abyssinian war. Abyssinia fell into internecine warfare over the succession to the throne, and was no longer a menace. The invasion of that country was equally impossible to the shattered Mahdist army. Nothing had been won; nothing decided. The war, which had been fought without reason, ended without result. Yet the Sudanese-Abyssinian war is interesting as a historical curiosity. It was the last time in the history of the world that armies of such a size met in warfare of such a type, where there was nothing more mechanical than some old-fashioned rifles; where the issue was primarily decided by individual strength and skill, by the thrust of a spear and the blow of a sword. At the end of the nineteenth century, in a remote corner of Africa, two armies fought it out toe to toe in the traditional medieval manner.

The victorious conclusion of the Abyssinian war in March 1889 marked the zenith of the Khalifa 'Abdullahi's power. In four years of continual fighting, his enemies everywhere had been overthrown. An impressive row of once hostile heads grinned on the gallows in Omdurman, or lay discarded in the pit beneath. Throughout the length and breadth of his vast country, with the exception of the British at Suakin and Emin Pasha in a narrow strip of Equatoria, no enemy in arms was left, and no chance of a successful rebellion remained. The dread menace of Abyssinian power had been removed. The Khalifa's word was law; his merest nod threw men into chains and prison, or raised them to honour and favour. Now at last all was clear for the great adventure of the invasion of Egypt, which the Mahdi himself had commanded, and for the extension of Mahdism to embrace an Empire.

Yet how secure was his imposing structure of absolute power? At what a cost he had reached his present position! War and bloodshed had ravaged the Sudan from end to end. Agriculture had been dangerously neglected, and the threat of famine, or of pestilence in overcrowded, insanitary Omdurman, had drawn near. His best general was dead; his best army had been almost destroyed in the very process of victory; the religious flame of Mahdism had burnt very low; the jealous Ashraf bided their time; the people of the river murmured in discontent at the tyranny of the wild tribesmen of the west. Perhaps to the triumphant Khalifa in March 1889, all seemed well. In reality, from that date onward, fortune ceased to smile on him, and he suffered a series of shocks which gravely weakened his power to resist when the reconquest of the Sudan began.

The invasion of Egypt was undertaken by an army of about 5000 men, accompanied by a heterogeneous crowd of about 8000 camp

followers, consisting for the most part of the wives and families of the warriors. The commander was 'Abd al Rahman Wad al Najumi. Fearless, fanatical, ascetic, single-minded in his devotion to the cause, in him the flame of Mahdism burnt at its brightest. Yet his very virtues were his weaknesses, for his belief blinded his judgment. God was fighting for the Mahdiya; therefore no earthly power could resist Him, and obstacles, difficulties, overwhelming odds were only trials to test the faith of true believers. It says much for his powers of leadership that he was able to inspire his men with something of his own confidence, so that they were ready to follow him through the most appalling trials to the end. This mystic faith in the power of Mahdism led him also to believe that the people of the river north of Halfa awaited only a sign to rise and join him, a belief in which he had been encouraged by the messages he had received from Bimban, in upper Egypt, where a large number of Sudanese refugees from Dongola had settled. Combined with blind over-confidence was a serious under-estimation of the forces opposed to him. Najumi, and the Khalifa himself, undoubtedly regarded Egyptian and British troops as a cowardly rabble who would break and flee at the first determined charge. They did not know how much patient drilling and training had been going on in the army of the Khedive since the Mahdi had won his apparently miraculous victories. Nevertheless, after making full allowance for all these misconceptions, it remains astounding that the Khalifa should have put an army of 60,000 men into the field to meet the Abyssinians, and then permitted the invasion of Egypt with 5000. Criminal ignorance and misunderstanding of the relative severity of the tasks before these two armies could go no further.

Najumi's plan was to proceed along the west bank, keeping well away from the river, thus by-passing the Egyptian garrisons, while being supplied en route by the willing villagers. He intended finally to strike the river at Bimban, 25 miles north of Aswan, where he expected assistance from a mass rising of the people. With a compact, well-trained force, lightly equipped and moving fast, opposed by static garrisons, such a plan might conceivably have succeeded. But his army consisted of a medley of tribes, and the speed of its movement was conditioned by the vast crowd of hangers-on, who impeded its movements, and greatly complicated its problems of supply. The road, outside the thin belt of palms and cultivation along the river, was sheer desert. It was the worst time of year for campaigning, July 1889, with a burning sun scorching the hot sand and baking the stark rocks. Most of the villagers had been evacuated, and those who remained

regarded the army's approach with terror, for they wanted, not Mahdism, but peace and protection. Moreover, the Egyptian garrison was mobile. In addition to garrison troops, distributed to the number of 4000 men between Aswan and Wadi Halfa, there was a flying column of 2000 organised at Halfa, which could be quickly transported to any threatened point by four gunboats. Further powerful reinforcements, including a British brigade, were assembled at Cairo, and immediately moved south when news of Najumi's advance was received.

Thus every circumstance of disaster attended the expedition. It speaks volumes for the valour and endurance of Najumi and his men that in spite of all, they penetrated 60 miles into Egypt, until, starving and desperate, they gave battle at Tushki, and were swept out of existence, Najumi himself being killed in the hopeless fight. The defeat of the Mahdist army was so complete that no further attempt was made even to hold the frontier region, and the survivors fled to Suarda, 130 miles south of Halfa.

The fighting careers of Abu 'Anja on the Abyssinian frontier and of Najumi on the Egyptian frontier, had ended. It was now the turn of Osman Digna, the third of the Khalifa's great Emirs, and the shrewdest and most elusive of them all, to bear the brunt in the eastern Sudan. There, Suakin, which had been retained for motives of prestige alone in the general withdrawal from the Sudan in 1885, remained as a foothold of Anglo-Egyptian power. Outside its walls and forts, however, the authority of Osman Digna reigned supreme, and there were times when he seriously threatened the security of the town itself. The military authorities at Suakin became increasingly restless with their purely passive role, and the navy complained that so long as the government administered only the port of Suakin and not the coastline in its vicinity, it was impossible adequately to control the slave trade with Arabia. Moreover, it was known that many among the local tribes were heartily tired of Osman's dictatorial methods, and the general insecurity of life. Alone they dare not move ; with aid from Suakin, they would probably be eager to rebel.

All these factors pointed in one direction : Osman must be driven out of the vicinity of Suakin once and for all. He must be struck at the heart of his power, which was Tokar. Without Tokar, the centre of the rich delta of the Baraka river, he would not be able to maintain his supplies, and would be forced to abandon the eastern Sudan altogether and withdraw to the river Atbara. It was true that such action would be contrary to the previous policy of the British Government, which had been that of the abandonment of the Sudan and

non-interference in its subsequent affairs. Yet the temptation was too great to resist—a surprise move, a brilliant success, Osman Digna routed—what praise then for the initiative of the government, what glory for British leadership, what a tonic for the Egyptians. Thus in February 1891, action was taken, and all went well. Osman Digna was defeated in a stiff action, and Tokar recaptured, by a happy coincidence, on the anniversary of its fall seven years before. As expected, Osman Digna withdrew to the river Atbara, 200 miles to the west. His power never recovered from the blow it had sustained. The whole area of the Red Sea littoral, of which Suakin was the natural capital, was tranquillised, and the tribes inhabiting it willingly submitted. Trade was reopened along the Berber-Suakin road. Since the whole episode had ended successfully, British public opinion was duly gratified, and did not notice that there had been any change in policy, or anything illogical in the move, while the confidence of the military authorities in the efficiency of the new Egyptian army was immensely increased by its victorious issue from this stern test.

There was no further significant decrease in the territory controlled by the Khalifa for three years. Trouble then came from an unexpected quarter. The Italians had secured the important port of Massawa in 1885 and had subsequently pushed westward and formed the colony of Eritrea. In July 1894, they suddenly took the offensive and captured Kassala. Kassala was no mere frontier village; it was the largest town in the eastern Sudan, capital of the old Taka province of the Turco-Egyptian government. Its loss was therefore a major setback for the Khalifa, and there was consternation in his council at Omdurman when they heard the news. The Khalifa made a great show of ordering reinforcements to the Atbara river, with the intention of recapturing the town. But no assault was ever actually made.

Since the surrender of Lupton Bey in the Bahr el Ghazal in 1884, and the isolation of Emin Pasha in Equatoria, these two great southern provinces of the Sudan had in practice been unadministered, and the Khalifa's authority had remained shadowy at best. It is probable indeed that the Khalifa did not favour the establishment of powerful Emirates in such remote parts of his dominions, for they were bound to become semi-independent, and might develop into a serious challenge to his authority—as Darfur had done. Even after Emin Pasha had been evacuated by the explorer Stanley in 1889, the Khalifa made no attempt to annex the whole of the Equatorial province. He only maintained an advanced post at Rejaf, which he used chiefly as a penal settlement for those who had lost his favour.

No one knew, certainly not the Khalifa, what was going on in the Bahr el Ghazal, but after 1892, rumours were constantly reaching Omdurman of mysterious Europeans in that area. In 1894, King Leopold of the Belgians obtained British recognition for his personal possession of an immense area on the borders of the Bahr el Ghazal, which was to be known as the Congo Free State. The nearest Mahdist garrison of any strength was at Shakka in southern Darfur ; but, after a defeat at the hands of the Dinka tribe in 1893, they were unable to prevent Belgian, and later French, penetration over the frontiers of the southern Sudan.

Thus by 1895, the imposing edifice of the Khalifa's power had seriously declined. Since the moment in March 1889, when the final defeat of the Abyssinians had seemed to set him on the pinnacle of success, he had suffered nothing but a series of defeats. In the north, the defeat of Najumi had driven in his frontier by 130 miles ; in the east, Osman Digna had withdrawn for 200 miles and he had lost Kassala to the Italians. In the south, he had no control over most of Equatoria, and all of the Bahr el Ghazal. Threat of invasion by the new Egyptian army, backed by Britain, hung like a dark cloud on the north. Within his shrunken frontiers, however, he was still master of the country. How far had his administration in this hard core of the Arab lands of the Sudan qualified him to withstand his gathering dangers ?

In what I am regarding as the second period of the Khalifa's rule, from March 1889, there were no serious internal troubles. True there was a bad famine in that year, followed by a plague of locusts, and in 1891 an attempted coup d'etat by the Ashraf in Omdurman, which was easily crushed and culminated in the imprisonment of Mohammed al Sharif and the ringleaders. But this was the last challenge to the Khalifa's authority before the reconquest of the Sudan began. During the four years 1892-6, there were no more massacres, and only two prominent leaders—the Emir Zaki Tumal and the *Qadi* of Islam, Ahmed 'Ali, lost their lives for incurring the Khalifa's displeasure. As the threats from beyond his frontiers became more menacing, he seems to have realised the need to consolidate his position at home.

His policy is well described, I think, by one Mustafa al Amin, who was a Ja'ali, and therefore a member of the tribe most bitterly opposed to the Khalifa, and yet was also a cousin of *Qadi* Ahmed 'Ali and therefore had exceptional opportunities of observing the Khalifa's actions and the people's reaction to them. An Intelligence Report dated 12th December, 1892, which is preserved in the Newbold Library, gives, *inter alia*, the following summary of his views : " When the

Khalifa first began to rule, he exercised the greatest tyranny and oppression over the people, but now that the authority of his own tribes, the Baqqara, is undisputed and that internal dissensions have been suppressed, he is profiting by former experiences and is doing his utmost to establish a more lenient and popular system of government, and his efforts are not altogether unsuccessful. Thus a slow but gradual consolidation is being effected and it is not unlikely that when the Egyptian government does eventually decide to reconquer the Sudan, it will meet with opposition on the part of those very tribes who have been most clamorous for its return. The Baqqara have become nationalised in their new homes, the other tribes are accepting the situation, and now there is a more or less general feeling that an advance on the part of the government must be considered as an attempt to interfere with their independence. This feeling is strongest in Omdurman and its vicinity, and weakest amongst the population immediately in contact with outside influences."

By far the most detailed and accurate account of the Khalifa's administration and system of government during these latter years has been given by Slatin Pasha, who escaped from Omdurman in February 1895, and who, as soon as he arrived in Cairo, gave a careful description of the current situation in the Sudan to Major Wingate, at that time the Director of Military Intelligence. When Slatin could forget his personal animosity to the Khalifa, which has unfortunately so coloured his book *Fire and Sword in the Sudan*, his unrivalled knowledge of conditions in the Sudan are invaluable.

The Sudan was divided into provinces, as in the days of the Egyptian Government, but the boundaries and capitals were not rigidly defined, and varied chiefly according to military necessity. Thus Kordofan and Darfur were sometimes administered as one unit, sometimes as two. Similarly the eastern Sudan at first all came under the authority of Osman Digna, but after the fall of Tokar, appears to have been sub-divided. In each province there was usually a Ta'aishi Governor (*i.e.* a member of the Khalifa's own tribe), responsible to the Khalifa, and the Governor was both the supreme civil authority and military commander-in-chief. He was assisted by his own staff, consisting primarily of a *Qadi*, a treasurer, clerks and tax-collectors, all but the most subordinate of whom were appointed by the Khalifa. The Governors were called into Omdurman at irregular intervals to report and receive instructions, and they were certainly expected to submit any important decision to the Khalifa for confirmation before action. Any suspicion of disloyalty or evidence of gross mis-government would be met by instant dismissal and imprisonment at the least, if not by death.

Thus Zaki Tumal, Governor of the south-eastern Sudan, fell from grace in 1893, and was practically starved to death in prison; thus Younis Dikaim was recalled from Dongola for oppressive government in 1895, but survived to outlive all the other important Emirs of the time.

The nucleus of the Khalifa's army was the *Jehadiya*. These were the regulars, armed with rifles, of whom there was a permanent garrison of some 12,000 in Omdurman, with smaller numbers in the chief provincial garrisons. The greater part of these were black troops, either ex-soldiers of the old Egyptian army in the Sudan, or newly recruited from the negroes of the south. The majority of them in Omdurman were known as the *Mulazimin*, and were the Khalifa's personal troops, living together in a special quarter of the town, under the command of the Khalifa's son, Osman Sheikh al Din. They alone were paid regularly, at the rate of half a dollar, or 10 piastres, and a ration of grain monthly, with an issue of clothing twice a year. There were in addition about 30,000 sword and spearmen in Omdurman, drawn chiefly from the western tribes, under the black flag of the Khalifa's brother, Ya'qub, and 7000 tribesmen from the White Nile, under the green flag of 'Ali Wad Hilu. Further forces of camelmen and horsemen were kept in reserve, to be called up at short notice. Most of the irregular infantry were permitted to leave Omdurman after the rains to cultivate land specially allotted to them in the Gezira. There was no regular system of officers or of ranks, except that every 20 men or so were grouped under a *muqaddam*, every 100 under a *ras miya*, and several hundreds under an Emir, who had his own flag. When an expedition started, the Emirs were given a grant of up to a 100 dollars monthly, according to their status, with which to relieve the pressing needs of their poorer adherents. Each Emir was held responsible for seeing that his men had sufficient donkeys or camels to carry some days' supply of food. Great numbers of women and children accompanied the fighting men. When the original supply of food ran out, the army would live on the countryside through which it passed. It was this lack of regular pay and rations that led to so much plundering from the local people, and made the armies of the Khalifa a terror to the peaceful inhabitants of the districts they were intended to protect.

