



TANGANYIKA NOTES and RECORDS

List of Articles

	Page
The origin of limestone caves <i>By J. R. Harpum</i>	1
The Kindiga <i>By B. Cooper</i>	8
History of the Wasegeju, <i>By E. C. Baker</i>	16
An earlier people in Uhehe <i>By P. M. Worsley and J. P. Rumberger</i>	42
Some aspects of dhow building <i>By P. H. Johnston</i>	47
Rhapta <i>By J. W. T. Allen</i>	52
An early 'sleeping sickness settlement' <i>By G. W. Hatchell</i>	60
Plain thoughts on African education <i>By Dr. J. M. Winterbottom</i>	65
Uvinza, Tongwe and Ubende <i>By Capt. C. H. B. Grant</i>	69
Notes: Angoni raids in Rufiji, R. de Z. Hall; 'Lip-plugs', D. F. Bowie; Being struck by lightning, Anon; Five fables, G. G. Rushby	74

SEVEN SHILLINGS AND SIX PENCE PER COPY
PUBLISHED HALF YEARLY

Printed by
J. Boyd & Co. (Printers) Ltd.
Nairobi — Kenya Colony

JUNE
1949

— No. 27 —



Tanganyika Notes and Records

Editor: H. F. I. ELLIOTT

Editorial Committee: A. M. B. HUTT, C.M.G., O.B.E.

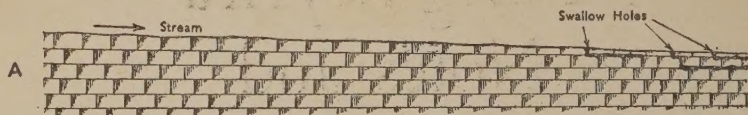
W. D. RAYMOND, O.B.E., Ph.D.

J. P. MOFFETT.

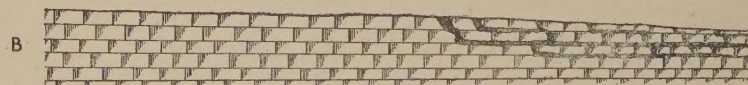
	Page
The origin of limestone caves By J. R. Harpum	1
The Kindiga By B. Cooper	8
History of the Wasegeju By E. C. Baker	16
An earlier people in Uhehe, By P. M. Worsley and J. P. Rumburger	42
Some aspects of dhow building By P. H. Johnston	47
Rhapta By J. W. T. Allen	52
An early 'sleeping-sickness settlement', by G. W. Hatchell	60
Plain thoughts on African education. By Dr. J. M. Winterbottom	65
Uvinza, Tongwe and Ubende By Capt. C. H. B. Grant	69
Notes: Angoni raids in Rufiji, R. de Z. Hall; 'Lip-plugs', D. F. Bowie; Being struck by lightning, Anon; Five fables, G. G. Rushby.....	74

JUNE 1949

Number 27



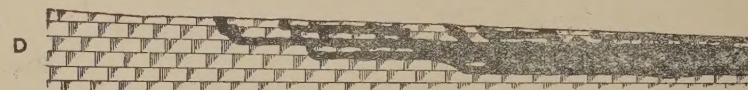
Formation of Swallow Holes



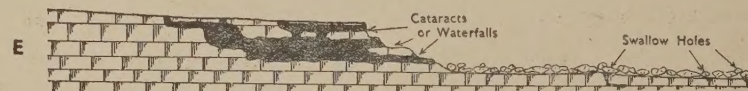
Incipient Subterranean Drainage



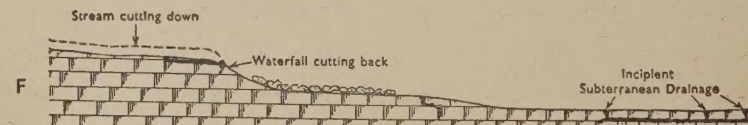
Subterranean Drainage Developing



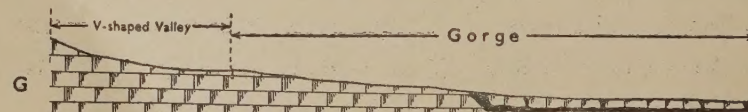
Subterranean Drainage Mature



Collapse of Cavern Roof to form Gorge



Further Collapse of Roof



Secondary Subterranean Drainage Developing

Stages in the Development
of Limestone Caves

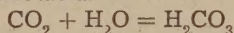
The Origin of Limestone Caves with Special Reference to those of Cheddar and Amboni

By John R. Harpum, B.Sc., A.R.C.S.

The phenomenon of caving in limestone districts is a familiar one to me, for I have worked for some time in the Mendip Hills of Somerset where are found the famous caves of Cheddar and Wookey. It was therefore with great interest that a visit was made to the caves near Amboni in the Tanga District for the purpose of determining their origin. Although there are differences between the caves of Cheddar and Amboni their main features are so strikingly similar, that it was at once believed that the mechanism of their origin must be very similar. It is proposed, therefore, as an introduction, to give an account of the origin of caves in limestone country as typified by the classic examples at Cheddar.

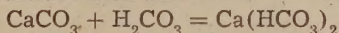
THE FORMATION OF CAVES IN LIMESTONE COUNTRY.

Pure limestone, which chemically consists of calcium carbonate (CaCO_3), is readily soluble in all acids. Natural surface waters always contain a certain amount of dissolved carbon dioxide derived from the atmosphere which gives them slightly acid properties: the weak acid so formed is known as carbonic acid.



(Carbon dioxide) + (Water) = (Carbonic acid)

Thus natural cold waters coming into contact with limestone dissolve it, forming the soluble calcium bicarbonate:—



(Pure limestone) + (Carbonic Acid) = (Calcium bicarbonate)

In this manner it is possible to dissolve as much as 2.29 grammes of calcium carbonate in a litre of water. The calcium bicarbonate so formed is, however, a very unstable product which readily reverts to insoluble calcium carbonate.

When water flows over limestone country it is clear, therefore, that solution of the country rock will occur: small cracks and fissures will be enlarged, pot holes will be deepened, while hill sides will have their sides eaten away. Let us consider the case of a stream flowing across a limestone area. Solution in the stream bed will open fissures in the limestone; the water from the river will seep into these fissures to escape at a lower level along the bedding and joint planes in the limestone. The initial channel formed by this seepage will be slowly dissolved out until small underground channels are formed. The whole process is a cumulative one, for the lower the seepage of water goes, the deeper into the limestone is solution allowed to continue. The solution holes in the floor of the river increases in size until there comes a time when the subterranean drainage of water is so great that all the river water disappears

underground. The holes down which the water disappears, known as SWALLOW HOLES or SINK HOLES, are usually funnel shaped, varying in diameter from a few feet to many yards.

Meanwhile, underground, an anastomosing system of channels, caves and irregular chambers, is being dissolved out of the limestone with a large channel through which the main drainage flows as a subterranean river. The underground chambers may be of great proportions for not only is the water exerting its solvent action laterally and downwards, but, being forced into small chambers with a head pressure of many feet of water behind it, may dissolve upwards. This upward dissolving process gives rise in its extreme phases to great vaulted chambers with roofs often more than 100 feet above the point at which water first entered.

In the country away from the watershed, there will be a point at which all this underground water re-appears. These secondary springs, as the process matures, will themselves dissolve caves, out of which flow streams. The original river may be split up, on its re-appearance, into several smaller streams, but during the passage of time the smaller components will probably reunite to form one river with a common point of emergence at the surface.

Then follows the most impressive stage of the process: the main underground channel may become so large that the rock roof collapses, leaving a deep gorge filled with limestone debris (from the fallen roof) through which a river is flowing. This collapse which may at first be partial, leaving tunnels, natural arches and gaping holes in the terrain, later may be completed so that the whole roof is removed from the point of emergence of the stream back to its point of disappearance down a swallow hole. The river then flows over a rocky cataract or small waterfall (which marks the position of the former swallow hole) into a deep gorge, in the sides of which are numerous caves and holes which were once part of the underground water system.

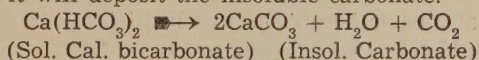
The underground water seepage and solution may continue above the cataract or water fall. The limit of the solution activities is set when either (a) the limestone country ceases or (b) the solution process is exceeded by the tendency of the river to cut down by mechanical as opposed to chemical erosion. This mechanical down cutting of the river, called CORRASION gives rise to a valley with a V-shaped cross section rather than the vertical sided gorge formed by cavern collapse. It is thus a common feature of gorges in limestone country that upstream they pass into V-shaped valleys.

This mechanism of the origin of caves and their associated phenomena can be applied in every detail to Cheddar. There in the famous Carboniferous Limestone of the Mendip Hills occurs a deep gorge which has been formed by collapse of the roof of a great subterranean cavern. This cavern had been opened out by solution along two separate sets of joint planes mutually at right angles, which accounts for the zigzag course of the gorge. In the cliffs of the east face of the gorge occur the famous caves (Cox and Gough's) while elsewhere are smaller entrances, the whole cave system forming a ramifying net-work within the limestone.

Some three miles up the gorge from Cheddar Village the gorge loses its cliff-like sides, to become a V-shaped valley with gently sloping sides, evidence that above this point the corrosion of the stream exceeded its solvent action, which had been responsible for such important landscape features further down. In the sides of the V-shaped valley there are no signs of caving or other evidence of solution: this valley is entirely the result of mechanical erosion.

DEPOSITION IN LIMESTONE CAVES.

As has been pointed out above, the solution of limestone by carbon dioxide in water gives rise to a solution of calcium bicarbonate which readily reverts to insoluble calcium carbonate. The solution of calcium bicarbonate after passage through many feet of limestone will become completely saturated so that should it be subjected to any evaporation, however small, it will deposit the insoluble carbonate.



Water flowing through crevices and cracks in limestone soon becomes charged with soluble bicarbonate, but should this water enter a large open chamber in the underground system, slight evaporation may occur with the resulting deposition of a little insoluble carbonate. At Cheddar this water enters the roof of the large caverns through joint cracks, drops to the floor below to run away again either through more cracks or as part of a subterranean stream. Some deposition of calcium carbonate occurs on the ceiling while some occurs on the floor.

These deposits grow in size forming finger like masses hanging from the roof — STALACTITES — and similar bodies growing up from the floor — STALAGMITES. On these pendant columns successive layers of calcium carbonate are deposited one upon the other giving the cross section of a stalactite a concentric appearance similar to the annual growth rings of trees. At Cheddar there are several pillars to be seen which result from the growth of a stalactite and its companion stalagmite until they meet as continuous pillars. Stalactites and stalagmites, the most familiar feature of limestone caves, are so well known that they need no further description here. It should be pointed out, however, that the amount of evaporation in a limestone cave, where the atmosphere is probably already highly saturated with water vapour, is very limited. Thus it is that deposition of calcium carbonate is usually very slow, hence the slow rate of growth of the stalactites of Cheddar. The calcium carbonate deposited in these caves is called CALCITE, one of the commonest minerals in nature. The calcite in stalactites is crystalline in composition, the crystallinity being apparent to the naked eye. Crystalline calcite may also be deposited in limestone caves as thin curtain like bodies which follow the pattern of the joints in the limestone, as a covering to the walls similar in appearance to draped cloth, or as an irregular crust on the floor forming terraces and platforms.

A very common variety of calcite found in limestone caves is a more less cellular deposit known as TRAVERTINE which is deposited at a

much quicker rate than the crystalline calcite of stalactites. It does not form stalactitic growths but usually occurs as an irregular coating to the walls and floors of the caves in which it is found. Travertine, like crystalline calcite, is, however, deposited from waters charged with calcium bicarbonate.

In addition to the chemical deposition in limestone areas, the subterranean rivers carry their normal mechanical load of alluvium or silt. In the caves, where the speed of the streams is reduced considerably, the load they can carry is likewise reduced with the result that a considerable deposit of river borne material is nearly always found in the floor of these caves.

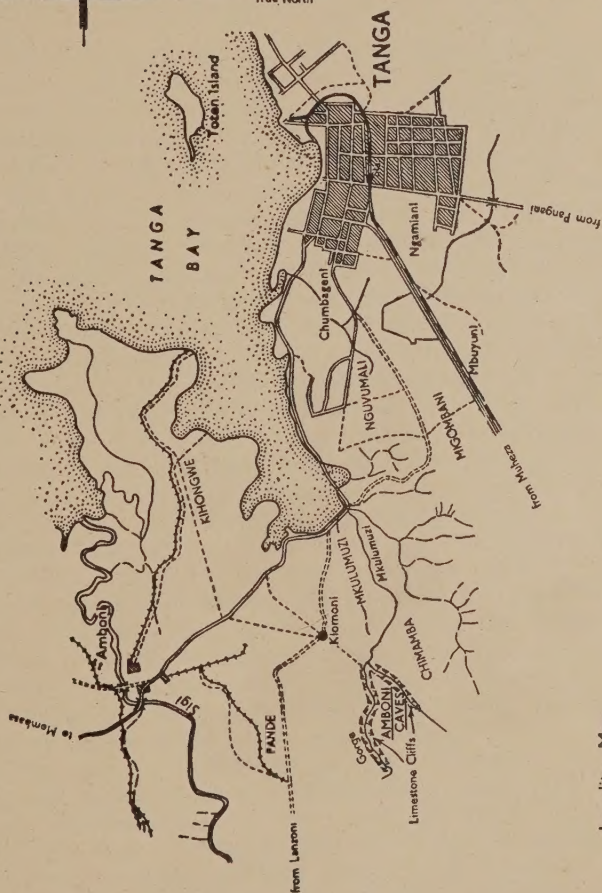
THE CAVES OF CHEDDAR.

The Cheddar Caves occur near the western end of the Mendip Hills of Somerset. The most typical rock of the Mendips themselves is the grey limestone of Carboniferous age in which the caves are to be found. The whole of the Mendipian Carboniferous Limestone is riddled with caves and collapsed caverns but the great gorge above Cheddar with its towering cliffs of 300 feet is undoubtedly the most striking physiographical feature in the whole area. Clearly a gorge of this depth has been formed not by one but by several collapses of the roof. The bottom of the gorge is now occupied by a roadway, for the stream that formed it has disappeared still further underground. It re-appears on the surface not far above the village of Cheddar at the foot of the gorge. As was mentioned above, this gorge pursues a zig-zag course governed by the dominant joint system in the rock. The general trend of the gorge is, however, E.N.E.-W.S.W. while the famous caves occur in the southern face about a mile above Cheddar.

Inside the caves there is much water in circulation, which, dripping from the roof and flowing down the walls, is forming a deposit not only of stalactites and stalagmites but of crustal crystalline calcite on the walls and in places on the floors. Some travertine is also being deposited at the present time on the floors of some of the caves. At Cheddar, therefore, the chemical deposition is still in progress: the caves still reek with water that is circulating in the limestone. The main flow of the river which formed the gorge and its caves has, however, moved to a lower level so that in places the floors are covered with river alluvium, in which at Cheddar have been found the bones and implements of ancient man who hid in the caves, as well as the remains of large animals (bears and wolves) who likewise sheltered there. The presence of large bodies of water in the caves in previous time is further proved by the pot-holing in the roof of the caves where solution has been effected by water driven in under pressure.

THE AMBONI CAVES.

The Amboni caves occur near to the village of Kiomoni which is four miles from Tanga on the road to Lanzoni. The caves occur in a gorge of compact, well bedded, tough grey limestone of Jurassic age. The individual beds of the limestone vary in thickness from 6 inches to



Locality Map
of
AMBONI CAVES

4 feet or more, with an average thickness of 18 inches. The limestone here is horizontally bedded, while no joint planes are visible.

The gorge is cut by the Mkulumuzi River which here is only 4-5 yards wide running in an approximately west to east direction. The sides of the gorge are some 75 to 100 feet high, while eastward the cliffs of limestone turn away north and south marking the position of old shore line cliffs.

Both sides of the gorge are riddled with caves, the main caves themselves occurring in the northern face about $\frac{1}{2}$ mile from the village of Kiomoni.

The entrances of all the caves are pillared by a deposit of travertine while inside the caves themselves the walls are everywhere covered by the same mineral. No crystalline calcite was observed nor were any structures corresponding to stalactites seen. The caves consist of large vaulted chambers interconnected by galleries and tunnels. Everywhere, features such as small pot-holes in the roof, walls and floor, bear evidence of the action of water. Solution in the caves has given rise in places to pillars which represent a residual mass of limestone which has remained after all the rock around has been dissolved away. These should not be confused with the pillars formed by the fusing of stalactites and stalagmites which are essentially depositional as opposed to solution phenomena. In some of the larger caves there are gaps in the roof marking the position of former swallow holes through which water once flowed. As the limestone is unjointed there is no distinct trend in the direction of elongation of the caves as there is at Cheddar where, like the gorge, the caves follow the dominant joint directions. The larger chambers certainly seem to trend in a roughly E-W and N-S direction, but the connecting passages meander irregularly, rising and falling abruptly. It is clear that the horizontal bedding plane in the limestone is the only structural factor that could have controlled the formation of the caves — thus it is that in some places a single chamber splits up into two chambers one above the other, a factor making exploration of these caves with inadequate illumination a dangerous occupation. The underground system must be very extensive, for in every cave the presence of other caves nearby was detected by beating on the walls and floors when a hollow sound was produced by reverberation in the next chamber.