The supply of sufficient firearms and ammunition was a constant problem, which grew increasingly serious as time went on. While the making of spears and swords developed into a major industry in Omdurman, there were no facilities for the manufacture of modern weapons of war. The Khalifa's riflemen were equipped with the rifles captured in the early victories against the Egyptian army, but as these

grew unserviceable, they could not be replaced. A powder factory was established just north of Kharthoum, but the powder was of inferior quality and deteriorated rapidly. The supply of lead was the greatest difficulty of all, for it depended entirely on what could be smuggled into the country from Egypt and Arabia. After the loss of Tokar in 1891, the latter source of supply dried up entirely. Apart from parades outside Omdurman on Fridays, the army underwent no regular training. Thus all the organisation associated with an army at the end of the nineteenth century was lacking. Proper systems of pay, equipment, rations, training, discipline, officers, transport, medical care, supply, planning, were entirely absent. Only courage and endurance were in unlimited abundance, but before disciplined troops with modern arms and in open country, these qualities were themselves disadvantages which caused a battle to become a massacre and made the killing easier.

Justice under the Khalifa was dispensed according to Muslim law, and was highly centralised. The *Qadis* in the provinces, sitting with two or three notables chosen by themselves, submitted all important cases to Omdurman for confirmation of sentence by the high court, presided over by the *Qadi* of Islam. Punishment was severe by modern standards. The penalty for theft was the loss of the right hand ; for highway robbery, the loss of the right hand and left foot ; and for murder, hanging in public. Serious crimes involved also confiscation of property —a welcome addition to the public revenue. A market court, presided over by the Sheikh of the market, dealt with petty day-to-day cases of smoking, drinking, taking snuff and affrays.

The Khalifa is commonly supposed to have interfered constantly with the courts of justice. It is highly probable that when his own authority and safety were at stake, he was quite unscrupulous, and in any case, in such matters, no judge could be expected to have the courage to return a verdict unfavourable to the Khalifa. On the other hand, Ohrwalder (the Austrian priest who was a prisoner for 10 years, and who is one of the best commentators on the regime), specifically commends the Khalifa's reorganisation of the Mahdi's chaotic system of justice. Indeed it appears that in the suppression of crime, the Khalifa and his *Qadis* acted sternly, but with honesty and the good of the people at heart.

As with justice, so the taxes, finances and trade of the country were based on Muslim law, adapted and developed by experience. The centre of this system was the general *Bait al Mal*[1] in Omdurman which

[1] By the river near the present Technical School.—*Ed.*

was an immense treasury, store and auction market combined. The controller of this institution, the *Amin Bait al Mal*, was the most important civil official in the state. The first holder of this office under the Mahdi was Ahmad Suliman, who was soon dismissed by the Khalifa because he was a leading member of the Ashraf party. He was succeeded by Ibrahim 'Adlan, who retained the Khalifa's favour for three years. He was a man of outstanding ability, who reorganised the *Bait al Mal* completely by dividing it into separate departments for its different functions, introducing a proper system of accounts, and staffing it with competent clerks and accountants, who had had experience under the former regime. He persuaded the Khalifa to agree to the reopening of trade with Egypt. His fall and execution in 1889, whether due to his excessive popularity with the people, as his friends said, or to his theft of public money to enrich himself, as the Khalifa alleged, was a disaster; for never again were the finances so well managed.

The main source of revenue for the general *Bait al Mal* was the *zaka*, a graduated tax collected in money or kind on animals, property and money, and including the *ushur*, or one-tenth of the crops. The taxes were assessed by agents of the *Bait al Mal* in conjunction with the local Sheikhs. Other important sources of revenue were the one-tenth paid by merchants on goods; confiscated property; and forced loans from the rich (which were seldom repaid). Mustafa al Amin, the prominent Ja'ali merchant, whose views on the Khalifa's administration have been quoted before, has this to say about the taxation: "The Khalifa's nominal taxation of *zaka* is less oppressive than were (Egyptian) Government taxes. On certain occasions it is true the Khalifa makes a large and sudden demand which must be met, and probably in actual point of fact, the resources of the people are more heavily drained than they were in the old days, but the system is different, and the mere fact that the actual taxes now demanded are less than those demanded by the Government is inducing a species of belief that the Khalifa's rule will in the end be less oppressive." The main expenses borne by the general *Bait al Mal* were the pay of the regular troops, their transport and supply to the provinces, the wages of officials, and alms given to the poor.

The general *Bait al Mal* also controlled, or attempted to do so, the trade of the country. Gum, ivory, ostrich feathers and senna leaves were collected and sold there by public auction to merchants, who were then permitted to take them to Egypt in exchange for imports, chiefly of cotton goods, perfumes and soap. The Egyptian Government forbad the export to the Sudan of any metal goods, in order to prevent

their use in the making of arms. The Khalifa in turn prohibited the export of slaves to Egypt, fearing that they would be enlisted as soldiers and used against him.

Subsidiary to the main *Bait al Mal* in Omdurman were other smaller ones for specific purposes—for the upkeep of the Khalifa's household, for the pay of the *Mulazimin*, and for the upkeep of the dockyard and arsenal. The Governor of each province also had his own *Bait al Mal*, any surplus of which was supposed to be sent to Omdurman.

The stability of prices in the Sudan, and the development of trade abroad, were increasingly affected by a depreciation of the currency. The Mahdi had struck his own coins, consisting of a gold pound, a silver dollar and a half dollar—a dollar being worth twenty piastres or four shillings. In make-up and appearance, they were based on the *Majidi* dollar of the old regime, but they actually contained more pure gold and silver than the *Majidi*. Hence it became customary to melt them down into ingots for export abroad, the stock decreased, and Ibrahim 'Adlan discontinued their issue. In 1886, he made a new issue of currency, in denominations of twenty, ten, five and one piastres respectively. On the obverse was stamped "*Maqbul*" (accepted) and on the reverse "Struck in Omdurman 1304" (1886). These coins were well made and inspired full confidence. After his fall, however, successive issues were made in which the proportion of silver steadily decreased, until, by 1896, pure copper dollars were being minted, the rate of exchange falling to fifty or sixty copper dollars to one of the old silver ones.

All observers comment on the decline of religion under the Khalifa. No doubt it was inevitable that the enthusiasm and purity of the movement for reform initiated by the Mahdi should decline with the passing of the years. Rather than a return to the simplicity and piety of orthodox Islam, Mahdism became an unorthodox cult, isolated from the main stream of Islamic practice and theology. Pilgrimage to the Mahdi's tomb replaced pilgrimage to Mecca, and the reading of the Mahdi's prayers became almost as important as the reading of the Qoran itself. The reading of books was discouraged, and the Sudanese lived in an intellectual vacuum. The only schools were the traditional village Qoranic schools, where the children, huddled together on the floor in conditions of miserable squalor, learnt painfully, with the constant encouragement of the whip, to intone the beautiful but difficult language of the Qoran without a glimmer of understanding.

Only in regard to agriculture did the Khalifa appear to have any

conception of the positive welfare of his people. Warned by the effects of the great famine in 1889, the Khalifa did all in his power to encourage cultivation. In this he was aided by a succession of good rains, with the result that a striking recovery was made from the famine and the locusts. During the latter years of his government, grain was plentiful and cheap, and the people well fed.

The town of Omdurman, established by the Mahdi as the capital of the Sudan, grew greatly in size during the Khalifa's administration, until it stretched for four miles from north to south along the river bank, and inland to a depth of two miles, with an enormous, but constantly changing population, representative of almost every tribe in the Sudan. In a town that had grown so fast, the problems of cleanliness and public security were acute. Omdurman was a labyrinth of narrow, twisting lanes, with no system of lighting or of a public sanitary service. The Khalifa tackled these problems to the best of his ability. He had a number of broad, straight streets driven through the length and breadth of the town. Ohrwalder relates: "One day he (the Khalifa) remarked a large heap of sewage in the centre of the town which spread a foul odour all around. This was the cause of the Khalifa himself stating in the mosque that if, when he inspected the town three days hence, he found any refuse, the trespassers should be very severely punished. Everyone now became directly responsible for the cleanliness of his own dwelling and its vicinity, and this order had a most excellent effect. It was further enforced by the presence of horsemen who took good care to see that the instructions were carefully carried out." Ohrwalder adds sadly, however: "But as it was with the Mahdi, so it was with the Khalifa—at first orders are obeyed with alacrity, and then people get as careless as ever. Omdurman at the present time is by no means a particularly clean or sanitary town."

The Khalifa used the same method of cooperation by the townsmen to improve public security. In each quarter of the town, the people organised their own corps of watchmen to assist the police at night. But with the large numbers of unpaid irregular soldiers, and of strangers from the provinces roaming about, and the absence of lighting, it is not surprising that thieving and affrays were prevalent in the capital. Ohrwalder, however, gives limited praise to the state of security in the provinces. "The caravan roads into the interior are fairly safe," he writes, "but merchants always prefer to travel in parties of twenty to thirty... The Khalifa has, however, done much to improve public security in the provinces, and punishes severely when cases are brought to his notice."

The centre and fount of power in the administration of the Sudan was the Khalifa himself. His rule was highly personal, centralised and despotic. He himself tried to control and supervise the business, big and little, of the State. To him the *Amin* of the general *Bait al Mal* reported daily on the state of the finances; to him the *Qadi* of Islam brought all important cases for confirmation; directly responsible to him, too, were the Governors of provinces; in his hands were the appointment of all but the most subordinate officials. He settled policy; made the decisions; issued the commands. As if all this were not enough, any of his subjects could bring a grievance to his notice when he entered the mosque for prayers, and he would listen to his case personally. Ohrwalder says of him: "The Khalifa is a man of great activity, and personally directs all important matters. He receives reports on the most trivial affairs, and is always overwhelmed with business." Apart from his regular visits to the mosque five times daily, he was constantly at work, from dawn till far into the night.

It is true that he would frequently consult a council, consisting of the principal Emirs and *Qadis*, before taking any important step; but this council was in no sense a democratic assembly. Its membership, meetings and procedure were informal, and dependent on the will of the Khalifa. He would listen to its advice or not as he chose. Major decisions on policy would be announced to the people, not as the conclusions of the council, but as divine instructions transmitted to the Khalifa in a vision. How difficult it must have become for even the most credulous to continue to believe in these continual convenient "visions"!

The Khalifa's right-hand man in all things was his half-brother, Ya'qub, who was completely in the Khalifa's confidence. Unswerving in his loyalty and obedience, Ya'qub was yet well aware of his brother's faults, and did his best to temper the severity of his rule. A man of great ability, he contrived to achieve the difficult task of retaining his brother's trust, and of winning the people's esteem.

The Khalifa's greatest personal faults of character were his vanity and his mistrust. The former caused him to be intolerant of opposition or criticism, and susceptible to flattery. His visitors, even his brother, must always treat him with humble deference, sitting before him in attitudes of submission, not even raising their eyes to his face. His subjects knew that the shortest way to his favour was to praise and glorify him, to hide from him unpleasant truths, and to tell him only the things they knew he wished to hear. Thus he was often sadly misled about the realities of a situation, and constantly over-estimated his

own strength, while under-estimating that of his enemies, particularly his foreign enemies. His mistrust led him to take grievous actions against faithful followers—such as Ibrahim 'Adlan or Zaki Tumal, and made none feel safe from his sudden displeasure.

His love of power was inordinate ; but this, after all, is a common human failing, particularly among those who, like the Khalifa, have made their own way in life and risen to the top by their own efforts. It was his method of buttressing that power, by relying exclusively on the support of his relatives and fellow-tribesmen, and by annihilating his opponents, that was so unfortunate. Too late, he began to realise that a policy of persuasion and lenience paid better dividends than coercion and destruction.

Of his outstanding ability and personality, there can be no question. He created a system of government out of chaos, and with whatever creakings, the system worked for thirteen years, through war, revolution, famine and pestilence. Considering the means at his disposal, that achievement is witness of his powers as a first-class administrator. Lacking the personal magnetism of the Mahdi, he had far more force of character and strength of will. Resolute in decision, swift and ruthless in action, there was not an Emir or a rival of them all who measured strength with the Khalifa and who could boast of any success.

In his private life, he remained strict and simple. His apartments were barely furnished, his dress unostentatious, his food such as his humblest countrymen from the west ate. It is true that he maintained an extensive harem, but this was considered normal and right for any prominent man of his day. Only when he appeared at public parades on Fridays and feast days did he assume the pomp suitable to his position as head of the State. Of his personal courage there was never any question ; but where all were brave, such a characteristic may be taken for granted. The Khalifa 'Abdullahi was not a lovable man, but he was certainly a formidable one.

DISCUSSION

After the paper had been read to the Society several members took part in the discussion.

Mr. G. W. Grabham said that to one who had arrived in the Sudan early in 1907 when the events described by Mr. Theobald were fresh in people's minds, the account of the Khalifa's regime seemed excellent. Some of the houses of the Mulazimin Quarter of Omdurman, or the Boghar, as it is still called, had only recently been vacated by their last

occupants who were in them pending the building of residences in Khartoum. As the speaker had described, Omdurman was an unhealthy, crowded maze without plan, and the area covered was probably less than two square miles. It is of interest to note that the replanning, by Mr. A. A. R. Boyce, with streets following the frequented routes and allotting areas often larger than those previously occupied, to compensate for re-building on new lines, resulted in a surplus of land the value of which was enough to pay a considerable part of the cost of the work.

Mr. Grabham also remembered that in those days there were quite a number of men missing either their right hands or left feet, rarely both. He used to ask how the missing members had been lost, but never met one who admitted that it had happened in the way that might have been expected, in view of the recent regime. The explanations were usually that the man, climbing a tree, had fallen and broken his hand, or he had been fishing and a crocodile had bitten off his foot. In any event there seemed to have been an absence of such accidents in recent times.

Near Gallabat *Mr. Grabham* had met a man complaining bitterly about the heavy taxation under the present Government, so much for a cow, less for a sheep and something for each goat. When asked how this compared with conditions under the former regime he replied "Oh, then we hadn't any animals."

Dr. Shebeika commented on several points. With regard to Tokar, he said that the activities of the Italians in the Red Sea were a very important factor in the reoccupation of Tokar. It was this factor which convinced the British Government to yield to the opinions of Sir E. Baring and the military authorities in Egypt.

Referring to Wad al Najumi, he said that the Khalifa was assuming the support of Upper Egypt when he sent Wad al Najumi to conquer it. There was unrest in Upper Egypt and the people were in a state of expectancy. One of the factors for the selection of the Nile Route for the relief expedition was to guard against any outbreak of revolution in favour of the Mahdi.

Dr. Shebeika concluded by saying that future scholars of the Mahdia would be fortunate in being able to use, for the first time, documentary evidence from the papers captured at Omdurman after the battle of Karari which are now kept in the Civil Secretary's Archives.

LAND REGISTRATION

By A. B. Miskin

(First presented to the Philosophical Society of the Sudan at its meeting on 28.3.50).

"Cursed be he that removeth his neighbour's landmark."