All the caves visited were quite dry; chemical deposition (and solution) had ceased, there was no seepage of water along cracks in the limestone, nor was there the continuous movement of water seen at Cheddar. The cave making episode has in fact ceased except for the slight solution or deposition that may take place in the rainy season when the presence of water in caves is possible either as seepage or even as flood water from the Mkulumuzi.

On the floor of the caves are two types of deposit. The first consists of river alluvium much the same as that found at Cheddar, which had been deposited by underground streams or even by the Mkulumuzi in flood. Much of the floor, of the outer caves in addition, is covered with the guano of the hundreds of bats that haunt them. The guano is an

excellent source of fertilizer, a source which it is believed has been and is being exploited at the present time.

THE ORIGIN OF THE AMBONI CAVES.

The valley of the Mkulumuzi near the caves is without doubt a collapsed cavern. In addition to the evidence of steep rocky cliff like walls of the gorge, this theory received striking confirmation at a point half a mile west of the main caves. Here a huge cleft was seen in the north face of the gorge which at this point is 70 yards wide. This cleft was caused by collapse of a large slab of limestone 20 feet thick. On each side of this vertical slab there was no sign of violent movement of one rock face against the other, but it is believed that the whole slab had dropped bodily for a distance of well over 20 feet. This distance was gauged by the behaviour of a land of rubbly limestone in the rock on either side of the slab which had completely disappeared downwards out of sight in the slab itself. A corresponding fallen slab was seen on the south side, the mass of limestone which once connected the two having been removed by the stream. This slab of limestone marks part of the roof of a cavern which has subsequently collapsed.

On the south side of the gorge just west of the collapsed block of limestone a huge mass of rock some 20 x 30 feet and of unknown depth was seen to dip to the east at 30°. This block, it is believed, represents another mass of roof rock that has suffered gravity collapse; its angle of dip among horizontally bedded limestone seems to suggest this.

The absence of folding and faulting elsewhere in the limestone of the gorge seems to preclude the possibility that the anomalous position of both these limestone bodies is the product of tectonic movement.

The stream when followed westward for another mile was seen to be flowing in a valley with a V-shaped cross section in which feature it agrees with Cheddar.

All this evidence points to the fact that the Mkulumuzi gorge was formed in a manner very similar to that of Cheddar. W. Bornhardt, (1900, *Geology of German East Africa*, Vol. VII p. 424) believed that the caves themselves were formed by the Mkulumuzi River in flood. The first objection to this proposition is that the formation of a gorge requires the solution of at least one cave so that it would seem strange that the old cave, now collapsed to form a gorge, and the remaining caverns should have a different origin. This in itself is not a serious objection, but the presence of swallow holes in the roof of one of the caves would require an entirely new explanation of their origin should the flood theory apply. The craggy nature of the walls of the gorge suggests that the caves were certainly formed before the collapse of the roof of the main cavern in which case the flood theory is untenable. It is true that the caves may have been enlarged to a greater or lesser degree by flooding by the present stream (which, incidentally, would have to rise about 25 feet to do so), but that their formation is entirely the result of flooding seems impossible especially when the extent of the subterranean chambers is realised.

In the tropics, solution of limestone progresses at a much faster rate than in Britain, with the result that cave forming episodes are short.

Even more rapid in the case of the Mkulumuzi, however, was the corrosion of the stream to form a V-shaped valley. The net result is that the zone of subterranean water activity is under 2 miles in length. The water in the caves did its work quickly leaving them after depositing only a thin crust of travertine, — essentially the product of rapid chemical deposition. The lack of jointing in the limestone, which would give rise to cracks in the roof from which water could drip, as well as the rapidity of the cave forming episode both preclude the possibility of the growth of stalactites.

The Mkulumuzi River probably began life as the result of the great movement during Pliocene times which formed the East African Rift Valleys, the caves themselves forming shortly after the river began to flow. No examination was made of the river alluvium within the chambers for artifacts or bones of men and animals who may have sheltered there in early times. No rock paintings were seen but, should they exist, the "decorations" carved in the soft travertine by modern visitors will fast destroy any traces of them. The interest provided by these caves, the possibilities of their further exploration and the examination of the alluvium for signs of ancient culture all warrant their protection by law, a step which now, fortunately, can be made (Tanganyika Ordinances, No. 7 of 1948).

The Kindiga

By B. Cooper.

These notes, written by a game ranger and not by a professional anthropologist, are not intended to be taken as an authoritative treatise on this very primitive and extremely interesting people. Despite the fact that some investigation of the Kindiga has been done from time to time, it is surprising how little appears to be known about them, even by residents in Singida and Mbulu, in both of which districts of Tanganyika they are found. As I have been in contact with them on two occasions, for ten days at a time, and have had the chance of studying them at close quarters whilst they have been accompanying me on a safari, I hope that the present observations will be of interest, and possibly of use, to anyone who may wish to make a fuller investigation of them than I have had the time, or the qualifications, to carry out. No attempt has been made to quote previous descriptions of these people, nor have I added a bibliography at the end of this paper. I have simply endeavoured, to the best of my ability, to depict them as I have found them.

A glance at a map, will show that there are two roughly parallel troughs running north-east to south-west, formed by the Yaida depression and Lake Eyassi. The former gets gradually shallower till it disappears to the south-west. In between these two troughs is a ridge of higher ground, falling into the Yaida depression by a distinct escarpment, and towards Lake Eyassi rather more gradually. To the south-west of this ridge lie the Isanzu hills, whence to the north-east the ridge stretches for about 50 miles. This ridge is undulating, and mostly covered with fairly open forest of acacia and baobab. There are many small ravines, the water from most of which flows into Lake Eyassi in the wet season. Apart from quite a large selection of Game which is to be found there, this country is pre-eminently the haunt of the Klipspringer. Little isolated rocky hills abound, especially on the gradual slopes down to Lake Eyassi. In the dry season water is scarce, although there are numbers of pools that hold water for long periods after the rains are over and which are the haunt of Elephant. Also, there are places where extremely brackish water can be found even at the end of the dry season. The Kindiga know of many hidden places where water collects, out of the reach of animals, in crevices of the rocks. The Elephants also know of places where one would never suspect the presence of water; in fact, whilst following an old bull one day his tracks led us to a very welcome supply at which he had just slaked his thirst. This ridge may be said, roughly, to define the limits of the country of the Kindiga. They do, however, in some cases spend part of the year along the north-west side of the Yaida swamp, and the site of an old, abandoned hunting camp was found on a rocky kopje to the south-east of the Yaida depression, where a small party had spent a few days. Around the foot of the Isanzu hills near the most outlying villages of the Wanyisanzu, there are Kindiga who cannot be regarded as typical, since they are in contact with the Wanyisanzu and actually culti-

Kindiga Country — on safari in the baobab area—



Kindiga group camp — occupied a week or ten days till local supplies of baobab fruit are exhausted.

vate to a small extent. One of these, by name Salibogo, accompanied me on both of my journeys through this country. He told me that his mother was a true Kindiga, but that his father was a Mnyisanzu, who had left his people to join the Kindiga, chiefly to escape the Hut-Tax. It would appear that there is a continuous infusion of new blood into the tribe — if such it can be called — but that this is almost entirely on the male side. It is very doubtful whether any Kindiga man could ever manage to accumulate the money or stock required to purchase a bride from any of the surrounding tribes.

These people live a very natural type of life, which is probably a link with more primitive times, before the Bantu invasions of this part of Africa. I have seen the women out collecting the seed-pods from the baobab trees, which provide their principal source of sustenance for about five months of the year. The cream of tarter pulp, together with the seeds, are pounded on a flat stone till reduced to the consistency of meal. This is then mixed with water and cooked very slightly. When the supplies of baobab fruit fail, the Kindiga are dependant on certain roots, of which I am unfortunately unable to give the species. I have not seen them collecting these, since each of my two visits coincided with the height of the baobab season. Also, my game-scouts have found them collecting large quantities of wild fruits, when these have been ripe. Honey is, of course, another staple and they are adepts at following the Honey-birds. They appear to be practically immune to the stings of the infuriated bees, as is the Ratel or Honey-badger. They employ little smoke to stupify the bees, and in fact, take fewer precautions than any other native honey-hunters whom I have watched. Sometimes they succeed in killing game, even the largest, such as Rhino, Buffalo and Giraffe, with their poisoned arrows. At several camps which I visited there were no signs of any recent hunting, except of birds. All the game-birds — Francolin, Bustard and Guinea-fowl — are extremely wary and hard to shoot in Kindiga-land. They all appear to know the range of an arrow, which usually causes them to get up well beyond the range of a shot-gun and the only effective weapon against them, as I have found, is the .22 rifle. Even then, one can seldom get a shot at under fifty yards or so. Kindiga diet is not, however, confined to game animals and birds. They will shoot at almost anything with four legs, or with wings, that they come across. I once found a large group subsisting almost entirely — apart from the usual baobab fruits and honey — on the white European Storks, which fill the Yaida valley just after the rains have begun. They shoot the storks after they have gone to roost in the trees, often skewering two or three on one arrow. These birds are on the protected list in Tanganyika, but the numbers which these people kill can have little effect on the tens of thousands of storks which seem to fill the valley. I have also seen them cook — or merely scorch — such diverse fare as a Squirrel, a Tortoise and a Kite. They will even eat Hyaenas when hard put to it, and about the only things I know of at which they draw the line, are Snakes, Frogs, and Toads. I believe that they sometimes eat Lizards. Of Elephant meat they are inordinately fond, and I have seen them returning from the carcase of one which I shot, with

huge slabs of meat draped over their shoulders and looking just like some form of garment.

Of dress they have little. Those living close to the comparative civilization of Isanzu have even been seen wearing ragged shirts and shorts. In the typical state, the men and boys wear little but a piece of rag round their loins. One old man, said to be a true Kindiga, who accompanied me for several days, wore nothing but the skin of a Genet around his middle, with the tail hanging down behind! The very young children wear nothing at all, but the girls as they get older, have a short skirt. The women are clothed for the most part in a very seemly manner; occasionally they wear cloth, but usually the skin of an Impala, or Bushbuck, from which the hair has been removed by scraping with a knife, and roughly smoke-cured. In fact, these skins are usually considerably softer than those worn for instance by the Masai. The women have a few bead ornaments, as do some of the men, but they do not weigh themselves down with such things as is the case with some tribes. Blue and white appear to be the favourite colours.

Housing problems are easily solved. Sometimes, as when out hunting or foraging, Kindiga will sleep around a fire. Usually, however, they will make a camp of grass huts, even when, as usually happens, their stay at one spot may last less than a week. These abandoned camp-sites, consisting of from five to a dozen huts, can often be found as one journeys through their country. The most favoured site for a camp is nearly always on a little rocky platform, near the top of one of the numerous kopjes already mentioned as being prevalent all over the area. No use appears to be made of rock shelters, although a few are to be found in the area. Around Kirumi and Isanzu, in the Isanzu hills, are several caves with rather crude paintings of animals and men. These are of uncertain date, but would appear to be fairly recent. The Wanyisanzu claim that these paintings were already there when they first colonised their country, which was probably not more than 100 years ago. There appears to be no reason, however, to connect the present Kindiga with these caves and their paintings, since they always construct huts, and would appear to have no artistic leanings whatever. The huts are up to about 8 feet in diameter and of about the same height; they are conical, and formed merely of withies stuck into the ground and bent together. Around these a rough framework is built and sheaves of grass tied on. These do not quite reach down to ground level, thus leaving a space for ventilation at the base. Dried skins of Zebra, Wildebeest and Coke's Hartebeest cover the floor. There are a few earthenware cooking-pots and the insides of the huts are fairly clean and free from any vermin. I have, in fact, used a recently abandoned camp on one occasion, as shelter from a very heavy thunder-storm, and it was surprising how well these flimsy structures defied the elements, although quite large acacia trees were crashing down all around and my own tent, struck by the same gale of wind, was found completely flattened and its contents soaked, on our return.

The chief weapon of the Kindiga is the bow. This is outsize and at least twice as powerful as those used by other hunting tribes, such as the

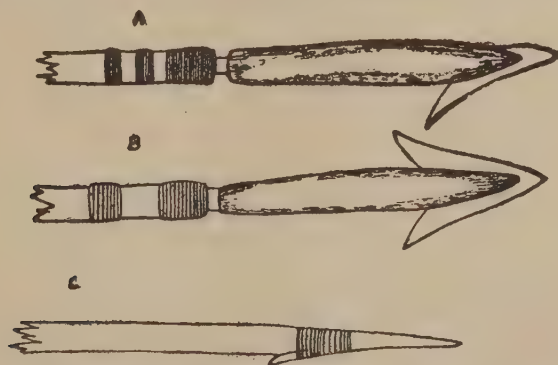


Women and children of a Kindiga group.



Young Kindiga archers at practice.

Wasandawe, in nearby Kondoa district. I have estimated the pull of some of their bows, which I have tested, at over 100 pounds. The largest bow which I have seen and which I bought, incidentally, from my guide, Salibogo, measures $81\frac{1}{2}$ inches round the curve, $3\frac{3}{4}$ inches in girth at the centre, and 78 inches along the string. Heavy poisoned arrows average about $3\frac{1}{2}$ feet in length and up to .45 inch thick. The fletching (feathering) is somewhat primitive and the nocks — or grooves into which the bow string fits — are made after the usual native fashion by splitting the end of the arrow shaft, inserting a small wedge, and binding with tendon. The poisoned heads are large and may measure up to 2 inches across the barb. Details of these are shown in the accompanying figures, and there may be only one barb in some cases. A comparatively large amount of poison is adherent to the head, and the whole is protected, whilst not in use, by a strip of very thin soft hide. These bindings, when the arrows are in use, are fastened round the bow-stave. The metal end of the arrow is mounted on a wooden plug, which is detachable, fitting into a hole in the end of the shaft, which latter is bound with tendon to prevent splitting. Guinea-fowl feathers may often be employed for fletching but those of the larger vultures are preferred. Feathers are bent along the mid-rib, and four are generally used. For birds and small game such as Squirrels or Dik-diks, much longer wooden-pointed arrows are used. These may be anything up to $4\frac{1}{2}$ feet in length and are either straight-pointed or have a little wooden barb fastened on by means of tendon. The fletching of these is usually less well done than in the case of the poisoned arrows, and the diameter of the shaft usually slightly less. Some barbless non-poisoned iron-pointed arrows are often carried, and are used for shooting the smaller game and for finishing-off wounded animals.



TYPES OF ARROWS USED BY THE KINDIGA TRIBE.

- A. Poisoned — Single Barb.**
- B. Poisoned — Double Barb.**
- C. Plain Wood fitted with Wooden Barb.**

(Five-twelfths natural size.)

The trajectory of the arrow is comparatively flat up to about 50 yards, at which distance their shooting is fairly accurate. I believe that they aim,

in most cases, to strike a vital spot of a particular animal, and do not merely rely on volleys of arrows at long range to hit one or two in a herd. When hunting, two or three men will often work together, and one may copy the Lion's tactics of driving the quarry towards his partner who will remain in hiding near the beast's likely line of retreat. The great advantage of the big arrow would appear to be its comparatively heavy impact, which drives the poisoned head well in. The effect of these arrows, as compared with those shot by most other natives from much lighter bows, can fairly be compared with that between a .450 and a .303 rifle. The maximum range is not more than about 150 yards. They were very surprised when during my second visit to them I carried a Swedish steel bow, with a steel string, of only 46 pounds pull. Using 28 inch arrows of about .303 inch calibre I was able to out-distance them by between 30 and 50 yards. The muscular power developed by these archers would appear to be completely out of proportion to their size, or to that of the muscles employed. My guide is about 5 ft. 4 inches in height, and very slim, but wiry, in build. He surely cannot weigh more than 100 lb., and his muscles of arm, chest, and back are not large compared with those of the average African, who could not begin to pull his bow to full stretch, or to send an arrow more than about 50 yards from it. But the degree of contraction and knotting of the muscles of the shoulders and back have to be seen to be believed. This is well shewn in the photograph. The ability to pull these enormous bows may be due partly to the hard and natural life which these people lead, and partly to their training from youth up in the use of abnormally long and heavy bows. The photographs of small boys with their toy bows used for shooting small birds, etc., will serve to illustrate how early they begin to develop in this art.