So runs the ancient law, and land registration is the modern way of dealing with an old problem. It is the systematic recording of plots of land and of the various rights and interests in these plots; its purpose is to guarantee boundaries, give security of title and to facilitate dealings. If it is to fulfil its function, three primary conditions must be satisfied, namely, the initial compilation must be reliable, the register must be kept up to date and the laws of the country relating to land tenure and registration must be appropriate and faithfully applied. Whenever a register has been started up without equal emphasis on each of these three purposes, or where insufficient attention has been paid to any one of the conditions, the system has partly or wholly broken down.

The means by which the aims of a good register are achieved can now be examined, function by function, bearing in mind the conditions stated above.

PART I.—GENERAL.

(1) Boundaries.

If the register is to guarantee boundaries, they must be located on the ground at the time of registration and must be recorded in such a way that they can be redemarcated without material error, at any later date. This implies some sort of sketch or map, since a verbal description relating the boundaries to natural or artificial features is by itself seldom intelligible. Even with a sketch such a description is neither really reliable nor permanent. Streams can have their courses changed, conspicuous trees fall or are cut down, and boundary marks themselves can be destroyed or maliciously moved. Because a proper survey is often difficult and expensive, especially in a relatively undeveloped country, every conceivable expedient which will avoid an accurate survey has been tried. Eventually every country has had to make accurate maps, usually after a prolonged period of uncertainty, which has inflicted great hardship and injustice on the cultivators. This is not new: in ancient Egypt and among the Israelites there were specific laws and penalties against moving or destroying a neighbour's land mark. These laws would not be enacted unless they

were necessary. More recently, in the pioneering days of the United States, the maps of lands cleared by settlers were very crude, because they were made by the settlers themselves. When these isolated maps or sketches were fitted together at the registry there would appear to be large areas of unclaimed land. Unscrupulous men would haunt the Land Registry and buy these " unclaimed " areas. On demarcation they almost certainly would be found to be part of some one's farm and the unfortunate farmer would be summarily evicted without compensation simply because inaccurate surveys were treated as reliable. Great hardship was caused until eventually the law was altered and even today in the United States the " monument", *i.e.* survey mark or natural feature, will usually override the deed plan.

Thus sooner or later a proper survey is found to be absolutely necessary. Usually later, because a proper survey is never cheap and is put off until the original boundary records can no longer be interpreted or their defects are such as frequently to cause gross hardship or administrative inconvenience. Now a proper survey is one which is adequate in all its parts. It must be a permanent record, which can at any time be reproduced on the ground, not only of individual plot boundaries but also of the relative and absolute positions of the plots. In no part of the work can there be material errors. It must be able to stand up to the constant changes in the shapes of plots and to extensions in any and every direction.

That the boundaries should be accurately known and reproducible is a truism to anyone who has had to administer a country district. They do not need to be told that most disputes (and fights) over land are quarrels over boundaries. The more the people depend on the land for their daily bread the fiercer the quarrel, since loss of land may mean hunger.

It is not at first sight so obvious why the survey as a whole should be equally accurate. But it often happens that there are, at the time of the settlement, patches of uncultivated or apparently uncultivable land which are not registered or surveyed. If the lengths of such patches are not measured, then later when the land becomes usable there will be gaps or overlapping because the amount of vacant land is not accurately known. Trouble and litigation follow. Then again although a cadastral map is primarily a record of title, it is often used for other purposes. Engineers are apt to be annoyed if after making their first designs, they find that the junction of two maps conceals a discrepancy of several metres and that their canal has to have a sudden bend or that the span of a bridge is bigger than their estimate. In such cases they have to make their own independent special survey, largely duplicating work

already done. Even in England the designers of the electricity grid must have had trouble with setting out, as occasionally there are errors of up to fifty feet at the county boundaries—quite large enough to affect the siting and heights of pylons.

There must be no material error in the survey. What this means in practice is a question of fact which can only be judged by the nature and value of the land, both now and after development. Thus in a featureless plain, it may be enough to be sure of a tribal grazing boundary to fifty or even a hundred metres. In Zanzibar, where the clove trees are planted 21 feet apart, it has been decided that the error in the survey should not exceed three feet, so that a clove tree, which is the value of the land, could never be assigned to the wrong plot. In Egypt the mixed commission recommended a limit of $\pm$ 25 cms. *i.e.* that a row of cotton plants, fifty cms. wide, could not on redemarcation be wrongly awarded to a neighbour. Nowadays, in parts of the Delta, land suitable for market gardening near the big towns is worth a thousand pounds a feddan. The survey has to be very good if it is not to break down under the pressure of such high values. That it has not done so is a tribute to the soundness of the work.

(2) Security of title.

Security of title is normally guaranteed by law and a title, right or charge can only be upset by a judicial decree. This implies that all transactions must be registered and that no claim in respect of an unregistered transaction will be upheld in the courts. The willingness or unwillingness of the courts to vary the register is a good indication of how far the register is successful in this respect. In some countries it is almost impossible to upset the register except where there has been fraud or forgery and the laws about registration are strictly applied. Thus in South Africa the fees for registration rapidly increase if the transaction took place more than (I think) a year ago. This system of penalising people who are slow to register their interests is very effective, but it can only work if everyone understands that the courts will normally be very strict in refusing to recognise unregistered dealings.

Thus if real security is to be given, it is essential that all transactions be registered. This will be considered later. But there is another condition, namely that the initial compilation be reliable. This means that prior to settlement a thorough enquiry into the local native customs and tenure be made. In the past it has been frequently and wrongly assumed that land is held absolutely by the natives when in fact the title is conditional upon occupation or cultivation. This is not by any means the only possible mistake. Tribute or payment made to a chief

in return for protection is assumed to be rent and therefore the chief is the owner of the land and the cultivators are tenants. Again beneficial interests are taken to be legal interests. The very fact that native law is customary and dependent on memory as opposed to statutes gives it a flexibility which is not easily obtained with a written code. A register can handle efficiently the most complicated forms of tenure, but only if it is designed for that purpose and if the laws of the country relating to land are inherently sound. If the register is compiled on a basis which is at variance with the real state of affairs, then usually it will cease to function properly after a time, causing great injustice in the process.

Many writers have emphasised that the laws and regulations relating to land tenure and transactions should be practical and workable, since registration accentuates any defects, but it is strange how little importance has been attached to the necessity of investigating the native customary tenures before starting up a register. One or two writers have mentioned it *en passant* and that is all. Yet the trouble that can ensue if a register is built on false premises is incalculable. In particular, English or European ideas of tenures are conceived as applying equally to primitive peoples. Not only hardship but political unrest may be the result. This attempt to force native custom into a European framework is not confined to land tenure : one could think of other cases even in the Sudan.

In Uganda the administrator who made the Uganda agreement with the king and chiefs of the kingdom of Buganda assumed that the people paid rent to the chiefs and king ; consequently the British Government in this agreement awarded vast areas of land, freehold, to the king, palace officials and tribal chiefs. But actually the peasants paid tribute in return for protection, while the land belonged to the community which anyone could hold so long as he cultivated it.

Several consequences resulted from this. First the lucky four thousand chiefs etc. were given free, without any corresponding obligations, the rents of three quarters of a million tenants. Secondly, the central government was deprived of an important source of revenue. Thirdly, as the land increased in value and the interests of the chiefs in their people decreased, an absentee landlord class has grown up. Lastly, in spite of protective legislation many people are now without land, to which they formerly had a right. Political unrest has been the inevitable consequence.

Much the same thing has happened in Palestine. There the Arab chiefs were the nominal owners of the land but by custom it was always available for cultivation, on payment of rent, by other Arabs. When

the land owners sold large areas (at high rates) to the Jews, many peasants were evicted. Once again there were political troubles.

Indeed it is probably accurate to say that misconceptions about native customary tenure, and the legislation flowing therefrom, is one of the main root causes of unrest in the colonies, both British and other.

This has a lesson for the Sudan : it would be foolish in the extreme to introduce registration into the Southern Sudan or the rainlands of the Central Sudan, without first making a thorough investigation of the customs of each tribe affected.

(3) Dealings in land

Registration of transactions can only be enforced in a primitive country if there are adequate facilities, the procedure is simple and the costs are reasonable. Adequate facilities entail local registry offices and local surveyors, either government or private. In undeveloped countries there are in many areas no proper postal services and the arrangements for registration have to be carefully worked out with due regard for local conditions. This is intimately connected with the detailed procedure and the formalities of registering dealings. Some paper work is essential but often it is far too elaborate.

In framing the procedural regulations obviously reasonable care must be taken so as to exclude fraud, but it is very difficult to strike a balance between simplicity and integrity. If the rules are too simple, although all dealings will be registered, there will be too many fraudulent ones which may ultimately vitiate the register. If the formalities are too elaborate, many dealings will not be recorded and the register will die, since without the cooperation of the people no register will work.

That the cost of registration should be reasonable is obvious. But the cost is by no means the same thing as the fee. Usually there are other substantial expenses. Thus the attestation of documents may entail a journey of fifty or a hundred miles to the nearest registry office. If this has to be done on foot or on a donkey it can represent a not negligible sum, especially if several visits have to be made. Finally there is the cost of the survey in the case of alteration of boundaries or the registration of a new plot. A proper survey is never cheap and when it is of a new isolated plot, far from any survey mark, it can be very costly. There are three ways by which the cost can be kept down. The first and best is by the central government establishing a control survey over the whole country, or at least in those parts to which registration applies, or are likely to be developed, whether agriculturally or in some other way, *e.g.* mining. Secondly, the work can be done by the government and the fees charged are standardised at reasonable

rates, irrespective of the cost in any particular case. Thirdly, cheap but unreliable and unchecked plans are accepted, together with all the unpleasant consequences that invariably follow. After all, if registration is instituted as an administrative as well as a public convenience, it is only fair that the administration should bear a part of the cost, especially as in undeveloped countries it is the government who benefits most.

Thus complicated procedure and expense, especially of survey, can be great hindrances to the recording of transactions. Another is that the fundamental assumptions underlying the register and the law cut across native custom. The commonest mistakes here are the registering of the land as freehold in the English sense of the word, when in fact this is not a local customary tenure, and restrictions on the registration of mortgages. If interests and dealings which in native eyes are perfectly legitimate are not recognised in law, one of two things will happen. Either the unrecognised customs will die out (which is not necessarily a good thing), or they will continue but will not appear in the register until eventually the whole machinery breaks down and is either abandoned or rectified at enormous expense. Such a revision will cause hardship certainly, and unrest, probably. It may even be impracticable to upset the old faulty titles, as was the case in Uganda. A typical example of how the laws and ideas underlying tenure have been misconceived is to be found in the Sudan and will be analysed below in Part II.

The registration of land as freehold and adequate facilities for selling the land can have far-reaching consequences. When land is suddenly registered as freehold and there are no practical difficulties in the way of selling or mortgaging a holding, the net result is to capitalise the annual return. With an educated class of land owners this works quite well as it encourages development, but for unsophisticated peasants the results can be disastrous. In particular the security for a loan is increased from the value of a single crop to the capital value of all the crops in the next ten or twenty years. Thus in the Punjab ' In 1849-50 we converted collective into individual ownership of land, plus the right to alienate at pleasure. By so doing we made an unconditional gift of a very valuable estate to every peasant proprietor... and raised his credit from the former limit of the surplus of an occasional good crop to the market value of the proprietary right conferred ' and inevitably ' the cultivator fell a victim to the insidious ease with which he could raise money on the security of his land and failed to foresee the inevitable day of settlement.' In South Africa ' where natives have held their land on a title which could be pledged as security for loans, they have in a very large percentage of cases lost their land altogether.'

In spite of restrictive legislation much the same thing has happened in Uganda. It would be tedious to give further examples; an excellent collection can be found in Liversage's *Land Tenure in the Colonies*, to which the writer is greatly indebted.

Nevertheless, debit and credit are two sides of the same shield, as Sir Ernest Dowson has pointed out. If an improvident peasant owner wishes to raise money on the security of his land, some other more thrifty person must have saved it before it can be advanced. Where the lender is intelligent he will develop the land and make it grow more. If however the lender is merely greedy, exhaustion of the soil rapidly follows. Many an agricultural officer, seeing the poor yield of small holdings, would welcome development in large blocks, even if they are owned by wealthy merchants.

Irrespective of the good or bad results of extensive alienation, the register should not be praised or blamed for its occurrence. If, as a matter of policy, the laws of a country are designed to facilitate the pledging and sale of land, the mechanism—in this case the register—can hardly be blamed for doing what it is designed to do. If the safeguards, against foreclosure for example, do not work, it means that they are either inadequate, or not enforced, or perhaps unenforcible. The remedy is to find out what is actually happening, and why, to decide on what can and cannot be permitted and then most strictly to enforce the agreed policy.

Most frequently the basic question is whether economic forces should be allowed free play or whether the people should be protected against the results of their ignorance and fecklessness.

Another foreseeable, but often unforeseen consequence of facilitating subdivision is fractionation. By fractionation is meant the breaking up of the land into small plots, each of which is separately owned and registered, until the average individual plot is by itself much too small to give anyone a livelihood. The usual cause is the dividing of a plot among the heirs on the death of the owner.

Fractionation can be of two kinds. One form is where the ownership of a plot or farm is split up, but only one or two persons actually manage or cultivate the land. This is best called multiple ownership. The other form, fragmentation, is when the plot is subdivided into numerous small independent plots so that a single man may own and cultivate a large number of very small plots scattered over a considerable area. This is the really serious form. In a detailed survey made in India in one village each owner-cultivator had on an average twenty seven plots whose mean size was about thirty square metres. Proper management of the land becomes impossible under such conditions and the time

wasted in walking from plot to plot is substantial. Thus in another Indian village it was found that the average distance of the plots from the cultivator's house was three kilometres, while if the plots were consolidated and properly re-planned this distance would be reduced to six hundred metres. The same thing is happening in many other parts of the world, from Barbados and Spain to Kenya.

In a number of countries the problem of fractionation has become so acute as to call for special legislation to remove, as opposed to merely checking, the evil. In France it is voluntary; in parts of India it is compulsory and effected by what is in fact a resettlement whereby each owner is allotted one or two plots equal in area to the sum of his old plots.

PART II.—THE SUDAN.

Having discussed the general principles of registration, it is now possible to examine what has happened in the Sudan. Registration of agricultural land is practically confined to Northern, Khartoum and Blue Nile Provinces where most of the narrow band of alluvial soil (*sagia*[1] land or *ilwi*), and much, but by no means all, the *saluka*[2] is registered. In addition practically all the rainlands of the Gezira, and some further north, have been settled.

Now whatever defects there may be, registration in the Sudan has effectively guaranteed boundaries. Such an achievement is amazing if one remembers that in the early part of the century this country was very poor and that the classic settlement and survey in Egypt was not yet complete, from which many valuable lessons could be learnt. Even today, thirty or forty years later, with one major exception, the original survey maps can still fulfil their duty of being accurate and reproducible records of the plot boundaries. Except in one area (Merowe-Dongola), the surveyor's demarcation of a plot is very rarely questioned. When it is questioned it is usually because the work has been done by a young and inexperienced surveyor. What this has meant in the reduction of quarrels and fights can only be fully appreciated by a District Commissioner who has had experience in both settled and unsettled river land. Disputes over registered land are almost always either claims by prescription or claims that the original settlement was erroneous. Such cases are referred to the civil courts.