Samples of the poison taken from a number of arrows were recently submitted to the Government Chemist at Dar-es-Salaam for analysis. The active principle was found to be a cardiac glycoside of the Strophanthin class. The weight of poison on one arrow was 4.9 grams and the percentage of cardiac glycoside, calculated as ouabain, was 2.7 per cent. General qualitative analysis suggested that the active principle was not strophanthin as obtained from *Strophanthus eminii*, but it was stressed that identifying actions were difficult to apply and the poison may very well prove to be a mixture with chiefly strophanthin and its reactions interfered with by the presence of other substances. Histological examination clearly revealed the hairs from seeds, and seed coats of *Strophanthus*, possibly *Strophanthus eminii*. A good deal of the material was hard to identify, but this may well contain tissues of *Adenium* as has been suggested. When I asked the Kindiga what plant they used for the preparation of their poison, I was shewn a small shrub which was growing near to the house of the chief, Mtemi Gunda, at Kirumi in Isanzu. They told me that this had been brought by the Kindiga at the chief's request from the north-eastern end of Lake Eyassi where it grows. I have not myself seen this shrub, or small tree, growing in its natural habitat. Specimens of this shrub were sent to the Systematic Botanist at the East African Agricultural Research Institute, Amani, and were found to be of a species of



Kindiga boy archer.



Kindiga camp scene.

Adenium, one of the Apocynaceae. It is known that several species of this genus are used in various parts of Africa for the preparation of arrow poisons. For instance a crystalline glycoside named echujin and a resin echujon have been isolated from a species used in south-west Africa, and from a West African species a complicated cardiac poison named Ateniine has been prepared, which has an action analogous to Digitalin but complicated with an effect on the central nervous system, the nerve mechanism of the heart, and even on the heart muscle. Dr. Krause recorded in a German periodical in 1910, that the "Watindiga" prepared a poison from a species of *Adenium*. The use of the terms "Watindiga" and "Kindiga" to describe this tribe is somewhat confusing, but during my visit to them I heard only the word Kindiga used. Presumably these two names refer to the same tribe. I have not observed the effects of the poison, but am told that it is extremely effective, even against Rhino. In any case, the amount used on each head is greatly in excess of that found on arrows of such tribes as the Wandorobo, Wakamba, Wasandawe and Waikoma.*

The Kindiga do not carry spears or shields of any sort. Nor do they often have the ubiquitous bush-knife, without which hunting natives are seldom found. They have a few small native-made iron axes of the type which is common all over the Central Province. Usually, a Kindiga man will carry one, two, or even three primitive knives, with wooden handles and raw-hide sheaths, which are attached to the leather thong around his waist. All these iron implements are made by certain families who are expert smiths, or they may be obtained from the Wanyisanzu in exchange for items of barter such as skins, or meat.

The general standard of health observed in these people was surprising. At each large camp which I visited, in some cases containing upwards of 35 all told including women and children, I enquired whether there were any sick: I found none to treat — even the eye infections usually so prevalent were absent. I was also surprised at the numbers of children, and nearly half the women appeared to be pregnant.

From enquiries that I made, it would appear that marriage takes place after only a very short engagement. The bride price is very small and usually consists of only a few beads worth not more than a shilling or two. Monogamy is the rule. Sometimes two or three adult men will be found

* The following note has been kindly supplied by Dr. Raymond.—Ed:—

A detailed description of Kindiga arrow poison was given in my article on Tanganyika Arrow Poisons p. 60 onwards, under the heading: Arrow Poisons derived mainly or entirely from species of *Strophanthus* (*Notes and Records*, No. 23.)

Adenium species have a long history as the main ingredient in the preparation of Kindiga arrow poison but from actual examination I have been unable to find any supporting evidence for their use. All the poisons from this area examined have contained portions of *Strophanthus* seed but they could also contain *Adenium* and escape detection.

Regarding the active principle present in *Adenium* the references quoted by the author are to papers published before the completion of more modern work on the constitution of the cardiac glycosides. It seems fairly certain from the descriptions in the literature that the active principle belongs to this class and would in its action be closely related to that of *strophanthin*, the active principle of *Strophanthus*. The question would well repay examination in the light of more recent work but unfortunately the amount present in the fleshy stem of the *Adenium* plant is not great and although the seeds are richer in the active principle they are extremely difficult to obtain.—W.D.R.

living together, with their wives and children. Some of the settlements appeared to consist of several families, with one or two older people, grandparents of some of the children. No really old or infirm Kindiga were seen, and it is probably a case of the survival of the fittest for the men, though some of the grandmothers were a bit withered.

The Kindiga appear to follow some form of primitive religion but I did not see any signs of "tambiko" huts such as are made, for instance, by such tribes as the Waha and Wabende in the Buha and Kigoma districts of the Western Province of Tanganyika. They do not appear to be at all superstitious, nor do they show any fear of the dark.

Tribal authority as such hardly exists, and the older men of each settlement appear to govern their people. I have, however, heard that they have some sort of a witchdoctor or medicine man to whom they give some allegiance. Also, the Kindiga living on the fringe of the Wanyisanzu recognize the Paramount Chief "Mtemi" Gunda of this tribe, to a certain extent. They seem to be a peaceful people, and I am told that they do not quarrel much, amongst themselves, and that any disputes are settled on the spot, usually without bloodshed.

The relationship between the Kindiga and Game was naturally one of my principal interests. I can safely say that the game is in little danger from them, provided that they continue in their present mode of living. The fact that they do not cultivate nor keep stock of any sort, means that they do not need to kill animals in defence of their possessions. Their only competitors for food, are the Baboons which are also fond of the fruits of the baobab trees. The Kindiga are in a state of equilibrium with the fauna, and do not cause wasteful fires when engaged in honey-hunting, as most bush people do, this being largely due to the extremely small use of fire in smoking-out the bees from their nests, as previously described. Most of the animals which they kill regularly for food, such as Wildebeest, Hartebeest, Zebra, Impala etc., are common all over their area and especially in the Yaida depression and along the shores of Lake Eyassi. Of the rarer, or protected, species such as Giraffe, Greater and Lesser Kudus, Roan etc., they kill very few, as evidenced by the absence of skins of these in their huts. An examination of one hunting camp site on the top of a kopje to the south-east of the Yaida depression, revealed the remains of the following animals, which had probably been killed in the course of a short stay during 1945:—2 Impala, 2 Warthog, 1 Porcupine, 1 large bird. The area around this camp still abounded in game.

The only dangers with regard to this tribe's future relations with game lie in their contacts with civilization, both at Isanzu and Mangora (Mbulu) limits of their range. At the former place I found evidence of the existence of rather indefinite Kindiga-Mnyisanzu types living in more or less fixed abodes, yet retaining the hunting methods and powerful bows and poisoned arrows of their more typical brethren. Some barter of game skins, for millet and other articles, was temporarily stopped but may begin again. No action was taken, in any case, against genuine Kindiga who habitually use poisoned arrows for hunting although this is an offence against the Game



Kindiga Hunters. Note very long bow and arrows, the latter not carried in a quiver but held between legs when shooting.

Ordinance in force in the Territory. Nor is action likely to be necessary so long as they continue in their present ways. They were simply told that Giraffe, Kudus, Rhinos and such like are protected and asked not to hunt them. For the time being there can be no reason for enforcing the Game Laws in their area, except to discourage the killing of Rhinos in order to sell horn to traders.

I have made no study of the language of these people, but can only say that it abounds in clicks but is not similar to that of the Sandawe living in the Kondoa district of the Central Province, who also employ clicks. I was able to check up, from living examples, many of the names of animals found in the Kindiga country. Except in one or two cases where the Kindiga employed a word borrowed from the Kinyisanzu dialect, these names are quite different from those used by any other tribe of which I know.

In conclusion, I should like to say, that to anyone wishing to visit this region to further the study of these interesting people, I shall be only too glad to give any information which I may happen to have omitted from this account.

Notes on the History of the Wasegeju

By *E. C. Baker, O.B.E.*

FOREWORD

Though the history of East Africa has been dealt with adequately in standard works by eminent authors, little has been written of the past adventures of individual tribes and what has been recorded in short articles is usually a narration of facts which, though of definite interest and value, evoke little of the criticism which must be aroused if the known history of the various tribes is to be codified and unrecorded facts, which are necessary for the amplification of existing records, are to be brought to light.

There must be a vast amount of information in official archives and in the pigeonholes of private writing-desks, the owners of which excuse themselves from sharing their knowledge on the grounds that their notes are too fragmentary for publication. Moreover, the tribal history and legends have been handed down by word of mouth from generation to generation but are now in danger of being lost to posterity since the present generation of Africans sets little store by its tribal culture and is, for the time being, interested almost exclusively in that of Europe and America. Nor is the younger generation altogether to blame, for, among the Wasegeju at any rate, the old men tend to consider that the past history of the tribe is not a fit subject for discussion with or in the presence of the young and I was, on more than one occasion, told that when a son wishes to obtain such information from his father he must first induce in the elder a suitable frame of mind by providing him with meat and drink on a scale more lavish than that of the usual daily meal.

There must, in the future, be a swing of the pendulum when each tribe will seek for information as to the doings of its ancestors but, unless an attempt is made now to collect the available data, the information will be unobtainable and the tribe will be deprived of the traditional background without which the community becomes the soulless imitator of the alien culture with which it comes into closest contact.

In the following notes I have endeavoured to set out all the information available to me regarding the history of the Wasegeju. Much is incomplete and much requires correction but I have set down each item as it was conveyed to me by word of mouth or in writing in the hope that others will fill in the gaps and correct the details with the object of producing a record of tribal prowess and virility the perusal of which will increase the self-respect of the Wasegeju and give them the traditional background of which they, in common with other tribes, are so sadly in need at the present time.

PART I — MYTHS AND LEGENDS

The history of most African tribes is remembered by the tribal elders to a greater or lesser extent, but owing to the fact that no importance is attached to time and, generally speaking, no written records are avail-

Returning with elephant meat.



Cooking elephant meat.



able, it is usually difficult to sort past events into any chronological sequence, with the result that the information obtainable loses much of its interest and value. This is, to some extent, true as regards the history of the Wasegeju (i.e. the people of the Segeju tribe whose lands are known as Usegeju), but the wanderings of these people brought them into contact with the Shirazi (Persian) and Portuguese colonists of East Africa, both of whom have left written evidence of their activities, and so one is able to trace their movements since the beginning of the sixteenth century with a fair degree of accuracy.

The Wasegeju are at the present time in occupation of the East African coast from Vanga, a few miles north of the Kenya-Tanganyika boundary, to Mwambani about seven miles south of Tanga. Those in Tanganyika numbered approximately 12,000 in 1931 and when the figures for the census taken this year (1948) are available they will probably be found to have increased slightly. The Wasegeju of Kenya are included in "coastal tribes" which in Kwale district total 1,787, all told. It seems almost incredible that so small a community should have had so vital an effect on East Africa and should have done so much to stem the forces which, surging upwards from the south, would, had it not been for the valour of this admirable tribe, almost inevitably have swept away the existing standards of civilisation and retarded cultural progress for centuries to come.

There is a tradition that they, or the people from whom they sprang were originally settled at Jinebi or Jenaba, which Sheikh Ali bin Hemed¹ supposes to have been in Egypt. — so many African peoples claim to have come from Egypt but one must remember that, in their parlance, it often includes Arabia and Persia. Jenaba was a region in the Hadhramaut situated on the mainland facing the Kuria Muria Islands and was, with Dhofar, one of the oldest and most productive of the frankincense districts of Arabia.² Why the Wasegeju should have picked on so unusual and little known a place, I am unable to say — unless it was actually the birthplace of the tribe. It is said that they fled from Jenaba to escape the wrath of its ruler — thus early did they demonstrate their inability to live at peace with their neighbours — and wandered to the Sudan where they settled for a time but were again expelled owing to friction with the surrounding tribes. We next hear of them at Madinat-Rikhami, the marble city, which was one of the fabled nine centres from which sprang the original tribes of Africa.

Sheikh Hemed bin Abdullah,³ describing these cities, quotes the legend to the effect that when God created the land of Africa there were no humans living in it but only animals and djinns. The years passed and one Adilikra bin Shadade, arrived with his family, his relations and a number of his contemporaries and they built the nine cities and dwelt in them. Eventually, all these settlements were destroyed by cold, famine or pestilence which killed off most of the inhabitants and forced the remainder to flee. The survivors dispersed and were the fathers of all the tribes of Africa which, according to the Sheikh, numbered thirty-two

If, he says, a tribe did not spring from this stock it is not one of the original African tribes.

Rikhami, he says, was situated 'near Somaliland' (other say it was in the Sudan) and was ruled by a chief named Kanaani (perhaps it was that Kanaani who was the son of Nimrod) but, after many years, the inhabitants were stricken with aches and fevers so that the majority of them died and God sealed the city with darkness which prevented anyone from gaining entrance. Those who survived scattered and their descendants are the Wasomali, Wagalla, Wanubi, Wabarabara, and the Wasinga who, according to Sheikh Hemed, later became known as the Wasegeju.

The legend of the nine cities seems to be an early attempt to classify the races of Africa and it will be noted that the tribes which originated in Rikhami coincide, to a surprising extent, with the Eastern Hamites who were described by Seligman as comprising "the ancient and modern Egyptians (in the latter case recognizing the fusion of blood in the upper classes), the Beja, the Berberines (Barabara or Nubians), the Galla, the Somali and Danakil and, though mixed with Semites and negroes, the Abyssinians." Unfortunately, the Sheikh was not always so successful in his grouping of tribes.

Another of the nine cities, Madinat-Niran, was built on the slopes of a volcano at Singa 'near the Galla country' or, as others say, at Karamoja in Uganda, and was ruled by Adi bin Kanaan. Destruction came in the form of a giant serpent which swallowed all but a handful of the people and God closed that city with fire. One imagines that the volcano erupted more violently than usual and that the devouring serpent is a metaphoric description of the snake-like streams of lava which flowed down the mountain-side and submerged both inhabitants and buildings. The survivors were the progenitors of the Muware, Daruwesh, Warusambo, Wambali and Wasongo. The Daruwesh are the desert Arabs, and Burton mentions the Wasongo as being a tribe of Shirazis who ruled in Kilwa after the Nabhan Arabs had died out.⁵ Who the other three tribes may have been I cannot say.

The tradition that the Wasinga sprang from the survivors of Rikhami and that Niran was built at Singa, coupled with the statement that the first city was ruled by Kanaani and the second by Adi bin Kanaani, suggests a belief that those who fled from Rikhami, or the Wasinga at any rate, settled at Singa, to which place they were led by the son of their old chief. On the other hand, none of the tribes who are said to have been descended from the people of Niran can be identified with the Wasinga.

Sheikh Ali records that there was insufficient grazing for the Segeju cattle at Singa so they moved to Kirau whence they gained one of their many tribal names:—the Wakirau. Kirau is in the Shungwaya area which is shown on maps dated between 1670 and 1705 as lying about 1° S and 67° E. or, in other cases, on the site of the present town of Kismayu.⁶

Never, one would imagine, had a tribe so many names as had the Wasegeju and it may avoid confusion if they are mentioned at this stage in the relation of their tribal history. The people themselves say that when they were at Shungwaya they were known as the Kilio Muhammed

and that there were two other important tribes — the Gara Muhammed who, they say, were the Somalis and another unidentified tribe called the Bimali Muhammed. But I have been told that the Somalis sprang from one Ramu who lived at Aden and it is much more likely that the Gara Muhammed were the Galla — r and l are interchangeable in many Bantu dialects.⁷

The Wasegeju say that during the rule of Muhammed they were Muslims but reverted to paganism under Kilio as they had few womenfolk of their own tribe and had married into the local tribes who were pagans. It is certain that they were known as the Kilio after they reached their present tribal lands and also as the Wakirau. A yet further name given to the tribe was the Daiso, Daicho or Dhaicho gained when, after fleeing from Mangea and Malindi to escape their enemies the Galla, they settled at Dhaicho in the Kamba country. They still have a distinctive dialect which belongs, I am told, to the Kikuyu-Kamba group and was doubtless acquired during their stay in Dhaicho. It does not take long for a tribe to change, or at any rate, modify its language, and in the case of the Wasegeju, who were warriors and made a practice of marrying the women of any area in which they happened to find themselves, the process must have been effected very rapidly — the sixty years or so during which they lived in Ukamba would have been sufficient for the purpose. The other alternatives are that the Wasegeju and Wakamba spoke a common dialect of the Kikuyu-Kamba group before they settled in their respective countries or that the Wasegeju formed a part of the Kamba tribe from which they later separated; but I have never heard anything to support either supposition. All the available evidence goes to show that they settled, for a time, in Dhaicho on their way to their present habitat.

As for their sobriquet Wasegeju: Sheikh Ali notes that, according to some members of the tribe, they became known as Wasingaji while they were living at Singa and that in course of time the name developed into Wasegeju, but it is generally accepted that the name is derived from the ki-Swahili *kusega* — to tuck up one's clothes, and *juu* — high; i.e. the people who girded up their loins to give themselves greater freedom of movement. Most members of the tribe insist that they were not known by this name until they crossed the Uмба River, when their appearance was so alarming that the women of Vumba whom they met working in the fields ran screaming to their men-folk and told them. "There are men coming and their clothes are tucked up (wasegee juu)." Their arrival at Vumba, however, did not take place until the seventeenth century and they were certainly known to the Portuguese as Mossungalos when they were still round Malindi and Mombasa. Maps dated between 1700 and 1778 show them as living in that region and describe them as Mosseguales, Mossegayes and, finally, Mosseguejos, usually followed by a brief comment on their ferocious and bloodthirsty disposition.⁸ As a matter of fact the Wasegeju were in their present tribal area when these maps were compiled — one can only imagine that the cartographers obtained their information from earlier Portuguese records.

There is great confusion over the names of the early leaders of the Wasegeju, some of whom appear — still leading their people — after a silence of a couple of centuries. A chief named Pununu was ruling during the period of settlement at Shungwaya and some give his parentage as Pununu bin Malau bin Gau. Others say that Malau was brother of Pununu and had a son named T'oja, while yet others say that T'oja was the son of Pununu. Sheikh Hemed tells us that Gau was the ruler when the tribe was driven from Singa by the Somalis or, according to others, by the Wagalla. As stated above, Sheikh Ali records that there was insufficient grazing for their cattle at Singa so they moved to Kirau in the Shungwaya area. Be that as it may, Shungwaya is regarded by every man of the tribe as his ancestral home and few have any knowledge of any earlier dwelling place. Mzee Bege claims that while at Shungwaya a single chief ruled the Wagunya, Somali, Galla, Barawa and the Wakatwa who, he says, were the Wasegeju; and it would, in fact, appear that Shungwaya was a halting-place or centre at which a number of African tribes were congregated before they dispersed and travelled south to their present areas.

Sheikh Ali tells us that there were two sub-divisions of the Wasegeju; the Watumbulu and the Waramu respectively (there is nothing to indicate that the Waramu were in any way connected with Ramu the father of the Somali). He tells us that, according to former tribal custom, the child of a woman who had conceived before the completion of her initiation rites — i.e. before she could be married — was called a Mramu, while those whose mothers had completed the rites were known as Watumbulu. Each section lived in separate villages but there was, he says, no other distinction between the two sub-divisions. One would have expected that the children of mothers who had not completed their rites might be killed or abandoned, and I was told that such was the practice among the Wambugu of Lushoto District, but my informant added that when, after the German occupation, the killing of such children constituted a criminal offence, their mothers were handed over to the Wasegeju before the infants were born.

Mzee Bege mentions the two groups but does not say how they came into being or what were their functions. Both he and Sheikh Ali speak of Waramu and Watumbulu chiefs. Thus, Chief Malau is said to have been a Mramu and Pununu who may, or may not, have succeeded him was a Mramu according to Bege while the Sheikh tells us that he was a Mtumbulu. T'oja, son or nephew of Pununu, was according to Sheikh Ali made Chief when Pununu was killed, but was obliged to follow the tribal custom and live in the village of the Waramu even though he was the chief's son.

It is extremely difficult to discover the origin of the sub-divisions, for not only have the people entirely neglected their past history since they embraced Islam, but there is a strong disinclination on the part of some of the elders to tell even their own children about what happened in former days unless they have had their palms greased beforehand. Lubricants of this sort may loosen the tongue but they are also liable

to stimulate the imagination to such an extent that the information so obtained is completely unreliable. I was unable to obtain any satisfactory solution to the problem but have recorded what I was told on the chance of its being of service to some future enquirer.

The elders of Moa insisted that the Waramu and Watumbulu were age-grades and gave me the following cycle:—

1. Watumbulu.
2. Waramu.
3. Washere.
4. Wakivurandi.

Members of one age-grade could not marry members of one of the others. The elders could not tell me if the cycle was repeated as the grades became obsolete and were forgotten when the tribe embraced Islam.

At Manza, a village of the Boma clan, I was first told that the Wakamadhi were Watumbulu and the Waboma were Waramu but there is nothing to support this statement: in fact, members of both sub-divisions are said to be found in clans other than the two mentioned above. Later, the Manza elders gave me the following cycle of age-grades which, however, makes no mention of the Watumbulu and Waramu who, they still insisted, are the Wakamadhi and Waboma:—

1. Ndengiamwe.
2. Kivingo.
3. Shere.
4. Wakivurandi.

The children of No. 4, the Wakivurandi, take the name of No. 1, the Ndengiamwe, and so on.

At Petukiza an elder gave me the following names of past generations. There does not seem to be any cycle but each generation is given a fresh name, as is the practice among the Bakuria of Musoma District.

- | | |
|-----------------|-----------------|
| 1. Watumbulu. | 5. Mshoko. |
| 2. Waramu. | 6. Wakivurandi. |
| 3. Wadengiamwe. | 7. Washere. |
| 4. Kivingo. | |

When he had got thus far a younger man said: "Stop! If you talk thus openly of the past you will die." The elder looked confused and said: "Now we are Muslims we do not use the names; if we did we should now be . . ." I could not catch the name and he would not repeat it.

All one can say is that Watumbulu and Waramu are terms which probably refer to age-grades but that the system has now been dropped and, to a large extent, forgotten.

All are agreed as to the odium which Pununu incurred when he became Chief of the Wasegeju, for he decreed that every betrothed girl should be brought to him in order that he might deflower her. Mzee Bege⁹ quotes a legend and says that God was wrath at such practices and loosed civil war upon the tribes congregated at Shungwaya. He says that there was a lake called Ramu (it is peculiar how the word keeps recurring) at which all the tribes watered their cattle and obtained clear water for their household needs. Each tribe or clan went to the lake in turn and

each kept its turn for three days after which the order was changed. On one occasion when the Waramu had precedence the Watumbulu, who followed them, found the water so muddy and churned up that neither man nor beast could drink it. All the tribes grew angry with the Waramu thinking that they had fouled the water out of spite but later, when the order of precedence changed, the Waramu found the water similarly befouled.

Now there was a youth born of a headstrong and fearless woman and he stood forth and said, "Each day we go to the lake and each day these other small tribes prevent us from watering our flocks. To-day I myself will take our herds to the lake and water them." The elders agreed and the youth took the Waramu cattle down to the lake early before the other tribes had set out; but they came up shortly and a fight ensued during which the young man killed five men without injury to himself. And when he had driven off the other tribes he watered his cattle and returned home.

Then the other tribes were incensed and civil war broke out with heavy slaughter on both sides. Until, one day, a woman of the Watumbulu went to draw water and saw a great bird flapping its wings and churning the water into mud. And when she saw the bird she ran back to the village and said: "*Soni raramu kitebula massi* (*soni* — come; *raramu* — ?; *kitebula* — is stirring up; *massi* — the water)." And the elders came down to the lake and saw the bird which flew away on their approach and did not appear again. So all the tribes — the Wagunya, Wasomali, Wagalla, Wabarawa and Wakatwa, — made peace.

Mzee Bege related the above legend in great detail but few corroborated him and it was only recently that the Moa elders, a singularly frank lot of men, told me that the legend really concerned the Wadigo and that the incident, which caused a dispute between two sections of the Wadigo, took place at Yombo in the Kwale area of Kenya. The scene of the incident varies — some say that it took place at Kirau — but it seems to be a fact that it is a Digo and not a Segeju legend. This is interesting as showing how folk-lore may be developed and how, in certain circumstances, entirely fictitious tribal affinities, alliances and disintegrations might be evolved.

Friction between the Wasegeju and the neighbouring tribes occurred periodically while the Wasegeju were living at Shungwaya. The Galla youths aroused the jealousy of the Segeju warriors by hanging round the kraals of the Wasegeju and courting their young women. A Galla youth named Mwiru or Mura was the lover of a Segeju maiden named Yoya (several other names are given but the correctness of any one of them is doubtful), but the affair came to the knowledge of the girl's menfolk who killed Mwiru and buried him in the middle of the cattle kraal. The Wagalla came to the village in the course of their search for their tribesman and found Yoya resting there for she had a bad leg and could not walk. They asked her if she had any knowledge of Mwiru's whereabouts and she (she still mourned for her lover) told them to return on the morrow when all were at work in the fields or herding the cattle and

the kraal would be empty. Next day the Wagalla returned and Yoya showed them the spot where Mwiru was buried. The Wagalla dug up and identified the remains and returned to their village where they collected their warriors and attacked and defeated the Wasegeju.

Another version of this legend says that Yoya told the Wagalla that the Wadigo had killed Mwiru whereupon they made war and routed the Wadigo. Later, however, the Wagalla revisited Yoya's kraal and found that the Wasegeju had killed her because, they said, "She was a very intriguing woman and we don't want such women among us." The Wagalla put two and two together and realizing that the Wasegeju, and not the Wadigo, had killed Mwiru made war on them in turn and defeated them. The Wadigo, however, deny this and say that they left Shungwaya when Mwiru's body was discovered as they did not want to be involved in the fighting.

Relations between Pununu and his people became worse and worse until, finally, matters came to a head. His vizier had a son who was betrothed to a girl and wished to marry her, but before doing so it was his duty to send her to Pununu in order that the Chief might act according to his wont. The vizier was ready enough to let the girl go but his son and the other young men of the village refused to let her do so and told the vizier that if he felt compelled to let his master have his way he should invite Pununu to come to his (the vizier's) house which was some distance away. The vizier agreed and the necessary arrangements were made but, in the meantime and unknown to the vizier, the young men selected one of their number, a stout-hearted lad and a Gunya by tribe, and dressed him in women's clothes and put him, instead of the bride, in the room set apart for Pununu. The latter arrived and, leaving his retinue outside the vizier's house, made his way to the bridal chamber. No sooner had he entered than the young Mgunya attacked him, stabbed him to death and after cutting off his head carried it outside the hut and exhibited it to all present as proof that the chief was dead. When those waiting without saw the bloody head and realized that they had nothing more to fear from their chief, they fell on his retinue and killed it to a man.

When the news of Pununu's death became known, his family with its Waramu adherents attacked the vizier's village and were, at first, successful. But the vizier's faction would not accept defeat and, calling on the Wagalla for assistance, routed their opponents and drove them from the land. Others say that the Pununu faction retired in good order with the object of avoiding further bloodshed, but such consideration on the part of the turbulent and aggressive Wasegeju does not appear likely. Pununu's family with its Waramu adherents fled and when they left a large number of Watumbulu went with them. Both Sheikh Ali and Mzee Bege give the names of members of Pununu's family which led the exodus, but I have not been able to corroborate them and do not consider that any reliance can be placed on them.

Sheikh Hemed tells us that after Pununu's death fighting went on between the Wagunya and Wasegeju until the latter were all driven

from Shungwaya. This seems probable so far as the Chief's section of the tribe was concerned but what happened to the victorious Watumbulu who were responsible for calling in the Wagalla and Wagunya? Did they remain at Shungwaya and became absorbed into one of the other tribes or did they remain as a tribal entity? Perhaps the Wagunya decided to get rid of the troublesome Wasegeju lock, stock and barrel, which a number of people, disregarding Pununu's death, say is what happened.

The Wasegeju claim kinship with a number of other tribes and some say that when the tribe left Shungwaya it split up into three sections which eventually formed the tribes of the Masai, the Kikuyu and the Wasegeju. Whether there is any truth in this tradition I cannot say but it is certain that the Wasegeju, on their departure from Shungwaya, settled at Mangea due west of Malindi.

Part II. A.D. 1500 — circ. 1650.

From the beginning of the sixteenth century and onwards a fair idea of the movements and adventures of the Wasegeju can be gained from contemporary European writers but the picture of their odyssey is not complete unless reference is made to the tribal historians whose knowledge had been handed down from father to son by word of mouth and has only recently been recorded, and then only in part.

The tribe arrived at Mangea and Malindi some time prior to A.D. 1507, for Robinson tells us that in that year Oja, a walled town situated one hundred and thirteen kilometres from Malindi, was the headquarters of the Ba-Amiri who had accepted the supremacy of the Egyptian Caliphate and were at feud with Malindi (then the headquarters of the Wasegeju).¹⁰ At that time they must have been quite primitive; Strandes tells us that in 1571 they were described as a barbaric tribe which was originally entirely pastoral and whose food consisted chiefly of warm blood, milk and urine. He points out that this habit of life and that of mutilating their enemies killed in war shows their relationship to the Masai.¹¹

Their weapons were spears and swords and they carried a small shield. Their dress was, as we have seen, a garment (it must at this period have been a skin) which they wore tucked up round their loins when they were on any expedition. They had a curious habit described to me by the elders of Moa, of rushing, men and women, headlong into any pond they came to, splashing about until they had got rid of all the water, and then plastering themselves with the wet mud. This they called *wimbi* which, I am told, means 'to wash' in the ki-Segeju dialect.

They were in their heyday at this period, though their descendants make little mention of their important victory over the Wazimba, which was one of their most outstanding achievements and halted the northward on-rush of a horde of savages who were a serious menace to life and culture on the East African coast. Sheikh Ali gives the date of the fighting as A.H. 920 (A.D. 1514), but, to quote Burton, "the only modern tribe which figures in the history of the coast is the Wasegeju. We first

read of them in 1589, when the Zimba or Wazimba kaffirs, who had devastated the dependencies of Tete and Rios de Sena, on the Zambeze, swarmed northwards massacring and, it is said, devouring all who opposed them between Kilwa and Mombasah. After destroying Kilwa, where they are reported to have killed and eaten 3,000 Moors, men and women, they appeared on the seaboard opposite Mombasah, whilst Thome de Souza Coutinho was attacking the rebellious city in which the Corsair Ali Bey had taken refuge. The savages sided with the Portuguese, crossed the ford, and fell upon the townspeople with assegai and arrow. The citizens fled, preferring to face the sword and musket of the Christian invader. After this the invaders marched on Melinde, and threatened it with the fate of Kilwa and Mombasah. But the firmness of the Sultan and the courage of Matheus Mendes de Vasconcellos were equal to the occasion: they reinforced themselves with a host of 3,000 Wasegeju, and they succeeded in annihilating the cannibals."¹²

It has been said that the Zimba were Zulus but doubt has been expressed as to whether this supposition is correct. They are shown on maps dated between 1700 and 1785, as living about 12° south of the equator, in what is now Portuguese East Africa. They are there called Zimbabos or Muzimbabos and are usually described as anthropophagi.¹³

Shortly after the rout of the Wazimba the Wasegeju achieved what was, perhaps, their finest exploit. To quote Burton again, "In 1592 the Wasegeju, again summoned to the assistance of Melinde, slew its enemy the Shaykh of Kilifi. The last Shirazi Sultan of Mombasah, determined to avenge the death of his kinsmen, assembled 5,000 wild men from the neighbouring hills to attack Melinde. The Wasegeju, however, not only defeated and slew him, with three of his sons: they also captured Mombasah and, sending a young son of the defunct Sultan to Melinde, they gave up to it a city, which for a whole century had been its deadly enemy."¹⁴

But the Wagalla were still active and harried the Wasegeju, forcing them farther and farther from Malindi and driving them from Mangesa until they sought refuge in Dhaicho in Ukamba. Here they settled — not for any great length of time but long enough to gain the name of Wadaiso and to absorb the local dialect to such an extent that their language, which they still speak freely amongst themselves, is classified as belonging to the Kikuyu-Kamba group of Bantu tongues. Even in Dhaicho they were not allowed to live in peace and the Wagalla were again the disturbing factor, running wild through the land and attacking all who came in their way. Hollis, speaking of the eighth Sultan of Vumba, tells us, "he is now known as Mwana Chambi Chandi Mwenda na Wagalla, i.e. the Chieftain who went to the Galla. At this time the Galla, a warlike tribe from north of the Tana River, are said to have overrun the whole country and one day while the Sultan of Vumba was on his way to Gonja, a small town on the Umba River not far distant, he encountered a band of these savages. The Mwana Chambi Chandi himself and all his followers were slain."¹⁵ It was not long before the Wagalla once more turned their attention to the Wasegeju. Sheikh Ali relates that Rawa,

the son of the Galla Chief, journeyed into the Daiso country and was killed, whereupon his father collected a large force and, according to the Sheikh, entirely broke the aggressiveness of the Wasegeju. Apparently a large section of the Wakamba were in league with the Wagalla and the only thing for the Wasegeju to do was to seek fresh pastures. They set out once more and travelled until they came to the Kiluluma River which flows into the Ramisi.

While they were in process of crossing the Kiluluma, the river came down in spate and divided the fugitives, half of whom had already crossed, leaving the remainder with the women and children on the northern bank. The two parties remained on opposite banks and within sight of each other for several days but the flood-waster showed no signs of abating and, eventually, hunger forced them into action. Those who had crossed called to their fellows on the far bank and said, "Farewell! The separation of brethren is grievous but you go back whence you came and, as for us, we have our spears and shields; we will get wealth and women there, where we are going." Then those who had failed to cross returned and apparently made peace with the Wakamba since the Wasegeju are said still to have kinsmen in the Kamba country. A few of them crossed the Kiluluma at a later date and re-established contact with those who had already travelled southwards.