Although the Land Settlement and Registration Ordinance 1925 specifically states that the boundaries as recorded on the map shall be

[1] Land above flood level (usually), irrigated by *sagia* or Persian water wheel.
[2] Land below flood level planted, as the river falls, by *saluka* a digging stick. — *Ed.*

general boundaries unless declared to be exact, fortunately the maps are always treated as being exact. This is because the maps themselves are exact. Certainly the courts invariably take the map to be the final authority as to the precise position of the boundary. The only exceptions I know are those where, by common consent of all interested parties, it is agreed that the map does not agree with the state of affairs on the ground, possibly, but not necessarily, because of an error at the time of the original settlement and survey. I myself have had appeals against the work of junior surveyors which turned on 40 or 50 cms. *i.e.* the inclusion or exclusion of a date palm. After due checking the map record is always accepted : that is boundaries as recorded in the register and its maps are not merely general boundaries.

In general, registration in the Sudan has given security of title. But of recent years there has been a marked tendency by the courts to vary the original registration. Perhaps this was inevitable with the Muslim laws of inheritance, combined with the recognition of multiple ownership. In Merowe-Dongola it frequently happened that a single person would have registered in his name, not only his own share, but also that of one or more absent relatives. There was no question of bad faith ; in native eyes the man was acting as agent or trustee for the absent relative. Years later there would be family quarrels and the courts usually correct the register. Cases of the opposite type happened in the Gezira. There the land was not very valuable and the cost of registration, especially of boundary marks, was in proportion high. To save expense several families would come to a private arrangement by which their separate plots were amalgamated and registered as a single unit. Sometimes the names of all the families would appear on the register and sometimes not. Later when the value of the land increased there were disputes.

A mistake of another kind occurred at the time of the original settlements. It was generally assumed that all the various people who had an interest in a plot had a share in the freehold *i.e.* they were co-owners in the strict sense of the word. Now this may have been the case according to a precise interpretation of *Shari'a* law, but in practice and by custom it was not so. Almost invariably then, and now, one or two people manage the plot on behalf of the other co-owners. Thus in court one constantly hears a man say that he is the owner of the plot, when according to the register he is the owner of but a small share—probably not more than one tenth or one twelfth. Again, often a *sagia*[1] is divided on the ground into two parts and a quarrel as to how

[1] That is, the plot of land irrigated by the *sagia* or water wheel. The area does not normally exceed ten acres. — *Ed.*

it should be divided comes to court. In such cases the parties to the suit, usually sons by different wives of a deceased owner, will each claim half, even though their legal shares are very small. The wretched judge trying the case has to work through the forty or fifty names who appear as owners in the register (some of whom probably died long ago) and find out to which branch of the family each registered co-owner belongs. Only then can he consider whether the actual division of the land is correct. In such a case it is a nice point whether the parties to the suit are acting as agents or trustees: what is clear is that the laws of the Sudan, and hence the registers, do not adequately reflect the normal practice and custom of the people. The nearest approach to a record of the true local custom was to be found in the early days of the local registers of Merowe and Dongola. The survey was made primarily for taxation purposes and the person recorded in the tax book as being responsible for the taxes was treated as the presumptive owner. A separate record of shares was kept in a "Share book" but in fact these share holders were treated as having only beneficial interests in the legal estate. The administrative officials only dealt with the tax-payer: they did not worry about what went on behind the curtain. When the Legal Department took over the records from the Province and made them into a legal register these holders of beneficial interests were treated as having legal interests in the plots.

In one respect registration of agricultural land has clearly not performed its function, namely to facilitate transactions. I am not suggesting that this failure has had in the past evil consequences; far from this being the case, if one can judge by the experience of most other countries, the Sudan has been singularly lucky. For if unsophisticated people are given the chance to sell their land they will do so, and a large discontented landless class, easy prey for any agitator, is formed. In the Sudan the sale of a whole plot is, in perhaps 95% of all cases, impracticable because of the registration in multiple ownership. The legal maximum number of co-owners varies according to the system of registration of shares and the size and shape of the plot, and varies between about twenty in the Gezira to five hundred and seventy six in Merowe-Dongola: the average for Northern Province is three hundred per plot. The actual average number of registered co-owners per plot is of the order of twenty for the three Northern Provinces. Of these however almost certainly one or two, and perhaps even ten, are dead, so that in fact it is impossible to collect all the signatures necessary for a valid deed of sale. There have been cases where the government has wanted to acquire, by exchange, a *feddan*[1] or two. I have seen

[1] Approximately one acre. — *Ed.*

pathetic letters by Governors stating that after several years hard work, they have been unable to trace all the people whose consent is needed before the deed of exchange can be registered. If the government, with all its resources, cannot put through a simple transaction, how can a moneylending merchant hope to do so? At present a person can only mortgage or sell his share in a plot, which being only a portion of the whole, does not affect the cultivation of the plot: it only means that the purchaser, instead of the vendor, gets a share in the crop. It is thus impossible for a wealthy merchant to buy up land for development as a pump scheme or for any other purpose. If however the trustee system is introduced development will be much easier because the trustees will have a legal status and can make a valid lease or agreement with the person who wants to start a pump scheme. But there is also the danger of wholesale alienation and the formation of a landless peasantry. It may here be mentioned that although possessory mortgages are registered in the Sudan it is more probably usual to register the mortgage of a share as a sale because of the *Shari'a* law against conditional sales. In such cases there are actually two contracts: one to sell, which is written and registered, and another, an oral one, to sell back to the original owner on payment of a fixed sum. Although by English and Sudan law the latter contract is not valid, it is valid by *Shari'a* law, under which an oral contract is as binding as a written one. I suspect that the majority of registered sales are in fact really possessory mortgages.

Multiple ownership, normal in the Sudan, encourages fractionation. The form it takes varies. In the Gezira rainlands, the only division that can be made is of the crop since each plot is an entity which can only be cultivated as a whole. Hence division of the land is usually impossible. In Shendi district, the shares are registered by frontage and the position of each share is known and recorded in the register. As far as *saluka* is concerned, these shares are translated on to the ground, with of course some adjustments for absentee co-owners. It is not uncommon to find an old woman who owns and cultivates a strip less than a metre wide and anything up to two hundred metres long. In working *sagias* and pump schemes this fractionation is to some extent overridden by the need for crop rotation.

In Merowe-Dongola ownership is registered in undivided shares and the legal minimum share is one five-hundred-and-seventy sixth part of the whole (that is one *sahm*, which is one twenty-fourth of a *kirat*; the *kirat* being one twenty-fourth of the whole plot, irrespective of its size or value). Here one finds every variety of fractionation. In *saluka* plots it is almost complete; the land is fully divided on the ground.

In the *sagia* there may be anything from one to twenty, or even thirty, people cultivating their land in the *sagia* each one of whom "owns" anything from one to a dozen or more patches of land. It is not unusual for a ten *feddan sagia* to be divided unofficially but none the less effectively into a hundred sub-plots, each one of which is treated by the people as being more or less independently owned. The management of the plot is by a headman (*samad*). Absentee co-owners draw their rent (in kind) through a relative. This however does not mean that there are absentee landlords because those who live or work outside the district help those at home with cash remittances to pay for seed, taxes etc. The repayment of these advances is by an additional customary share in the crop, irrespective of the sum advanced. In fact a *sagia* is a perfect example of a cooperative society in miniature according to native, but not European, ideas. The essential difference is that in cooperative societies in England the man or bank who subscribes to the capital insists on a definite rate of interest whereas the Dongolawi expects a share in the crop. The former wants more or less certain, if limited, dividends; the latter gambles on the yield and crop prices and shares, with the cultivator, the full impact of economic forces. Economically the vital difference is that in Dongola an increase of capital does not automatically imply an increase in the proportion of profits paid out as dividends. Hence additional money (it can hardly be called capital) can be raised in difficult times without increasing the burden of debt charges.

Returning to fractionation after this digression, one finds in Merowe-Dongola multiple ownership in its worst form. Because of the Muslim laws of inheritance, and intermarriage, many people have an interest in more than one plot. Thus some years ago a notable of Merowe died. He had interests in fourteen plots and twenty-two heirs. When the estate was divided up among his heirs no less than sixteen hundred shares were created, all of which had to be entered in the register (in duplicate). The trouble when a resident owns shares in several plots is that he has to waste a lot of time in walking from one to another in order to cultivate his share. Only when the plots are too far away does he leave the cultivation to another and collect the small customary share of the crop as rent.

Fragmentation, according to the register does not happen, but in practice it occurs. The dividing up of a plot among co-owners is one form, and occasionally a man will take a piece of land equal in area to his share and develop it independently *e.g.* as a fruit garden. But because of the lucky mistake in the initial compilation of the register whereby all beneficial interests were registered as legal interests true

fragmentation—the subdivision into small separately registered plots—is fortunately impracticable. Otherwise each one of the twenty-six thousand *sagia* plots in Northern Province could be split up into an average of twenty-eight small independent plots. But for strict safeguards this could happen when the trustee system is introduced.

A knowledge of what has happened in the Sudan should help us in the future. A person, or a country, can never prosper unless it is willing to learn by its own and other people's mistakes. So I do urge that before any new registration is undertaken a thorough inquiry is made of the local customary tenures before settlement and that the social and economic implications of registration are fully examined.

DISCUSSION.

Dr. Knight opened the discussion on Mr. Miskin's paper by asking what form of registration was proposed for the southern 'rain areas' which were now being developed. *Mr. Rowton-Simpson* replied that the whole of that area had been formally settled and expropriated. In reply to *Mr. Barbour's* question *Mr. Miskin* said that the absentee owner participated in the crops by taking his share if he were present in person at the time of harvest or had a representative present, his share depending on whether or not he contributed to taxes. *Dr. Boyns* asked how changes in the shape and position of islands in the Nile were registered and *Mr. Miskin* explained that the custom varied. *Dr. Sandon* asked what staff would be required to investigate local custom so as to lay the foundation for an acceptable system of land registration. In reply *Mr. Miskin* said that in the north local officials could supply the data, but that it was essential to avoid starting from European ideas of land tenure in tackling the problem. In the south, however, a specialised survey, like that which had been carried out in the Nuba Mountains, might be needed. He pointed out that registration was inelastic, whereas local native law is able to cope with changes in conditions. *Mr. Rowton-Simpson* pointed out that the early land settlements and register were not entirely without value, although world outlook on land tenure had changed since the early settlements were made. *Mr. Miskin* agreed that the Land Register in Dongola had been successful as regards establishing title and demarcation of land. Freehold had been introduced to encourage cultivation, but now the tendency is against freehold and in favour of cultivation rights. *Mr. Ireland* asked how fragmentation of land was treated under registration, and *Mr. Miskin* replied that fragmentation was unofficial and thus did not affect the register.

THE STRANGE ADVENTURES OF ZAGA CHRIST

By O. G. S. Crawford.

DURING the reign of Rubat (c. 1614-1644/5) there is alleged to have passed through the kingdom of Sennar a young man who claimed to be the son of Jacob, King of Abyssinia for a few years after 1597. He was called Zaga Christ, but his true name would appear to have been Athanasius,[1] and the story of his adventures and flight is recorded in two contemporary tracts and in some contemporary correspondence.[2] Both tracts (2a and 2b below) appear to be based upon Niccolini's manuscript (which I have not been able to consult), at any rate for Zaga Christ's alleged adventures before his arrival in Cairo. Jacob or Arso, his alleged father, was defeated and killed by Susenyos on March 10th, 1607[3], at the age of 17 years. Zaga Christ is said (by Rocolés) to have been about 28 years old when he died in 1638, and if Zaga Christ's own statement of his age can be accepted he was then only 22. It is therefore impossible that Jacob was his father, unless Rocolés was mistaken about his age. Our authorities state that Jacob was killed in 1619, which is certainly wrong ; and that in this year Zaga Christ was about 16 (Roger) or nearly 15 (Réchac), which would put his birth in 1613 or 1614, both quite impossible dates if he was the son of Jacob. He himself gave his age in 1632 as 16[4]. It seems possible

[1] Somigli, pp. 8, 11, 106.

[2] (*a*) Le Sieur de Réchac (le Jeune) : Les estranges évenemens du voyage de son Altesse, le Serenissime Prince Zaga-Christ d'Ethiopie, du Grand Empire des Abyssins. Paris, 1635 (Brit. Mus. 1046. c. 31). The book bears the initials P.I.D.S.M., representing the author's monastic name, Pére Jean de Sainte Marie.

(*b*) Eugène Roger (Recollect, Missionaire de Barbarel) : La Terre Sainte....et une rélation veritable de Zaga Christ, Prince d'Ethyopie, qui mourut à Ruel prez Paris l'an 1638. Paris, 1664 (pp. 401-13). (Brit. Mus. 571. h. 15).

(*c*) Niccolini Francesco M. Origine e vilaggio di Saga Chrestos.... Vicende del Tempo, 1659-70, V.n. vii, 20 (I give the reference as it is given by Somigli in Ethiopia Franciscana I, part 1, 1928, p. 11. This is a 12 page octavo manuscript inserted in Vol. 2 of "Vicende del tempo" by Father Francesco Maria di Collamato, and preserved in the Archivio di S. Francesco a Ripa at Rome, No. 67. I am most grateful to Professor Monneret de Villard for kindly obtaining this information for me.

(*d*) Jean-Baptiste de Rocolés : Les imposteurs insignes. Amsterdam, 1683. (Le faux Zaga Christ, roy d'Ethyopie, pp. 387-402). This is largely copied word for word from (*b*). (Brit. Mus. 10604.a.19).

(*e*) Le Vicomte de Caix de Saint-Aymour : Histoire des relations de la France avec l'Abyssinie Chrétienne. Paris, 1886. (Brit. Mus. 9061. de.27).

(*f*) Etiopia Francescana, Tome I, Parte 1 (1633-43), ed. T. Somigli, Florence, 1928, pp. 1-49, 106, 133 (correspondence).

[3] Pereira, Susenyos, 70, 358. Morié (Somigli i, 19) gives the year as 1606 (perhaps following old style).

[4] Somigli i, 9.

that he may have begun his " flight," as alleged, in 1629, for he was certainly in Jerusalem in mid-Lent of 1632, where he was seen by Roger ; this would allow three years, a reasonable time, for his alleged activities in the kingdom of the Fungi and for his journey to Egypt.

Roger gives as the source of his information about Susenyos "*un religieux prestre Ethiopien que je trouvay en Egypte l'an* 1634." There are verbal similarities between his narrative and Réchac's, which strongly suggest borrowing (by Roger) ; but he is a first-hand authority[1] for all that occurred after the arrival of Zaga Christ in Jerusalem, and he must surely have obtained some of his facts direct from Marc de Lombarde, the Venetian who claimed to have had a share in the earlier part of the story. Réchac gives no authority, but presumably obtained his information from Zaga Christ himself who was still living in Paris (as he states at the end of his Tract) when he wrote. The spelling of some of the names in Réchac's Tract suggests that they may have been written down from hearing. The narrative is confused and admittedly embroidered with fabulous inventions of the author. But when these have been disregarded there remains a narrative of events that is unlikely to be pure invention. Such names as Orbat and Becla could hardly have been otherwise known to Réchac in 1635, for they had then never appeared in print[2] ; and some of the other names occur nowhere else. The account of the journey to Egypt, with its two desert treks, is also consistent with the facts, and no European had then made such a journey.