Now those who had succeeded in crossing the river had with them one woman whose name was Jakasamba and they decided to kill her for they argued, "She is one woman and we are many men; better that we kill her, for if she travels with us she will only cause dissension among us; we can get enough and more than enough women on our journey." So they killed Jakasamba and went on their way trusting, as ever, in their own prowess and good fortune to provide them with the amenities of life.

I have pointed out that the Wasegeju made but a brief sojourn in Dhaicho. In 1592, they slew the last Sultan of Mombasa and captured the town and, as will be seen later, they arrived in Vumba during the reign of Sultan Ivor who, according to Sheikh Ali, ruled from 1617 to 1659 A.D. In the year 1630, Ivor was asked by the Portuguese for military assistance against the renegade Yussuf and I cannot help thinking that there would be some record of their activities had they already reached Vumba at the date. Since there is no such record I can only conclude that they arrived during the later part of Ivor's reign — they may well have appeared in 1650 or even later, which would give them about sixty years' residence in Dhaicho. Allowance must be made for their journeys from Mombasa to Dhaicho and Dhaicho to Vumba but, unencumbered as they were by women or stock, no great time would be taken up in travelling.

Part III. Circa 1650 and onwards.

From Dhaicho the Wasegeju travelled on until they reached their present tribal lands. One section struck inland until they reached Bwiti on the foothills of the Eastern Usambaras, where a number of them still live. From Bwiti they ranged through the hills and formed a number

of small colonies, some of which survive to-day, while others have disappeared, as, for example, the settlement in the Luengera valley which was evacuated during the unsettled period of the Kilindi Chief, Semboja. The other section travelled towards the coast until they reached Vumba whence they spread throughout the Boma Peninsula and, later, south of Tanga to Mnyanjani, Ndumi and Mwambani — all coastal villages. The Vumba-Boma area was sparsely occupied by Shirazi colonists and inland dwelt the Wadigo who extended as far as Bwiti and with whom the Wasegeju were, henceforth, in close contact.

The Digo are believed to have come from Digi and Kirau in Shungwaya but left the area at a much earlier date than the Wasegeju, for it is said that they were established in Vumba before the first Sultan was elected (circa A.D. 1204), whereas the Wasegeju arrived during the reign of the ninth Sultan who is said by Sheikh Ali to have ruled from 1617 to 1659 A.D., and was certainly in power in 1630.

The Wadigo say that they and the Wapokomo are one and there seems little doubt that they are a section of the Nyika group. Baumann appears to group them with the Wasegeju though he says that "their language known as Kidigo in this district (the Usambaras) and Kinyika farther north, has been carefully studied by the missionaries of the London Church Missionary Society in Rabai, particularly by Krapf and Rebmann."¹⁷ Krapf speaks of the "Wadigo tribes of the Wanika" and says, "The Wanika who live to the south of Mombasa are called, as formerly mentioned, Wadigo and the country Udigo; those to the north-west and north-east are called Walupanga."¹⁸ The late Martin Kayamba says, "It is related that the Wasegeju and Wagalla, who were neighbours of the Wabokomu, fought. The Wagalla were a powerful tribe, consequently the Wasegeju invoked the assistance of the Wabokomu in their war against the Wagalla. The combined tribes were defeated by the Wagalla and driven south." He tells us that the Wabokomu who migrated to countries south of Lamu were divided into five sections:—the Wachonyi, the Waribe, the Waduruma, the Wagiriama and the Wadigo. The latter settled at Kinondo and along the coastal strip from Mombasa to Tanga.¹⁹

The Wadigo say that on their arrival they found their present country occupied by the Wamvioni whom they forced back into what is now called Bonde and the Wamvioni, in consequence, became known as the Wabondei or the people of the valleys. They (the Wadigo) do not claim to have been Muslims before they left Shungwaya and have been much slower to accept Islam than the Wasegeju, so far, at any rate, as those living in Tanganyika are concerned. The Kibirini clan fought with and afterwards became the *watani* of the Wasegeju: they were also the *watani* of the Diwans but not, as is the accepted rule, because they had fought and then made friends but because the Diwans and their families had married Digo women. If this is correct it is interesting as it is, so far as I know, the only instance of the *utani* relationship existing for reasons other than the cementing of peace after armed conflict.²⁰

The Digo administrative system was admirable until upset by modern conditions and the tribal meeting held to discuss its inauguration, as

related by Kayamba, is interesting in view of the Segeju habit of plastering the body with wet mud (see p. 24). Kayamba states that "after a time the Wadigo decided to establish tribal authorities. It was, therefore, agreed amongst themselves to hold a grand tribal meeting called *Mngara* at a certain pond near Shimoni. The people crowded into the pond displacing the water by their numbers. Many were trampled underfoot in the process. This function went on for about three months until the pond was quite dry. No person was allowed to leave the lake and go home. When the lake was dry, they smeared themselves with mud and returned to their villages."²¹

The Wadigo were matriarchal and tended to remain so even after they had become Muslims. The maternal uncle had the right to sell or pawn the children of their sisters even if the latter were married to Wasegeju and such unions were frequent, for the Wasegeju were even more short of women than usual after the Kiluluma River incident. This interference on the part of their wives' relatives seems to have given rise to a belief that the Wadigo would only give the Wasegeju their slaves in marriage.

For the rest, the Wadigo had no chiefs, though individuals could wield considerable power if they were outstanding warriors or efficient medicine-men. Circumcision and clitorodectomy were practised though the men were not subjected to a second ceremonial operation at the time of marriage as were the Wasegeju. The weapon of the Wadigo was the bow and arrow whereas those of the Wasegeju were the spear, sword and club. The Wadigo incidentally very considerably outnumber the Wasegeju.

Both Wasegeju and Wadigo claim that they were the allies and not the vassals of the Shirazi Sultans or Diwans who, they say, ruled by the judicious dispensation of war-medicine and by no other means. There is much to be said for this point of view since the Shirazi were far fewer in number than the tribesmen and in order to maintain their position they must marry women of the local tribes, as they did, and play off one tribe against another as necessity dictated. True, they were wealthier than the local tribesmen and so must have in a measure, at any rate, controlled the trade in slaves and firearms thus adding to their power and prestige. But the general opinion is that the chief source of their power was the war-medicine which consisted of a paper or rag inscribed with a scrawl in Arabic characters — a verse from the Quran or one of the stock charms — and was carried by the leaders of the forces or, if required for defensive purposes, was buried at selected spots. Should it be effective the Diwans were rewarded with a gift of stock or ivory looted from the enemy. The Wadigo also had their medicine-men, one of whom was Mwanamochi whose ruined house and grave are still to be seen on Kilulu Hill a few miles from Moa. I expressed surprise at the idea of a Digo of that period living in a stone house, but it was pointed out to me that if a medicine-man should fancy living in a stone house there was nothing to prevent him from doing so. He could easily call on his clients to build him one.

Both Wasegeju and Wadigo drew a sharp distinction between the Shirazi Diwans whom they now call Ba-Amiri irrespective of the period at which a given individual was ruling and the Wauso, the old Shirazi colonists living at Uso on the Boma peninsula who, they say, were aggressive and with whom their ancestors would have no dealings. These were a section of the people mentioned by Robinson who tells us that Sultan Ivor had two drums made "to commemorate his victories over the Mabayai, Muso Kirui, Mkumbi, Manjaule (now Manza), Mwijuni and Kifundi who all claimed their descent from the original Shirazi colonists (known as Wadeburi: ? Wadab-Uri) and refused to acknowledge the sovereignty of Vumba."²²

The Wasegeju, at some period and probably prior to their arrival in Vumba, fought and, as stated above, became the *watani* of the Kibirini clan of the Wadigo but they do not seem to have had much contact with the other sections of that tribe until they had crossed the Umba River.

That section of the Wasegeju which followed the coast set out, for once, without any aggressive intent, to trace the Umba River to its mouth and explore the country through which it flowed. Eventually they reached Vumba, where they were welcomed by the Diwan Ivor who according to Sheikh Ali was in power between A.H. 1026 and 1068 (A.D. 1617 —1659). This is evidently the individual mentioned by Robinson who says, "A ruler called Ivor, a word signifying the 'ivory arm ring' in the Kilio (now Wasegeju) dialect, was elected. It is suspected that this man was a warrior and possibly of Segeju stock. He was ruling in 1630, and was the ruler to whom Don Franscisco de Moura applied for aid against Yussuf (the renegade Don Jeronymo Chingoula) who had occupied Mombasa. The gravestone of Ivor was used for enthroning his successors until about 1896. It was destroyed by the Germans for building materials when they constructed a station at Yasin."²³

There had for years been friction between the people of Vumba Kuu and the inhabitants of the towns Mabayai, Muso, Kirui, Mkumba, Manjaule (now Manza), Mwijuni (now Alene), Mdragoni and Kifundi who, descended as they were from the early Shirazi or Wadeburi settlers from Persia, refused to acknowledge the Sultans of Vumba Kuu as their overlords. Hollis tells us that Mwana Chambi Chandi Ivor "eagerly collected together the Wakilio (Wasegeju) and turned them into soldiers."²⁴ I can imagine no more edifying spectacle than that of the Diwan drilling the "violent, war-like and furious brood" — he must have had an arduous task involving many headaches and requiring extreme tact and much soft soap when off the parade ground.

Among those responsible for bringing the Wasegeju safely from Dhaicho to the coast were the elders Lamnunye, Mwamangea and Kirataiwe and tradition says that Diwan Ivor invoked their aid against the Shirazi of the aforementioned areas who were rebelling against him. Mmanjaule (the man from Manjaule) and his relatives were the chief trouble-makers and the ringleader Mmanjaule is said to have set himself up as Diwan though he was never invested with the turban or cap of office.

Ivor made a covenant with the Wasegeju whereby he agreed to give them the land between the Mamoja River in the north and Mawemawili in the south — the Mamoja flows between Pongwe and Gasi in Kenya and Mawemawili are, as the name indicates, two rocks lying north of Kwale Island at the entrance to Manza Bay. Further, it was agreed that whenever a Diwan was enthroned the Segeju must be given a fixed sum before largesse was disturbed elsewhere and whenever a marriage feast or other ceremony took place a standard fee must be paid to them. This meant that the customary *mshomara* and *ada* must be given them on such occasions; that they were people whose goodwill must be ensured and not mere serfs. To this extent the Wasegeju are right when they say that they were the friends and allies and not the vassals of the Diwans. The Wasegeju, on their part, undertook to wage war on behalf of the Diwan whenever danger threatened him, particularly against Mmanjaule, and to refrain from committing any unfriendly act against the Wavumba who, they stipulated, must loyally carry out their obligations as laid down in the pact.

The covenant was ratified with oaths and promises, Kirataiwe alias Muryamburi representing the Wasegeju. In spite of his nickname Muryamburi, which means the eater of goats (it is said that he would never listen to the most trivial matter unless a goat was produced as court fee), he was a fitting person to ratify the pact. He was the father of the Mwakamadhi clan and he married Jamwadi whose grandfather Lamunye was one of the elders who brought the tribe from Dhaicho to Vumba. Moreover, she was the great-aunt of Jamuhita who married Mwakalassoketa the founder of the Boma clan. The Mwakamadhi and Boma are the largest and the most important of the Segeju clans but the tribe owes a greater debt to Mwamangea Ndungu than to anyone else. Ndungu, son of Mangea, was the father of the Wakina Ganji clan and was the generalissimo of the forces which assisted Diwan Ivor against the Shirazi. He led the Wasegeju against the rebels and slew Mmanjaule with his own hand. Some say that Mmanjaule was induced to sit on a chair set over a concealed pit into which he fell and was buried, but others say, and with good reason, that so warlike and downright a people as the Wasegeju had no need to resort to trickery.

The fighting was heavy; many Wasegeju were killed but more Shirazi and there was keening in every Shirazi village. They were quelled and thenceforward gave no trouble.

But in spite of the covenant between the Wasegeju and Ivor, the latter did not trust his restless allies and, fearful lest they should overstep their boundaries and perhaps oust him from his domain, he made use of every device to break their strength and cause dissension among them. No sooner had Mmanjaule been disposed of than he persuaded them to hand over to him their own war-medicine which consisted of the *baragumu*, or horn, and the ceremonial spear. These he took ostensibly 'for his greater peace of mind' (i.e. to hold them in pawn for the Wasegeju's good behaviour), but he is said to have burnt them and so caused the collapse of the Wasegeju as a tribe with whom he might have to reckon in the future. But the descendants of the Wasegeju warriors say that the instruments of

power lie hidden to this day in Vumba Kuu and that could they be recovered by their rightful owners their strength and prowess would be revived and the tribe, once more united, would regain its former status.

Thenceforth there was peace in the land, interrupted only by bickerings between clans or tribes. The Wasegeju settled down and established themselves in the area allotted to them by the Diwan. Robinson describes the relations between the two tribes and says that when a Diwan was enthroned and the feast (*mshomara*) had been prepared, the head of the Ba-Amiri (the ruling tribe) "informed the chiefs of the Digo and Wasegeju that the Diwan, and their Sultan, had been crowned. These two chiefs informed all those who were present and each seized a spear on which he swore fealty on behalf of himself and his people. About two thousand ells of cloth were then distributed (which were worth about two thousand rupees) to the Wadigo and Wasegeju elders at the feast." When a Diwan died a general mourning for forty days was observed but "after fourteen days had elapsed a great feast was given and the Birini (presumably the Birini) clan of the Wadigo were permitted to take anything they desired from the neighbouring plantations. This concession was one possibly granted for the military aid granted to Mwana Chambi Chandi Ivor and his successors." ²⁵ The Wadigo's privilege of taking what they wished from the Ba-Amiri plantations is typical of *utani*, but there is no indication that they ever fought with the Ba-Amiri (a necessary preliminary to *utani*) and the people now say, somewhat vaguely, that it was an *utani wa uzaazi*, i.e. a privilege which was the result of intermarriage between the Birini and the Ba-Amiri. The Ba-Amiri would, according to *utani* custom, be permitted to attend the Digo festivals and rob the Digo plantations. According to the Mkinga people they exercised their rights, but the Wadigo were poor and as they had no elaborate ceremonies there would not be the extensive pilfering which took place when a Diwan was enthroned. So far as I can ascertain from Wadigo living in Tanganyika the tribe never rendered military aid to the Diwan. In fact, one wonders what they were doing while the war with Mmanjaule and his fellows was going on.

The Segeju reiterate that they were the friends and allies of the Ba-Amiri and not their vassals and that the grasping of the spear and the oath taken at the enthronement of a new Diwan was an undertaking to keep the peace and a renewal of the covenant rather than an oath of fealty. They say that the only advantage that the Diwans had over them was that they held the war-medicine whereas Ivor had made away with the paraphernalia of the Wasegeju. The Ba-Amiri could not judge but used to arbitrate and, when anyone refused to abide by their decision, would give the medicine to the injured party who would then make war on his adversary and would, from the loot obtained during the campaign, hand over a head of cattle or a tusk of ivory in payment. Within the limits of the area granted to the Wasegeju by Diwan Ivor the Ba-Amiri had no powers and left them to look after their own affairs.

The Wadigo, likewise, deny that they were the vassals of the Diwans and both tribes say that until the disappearance of the Diwans (owing, mainly, to the fact that the changed conditions which followed the advent

of the Europeans so reduced their circumstances that they could not raise the considerable sum necessary for the installation ceremony), not only did the Wasegeju and Wadigo receive the fees laid down as gifts to guests attending important ceremonies but the Wasegeju and also the Kibirini clan of the Wadigo used to bestow the scheduled gifts on Ba-Amiri attending their own ceremonies.

The *ada*, say the Wasegeju, is still paid and consists of Shs. 4/- in cash and the foreleg and shoulder of the beast killed at such ceremonies. The Wakamadhi claim that they are given the foreleg because they are warriors and the forearm is used to hold the spear — it is a memento of Kirataiwe's prowess. The remaining clans get the shoulder, for it is on his shoulder that the warrior slings his shield. I gather, however, that some of the other clans do not agree to this distinction. The Ba-Amiri must call the Wasegeju to ceremonies but the Wasegeju do not call the Ba-Amiri, as the Segeju are poor and have nothing to give them. If, however, any of the Ba-Amiri are present they are given *ada*.

It is said that the confiscation of the Segeju war-medicine by Diwan Ivor was applauded but his action only mitigated and in no way eradicated the aggressiveness of the tribe. They continued to bicker with their neighbours and enslaved any members of other tribes whom they could capture or purchase and also members of their own tribe who fell into debt — both Wasegeju and Wadigo used to sell anyone who could not pay fines inflicted for criminal offences or civil debt which the unfortunate had incurred. But it must be remembered that everyone — African, Arab or Shirazi — was doing the same thing to an extent which was only limited by his prowess and opportunities, and the habit which many of the more literate Africans have of holding up their hands in pious horror at the mention of Arab slavery is, if not a pose, due to ignorance of their own tribal history.

Those who were responsible for leading the Wasegeju from Dhaicho to the coast seem to have exercised some authority over the tribe, as did their descendants in gradually lessening degree. Thus Mwamangea was the tribe's spokesman at the Diwan's court, while Kirataiwe Mwakelo used to sing at functions such as the enthronement of a Diwan. Mwamangea Ndungu, Kirataiwe and Lamnunye ruled the people to some extent and when Kirataiwe died his son Mwamuryamburi Kamadhi is said to have taken his place. But it is now impossible to guess what degree of power these men held over the people as a whole and it is certain that, as time went on, individuals ceased, with rare exceptions, to exercise authority beyond the limits of their own clan and each village settled down under its headman whose installation, unlike that of the Diwans, entailed no special ceremony. Those who had gone to Bwiti settled down in their little colonies and though individuals and families came down to the coast or married off their womenfolk into coastal families they seem to have taken little or no interest in affairs other than those concerning their immediate environment.

The Wakina Ganji clan was still respected by reason of the prowess of its founder, the warrior Mwamangea Ndungu, but gradually the Mwa-

kamadhi and Boma clans, founded by Mwamuryamburi Kamadhi and Mwakalassoketa respectively, rose to such prominence that they eclipsed the other smaller units. The genealogical trees of these two clans are shown in the appendices and I believe them to be mainly correct.

Both the Mwakamadhi and Waboma overstepped their southern boundary as laid down by Ivor and spread south of Tanga as far as Mwambani. Mzee Bege claims that they reached the Rufiji (he also claims that the tribe sired the Wahehe, Wagogo and Wangoni) but there is no evidence whatever to support his statement. He mentions that they fought the Wakendwa, a generic term for the people of Mrima, but I am told that there is a small village named Kendwa near Jacin in which the Wasegeju settled peaceably and this may have given rise to the error. True, a section of the Wanyagatwa living on the Zaramu-Rufiji district boundary claim that they come from Shungwaya but so do a number of other tribes and there is nothing whatever to connect them with the Wasegeju.

Friction with the neighbouring tribes continued and Lumwe, a headman of Chongoleani, was attacked by the Digo Mwakilimu. There were losses on both sides and, later, eight of Lumwe's tribesmen who ventured into the Digo country were killed by Mwakuhi Bimba who lived at Kuzi in Gombero near the Mkinga border. Lumwe sought to avenge his tribesmen's death and according to the Wasegeju he was successful, though the Wadigo say that he had to retire in spite of his having called on Kimweri, the Kilindi Sultan, for assistance. It appears that he had as adviser a Kilindi medicine-man named Mchiro, who became isolated in the fight and was captured by the Wadigo. They tried to kill him; but his medicine gave him such protection against metals that neither bullet, sword nor axe would penetrate his body and only by pounding him with a pestle, such as is used by women for pounding grain, could they achieve their object.

Lumwe died and his son Abdullah Mwaketa who succeeded him as headman of Chongoleani, endeavoured to set himself up as Sultan and to dominate all the Segeju living south of the village. * The Wasegeju north of Chongoleani do not seem to have been involved in this struggle, probably because Abdullah's chief aim was to extend his tribal lands and he did not want to interfere with his own clansmen who were living in the Boma peninsula.

Wakamadhi were living at Kifumbini, as Ndumi was then called, and Waboma at Mnyanjani, nearby. Prior to Abdullah's rise the two clans seem to have lived amicably at Mnyanjani, to which village the Wakamadhi had moved owing to the number of deaths which took place during their tenure of Kifumbini but, with Abdullah's appearance, friction arose. One day there was a meeting of the elders and he said, "Last night I dreamed I was rounding up a large herd of goats and I caught them all except one and" he said, pointing at Akida Mwakombo the Kamadhi headman, "you were the one that eluded me." Friction increased to

* It is said that he was actually appointed Sultan of the Wasegeju by Seiyid Majid, but I find it hard to believe this.

such an extent that the Wakamadhi went back to live at Kifumbini and about a year later war broke out between the two clans.

Though, at a later date, most of the villagers built stone walls to protect themselves against the Masai, it is said that at the time of which we are speaking (about the middle of the nineteenth century) only Chongoleani and Ndumi had stone walls which were built as a defense against people of their own tribe, as were the wooden stockades which protected the other settlements. The Ndumi wall had three lines of loopholes, one at the height of a man's eyes, the second at chest level while the third (of which the Waboma had no knowledge) at the height of a man's spleen. The Waboma invested Ndumi but got tired of sitting doing nothing and decided to attack. They did so but one of their number, Mwajisi by name, was killed by a shot fired through one of the lowest loopholes and the Waboma fled. After this the two clans lived in their respective villages but had little to do with each other.

The Stambul family at Tanga became involved. It is said that Stambul bin Abubakr, father of Omari bin Stambul who was Qadhi in German times, had some cattle to which Abdullah Mwaketa laid claim. The latter had seized and made off with half of what he said was his property and Stambul came to Mvuuni near Chongoleani to re-take the beasts. During the ensuing fight Stambul became isolated and was killed while endeavouring to make his way to a dhow which was lying off shore, though according to one of his grandchildren he was enticed over a concealed pit, into which he fell, and was then killed. I am told that it was during the fighting between Abdullah and Stambul that Mwereka Nyuma, Mkilindi, — grandfather of the late Martin Kayamba and a renowned warrior and war-doctor — was called in to assist Abdullah's adversaries by advising when and how they should conduct operations. He avoided death or capture and returned to his home in Bonde.

Coastal chiefs were called upon to help check the megalomaniac: Burton tells us that on his arrival at Saadani in 1858, he found "the Chief Bori was absent visiting Kipumbui, a village a few miles north; he was preparing to fight one Abdullah Mwakita, a Msegeju Chief living near Tanga." ²⁶

So disturbing were the squabbles between Wakamadhi and Waboma that representations were made to Seyyid Majid, who had recently become Sultan of Zanzibar (1856-1870) and was the overlord of the Mrima coast, and he sent a dhow-load of his men to arrest Abdullah Mwaketa and Mwabohera of the Boma clan and Mwinyimakame Mdudu and Akida Mwakomba of the Mwakamadhi. The four were taken to Pangani and placed on board the dhow, which set sail for Zanzibar, but nothing would curb Abdullah's arrogance and, when they approached Maziwi Island, about twelve miles off the mouth of the Pangani River, he bragged that that island was the limit of his territory and that the vessel was still in his territorial waters. So arrogantly did he rave that his exasperated guards flung him overboard and drowned him as soon as they reached the limits of his jurisdiction. The remaining three were cast into gaol on

their arrival at Zanzibar; Mwabohero died in prison; Akida Mwakombo, though eventually released, died before he could be repatriated and only Mwinyimakame returned home. He had learned his lesson and when Seyyid Barghash came to the throne in 1870, he went to Zanzibar to pay homage to the new Sultan. He was given a cannon as a parting gift — the Sultans often made such presents to the Chiefs on the mainland, — but it is said that it had burst near the muzzle and the recipient dumped it in the sea.

Later, Mwinyimakame was involved in further trouble. He came to Tanga, where he was apparently involved in some affray and was shot by an Arab.

Occasional raids and skirmishes between the Wasegeju and Wadigo were still taking place. It was unsafe for anyone to go abroad alone; members of both tribes were ready to capture and enslave anyone who was incautious enough to wander far from the home kraal without protection. Some seventy years ago a Digo named Mongwena, who lived at Kirui (south of Petukiza and a few miles from Moa), married a slave girl named Mjabu. But for the fact that he had married a Shirazi woman he could not have lived so near the Segeju villages and as it was Mjabu was stolen. Mongwena heard that she had been taken to Petukiza and thence to Bwiti, but when he asked the people of Petukiza about her they said they knew nothing. Mongwena grew angry and stole some Petukiza cattle, which he drove off to Mzingi in Digoland.

The elders of Petukiza met the Digo elders to discuss the matter and Mongwena was ordered to return the stolen beasts. He promised to do so on the morrow but that night the Masai swept down and seized the cattle in question as well as others in the neighbourhood. Mongwena had no further cattle and could do nothing to appease the villagers of Petukiza who, after talking things over, decided on a plan which they put into action on the next weekly market which took place every Wednesday. They waited until the market-place was full of people and then raised the cry that the Masai were attacking them and invited everyone to take shelter within the walls of their village. It was a false alarm but everyone herded into Petukiza and when they were safely inside all were told to go home except the Wanjeje, to which clan Mongwena belonged. There were twenty or more Wanjeje present and the Wasegeju rounded them up and rushed them down to the coast where they were sold as slaves and packed off to Pemba.

Mongwena, blamed by everyone, became as one mad. His slaves deserted him and he wandered, hungry and friendless, until he finally died of fever and starvation alone at Umba. The people of Petukiza say that the matter ended there, but others say that Rasi, a man of Mongwena's clan, collected the Wanjeje and routed the Petukizans, who were driven back to the confines of their own village: but all say that the affair was mere play; "it was not a proper war and did not last a year." Eventually the dispute was referred to the Diwan at Vanga who ordered the fighting to stop.

An old man of Petukiza, talking to me about this fight, lamented present-day conditions and said, "Now that we cannot get slaves, we cannot get gunpowder." Later, another younger man commented in a jeering tone, "and now that you cannot get any gunpowder you cannot get slaves." So the vicious circle revolved.

But the Mrima coast was becoming quieter. The Wasegeju were embracing Islam even though they retained a number of their tribal beliefs and customs. One such custom, the origin of which I have never been able to discover, is that of *kuoga mwaka* — the ceremonial washing which is indulged in annually by a number of coastal tribes including the Shirazi but not the Arabs. It is apparently a pre-Islamic rite and occurs eleven days later each year. In 1933 the bathe took place on the 5th day of Fungo Sabah, in 1934 on the 16th and 1935 on the 27th day of the same month. It is an expression of joy at the advent of the new year and a ceremonial wiping out of the old year and its troubles. Strictly speaking, new fires must be lit in every house and alms must be distributed.

Until the advent of the Germans the Wasegeju still had their slaves and though slavery was not abolished until after the first world war the slaves became more and more independent and did less and less work, though they still expected to be clothed and fed by their masters. The Diwans disappeared, partly because they were unsuited to rule the country according to European ideas, but chiefly because no one could afford the cost of the enthronement ceremonies nor would have any chance of reimbursing himself if he borrowed the wherewithal from his friends and relatives. What wealth there was became more and more evenly distributed; the cattle died off from rinderpest or east coast fever — in 1919, I saw over a thousand head in the kraal of the Digo headman of Mkinga, in 1934, these were reduced to a mere handful and now, in 1948, the original stock has entirely disappeared and there are only about half a dozen, at most, in the village. Without the thrill and stimulus of an occasional affray life became more and more humdrum until, in the humid and enervating coastal climate the population became sunk in apathy. Now the younger men find the life of an agriculturist too arduous and flock to the towns where, freed from tribal authority and parental control, they seek easy money and meretricious amusement, while their elders tend the family plantations and find it hard to accept the impersonal, though well-meaning, attempts on the part of the authorities to better their lot. Their innate good breeding and perfect manners endear them to those who have the time to get to know them individually, but the modern tendency of reducing everything to a common denominator and dealing through groups and bodies of people in which those with the loudest voices attract most attention, is unsuited to their ideas and their culture, which are so different to those of twentieth century Europe.

APPENDIX I.

THE CLANS

The Segeju clans are numerous but, in many cases, the number of members is very small — in fact sometimes as, for instance in the case of the Wakina Mwachambo, they merely consist of two or three households. Members of any one clan are of course scattered nowadays but where their area of origin is known it is indicated in the subpended list.

1.	Wakamadhi.	On the Mrima coast.
2.	Waboma.	"
3.	Wakina Ganji	"
4.	" Mwereri	"
5.	Wakaveri.	"
6.	Wakibuyuni.	"
7.	Wakabura.	"
8.	Wakina Karo.	
9.	" Kimaryo.	
10.	" Mwachambo.	A few at Tawalani.
11.	" Ngumbi.	Pongwe, Kenya.
12.	" Mtwii.	(Boma).
13.	" Majure.	(went Bwiti).
14.	" Shala or Pamwangundo.	(Bwiti).
15.	" Ngani.	(Bwiti).
16.	" Marowa.	"
17.	" Mkambo.	"
18.	" Goro.	"
19.	" Lukasi.	"
20.	" Rumbe.	"
21.	" Rovo.	"
22.	" Mwamkala.	"
23.	" Chaa.	"
24.	" Ona.	"
25.	" Mori.	"
26.	" Ngolo.	"
27.	" Mwalili.	"
28.	" Royu.	"
29.	" Kulea.	"
30.	" Mwakizugu.	"
31.	Wamonga.	"
32.	Wawachwa.	?
33.	Wakina Karome.	?
34.	" Bwende.	?
35.	" Mwakarome.	?

APPENDIX II.

REFERENCES.

1. Sheikh Ali bin Hamed, formerly Kadhi of Tanga, whose 'Habari za Mrima' (History of the Tanganyikan Coast) appeared in 'Mambo Leo' (a monthly magazine published by the Government of Tanganyika) in December, 1935, and continued in subsequent numbers. The article in question was the result of patient enquiry into the histories of the coastal tribes and is the source of all information attributed to Sheikh Ali in these pages.
2. Schoff: 'The Periplus of the Erythraean Sea.' Longmans, Green and Co. 1912, p.117. "Beyond the mouth of the Wadi Hadramaut is Ras Fartak, nearly north of Guardafui The northern slopes of these mountains . . . are now known as the Wadi Rekot, about 100 miles long, which empties into the Kuria Muria Bay: beyond which are the fertile coastal plains as far as Ras el Hadd. These mountains and the Dhofar and Jenaba districts, facing which lie the Kuria Muria islands, were the oldest and perhaps the most productive of the frankincense districts of Arabia."
3. In 1918, I obtained a copy of an article entitled 'Asili ya Africa' (The Beginning of Africa). It was unsigned but Sheikh Ali, mentioned in note 1, tells me that his father Sheikh Hemed bin Abdullah wrote it. This copy, I have no idea what happened to the original, is my authority for all information of which Sheikh Hemed is quoted as the source.
4. Seligman, C. G. 'Races of Africa.' Thornton Butterworth. London. 1930. p.97.
5. Burton, Sir Richard. 'Zanzibar' Vol. II. Tinsley Bros., London. 1872. p.362.
6. J. Blaeuw (c. 1640) shows Jungaya about 1° south and east of Pate. Ogilby (1670). Tungaya. 1° S. and 67° E. i.e. inland and north of Pate. J. de la Feuille, Amsterdam (1700), shows Tungaya on, or near, the site of the present Kismayu. Tungaya would be the pronunciation of Chungaya (a spelling sometimes used by Africans) in the ki-Amu dialect.
7. cf. Krapf. 'Travels in East Africa.' Turner and Co., London. 1860. p. 199. "According to the mythology of the Wanika, the Galla, Wakamba and Wakuafi had one common father whose eldest son was called Galla, who plundered another tribe of its cattle; upon which his brothers Mkuafi and Mkamba, asked for a share of the booty; but were refused by their brother Galla; whereupon Mkuafi robbed Galla and he again was robbed by Mkamba and vice versa: and from that time arose a deadly enmity among the three brothers which has had no end." The Segeju say that on leaving Shungwaya their tribe split into three sections and finally became the Segeju, the Kikuyu and the Masai. See p. 24.
8. The maps referred to are to be found in the Dar-es-Salaam Museum and are as follows:—
 Cartographer unknown. Amsterdam. c. 1700. "Les Mosseguales, ces cafres tres barbares."
 J. M. Hesse. c. 1727. "Mossegayes. Gens admodum crude."
 R. de Vaugondy. Paris. c. 1778. "Mommegayes. Nation tres cruelle."
 T. Bower. c. 1785. Mosseguejos.
9. In 1919 Mzee Bege, or Mwamugaro Bege, an aged but keen-witted man living at Bwiti, in the Eastern Usambaras, dictated at my request a history of the Wasegeju on whose past he was considered to be an authority. His imagination was unbridled but his notes did form a basis to work on.
10. Robinson, A. E. 'The Shirazi Colonization of East Africa: Vumba.' *Tanganyika Notes and Records* No. 7. June 1939. Note on p. 101.
11. Strandes, J. 'Die Portugiesenzeit von Deutsche und Englisch Ost Africa.' (Dietrich Reimer (Ernst Vohsen). Berlin 1899). p.161.