We are not now concerned with the truth or falsity of Zaga Christ's claims but only with his alleged adventures in the land of the Fungi. Even if he was an impostor, he may have made the journey or part of it. I shall assume, therefore, that these adventures took place as narrated by Réchac and Roger, whose accounts I shall try and combine into a connected story. For the sake of completeness I shall carry it on to the end, although the latter part is quite irrelevant. The story is very entertaining and has been completely forgotten.

The story opens in Abyssinia in the town of Aich[3] on the island of Maroūe where their mother Nazarena had sent her two sons Cosme

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[1] Subject to the qualification that he may have derived some of his information from Niccolini's manuscript ; the misspelling of some of the proper names suggests the use of a written source.

[2] Even if he had seen Paez's history in manuscript, which is in the highest degree improbable, he would hardly have got these names from that source. For Paez does not mention Becla and calls Orbat Erobat. Almeida's map (1662) marks it in the form Baqhela.

[3] Aich is Lake Haik, here confused with the other lake (Ashangi) further north in the district of Maraua.

and Zaga Christ to be educated. It was here (we are told) that Zaga Christ first met Marco the Venetian, who had lived there some time with the son of the Pasha of Cairo, but this seems most improbable. On the death of their father the queen sent one of her attendants named Zeflace[1] with gold and jewelry, to warn her two sons to take flight before Susenyos could send to capture them. The two youngsters divided the treasure between them; Cosme, the elder, who was between 16 and 18, took the "route of the Cape of Good Hope southwards to the kingdom of Monomotapa, then ruled by a sworn enemy of Ethiopia"; Zaga Christ made for the kingdom of Sennar, "*qui estoit de son patrimonie.*"[2] He is alleged to have gone with a huge following of 500 men, 40 baggage camels and so forth, but that is probably the embroidery of the author, or perhaps an impostor's delusions of grandeur. The 'master' or tutor of Zaga Christ was one Trita Mascal, '*grand Religieux de l'Ordre des Frères Precheurs,*' who was later torn in pieces by an enraged elephant; and his boon companion was the Secretary's son Alexis who also met his death hunting. After these calamities Zaga Christ decided to make for the kingdom of the Fungi, hoping through the favour of the king to be able to enter that of Sennar, "*qui estoit de son appanage.*" At the court he was well received by King Orbat, a vassal and tributary of the late king of Abyssinia, and was taken to the royal tent; for it was the custom of the country not to construct buildings, but to live only in tents and pavilions. While at the court of Orbat he made the acquaintance of a renegade Christian called Salem who had entered the service of Orbat and been made a viceroy and the second person in the kingdom, and they used to go hunting together. Zaga Christ also became friendly with Orbat's son Gauen. Eventually Orbat offered Zaga Christ his daughter in marriage, promising in return for the alliance to assist him to regain his throne; but the offer was refused unless the girl would become a Christian. Orbat, who is described as a pagan, was greatly offended and changed his attitude to Zaga Christ, telling him that he would not be allowed to leave the kingdom unless he paid a huge ransom. The queen and Gauen, however, both still regarded him with favour.

Our two chief authorities give a different account of subsequent events. Both agree in stating that Zaga Christ was obliged to take refuge in Suakin. Roger says that, after the estrangement, Orbat

[1] This looks like a scribal or printer's error (long 's' read as 'f'), for the word is probably intended for the Abyssinian name Za Selassé. A person so called is mentioned in the Chronicle of Susenyos (Pereira, 87, 388-90); he died on the 20th of the month Sané, in the year 7100, the fourth of the reign of Susenyos (×A.D. 1608).

[2] These identical words are used by both Réchac and Roger.

sent a messenger to Susenyos saying that he held Zaga Christ a prisoner. Susenyos thereupon sent a company of horsemen to bring him back, commanded by a Venetian called Lombarde who, as has been said, already knew him. The Venetian, though a renegade, was at heart still a Christian, and out of compassion sent a Copt to warn him, and by delaying for two[1] days gave him time to escape. Réchac gives a much more detailed account. The viceroy Salem, hearing of Orbat's treatment of Zaga Christ, secretly offered him help in the recovery of the Abyssinian throne, if the latter would promise him, when reinstated, the kingdom of Becla of which he was a native. In return he would declare war on Orbat and avenge the wrong done. These terms were agreed to, and Salem set out for his former kingdom, presumably Becla, where he raised an armed force. From there he sent a spy to tell Zaga Christ to meet him at a certain place, so that they might go thence to Prince Sumpsir, one of the vassals of the (Abyssinian) empire, and summon him either to join forces with them against Orbat or prepare to be attacked. (No doubt the presence of Zaga Christ was required because, as *soi-disant* king of Abyssinia, Sumpsir would be his vassal and have to do as he was bid). Zaga Christ duly excaped and joined Salem ; but Sumpsir, warned of the threatened attack, raised an army and defeated him, wounding Zaga Christ. Sumpsir then sent to Susenyos informing him of his victory and asking for reinforcements so that he might finish off the rebel viceroy and capture Zaga Christ, dead or alive. These two defeated allies then decided to separate ; Salem returned to Becla, whither Zaga Christ said he could not accompany him as the people of that region were his sworn enemies. He therefore went to Suakin.

Becla is, of course, Bacla, the territory of the Habab in Eritrea. Sumpsir is not a proper name but a title, and it may be conjectured that it represents 'Shum Serawe,' the 'Syonsirave' of Suriano's itinerary.[2] This ruler was the chief vassal of the king of Abyssinia in the north, and if his support could have been secured, the rebels would have had a good prospect of success. Salem does not appear as a name in any of the tribal genealogies of Eritrea, and it too may be a title. Can it have any connection with the Marea Zellem (Red Marea) who occupied the west bank of the Anseba and were Christians down to the beginning of the 19th century ? The adjacent region of Mansa (Mensa) was reported some twenty years after our period to be one where rebels

[1] The figure of "two" recurs constantly and is probably purely formal.
[2] Sumpsir is, perhaps, more likely to represent the Shum of the province of Shiré.

of the king of Abyssinia had taken refuge[1], and Salem was just such a rebel.

The political situation revealed would appear to be as follows :— Salem, ruler of Becla and vassal of the Barnagash[2], was in exile in the kingdom of the Fungs. The cause is unknown, but was probably either an internal quarrel of the usual kind about succession, or a refusal to pay tribute to the overlord. Whatever the cause, Salem could evidently re-enter his old domain and raise a band of armed followers. Zaga Christ was just such a figure-head as was needed to give a fictitious legality to his actions. Sumpsir, possibly the Barnagash, had no interest in picking a quarrel with Sennar or with his Abyssinian overlord, under whom (if he was Barnagash) he enjoyed virtual independence ; he had no difficulty in crushing the revolt.

Salem now falls out of the story. Zaga Christ received a friendly welcome (we are assured) from the Turkish Pasha of Suakin, but was told that his plan of travelling thence to Cairo by land was impracticable, for the Arabs would certainly murder anyone coming from Suakin. The Pasha advised him to return to the kingdom of the Fungi and ask for a ' transit visa ' to Cairo. After some hesitation Zaga Christ decided to do this, and went to a place which is said, as usual, to have been two days' distance from Orbat's residence. Thanks to the support of the queen and Gauen his request was granted, and an escort of 50 men provided, and a safe conduct.[3]

The normal route from Suakin would be across the desert to Berber. Zaga Christ travelled for 15 days across the desert which is just about the time that would be required. (The distance is about 240 miles ; in 1868 Schweinfurth covered the distance between Sinkat and Berber, about 200 miles, in 15 days[4]). The ardours of the journey across the burning sands are described with the usual fantastic exaggerations of the heat which were current even as late as Bruce's time ; once Zaga Christ having dropped his parasol, no one could be found bold enough to risk burning his feet by getting off his camel to pick it up ! At length they reached the court of a nomad Arab prince,

[1] Letter of the Fransciscan missionary, Pesco Pagano, from Suakin, 13th February, 1648 (Somigli, Ethiopia Franciscana 1, 1, 299). Pesco Pagano's information was derived from a certain Abba Gregorio, a Catholic Ethiopian priest who came to Massawa from India in 1641 and had been in the Mensa region. Was this Ludolf's Abbot Gregory ? Was he also the Ethiopian priest from whom Roger says he got his information (in Egypt in 1634) about Susneos ?

[2] According to Ludolfus (Lib. i, cap. 3) Bakla was a " prefecture " of the Barnagash.

[3] According to Roger the fifty were the remnants of Zaga Christ's original adherents, all the rest having deserted him.

[4] *Heart of Africa* i, 30, 38.

and we are treated to a narrative of hunting and other pastimes that bears all the marks of pure invention. There is another tale, on the same lines as before, about a proposal of marriage which was likewise turned down, though the girl (Ambra) was to become a Christian. In retaliation the Arab demanded a ransom ; Zaga Christ gave him a small tree (*arbriseau*) loaded with precious stones and worth much more than the sum demanded (50,000 ounces of gold), and had to leave behind his two hunting-lions which, however, put the account straight by promptly killing the Arab's son and one of their attendants. Thus, we are told, did God punish the infidel for his unjust conduct.

Leaving the Arab prince they entered a desert so full of snakes that at each step the camels 'put up' at least ten, in addition to those that could not get away in time and were crushed under foot As a protection the camels wore shoes made of elephant-skin. This desert journey lasted eight days which would fit the Bayuda crossing very well. Their subsequent course cannot be deduced from the narrative with any certainty. On the way they were attacked by Arabs, and from a caravan they received " news from home." Susenyos, dissatisfied with Orbat's excuses for having let Zaga Christ go, attacked him so that he had to take refuge in the land of Vuromla, full of serpents and fabulous monsters. This name may perhaps be an echo of Abromela (Abu Ramla), on the frontier north of Fazughli, which figured in the first Abyssinian war[1] ; and the episode may be a garbled version of an incident in that war.

They then entered the desert " called by the Arabs '*l'Arabie Malauz*' and by us '*l'Arabie pierreuse*'," *i.e.* Arabia Petraea. This, traversed during the last stage of the journey, is certainly the Libyan desert, for eventually they emerged at Grigia[2], *i.e.* Girgeh in Egypt, one of the regular terminal points of the Sennar caravan route. The local Pasha entertained him for three months and tried to persuade him to go to Constantinople, but in vain ; Zaga Christ was nothing if not a devout Christian and he was determined to visit the Holy Sepulchre. In Cairo he was recognized by an Ethiopian eunuch called Deleoraua[3]. He reached Jerusalem at the beginning of Lent, 1632, accompanied by eight Franciscans[4], and was seen there by Roger, author of one of our two

[1] The Abyssinian Annalist cited the revolt of Aleb, shum of Mazaga, who fled to Sennar, as one of the causes of the war ; is Salem a distortion of Aleb ? The facts are similar, but Mazaga is far to the S.W. of Baqla.

[2] Corigia, Roger.

[3] His correct name and title is given as Dilaver Aga, and he is described as " Abissino Turco eunucho " (Somigli Etiopia Francescana, i, 11).

[4] Roger gives the number, Réchac the Order. Niccolini calls them " servitori " only.

chief sources. His subsequent adventures must be told briefly, to complete the story. For reasons of security he removed himself[1] from Jerusalem to Nazareth, where under the rule of Fechereddin Christians were allowed full liberty. On June 29th he was received into the Catholic Church by Father Paul de Lande,[2] Guardian of Jerusalem.

About this time Marc de Lombarde turns up again. Father Roger was returning to Nazareth when he was accosted by two Turks who begged him (in Italian) to rescue them from hell. Thinking they were making fun of him he replied that strong men like them could surely get out of it unaided. They still persisted, however, making the sign of the cross, praising Jesus Christ and the Virgin Mary and cursing Mohammed, and he was thus convinced of their sincerity. They told him their life's story. Marc (then aged 15) was on a Venetian ship with his uncle who commanded it, when it was captured by a Turkish corsair. He was made to deny his faith and sent to the Pasha at Cairo who made him his favourite. Eight years later he was sent with the Pasha's son on the Mecca pilgrimage, remaining there five months; thence they went by the Red Sea to the court of Preste Jean in Ethiopia. On his return to Egypt he decided to return '*en giron de la Sainte Eglise,*' deserted his master and left Egypt. His companion, a Maltese, had also had some adventures, having, while keeping a tavern in Cairo killed four Moors who got drunk and opened one of his casks. The two renegades, accompanied by Father Roger, reached Nazareth on August 4th, 1632; confronted with Zaga Christ (also dressed as a Turk) each was equally alarmed. Marc however soon claimed to recognize the Ethiopian refugee, declaring that he himself was the poor fellow who had been commanded by Sagghet Susenyos to arrest Zaga Christ and kill him.[3]

After this—how long is not stated but apparently in or soon after September, 1632—Zaga Christ and the two renegades, now reconverted, were put on an English ship bound for Xante,[4] and proceeded by Otranto, Lecce and Naples to Rome, where Zaga Christ kissed the Pope's feet. He remained in Rome for nearly two years, during which time his future was discussed by M. Ingoli, Secretary

[1] On the second Thursday after Easter, 1632, Roger.

[2] Fra Paolo da Lodi was Superior of the Holy Land from 1632 to 1635 (Etiopia Francescana, ed. Somigli, Vol. i, part 1 (1928), p. clvi. He calls himself "Frater Paolus a Lauda.... Terra Sanctae Custos ac Sacri Montis Sion Guardianus et Servus" in a Latin letter (Somigli i, 9).

[3] Roger, pp. 409-10.

[4] Réchac says it was on this ship that Zaga Christ met Marc; his statement is a useful check on the other narrative, but this latter, being by one who was an eye-witness, deserves more credence.

of the Sacred Congregation, in a series of lengthy but undated memoranda. It was his stated intention to return to Ethiopia and claim the throne; the Sacred Congregation therefore resolved to send with him a mission of Franciscans, the Order with which he had been associated. It would be necessary to act cautiously, because of the Jesuits; but it was the settled policy of the Holy See that in infidel, heretic and schismatic countries there should be at least two distinct Orders (*almeno due religioni*).[1] Brother Antonio da Virgoletta was appointed Prefect of the mission with limited powers, and was given three others as his companions. The old problem then arose—how to reach Ethiopia? There were objections to all routes. To go with Portuguese help meant a journey through Spain where Zaga Christ feared he might be detained. The French, says Ingoli, would use the Dutch (for transport), and thus heretics would gain a foothold in Ethiopia, a land rich in gold and jewels[2]. In another memorandum Ingoli recorded his opinion that, although the King of France might serve the purpose best, the presence of the French in Ethiopia would cause grave disorders to arise there, leading to war with the Portuguese. However, Zaga Christ, while in Rome, had received an invitation from the French ambassador to go to France, with an assurance of help from the King.[3]

When at last Zaga Christ left Rome, nothing seems to have been decided. With him went Virgoletta and the three other missionaries. On 29th April, 1634, Virgoletta wrote from Venice to Ingoli propounding a new plan. They were to take ship there for England with a letter to the Venetian ambassador who would introduce Zaga Christ to the Catholic Queen (the wife of Charles I). From England they would go by sea to Ormus, whither the Queen sent regularly for china ware (*porcelana*), jewels, and other Ethiopian goods. Ormus was only a few days from Ethiopia. This plan seems to have been adopted at that time (though it was not carried out), for Zaga Christ sent his clothes by ship to England, where they were impounded by the Archbishop of Canterbury[4]. At the end of June, however, this plan had been abandoned, and the party left Venice for Mantua and Piacenza, where they arrived in the middle of July, lodging at the Franciscan convent. Zaga Christ fell ill, and rewarded the monks for their medical services by creating a violent scene and using abusive

[1] Somigli i, 16, 21, 44.
[2] " 14.
[3] " 13, 16.
[4] " i, 27, 48.

language. The Franciscan warden reported the facts to Cardinal Barberini, criticizing also the behaviour of the missionaries. If they behaved thus in the heart of Holy Church, what, he asked, would they do when they reached England, the sink and dregs of heresy ?[1] Evidently they were still making for England, but now the plan was to join the Dutch fleet on September 15th, probably at Genoa. Virgoletta was evidently worried about the future of the mission ; already one of the party (Paolo da Roma) had left it, ostensibly on grounds of health, but actually because he and Zaga Christ were tired of each other.[2] The brothers were all good brothers, but not all good missionaries, and he asked for a faculty to choose those best qualified for the undertaking.