12. Burton, Op. Cit. pp. 119-120.
13. Maps consulted are in the Dar-es-Salaam Museum :
Cartographer unknown . Amsterdam. c. 1700. shows 'Zimbas' about 11° S.
J. M. Hesse. c. 1727. 'Zimbae. Muzimbae: Anthropoph.'
R. de Vaugondy. Paris. 1778. 'Zimbas au Muzimbas. Antropophages.'
14. Burton, op. cit. pp. 120-121.
15. Hollis, Sir C. 'Notes on the History of Vumba.' Journal of the Anthropological Institute. XXX. July-December 1900. p. 281.
16. Hollis, op. cit. p. 276.
17. Baumann, O. 'Usambara und seine Nachbargebiete.' Berlin. 1891. pp. 144-145.
18. Krapf 'Travels in East Africa.' (Turner and Co., London, 1890) p. 267.
19. Kayamba, H. M. T. 'Notes on the Wadigo.' *Tanganyika Notes and Records* No. 23, June 1947. p. 80.
20. Two articles describing *utani* have appeared in *Tanganyika Notes and Records*. The first was 'Some notes on the Utani or the Vituperative Alliance existing between the Clans in the Masasi District,' by T. V. Scrivenor. T.N.R. No. 4, p. 72; and 'The Joking Relationship (*utani*) in Tanganyika,' by R. E. Moreau, T.N.R. No. 12 p. 1.*
21. Kayamba, op. cit. p. 81.
22. Robinson, op. cit. p. 105.
23. Robinson, op. cit. pp. 93-94.
24. Hollis, op. cit. p. 282.
25. Robinson, op. cit. pp. 104-105.
26. Burton, op. cit. p. 272.

* See also 'The Mtani again as a Sanitarian' by R. E. Moreau. T.N.R. No. 21, p. 106.—Ed.

APPENDIX III.

THE MWAKAMADHI CLAN OF THE WASEGEJU.

KELO (died at Dhaicho)

KIRATAIWE alias MURYAMBURI m JAMWADI d/o MWADE
(came from Dhaicho to Vumba)

MWAMURYAMBURI KAMADHI (founder of the Mwakamadhi clan)

SAI PANA MWAKAMADHI

MBWANA

MROGI

KOMBEZI

MATAU

KIVURANDI

RASHID (1)

MAKAME MWAKAMADHI
(descendants at Pongwe, Kenya)

MBWANA

KIGOMA

GAZIA

MWINYIMAKAME (2)

BAKARI (3)

MKEYA MWAKAMADHI

MWINYIWANGA

MLUKU

MWANGOJA

GOJA

KUZU

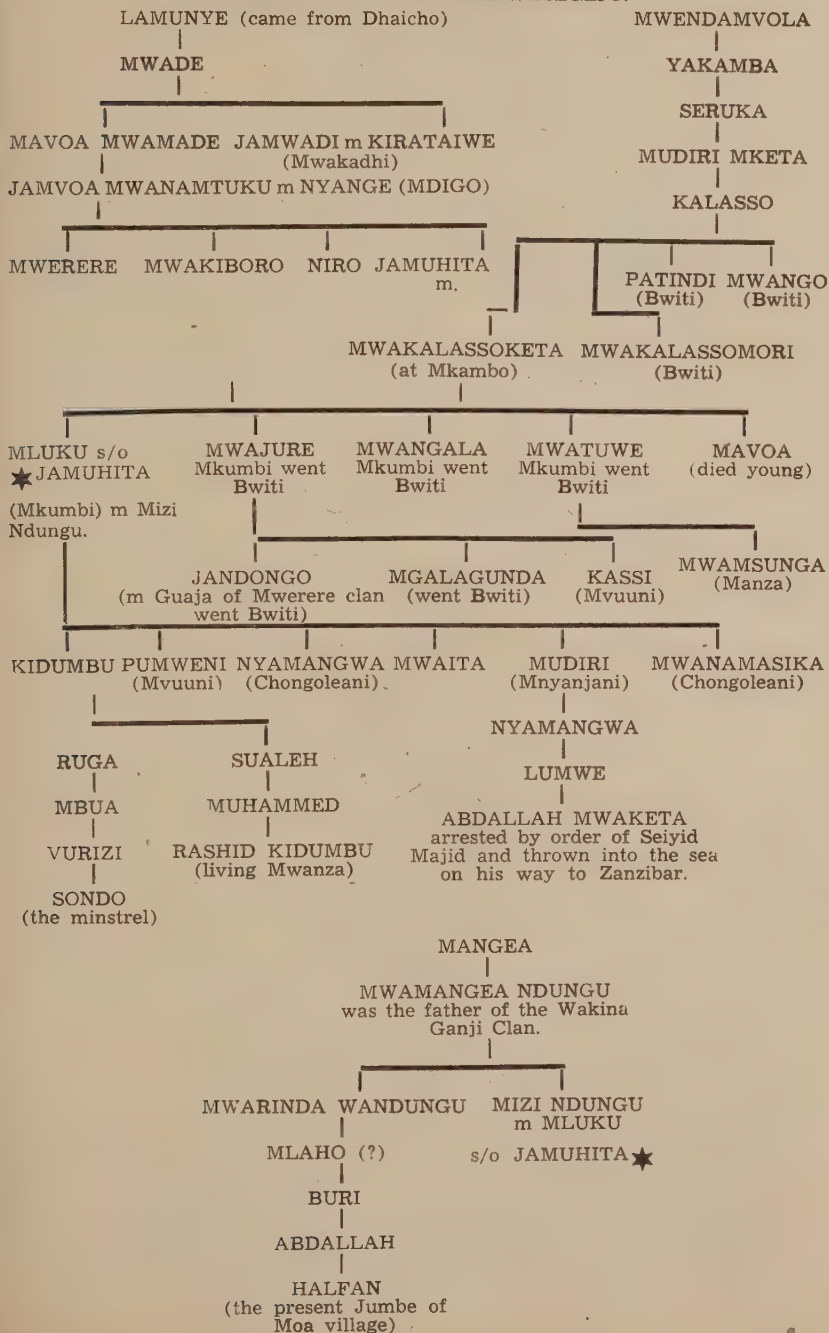
MWINCHAMBI

ZUBERI (4)

- (1) RASHID living at Moa is probably about seventy years of age.
- (2) MWINYIMAKAME was arrested at the same time as Abdullah Mwaketa and was imprisoned in Zanzibar. His son
- (3) BAKARI says he is eighty five years old which according to our reckoning would be about seventy eight. This is, I think, approximately, correct.
- (4) ZUBERI is an elder living at Moa. He admits he is one generation later than Rashid (1).

APPENDIX IV.

THE BOMA CLAN OF THE WASEGEJU.



Remains of an Earlier People in Uhehe

By P. M. Worsley and J. P. Rumberger.

The present paper is the result of curiosity stimulated by an article of Capt. G. E. H. Wilson's, published in "Man", back in the early thirties, concerning signs of an older civilization he had noted in Tanganyika, particularly in Uhehe. He describes earth-constructions which he terms "terraces", and ancient roads, both of which are claimed to be widespread along the Rift System. Of the constructions outside Uhehe* we cannot speak, but having spent some time in the area shown in the map, we have examined it as comprehensively as time has allowed, particularly along the Lyandembela Valley on the Ifunda side of the hills from Rumuli to Iganga, and less so on the top of the Luvinda Range and in the Kiponzelo Valley.

Uyanika Terraces. The first works encountered were the "terraces" at the foot of Uyanika. To reach them it is necessary to take the road across the Lyandembela going towards Uyanika hill, and immediately on crossing the Lyandembela, (at this point a swamp about 100 yards wide), to turn left off the road down the valley in the direction of Rumuli. The "terraces" are reached in a hundred yards or so. They consist of banks of earth varying in size around 20 yards by 5 yards, and divided by ditches about 3 feet deep, and 4 feet wide; there is quite a considerable variation in size, and many of the terraces have become almost imperceptible lower down the valley towards Nyakadodo and Rumuli. Near the swamp road, however, they are strongly marked and continue so for over a mile towards Rumuli. This particular series probably extends for about 2 miles along the valley. No crops or signs of cultivation remain, and the terraces are irregular in layout, some being the shape of elongated equilateral triangles, but the majority long rectangles. At first it was thought that these might possibly be of European origin, since there had been, and are, non-native farms in the vicinity, but the Hehe say that this area was never farmed, and indeed in appearance they are totally unlike any European type of cultivation. Nor could one imagine what crop would be cultivated in this way — the irregularity of pattern and state of wear finally seem to preclude any European influence.

Although the Hehe cultivate dry-weather plantations ("fyungu") in river-valley bottoms, they are of different pattern, and much smaller in all dimensions. The large scale of the old "terraces" would seem to

* The conventional spelling of Hehe personal and place-names has been adopted, since it is now used on maps, etc., except for the inaccurate renderings of "Ndembera" for "Lyandembela". Place-names present a great problem, because few people live near the region of the Uyanika "terraces" to-day, and opinions vary on names of hills, etc. Bena immigrants and the movements of Hehe away from the area owing to European alienation of land, make it even more difficult to discover the correct names. The Survey Maps also give different names, and we have concluded that they have changed or been lost quite recently. The sketch-map, however, makes the position clear.

indicate that they provided a major crop and not merely a dry-weather relief, considering the amount of labour that must have been involved. Again, although some Hehe claim their "fyungu" were much bigger in the old days, it is well known that such things grow larger as the memory grows dimmer, and it is even more doubtful since, according to Joseph Thomson's account and the testimony of the older Hehe, agriculture was of minor importance in those days, the sphere of women and children; men being very much occupied with guarding cattle (not a child's job at that time), and in war. When one considers the old social organization of the Hehe, it is extremely unlikely that they would ever have produced any constructions as large as these, being involved in war after war from the time of Muyugumba onwards, and indeed those Hehe to whom the terraces have been shown or mentioned, agree that they were made by the "vanu va pa'daha" — (people of ages ago), even before the ViGaviro tribe of the area became integrated into the Hehe empire.

The Lyandembela River at this point is only a few feet wide in the dry season, and since it flows close to the Ifunda side of the fairly narrow valley, all the "terraces" are found from the river to the foot of the hills, a distance of only about 150 yards at the widest point. It seems plain that the river used to cover a very much larger area of the valley, and of the minor valleys nearby, but this may have been long before the terraces were made. However, it still widens to about ten yards at some points, and very likely flooded the "terrace-system". In view of the rate of retreat of Naivasha and other waters, this would not be surprising. The nearest settlement of any size to this group of "terraces" is at Nyakadodo, over 2 miles down the valley towards Rumuli, at which point the "terraces" have become almost worn away, probably since the valley is much wider there, more exposed to wind, and with a less restricted course for the water to follow. The "terraces" are quite a distance from Nyakadodo, and the people there seem to know nothing about their origin. Only the older people, indeed, appear even to notice them.

Makungu Group. At Makungu, near a very small lake Itemala, on top of the Luvinda Escarpment, more "terraces" are to be seen. Here we were treated to an imaginative account of their origin at the hands of an ancient people called the VaMia, by Jumbe Kiwanga, whose testimony, however, is a little suspect, since he also saw snakes with twelve heads come out of the lake at one period. However, the first suggestion has been proffered by various elders in different places. Kiwanga also stated that the VaMia were hunters who relied on bows and arrows, and had no spears. If they were a hunting-and-collecting people, it is not very likely that they also cultivated, and since other Hehe say the VaMia were in the area before the ViGaviro, Kiwanga's remarks would seem to be somewhat imaginative. We were told remnants of the VaMia live on the borders of Uhehe, far from the beaten track.

These Itemala "terraces" are smaller in size, especially in height, but are found in the same sort of ground.

Other "Terrace" Areas. Finally, "terraces" are to be seen on either side of the Ulete-Wasa Road, before coming to Rumuli Hill, and at the side of the Great North Road, before crossing the swamp to Kisolanza, going south. These are also more worn than those at Uyanika, but are more exposed. Further down the Ulete-Wasa Road, between Rumuli and Rose Farm, "terraces" are visible on the right-hand side and undoubtedly the present farming operations have ploughed up more "terraces". This might also have happened at Sambusi Farm at the Great North Road end of Iganga, where Capt. Wilson mentions "terraces", but no sign is now visible, and the whole area is under intensive cultivation.

Deductions. Thus the area in which these works have been noted is fairly extensive, one group having a continuous stretch of two miles, and examples being found at points over 20 miles apart. It would seem to indicate a large labour-force, presumably well organized and directed, at a time when the rivers were much larger or more liable to extensive flooding than to-day. Even if one regards Nigmann's* suggested date of 1700 as the period of the first Hehe 'Mutwa' (ruler) as romantic, any people who were in the area before the Hehe, with the necessary social organization to undertake these works, may have been there well before this date. The date indeed remains vague although lack of definite examples of material culture would seem to make Capt. Wilson's claim of considerable antiquity justified. His thesis of the "Ru" people, with a B.C. date, however, we regard as untenable. "Ru" is a common Bantu prefix for rivers and other place-names, and even names like "Ruwendzori" can be explained in the present-day language of the region, without positing an ancient origin.

"Grave" Sites. A clue to the identity of the makers may be provided by the strange heaps of stones found all over the Lyandembela region which we have called 'graves'. They might be considered as the result of stone clearing for farm-sites, but their regular formation (about 2 to 3 feet in height on the average) and great concentration in some spots, seem to preclude this explanation. They are to be found at the foot of the hills from Sambusi to Rumuli, and at the side of Uyanika Hill adjoining the road; they taper to a rough point, are about 3 to 4 feet in diameter at the base, and are well built into by ants. The farm theory is even more unlikely when one considers that there is a large concentration on top of Uyanika Hill, (almost 300 feet up from the valley-bottom), where cultivation would appear impracticable. Here also there is a trace of two sides of a rectangular ditch or depression about 20 feet long by 10 feet wide. The removal of one such pile of stones disclosed three major stones 1 foot square laid roughly in [] shape, under which were three potsherds and signs on ground level of burning, which must have taken place before the stones were laid. The pottery itself does not look radically different from present-day specimens. Indeed similar pieces can be found all over the area, especially on or around these 'grave-

* Nigmann's "Die Wahehe" is unreliable when dealing with matter outside his direct experience. His succession of early Hehe 'Vatwa' is almost definitely wrong, although the errors would not seem to affect his dating considerably.

'Terraces' in Lyandembela Valley viewed from Uganika Hill



Close-up of ditch between two 'terraces'.



mounds'. It would seem that pots were placed on the 'grave', possibly containing "togwa", as Culwick states is the Bena custom. The Hehe do not practise this at present, however, as a stool or glass is more likely to be used instead. Nor do they pile stones on their graves, which are different in shape, being rectangular with an inner recess (*kimwanandani*), at one side, in which the body is placed, and walled in by stones. We had no opportunity to carry out further excavation, and had indeed only ventured upon such a specialized field with the utmost trepidation.

Another large cluster is to be found at the foot of Rumuli on the Ifunda side, near the Rose Farm end of the hill. On the top of the hill, however, no 'graves' have been found although a large potsherd of thick, crude pottery has been found in a spot where human habitation is unlikely. It is conceivable that the Hehe may have taken refuge on these hills at various times, since there were continual wars from the time of Muyugumba onwards, and this ruler himself was once forced to hide in the caves of Nyamulenge Mountain on the borders of Uzungwa by invading Angoni.

Rock Constructions. Rumuli itself had a reputation for being an abode of witches in the past, and it is well known that this often indicates the site of an earlier people, witness Culwick's Bahi rock-paintings. At the point indicated on the map, there is a semblance of a fell, consisting of two rows of small rocks arranged in the shape of two sides of a rectangle, and in the same area the large concentration of 'graves' previously mentioned. These "walls", however, are at ground level. Passing along the foot of the hill to this spot, is a "road" (described in the next paragraph), and at this point it gets lost, picking up again on the other side. The site of these 'graves' and the two walls is the foot of a cleft in the hill.

The next sign of such 'walls' is on top of Uyanika Hill. There is a cleft in the hill on the Ifunda side near the end close to the swamp road, and at the top of this cleft is a wall about 2 to 3 feet high. Again, climbing up the hill from the road, from a point about a hundred yards past the ruined farm-house shown in the insert, one comes across another such wall going up the hillside. It is worth noting that the large cluster of 'graves' by the road-side, mentioned above, is to be found at the foot of the hill, below this latter wall.

Perhaps the most striking rock-constructions, however, are those along the foot of Iganga Hill, at two places on either side of Mamfugale's Farm. The one on the Uyanika side of the farm is built in a position overlooking the whole of the valley, and a little way up the hillside, giving a strong impression of a fortified point. The other is the highest wall of all, being 4 to 5 feet high, between the foot of the hill and the highest point of cultivation of Mamfugale's Farm. He knows nothing of its origin, being an immigrant from the Kiponzelo region, and a Bena at that. We have been told that there is another such construction behind Sambusi, on the other side of the hill, but have not seen it. Jumbe Muviligunga at Itengulinyi knew of these constructions, but had no suggestions on their origin.

Roads. At Mamfugale's Farm, also at the foot of the hill, and again near the other 'fortified' point, one can see what appears to be a road, about 9 feet across, apparently banked up to make it level, and with a line of small rocks along the outside edge. Both are very overgrown and broken up, but undoubtedly connected up at one time. The interesting thing is that the same pattern can be seen at Rumuli on either side of the wall-site, closely following the edge of the hill, disappearing at the cleft, and visible again on the other side. It is possible that this linked up at one time with the one at Iganga.

Capt. Wilson reports on a road at Fikula on the Kiponzelo side of the hills, but this we have never seen, nor any of the other roads he mentions in other parts of the Territory. It may be possible that there is some connection between the Tanganyika roads, and the ones Huntingford mentions in Eldoret in an article in "Man" for 1927.