Eventually they reached Turin, where Zaga Christ was ill for several months. Another of the party (Simone da Sezza) left, and wrote a letter accusing Zaga Christ of heresy. While at Turin the two remaining missionaries (Virgoletta and Ignazio) had interested the Duke of Savoy who gave them money (and to Zaga Christ himself 200 *scudi*), and wished the mission to be named after the Holy Rosary. The Collector (Nuncio) of Portugal at Turin had dissuaded Zaga Christ from seeking the aid of heretics. They left Turin for Paris during the early part of 1635, to await orders to depart thence either for Ethiopia or for the Congo, as the Sacred Congregation might decide.[3] They could easily reach Congo "*colla navigatione nuova de Francesi.*" They were at Lyons at the end of May and reported that Zaga Christ had left them, and what were they to do ? At Orleans (13th June) and Nevers they had difficulty in finding accommodation, being treated as apostates by the Franciscan warden of Nevers. They reached Paris at the end of June. Zaga Christ, safe in Paris, now announced that he had no intention of returning to Ethiopia ; and Ignazio, who reported the decision to Ingoli, added that if he did he would do more harm than good by reason of his wrongheadedness ! Ignazio then left the mission and was ordered to return to his province. Even Virgoletta's illusions were dispelled by the behaviour of the Ethiopian, to whom he now refers as "*un Personaggio.*" But he begged Ingoli not therefore to abandon him, asking to be sent to Ethiopia without the Ethiopian. His tenacity of purpose was ultimately rewarded ; he led a mission, and although he never reached Ethiopia, he received the crown of martyrdom in Suakin on 26th August, 1641.[4]

[1] Somigli i, 26-7.
[2] " 24.
[3] " 26.
[4] " ii, 169.

The end of the story is told by Roger, who states that Zaga Christ died of pleurisy at Ruel near Paris on 22th April, 1638, where he was buried "*auprès de celui du prince de Portugal.*"[1] In an Ethiopian manuscript which Zaga Christ gave him, Roger noted that he was buried "*dans la Paroise devant la chaize du curé.*"[2]

Two portraits of Zaga Christ have been published, but they are quite different from each other, and cannot possibly represent the same person. One[3] represents a youth of negroid features; the face is not unattractive but its expression suggests that the subject was slightly mental. The other[4] shows a definitely Semitic countenance.

The story of Zaga Christ concerns us here only in so far as he touches the kingdom of Sennar, and it does not greatly matter, in this context, whether he was really the son of an Abyssinian monarch or merely an impostor or dupe. The opinion of his contemporaries was divided and may have been influenced by his behaviour, which is irrelevant. A significant statement has been unearthed by Somigli[5]. It was written down by an anonymous ex-missionary, and says that on "*Giovedi delle Ceneri*" (24th February, 1632) there visited the monks of the Holy Land three Abyssinians, two of whom were monks of the Order of St. John the Baptist. Asked by the Fathers whether it was true that the son of their king had come to Cairo, they laughed and said that the person so described was a great rogue and a liar, and that they had received a letter from one of their monasteries in the Thebaid called Daer Mar Rac (*i.e.* Deir Moharraq near Assiut) whose Superior warned them against a person claiming to be the son of "*Prete Giovanni, Re d'Etiopia,*" for he was an apostate monk of the Order of St. John the Baptist, who went from place to place begging for money. Although, according to Somigli, no such order is known in Egypt or Abyssinia, the story may be true in essence. This would still leave unaccounted for the names and details of his adventures in the "land of the Fungi"; is it possible that Marco Lombardo, who was obviously a rogue, had a hand in their invention? There seems no reason to doubt that he had been in Abyssinia (though we have no means of checking his statement), and as he must have been at least 25 years old and probably more when he met Zaga Christ in Nazareth in 1632, he would at least have been old enough to have heard about the events which occurred early in the reign of Orbat, even if he took no part in them.

The authenticity of Zaga Christ was never accepted by Ingoli. If he was what he claimed to be, he would obviously be a very useful pawn in the game of ecclesiastical politics; and that sufficiently explains why his patrons were interested in him. There was a good deal of wishful thinking, which accounts for their reluctance to throw him over.

[1] Rocoles 387. [2] Somigli i, 49. [3] Roger 402. [4] Rocoles 387. [5] i, 7.

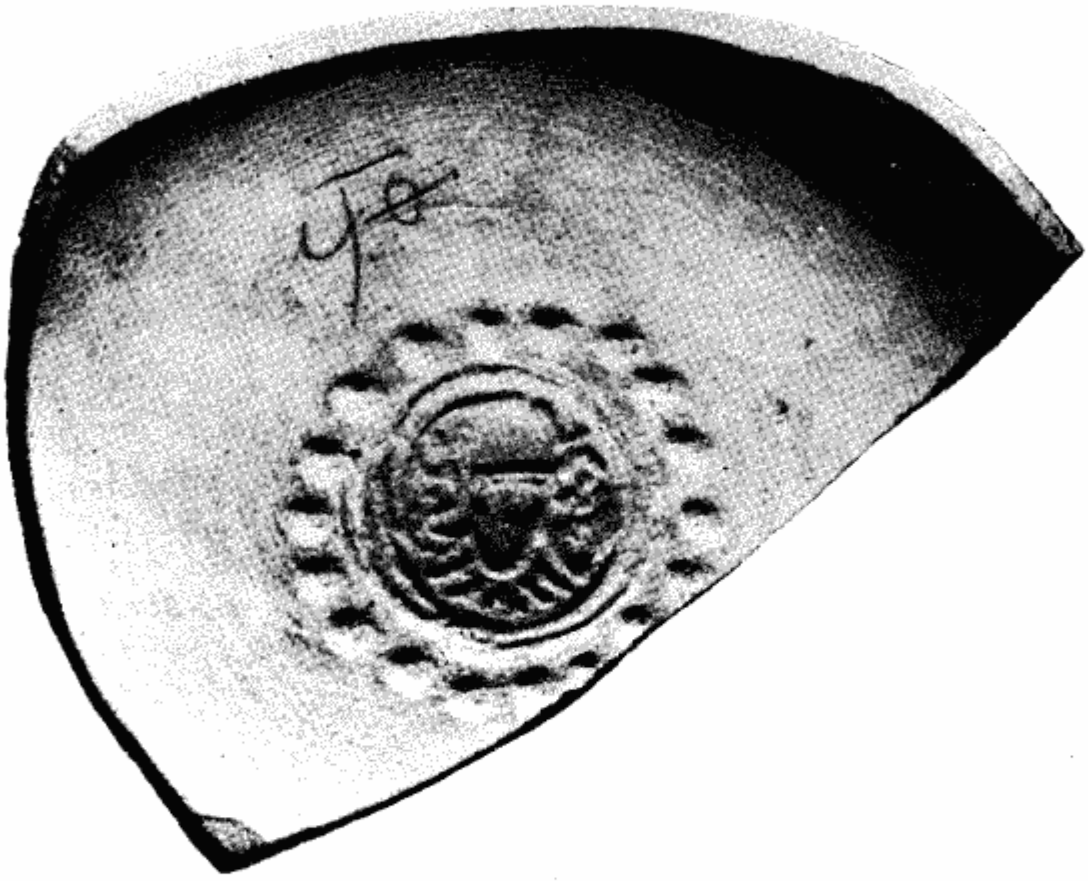
PLATE.



1



2



3



4



5

NUBIAN STAMPED POTTERY.

NOTES

A NOTE ON SOME FRAGMENTS OF STAMPED POTTERY FROM CHRISTIAN NUBIA

By P. L. Shinnie

Commissioner for Archaeology.

THERE is a well known class of bowl of the Christian period in Nubia which has as its main decorative feature a pattern stamped in the centre of the interior of the bowl. A few of these, coming from Faras, have been published together with one example of a stamp from which they were made.[1]

The normal decorative motif is the cross, found similarly used in some types of Byzantine pottery, and many examples of variants on this theme have now been assembled in the Khartoum Museum. Other motifs than the cross are sometimes found; a bird is not infrequent, but amongst them are five of particular interest. These are shown on the accompanying Plate.

Though coming from different parts of the northern Sudan they all bear a similar design but fall into two groups, the first being composed of Nos. 1, 2, and 3, and the second of Nos. 4 and 5. Of the first group, No. 1 (Khartoum Museum No. 5383) is from Abka, No. 2 (Khartoum No. 5493) from Kerma, while No. 3 is merely recorded as having been found in Northern Province and formed part of the collection of General Jackson.

In the second group No. 4 (Khartoum 3161) is said to be from the Abu Dom desert and was also in the collection of General Jackson; No. 5 was found at Kawa by the late Professor Griffith and is now in the Ashmolean Museum where it bears the number 1932.779. It is published with the permission of the Keeper of the Department of Antiquities of that Museum.

The design on these roundels is of very great interest though its interpretation is uncertain. Nos. 1 and 2 show quite clearly a man's head with a peculiar form of headgear, perhaps a crown, and the inscription, in Greek letters *οσ Ρωμα*. This is quite clear in No. 2, while in No. 1 the word *Ρωμα* is much more carelessly written, the P is reversed. the *ω* placed on its side, and an additional letter, an I, inserted.

[1] Griffith, *Liverpool Annals of Archaeology and Anthropology*, Vol. xiii, p. 90 and Plate XLIV. The question mark against the words ' full size ' on p. 90 is well merited: they are in fact approximately half size.

But there can be no doubt of the identical nature of the two representations. No. 3 is not so clear, but there is little doubt that it is intended to represent the same subject ; the whole head with its crown has become so degraded as to be practically unrecognisable, but the cape shown covering the shoulders of the figure in Nos. 1 and 2 is quite clear in 3 also. Even the inscription is present though in a very debased form, only the ω being really clear ; Ρωμα seems to have become merely ωμ, but ος can be made out in the top left hand corner behind the head. It will be noticed that this sherd has the letters ψθ scratched on it. This graffito must be Coptic as the letter ψ does not occur in Old Nubian.

The significance of the design and the inscription is obscure. One would like to see in the man's head a representation of a king of Nubia, and such it may well be, but the headdress is not one known from other representations of the Nubian kings ; it looks indeed more like the Pope's tiara. The Ρωμα of the inscription is presumably Rome, but ος appears to be no known word. Why the word " Rome " should occur under these circumstances is most uncertain. Perhaps the whole design and inscription is copied from an east Roman original, either a coin, a medallion, or a pot stamp, but no parallels have yet been found.

It may be that the inscription is to be read as Ρωμαιος. The demotic equivalent of Ρωμαῖος known to designate the Emperor Augustus[1], but it is difficult to see how such an idea could have survived in the Sudan to the late date at which these roundels must have been made, unless they are indeed degenerate copies of some much earlier medallion.

The two examples in the second group show some very interesting variations. The quality of the work is much higher than in the first group, which suggests they may be earlier. The modelling of the face is superior and the inscription much clearer. The two are so similar that it is probable they were made from the same matrix.

The general design is the same as in the other groups except for the streamers to the shoulder from the back of the headdress, and for a slight difference in the shape of the headdress itself. But the inscription itself is quite different. Here we have Περσος written quite clearly. Whether this is to be taken as a name or an ethnic description cannot be said.

The fanciful idea that they are intended as a series of racial types which the existence of Πέρσος and Ρωμαῖος suggests is belied by the close similarity of the features in both groups.

[1] *Journal of Egyptian Archaeology*, Vol. ix, p. 167. I am indebted to Dr. M. F. Laming MacAdam of Durham University for this reference as well as for drawing my attention to the Kawa example.

There is a strong suggestion of a Roman origin in the style of all of these examples and further research may show the original from which they were copied.

Knowledge of the chronology of Christian Antiquities of the Sudan is far too slight for any precise dating to be attempted, and will remain so until a stratified site has been excavated. Crowfoot[1] has suggested that some of the fine pottery from Ghazali is of the 9th or 10th centuries and on stylistic grounds our pieces might well be contemporary.

[1] Crowfoot, *Journal of Egyptian Archaeology*, Vol. xiii, p. 150.

HAEMOGLOBIN STANDARDS IN THE SUDAN

By Mansour Ali Haseeb

Stack Medical Research Laboratories

THE haemoglobin of the red cell is that part of the cell which is responsible for carrying oxygen and therefore the oxygen-combining capacity of the blood depends on the amount of haemoglobin present. The latter varies widely in normal states of health, not only from person to person but also from country to country. Whereas Kennedy (1939) in Iraq found that the haemoglobin range in 500 men was from 12.3 to 21.8 grams per cent, Scott-Mcgregor and Loh (1941) in Malaya found that the range in 350 men was from 13.1 to 19.1 grams per cent. It is therefore essential to work out haemoglobin standards for each country.

Method and Material.

Haemoglobin determinations were carried out on 450 male students in the Government Boys' Schools of the three towns: Khartoum, Khartoum North and Omdurman. Their ages varied from 12 to 16 years. All the students were healthy and under medical care. The method used for estimation is the acid haematin method of Sahli. It is realised that it would have been more accurate to use the chemical method of Van Slyke and Stadie (1921) but consideration of time forbade such an attempt. Moreover it was thought that it would be useful to establish the standards by clinical methods, so that they might be available for comparison with future clinical work. However the Sahli's haemoglobin-ometer used was standardised by the Van Slyke method (Peters and Van Slyke, 1931) and the same apparatus was used for all the estimations: the 100 per cent was found to be equivalent to 17.0 grams. The results were then corrected for this instrumental error.

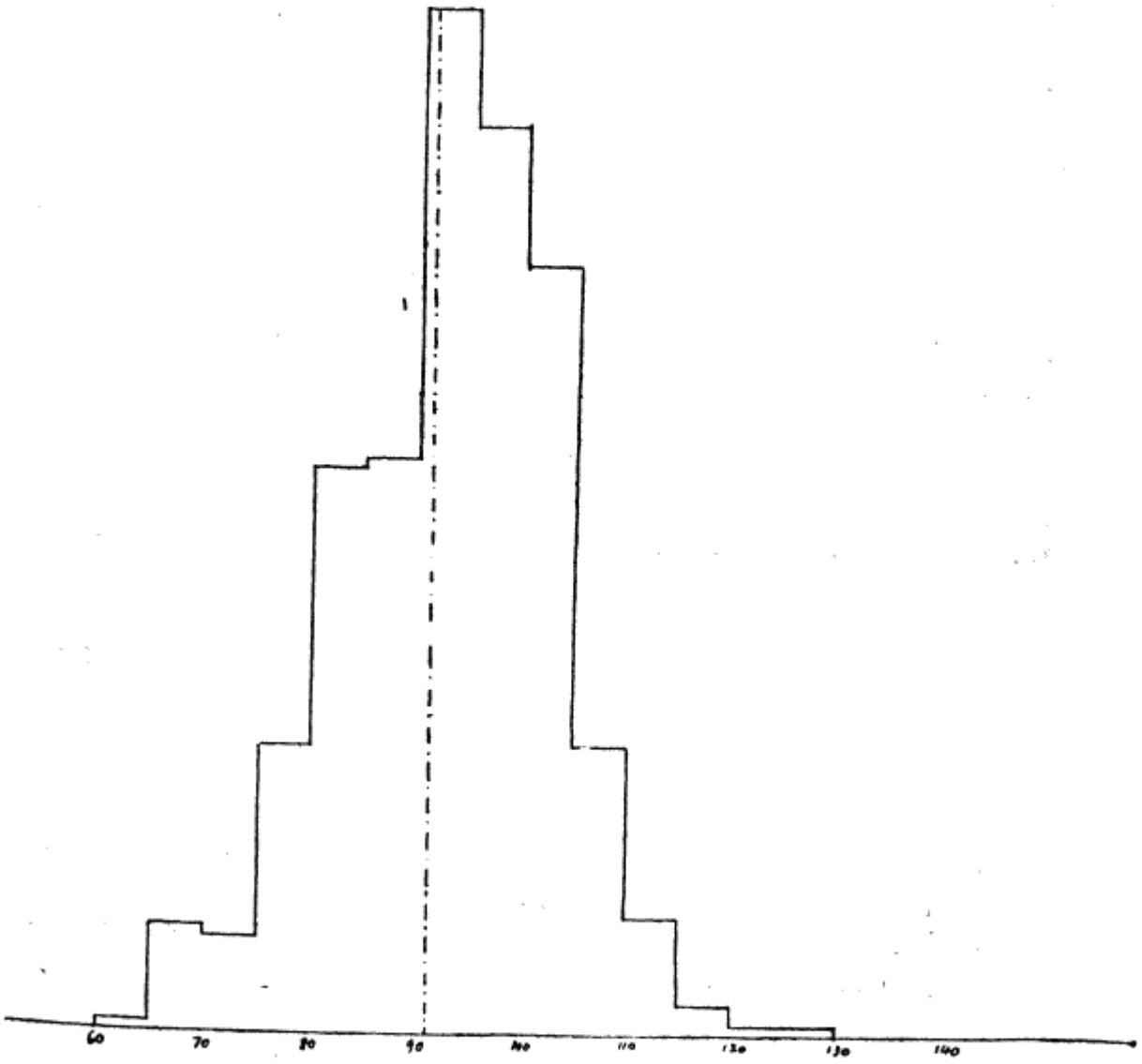
Results:

A frequency histogram of the results is given in Fig. 1. In terms of Sahli values the mean of these series was 91, the standard error of the mean $+0.24$ the range from 60 to 128 and the standard deviation (applying Shepherd's correction) 5.3. These statistics in term of grammes per cent were mean $15.47 + 0.042$, the range from 10.2 to 21.76 and the standard deviation 0.901.

FIGURE I

Frequency Histogram for Haemoglobin values on the Sahli scale for 450 *students.*

The position of the mean is indicated by a dotted line



Haemoglobin per cent.

DISCUSSION.

Whitby and Britton (1942) state that for clinical purposes it may be assumed that the normal range for an adult male is from 14 to 17 grams of haemoglobin per 100 ccm. of blood, with an average of 15.6 grams. The haemoglobin values of the present series of Sudanese students compare favourably with the above figures. But the constants which are derived from this sample are implicit in the frequencies and have no value beyond that inherent in the original observations. Their extension to a generalisation about haemoglobin values in Sudanese is limited by the fact that this series does not constitute a random sample of the particular "Universe" under discussion—Sudanese. The sample is selected in that its members are all Government Schools' Boys who are well nourished and come under the constant care of the Medical Officer of Health at Khartoum. The figures are however of great interest in themselves and will be of value for comparison with future work. Moreover they definitely indicate further work on other classes of the population.

SUMMARY

The haemoglobin values of 450 Sudanese students were determined. In terms of grammes per cent they were: the mean 15.47 + 0.042, the range from 10.2 to 21.76 and the standard deviation 0.901.

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FOUR ANCIENT SITES IN THE ISLAND OF MEROE

By H. F. C. Smith and Abdelrahman Adam

Sudan Ministry of Education

A RECENT journey in the Butana, north of the Khartoum-Kassala road resulted in the discovery of four ancient sites, previously unsurveyed. We travelled from Shendi to Naqa via Mussawarat es Sufra and thence in a south-easterly direction towards Jebel Surat. From the name of this *jebel* we thought that there might be rock drawings on it and on enquiring at wells in the Wadi Abu Hashim we found that there were indeed traces of ancient occupation there. The site was well-known locally as a "*murabba*" (square building) and with the help of a guide we had little difficulty in finding it.

It is located close under the south-western edge of the westermost extremity of the Jebel Surat plateau in approximately Long. 33° 20'E. and Lat. 16° 07'N. This part of the Surat plateau is called Jebel Sirefāt. The site consists of a dry well, traces of three stone buildings, a *hafir* (artificial pond) and at least two graves. The well is by local tradition a very old one which has recently been re-opened. It has brick walls to a depth of a few feet and is altogether 45 "men" deep. The brick work, we were told, is modern. The most southerly of the building remains is a mound covered with a thick strew of sandstone rubble and is of a considerable size (some 25 by 30 paces), much larger, for example, than the temples of Duanib or el Murabba and possibly as large as the temple mounds of Basa. In shape it is similar to a mound at the large *hafir* of Massawarat es Sufra. The actual building mound is not as large (some 16 by 20 paces) and is lower. Here again, however. there is much sandstone rubble. The peculiarity of this mound is that it is bisected by what is clearly the foundations of a wall two feet or more thick and some 16 paces long. A few yards north east of this mound is a flat strew of sandstone rubble much smaller in size (about the same size as the square building foundation at Jebel Nasb es Sami). The *hafir* lies astride the course of a stream draining the *jebel*. It is much smaller than those at Massawarat es Sufra and not so regular in shape. Its walls near the opening where the stream leaves it show evidence of three different attempts at reinforcement. Just outside the hafir, and on the north side of this opening, we found two small elliptical graves covered with black stones.

We could not with certainty date this site as we found no potsherds or brick fragments there. It is possible that the graves are not very old. The masonry remains and the similarity of the large building mound to the one at Massawarat es Sufra, however, points to a Meroitic date. If this is so, then the location of this site in relation to that of other Meroitic centres of the Butana is of interest. It has long been noticed, of course, that the ruins of Wad Ban Naqa, Naqa and el Murabba and the rock drawings of Jebel Qeili lie almost in a straight line and were this line to be prolonged southwards it would, with a slight deflection to the east, pass through Jebel Mundera where ancient pottery is said to have been found and which, it will be remembered, was the home of Bruce's Negusta er Rum.[1] The site at Jebel Surat lies also on this line which was very likely a Meroitic trade route to Abyssinia. All the remains of ancient occupation yet surveyed on it, with the exception of el Murabba, lie near prominent physical features which would serve as landmarks to travellers.

Although Naqa and el Murabba are counted on this possible route, Crowfoot held that they were important primarily as rain-cultivation and pastoral centres and not as markets or staging posts. This may be true of them but would not necessarily be true of the site at Jebel Surat. Unlike el Murabba this site is not suitably placed to be the centre of a district, as access to it from the east is (as we discovered) difficult. Moreover, unlike Naqa, it lies off the course of the big *wadis* where presumably rain cultivation was carried on in ancient times, as now. On the other hand access to it from the north-west and south-east (the direction of the supposed trade route) is easy and it is close to a very prominent physical feature. As a post on such a trade route it is therefore well situated and it is suggested that is what it was. Naqa indeed is only 13½ miles away, but the absence of wells there in ancient times may have made it unsuitable as a staging post. Alternatively the site at Jebel Surat may pre-date Naqa.

Journeying later north-east of Abu Deleig we came upon a second site of some interest. It lies some seven miles from the old *markaz* (district office) in approximately Long. 33° 53′E. Lat. 15° 59′N. Here there is, first, an extensive group of large circular mounds strewn with black stones. We counted some 36 of them. A number of these mounds had on them small elliptical stone strewn graves. Then about a mile away to the north-east there is a very prominent circular mound also strewn with black stones and near to it some 10 small mounds and

[1] *Travels to discover the Source of the Nile.* Vol. III pp. 311-319.

a few modern graves. One peculiarity of this site is that it lies in extremely bare and flat country. There are a few traces to the east of the mounds but except for these the stretch of country between the low hills immediately north-east of Abu Deleig and the *hafir* of Abu Ghana (a distance of 18 miles) is completely devoid of landmarks. It is apparently an area of extensive rain pasture. The size of the site is also remarkable. In a sweep of some 260 miles through the Butana we came upon a number of places where there are tumuli more or less of this type[1], but nowhere did we find a group even half the size of this one. Here, then, if these mounds are graves (as presumably they are), must have been a burial ground of some considerable importance.

MacMichael refers to tumuli in the heighbourhood of Abu Deleig[2] (though whether he speaks of this particular group is not clear) and suggests that they date back to pre-Napatan times. Whether the mounds we saw belong to the same period it is not possible to say. We found no potsherds or other artefacts on them. They may well be pre-Meroitic but a more exact dating of them must await their excavation.

Continuing to the north-east of this site we eventually reached the Well of el Qeheid in the upper reaches of the Wadi el Hawad. This is at present an important watering centre for the nomads round about, and the well is reputed to be very old. Crowfoot visited this district but says that he found no trace of ancient settlement there.[3] He calls the well Bir el Kafir which is marked on the 1/250000 map, five miles east of Bir el Qeheid. In any case there seems little doubt that this well was an important centre in ancient times as now.

Just over a mile south west of the well along the track leading to the *hafir* el Ubaiyid we came upon a group of some fifteen low circular mounds strewn with black stones. And a short distance north-west of the well (some 200 yards north-east of the *Qubba* (tomb) of Wad Abu Najma) we found evidence of an old occupation site in the form of a remarkably thick strew of potsherds and quern stones (almost comparable with that on the city site at Meroe), several small mounds and one long mound which might be the remains of a building.

This site is, roughly speaking, at the easternmost point of the Wadi el Hawad and forms a convenient centre of the rain cultivation lands to the north and the pastures to the north-east and east. It might also be a convenient junction point for a route connecting Umm

[1] Especially at the Qila El Binayat E. of Wad Hassuna, and in the Wadi Shuheikit west of Jebel Bagkeranib N.W. of Jebel Qeili.

[2] *History of the Arabs in the Sudan.* Vol. 1, p. 30.

[3] *The Island of Meroe.* p. 20.

Usuda to the Hawad. This latter consideration may point to its having been occupied as far back as Meroitic times. In a rather hurried examination, however, we could find no potsherds characteristic of any particular period.

The last site we came upon, which does not seem to have been noticed previously, lies in the neighbourhood of Basa. It is roughly 2 miles due south of the big *hafir* there on a bearing of 75° from Jebel Laota and consists of one large roughly elliptical mound and one small one in line north and south; between them on the eastern side is a circle about 8 feet in diameter, made of flat black stones and fragments of large red bricks, so it appears to be of Meroitic date. The stone circle may, of course, be modern, but the rest of the site may well have formed an offshoot of the great centre of Basa.

The rough survey of these four sites does not, it must be admitted, go far to fill the gaps in our knowledge of the Butana in Meroitic or pre-Meroitic times; but it does perhaps sharpen a little the picture we have of the Island of Meroe as lying astride a great trade route to the south and supporting in itself a not inconsiderable population of a half-pastoral and half-agricultural type.

SIBR AL MAUT AT FUNGOR

By W. N. Monteith

District Commissioner, Tegale.

A WOMAN had died in the Nuba village of Fungor on the day I arrived there; she was buried the same evening. Next morning I was invited, together with the Wakil Nazir of the Aulad Himeid and some Arab sheikhs who were with him, to attend the *Sibr al Maut*.

We went soon after dawn and condoled with the male relations of the deceased who were smoking their pipes outside a hut near the scene of the *Sibr*. They took us to see the grave which was on the edge of the village; it had, they told us, a narrow neck and was then widened so that the body could lie at full length; some domestic utensils had been buried with the body—they had no clear ideas of the future life, but "you never knew...."

They took us back to the scene of the *Sibr* which was an open space beside the *Bait al Naggara*, a round thatched hut with open sides, part young men's club, part bandstand. Inside the *Bait al Naggara* were some twenty men, two of them beating drums.

A few yards away stood the dead woman's *angarib* (bed); on it lay a *birsh* mat rolled up in white cloth to represent her body and three sticks which she had used, principally at dances; hanging from the legs of the *angarib* were her sandals; underneath it three small brushes and a pot of *dihin* (fat).

Six elderly women knelt or lay against the *angarib* wailing. From time to time they broke off and rushed about the open space turning wild somersaults and landing with fearful bumps on their backs till restrained by an even older woman. One young girl turned a somersault and lay howling on the ground; she was firmly led off; somersaulting seemed a privilege of age. Groups of men and women sat looking on. A woman at the side of the ring beat two short sticks together persistently and monotonously like a metronome.

Then the old women left the centre of the ring. Six goats were led in; the *Sid al Sibr*, the leading man of the dead woman's family, cut their throats and left them lying at the end of the *angarib*. (The meat was to be given later to anyone who cared to ask). Then he took the pot of *dihin* from under the *angarib* and poured it on the group; then poured a bowl of *marisa* (millet beer) on the ground and broke both bowls against the *angarib*. (The *dihin* and *marisa* had both been made by the deceased).

This was apparently the signal for a great deal of breakage. A mass of bowls were brought in a basket from the dead woman's hut and laid at the side of the ring. (We were told that the heirs had taken their pick of the best bowls before this). The chief female mourners each took one or two of these bowls and broke them against the *angarib*; then about twenty women went to their own huts and each brought one or two bowls, earthern or gourds, and broke them too. The ritual was to touch the bowl against the tops of the two legs at the head of the *angarib* and then smash it against the short cross-piece. (The broken bits were later to be collected and put into a special cleft in the mountain). The Arabs sitting beside me muttered against this waste; such bowls, they said, might have been sold for much money, at least four pounds. The old woman went on beating her two sticks together. A dog, unperturbed by the crashes of breaking bowls, sniffed at the dead goats.

The breakage over, a few of the old women started dancing towards the *angarib*, interrupting the dance at intervals to turn more distracted somersaults. Two young men arrived with vintage rifles and, after several misfires, succeeded in letting off some shots into the air.

Then the ring was cleared. An old woman took up her position at the end of the *angarib* with strips of *zaaf* (palm fibre) in her hand. Three young girls, daughters or nieces of the deceased, were led up to her in turn and she pretended to tie a strip of *zaaf* round the waist of each. This showed, we were told, that they were not to take part in dances till a decent time had passed.

Finally the *Sid al Sibr* picked up the *angarib* with the symbolical corpse, the sticks and the sandals on it and carried it off to the dead woman's hut. The *Sibr* was over. The men in the *Bait al Nahgara* stopped beating their drums; the old woman stopped beating her two sticks together; the onlookers drifted away. There only remained a large pile of broken bowls and six dead goats.

BOOK REVIEWS.

THE TEMPLES OF KAWA. I. The Inscriptions. By M. F. Laming MacAdam. 2 vols. Geoffrey Cumberlege, for Griffith Institute, Oxford, 1949. £6/6/0.

The inscriptions published here were discovered in the winter of 1930-31 during the excavations carried out by the late Professor Griffith at Kawa on the east bank of the Nile roughly opposite to Dongola. Though various vicissitudes, of which the major one was the war, have held up the publication for twenty years they have in no way diminished the importance of the results as they are now presented.

These two volumes (one of text, and the other of plates) deal only with the inscriptions found. The detailed description of the architectural and other remains is reserved for a later volume, whose appearance it is hoped will not long be delayed. The inscriptions fall into two main groups, those in Egyptian (written in hieroglyphs) and those in Meroitic. It is those of the first group that are of the greatest importance since our knowledge of Meroitic is still too slight to enable us to do more than decipher names and an odd sentence here and there. The Egyptian texts supply a great deal of interesting new information on the history of Kawa itself, the ancient Gem Aten, as well as of the northern Sudan as a whole.

Amongst these inscriptions are five of Taharqa which are full of interesting new historical information. One of them (No. IV) has a vivid description of how Taharawa as a young man travelling to Egypt from Napata to be associated as king with Shebitku (Shabataka) found the temple at Kawa in a state of disrepair, with its roof roughly plastered with mud to keep out the rain and with a high sand dune accumulating against the outside of one of the walls. The interest of this lies in the evidence that conditions must have been similar then to present ones where the encroaching sand is a constant enemy. MacAdam records that the buildings excavated in 1930/31 had been largely filled with blown sand by 1935; and the reviewer on a visit to the site in October 1949 could see scarcely anything of the great temple

to which Taharqa devoted so much attention in the sixth year of his reign, clearing it of sand and rebuilding it of stone in place of the brick previously used.

Inscription V, also of Taharqa, records the exceptionally high Nile of 684 B.C. already known from other sources, and describes a very heavy fall of rain in Nubia,—clearly as unusual an event then as it is now. MacAdam's suggestion that the rain in Nubia was part of the cause of the high flood is scarcely correct, though no doubt the Nubian rain was part of a series of heavy rain storms in Abyssinia.

All these inscriptions are most excellently edited with a wealth of critical commentary—but the editor's real brilliance is shown at its best in dealing with a group of later inscriptions dating from the end of the 5th to the 3rd century B.C. These inscriptions, written at a period from which we have very little historical information, were composed by scribes whose language seems to have been Meroitic and whose knowledge of Egyptian was sketchy and inaccurate. The texts abound in difficulties of spelling, grammar, and vocabulary and it is a fine achievement to have got so much from them.

The most informative is a long inscription of a king whose name MacAdam reads as Aman-nete-yerike (the Amanherinutarik of Reisner), and his arguments for this reading cannot be lightly set aside. In this text the journey made by the king from Meroe to Napata and further down river is described. This is the first written reference to Meroe and proves the suspicion that the kings' were living there and not at Napata by the end of the 5th century. The commentary on this text makes a number of geographical identifications and fairly conclusively proves that Pnubs, previously variously identified with either Maharrake, or some site at the south end of the Second Cataract, must have been in the neighbourhood of Argo Island. The existence of the ruins of a Meroitic temple near the two colossi at Kadruka on that island suggests that it may be the site of Pnubs. The identification of Kartan, the other place mentioned as having been visited by the king on his journey downstream, is more difficult. It must certainly from the text lie between Jebel Barkal and Kawa and probably on the right bank. There are a considerable number of ancient sites in that stretch but the area is almost unknown archaeologically owing to the difficulty of movement, all traffic now going by the road on the other bank ; final identification must wait on an adequate field survey of the area.

In a final appendix a most detailed and closely argued study is made of the family relations of the great Napatan kings, and by using the new evidence from the Kawa inscriptions a far clearer and more

satisfactory picture can now be obtained of the relationships of Piankhi and his successors.

This book, though one for the specialist and not for the general reader, contains material which no future historian of the Sudan can ignore. When the time comes for the study and teaching of Sudanese history in the schools and in Gordon College it will be an essential primary authority for those responsible for the teaching.

P. L. SHINNIE.

BAKER OF THE NILE. By Dorothy Middleton. The Falcon Press, 1949. 12/6.

Baker needed a readable biography, and here it is. The memoir published in 1895, two years after his death, is a drab monument to so colourful a man, a tombstone in print. Now comes Mrs. Middleton's sprightly story, sensibly planned, simple in style, with a feminine interest in intimate detail, yet free of the mawkish and the vulgar. The approach is sympathetic but not uncritical.

Sir Samuel White Baker had nine lives, for he had been planter, railway manager, big game hunter, inventor of firearms, government administrator, soldier, author, controversialist and husband. He worked and hunted in a dozen countries; his Sudan days were an important phase in his career, but they were only two episodes in a rich ninefold life. It is unreasonable to expect Mrs. Middleton to show equal competence in presenting each separate phase. All we can justly expect of her is that she shall not distort the truth by presenting without verification the truth according to Sam and his friends as Gospel.

Unhappily that is exactly what she has done with Baker's two tours in the Sudan. Her hero was twice in this country: in 1861-65 as a hunter on the Setit and as an explorer in Central Africa; in 1869-73 as the founder and first general governor of the Equatorial Province. The joint authors of the dull memoir of 1895 who gave a barefaced boost of Baker's two tours, had at least the excuse of ignorance, for the documentary evidence available to them was confined to British sources.

Mrs. Middleton has no such excuse. If it were inconvenient for her to study at first hand the Egyptian State Papers in Cairo, giving the full official documentation of Baker's mission to the Equatorial regions, she could at least have read the extracts edited in G. Douin's *Histoire du règne du Khédive Ismail*. By ignoring the point of view of the

Egyptian Government she has led herself into repeating statements which are misleading to a Sudanese or British reader unacquainted with the facts and insulting to an Egyptian who has access to some of them. Her account of Baker's Sudan career reads like a history of King John of England which leaves out Magna Carta.

The success and failure of Baker as an administrator (for, paradoxically, he was both) was in part due to Baker's temperament but much more to the circumstances of the time. In his instructions to Baker his employer, the Khedive Ismail, laid down specific terms of reference to cover the annexation and administration of new territories. Baker, a child of the individualism of the West, with its moral cocksureness and its ideas on slavery moulded by American history, concentrated unduly on some of his instructions to the detriment of the rest. Like many a physically powerful man he hated bullying and, in spite of the irresponsible criticism of that repository of Victorian spinsterhood, the Anti-Slavery Society, whom death had robbed of the steadying hand of William Wilberforce, he attempted the destruction of the Trade by violence, at the expense of alienating the entire Egyptian trading community in the South. By an over-brusque display of force he estranged the Bari who stood across his line of communication between Gondokoro and his outposts in Unyoro. The Baker mission with its elaborate apparatus of troops, stores and fleet of steamers so overspent itself that even the Khedive, no miser with Egyptian public funds, felt bound to protest. Finally, Baker's mission failed to plant abiding administrative roots in the country of the Great Lakes and so made the conolsidating work of his successor, Gordon, all the harder.

There was a more intimate reason for the failure of the mission. Ismaïl Pasha chose Baker as the most suitable man he could find to undertake an extremely difficult mission. To say that Baker was the wrong man for the job is to ignore the fact that there was none more suitable. The governance of primitive African peoples is a work of long training, infinite pains and sympathy. There was no time in three brief years to build up that tradition of administrative practice that produced the De Brazzas, the Lugards, the Lyauteys, the Ingrams of a later day. Someone had to begin through the travail of trial and error; someone had to instruct him to begin. Baker must be judged as an amateur pioneer, not as an expert practitioner, of what Britain had to offer Darker Africa.

Baker's strictures upon the governors-general Ja'far Pasha Mazhar and Ismaïl Pasha Ayyub should be read in this light. These officers were not unnaturally embarrassed by a foreigner's sudden elevation

to the rank of *fariq* and the grade of pasha, and they resented Baker's highhandedness within their territories. But if his praise of Ahmad Mumtaz Pasha was misplaced, he showed prophetic foresight in his admiration of 'Abd al-Qadir Hilmi, the commander of his personal guard, who was to prove a most effective governor-general of the Sudan in the troubled days ahead.

If this book does unconscious injury to Baker the administrator, it accords to Baker the man the honour which has long been his due. Mrs. Middleton's study remains the only living life of our first ruler of Equatoria.

RICHARD HILL.

BIRDS OF TROPICAL WEST AFRICA, Vol. 7. By D. A. Bannerman. London, Crown Agents for the Colonies, 1949. 55/-.

This is the last volume of a magnificent series, previous parts of which have been reviewed from time to time in the pages of this Journal. There remains only an eighth volume, to appear as soon as it can be printed, which will contain notes filling in gaps in what has already been published.

The present volume is devoted wholly to the vast family of Weaver Birds (including the buffalo weavers) who are so familiar in the Sudan.

CORRESPONDENCE

The Editor, *Sudan Notes and Records.*

Dear Sir,

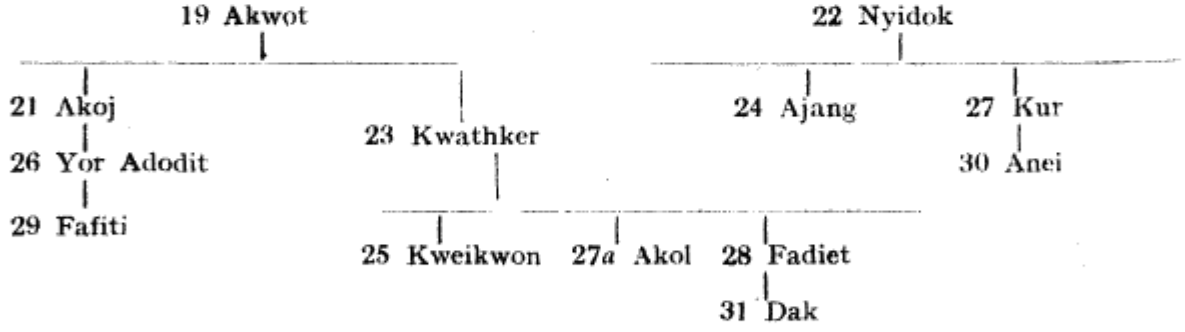
My attention has been called to three errors in Appendix IV of the Article written jointly by Mr. P. P. Howell and myself in Volume XXVII of *Sudan Notes and Records* entitled "The Death of a *Reth* of the Shilluk, and the installation of his successor."

1. In the genealogical table of *Reths*, No. 26 Yor Adodit is shown as the son of Kwathker: he was in fact a son of Akoj, and I think this may have been a printers' error.

2. Kweikwon, son of Kwathker, who was appointed *Reth* by the *Mudir* of Fashoda in c. 1876 and was later killed in the Expedition against the Mahdi at Jebel Gedir in 1881 (op. cit. p. 16) is not shown. He should appear as 25, between Ajang and Yor Akoj.

3. Akol should not be shown as 25, though he too was a son of Kawathker. He should be shown as 27 *a*. He arose after the proclamation of Kur as *Reth*. It is not clear whether his attempt to obtain the throne of Fashoda was before or after Kur was ceremonially installed by Nyikang. I suspect it was before the installation, but I have not now the means of checking.

In fact, the latter part of the table on p. 84 of Vol. XXVII should read:



I am, Sir,

Yours faithfully,

Bentiu,
13.3.1950.

W. P. G. THOMSON.

Editor, *Sudan Notes and Records,*

Dear Sir,

I enclose a list of earthquakes and earth-tremors recorded in the Sudan. It is certainly very incomplete but may be of interest since nothing of the kind has as far as I know, been published before.

Earthquakes appear to be more frequent in the Juba district than elsewhere and Rejaf, with its 'trembling mountains,' presumably derives its name from the Arabic '*rajfa*' رجفة an earthquake.

I shall be grateful for details of any earthquakes known to your readers and not included in the list.

Yours fathifully,

Sudan Meteorological Service,
Khartoum, 27th July, 1950.

A. W. IRELAND.

EARTHQUAKES AND EARTH TREMORS RECORDED IN THE SUDAN

LOCALITY	DATE	TIME (Sudan Time)	REMARKS
Rejaf	c. 1825		Traditional
Rejaf	July 1877		Mentioned by Emin
Rejaf	2nd. Jan. 1885		Mentioned by Emin
Rejaf	June 1885		Mentioned by Casati
Kajo Kaji ..	June 1901		
Rejaf	Sept. 1914		
Rejaf & District.	May-Oct. 1915		Frequent tremors over wide area (Yei-Torit), buildings damaged, accompanied in many cases by noise.
Rejaf	21st Nov. 1916		
Khartoum ..	2nd Aug. 1922	0700, 0945	Slight, not recorded at Helwan
Mongalla ..	24th June 1923		Slight
Dongola ..	6th Aug. 1923	0125	Slight, accompanied by noise, not recorded at Helwan
Dongola ..	27th Aug. 1923	2210	Slight, not recorded at Helwan
Khartoum & Kassala Province	12th May, 1938	2330-2335	Slight tremors over a wide area
Juba	29th Sep. 1939	2215	Slight, accompanied by noise
Juba	22nd Feb. 1940	0630	Slight
Juba	7th Dec. 1941	0340	Slight
Juba	20th Nov. 1943	2135, 2400	Slight, accompanied by noise
Juba	21st Nov. 1943	0415	Slight, accompanied by noise
Wad el Mahi (Fung) ..	23rd Nov. 1943	0000, 0600	Slight
Khartoum ..	3rd Dec. 1944	1250	Very slight
Kassala ..	1st April 1945	1220	Slight
Dongola & District ..	1st Dec. 1945	1055	Slight, buildings slightly damaged, recorded at Helwan
Roseires ..	26th Feb. 1947	1750	Slight
Roseires ..	28th Oct. 1947	0525	Slight
Juba	27th Nov. 1948	1232	Very slight
Juba	29th Dec. 1948	0507	Very slight.

Editor, *Sudan Notes and Records*,

Dear Sir,

I wish to record and investigate any weather lore or weather sayings current in the Sudan and shall be most grateful for details of any known to your readers.

Yours faithfully,

A. W. IRELAND.

Sudan Meteorological Service,
Khartoum, 27th July, 1950.