Conclusions.

It may well be that there is no connection between any of the separate features mentioned, but their geographical proximity suggests that there is, in fact, a link. Dating can only be accurately verified by finds of specimens of material culture; but at present these are confined to a few examples of pottery from the 'graves'. We are inclined to give the whole system a pre-Hehe date, which probably means, at the latest, the seventeenth century. As for the identity of the makers, that again depends on excavation — otherwise we are left with misty legends of the VaMia.

The most impressive aspect of the whole complex is its extensiveness, there may well have been a numerous and well-organized society in this region before the Hehe. The rise and fall of many such societies is well-known in Bantu history.

REFERENCES.

WILSON, G. E. H. :—

1. "Ancient Civilization of the Rift Valley," in "Man", Vol. XXXII, November, 1932, No. 298.
2. "Deductions from Remains of an Old Agricultural System in Uhehe T.T.," in Proc. Brit. Ass. (Glasgow) 1928.
3. Article in "East Africa," 1928, Vol. IV, No. 203, September 13th.

HUNTINGFORD. — Article in "Man", 1927 (?), on road-system near Eldoret.

THOMSON, JOSEPH. — "To the Central African Lakes and Back."

NIGMANN, E. — "Die Wahehe," Berlin 1908.

CULWICK, A. T. — "Ukena of the Rivers."

Information also acquired from various elders, especially at Itengulinyi (Jumbe Muviligunga), and Makungu (Jumbe Kiwanga).

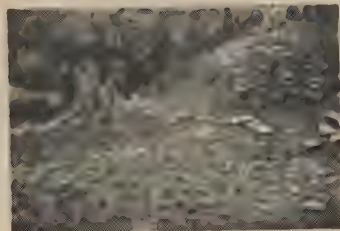
Mamfugale's Farm.



Grave



Wall



Road

Some Aspects of Dhow Building

By P. H. Johnston.

"Was this the face that launch'd a thousand ships."

Marlowe's *"Faustus."*

Selemani Kombo learnt the art of dhow building when the renowned Fundi Saidi was still setting the highest standards at Pemba at the mouth of Mikindani Harbour. But it was not under Saidi that Selemani learnt his trade; he was born at Kionga, the Makonde Peninsula south of the Ruvuma, now in Portuguese East Africa, where he was apprenticed to Fundi Kitenge, a master dhow builder under whose tutelage Selemani became expert. In about 1894, when the Germans were building the Mikindani Boma and the Arab Sub-Governor of Kionga and his superior at Mirumba Fort, Mikindani, had departed, Selemani came to Mikindani and set up on his own. For more than fifty years he has been building dhows, from ocean-going vessels to small fishing smacks, at his "yards" at Naida at the south-eastern end of Mikindani town. He is now assisted by his son and two grandchildren and employs four other assistants; he is still regarded as the best craftsman on the Mikindani coast.

He tells that the style of dhows and the art of their making has scarcely altered with the years, but he admits that he now receives higher fees for his work than of old. It is interesting to learn from him that during the latter days of Arab rule all dhow work was entirely in Swahili hands along the southern coast of East Africa and that he can recall no Arab craftsman.

If the prospective owner of a new dhow is wise and contracts with Selemani for the building of his craft, he will first have to strike his bargain as to the price to be charged. Selemani's fees range from 200/- to 300/- shillings for sailing skiffs, up to 1,000/- to 2,000/- shillings for the largest boats. These are his own figures; other Africans will say that Selemani never builds a boat for under 350/- and that he receives up to 3,000/- for the biggest dhows. When the contract is made it is sealed by the advance payment of 100/- to 300/-, depending on the size of the boat to be built. Selemani will then collect his tools, build his stocks and muster his assistants. All materials must be provided by the owner: planks, mast, nails, cotton, oil and fat. When the dhow has been launched and Selemani's work is ended the owner will pay the balance due on the contract price, purchase and fit his sail and ropes and then set out to sea. There will be other expenses for the owner to pay; certain special fees will have to be paid to Selemani, 4/- or 5/- when the keel is laid, 4/- on fixing the stern post (*chanda*)*, 40/- to 50/- on stepping the mast, 5/- on fixing the joists (*wandra*)* for the mast and 50/- on the launching of the dhow. The owner must pay for the extra hands employed in stepping the mast and in launching his dhow, when he may also throw a party to the builder and his helpers. Selemani pays his regular assistants no salaries but reckons that, apart from his special fees, he gets for himself 300/- out of every 1,000/-, so that his seven assistants would average 100/- each on a 1,000/- job.

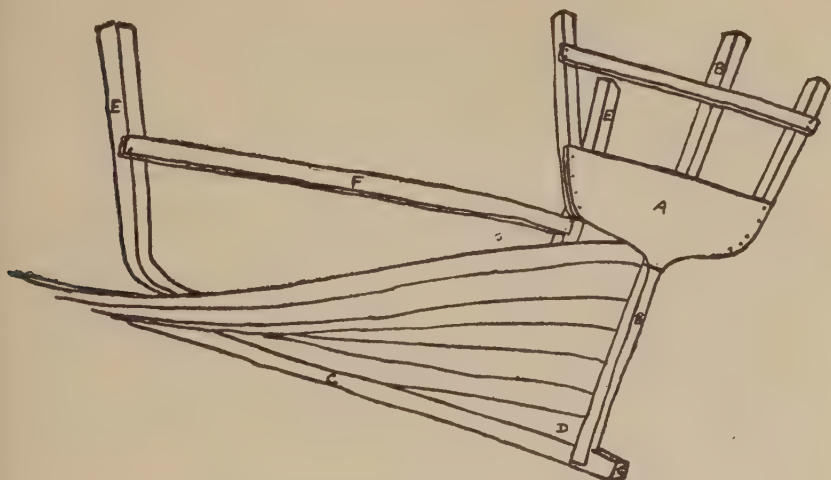
* NOTE: *Chanda* and *wandra* are Kimakonde words.

Whether Selemani's price list is higher than that to which he is generally bargained down, and local Africans exaggerate the reputé of his charges, or whether the Liwali of Mikindani is in a position to strike a harder bargain than his fellows, cannot be determined; but the latter, Sheikh Sefu Mwanya, recently had a small *dhau* (craft pointed at bow and stern) built by Selemani, and according to him his contract price with Selemani was 200/- plus special fees amounting to less than 50/-; he estimated that all his materials and incidental expenditure amounted to about a further 250/- to 300/-, so that, unless he is being over-optimistic, his boat did not cost him £30 altogether.

The building of a large dhow will cost the owner anything up to 10,000/- and such a boat will have a re-sale value when new of even 15,000/-. It can, therefore, be understood why few of the biggest vessels are African-owned. If the owner consults Selemani as to the timbers required he will receive the following advice:—

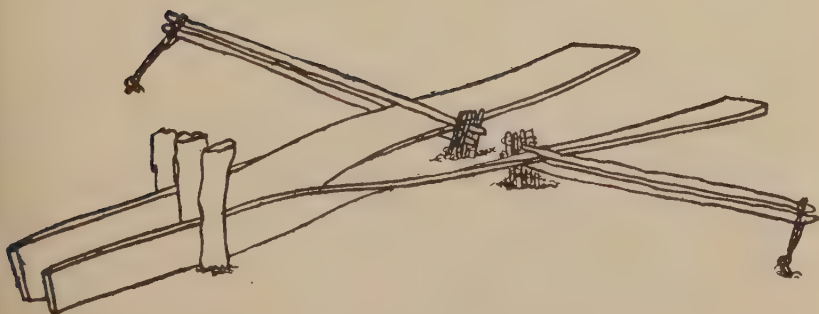
Msikundazi (<i>Heritiera littoralis</i>) (Mangrove type)	Keel.
Mkurungu (<i>Pterocarpus chrysothrix</i>) or	
Mkaka (<i>Rhizophora mucronata</i>) (Mangrove)	Mast.
(If Mkurungu is used for the mast it must be a particularly good specimen, which is very hard to obtain.)	
Mtumbati (<i>Pterocarpus angolensis</i>)	Gaff, Deck Planks and Stern Boards.
Mbambakofi (<i>Afzelia quanzensis</i>) (Lucky Bean Tree)	Block of wood attached to stern boards.
Mnepa (Makonde?) or Msesemu (Mbaraganda) ...	Cross piece and Rudder.
Msesemu (Mbaraganda) (<i>Pteleopsis</i> sp.)	Stern post and Prow-post.
Mkomafi (<i>Xylocarpus benadirensis</i>) (Mangrove type) and	For decorative adornments.
Mvule (<i>Chlorophora excelsa</i>)	

Selemani will first have built his stocks (*bunta*), he will then lay the keel, fix the prow and stern post, carefully placing his joists to hold the positions. The knee pieces are then added about a foot apart. The planks for the hull, which have first been bent, are now attached to the shell, the cross pieces are joined, the mast step and joists emplaced; the decking of the poop and bows and fitting of the floor boards follow. Then, when the task of caulking is complete the dhow is ready for the owner to take over. It should be noted that the rivetting and first caulking is followed by the launching of the dhow. After three or four days the boat is carefully examined for leaks and a further thorough caulking takes place



- A CHANDA (KIMAKONDE)
- B FASHINI (FARASHINI IN KIMAKONDE)
- C MKUKU (UTAKO IN KIMAKONDE)
- D MALIKI
- E MATARUMA
- F FUNDO

After section of a Jahazi



Plank bending

but no more rivetting. The mast is then stepped, the decks and floor boards fitted and finally the sides of the ship will be well painted over with a mixture of lime and simsim oil or preferably lime and fat. Besides simsim oil, shark, coconut and groundnut oils are also used for caulking. While the builder does in fact sometimes install the mast, it should be pointed out that his responsibilities to the owner normally cease once the caulking *after* launching is completed.

The major task for the builder is the bending of the planks to conform with the shape of the hull: the method followed is recorded by Mr. Leakey — "A vice is made by means of three uprights in the ground, blocks and tackle. Two planks which are to be opposite numbers in the ship are placed narrow side up between the uprights and are strained away from each other. The planks are first soaked in shark oil and gently heated by a charcoal fire. By dint of bending the planks simultaneously symmetry is ensured." If the owner wishes, one or two planks from an old and successful dhow are used in the new craft for luck.

The alignment of the hull and all the work is done by eye with a few primitive tools, chisel, adze, hammer, saw or axe, mallet and drill, the last named usually a home-made product with the appearance of a clumsy cross-bow but remarkably effective and used extensively when the rivetting is being undertaken with rough locally made nails, though formerly imported nails from Zanzibar were preferred. Now, it is to be feared, many lengths of stolen sisal-estate rail go into the making of the local nails.

Each rivet head is encircled by a piece of cotton soaked in simsim oil and the caulking is effected in the same way. For the final dressing, however, tar is not used, but the outside of the hull is painted over with a mixture of lime and boiled fat, that of hippopotamus if available, although formerly shark oil was more generally used. It is applied by hand or with a cloth. The sail will invariably be *maradufu* (bafta or unbleached calico in double width), which is stronger than "American Cloth". The ropes are of coconut fibre. If the owner is wise and wishes to see his boat last for a dozen years or so, he will re-caulk, weatherproof and generally overhaul his dhow at three-monthly intervals.

To-day from Ngau, at the mouth of Sudi Bay, to Mwambo on the tidal waters of Ruvuma (miraculously navigated by Dr. Livingstone in a steam boat) sailing ships of many sizes are being constructed. The smaller craft are nearly all African-owned and are used for fishing, carrying coral limestone, the transport of *makuti** and cowrie shells, mangrove bark, lime, stone, sand, poles, and sometimes for lighterage work. Most of the larger dhows, owing to their expense, are Indian-owned and transport produce as far afield as Mombasa and Zanzibar.

* *Makuti* — plaited coconut fronds used for thatching.—Ed.

Development in the Mikindani area has seen the introduction of iron lighters, which has discouraged the building of larger dhows but has brought such an increased demand for stone, sand, poles, *makuti* and lime that it should act as a stimulus to the building of smaller craft at any rate, though in fact this has not so far been the case.

With primitive tools, no instruments and no blue prints, but with the sure eye and hand of the well trained proud craftsman, the African dhow builder is a skilled workman well worthy of his hire, enjoying one of the few lasting benefits bestowed upon the East African coast by the long years of Arab rule. Let it be hoped that dhows will long continue to sail the seas and their builders long ply their trade.

The writer acknowledges the assistance to him of Notes on Dhow-making made by Mr. E. B. S. Leakey and a diagrammatic sketch thereof.

R h a p t a

By J. W. T. Allen.

I. Introductory.

In "*Tanganyika Notes and Records*" No. 17 of June, 1944, Mr. H. C. Baxter admirably summed up a number of recent opinions and came logically to the conclusion that in the neighbourhood of Pangani is to be found the site of Rhapta, the most southerly port known to the ancients. When stationed there myself in 1946, I endeavoured to pursue the subject with a view to checking Mr. Baxter's conclusions. I based my investigations on his article, as it was the only textbook available to me, and I found much to support him. I then sketched an article which should embody these additional pieces of evidence, and the late Mr. C. Gillman, who was much interested, promised to contribute a note on the geological and morphological problems of the Pangani estuary which were raised by my suggestions. I asked him, however, to wait until I should have an opportunity to consult the texts themselves, as I was not satisfied by second-hand references. His death robs us of the scientific part of this article and my own study of the texts has forced me to tear up almost all that I had myself written; but what survives may serve as a warning against building theories without returning to original sources. In view of the remarkable misquotations of these sources current in the literature of the past hundred years, I consider that it is time that they are quoted correctly and in full. I give them in the only published translations into English that I have been able to trace.

II. The Texts.

The Periplus of the Erythraean Sea : attributed to Flavius Arrianus, about 50 A.D. A typical example of a straightforward merchant seaman's description of a coast. (Translation by W. H. Schoff):

" 15. Beyond Opone, the shore trending more towards the south, first there are the small and great bluffs of Azania; this coast is destitute of harbours, but there are places where ships can lie at anchor, the shore being abrupt; and this course is of six days, the direction being south-west. Then come the small and great beach for another six days' course and after that in order, the Courses of Azania, the first being called Sarapion and the next Nicon; and after that several rivers and other anchorages, one after the other, separately a rest and a run for each day, seven in all, untill the Pyralae islands and what is called the channel; beyond which, a little to the south of south west, after two courses of a day and a night along the Ausanitic coast, is the island Menuthias, about three hundred stadia from the mainland, low and wooded, in which there are rivers and many kinds of birds and the mountain-tortoise. There are no wild beasts except the crocodiles; but there they do not attack men. In this place there are sewed boats and canoes hollowed from single logs, which they use for fishing and catching tortoise. In this island they also catch them in a peculiar way, in wicker baskets, which they fasten across the channel-opening between the breakers.

16. Two days' sail from here there lies the very last market-town of the continent of Azania, which is called Rhapta; which has its name from the sewed boats (*rhapton ploiarion*) already mentioned; in which there is ivory in great quantity, and tortoise-shell. Along this coast live men of piratical habits, very great in stature, and under separate chiefs for each place. The Mapharitic chief governs it under some ancient rights that subjects it to the sovereignty of the state that is become first in Arabia. And the people of Muza now hold it under his authority, and send thither many large ships; using Arab captains and agents, who are familiar with the natives and inter-marry with them, and who know the whole coast and understand the language.

17. There are imported into these markets the lances made at Muza especially for this trade, and the hatchets and daggers and awls, and various kinds of glass; and at some places a little wine, and wheat, not for trade, but to serve for getting the good-will of the savages. There are exported from these places a great quantity of ivory, but inferior to that of Adulis, and rhinceros-horn and tortoise-shell (which is in best demand after that of India), and a little palm oil.

18. And these markets of Azania are the very last of the continent that stretches down on the right hand from Berenico; for beyond these places the unexplored ocean curves round toward the west, and running along by the regions to the south of Aethiopia and Libya and Africa, it mingles with the western sea."

The Geography of Claudius Ptolemy, about 150 A.D. (Translation by Edward Luther Stevenson) :—

"1.9. Concerning the voyage from Aromata to Rhapta, Marinus tells us that a certain Diogenes, one of those who were accustomed to sail to India, having been driven out of his course, and being off the coast of Aromata, was caught by the North Wind and, after having sailed with Trogloditica on his right, came in twenty-five days to the lakes from which the Nile flows, to the south of which lies the promontory of Rhaptum. He tells us also that a certain Theophilus, one of those who were accustomed to sail to Azania, driven from Rhapta by the South wind, came to Aromata on the twentieth day. In neither of these two cases does he tell us how many days were occupied in actual sailing, but merely states that Theophilus took twenty days, and Diogenes, who sailed along the coast of Trogloditica, took twenty-five."

He only tells us how many days there were on the voyage, and not the exact sailing time, nor the changes of the wind in strength and direction, which must have taken place during a voyage of such long duration. Moreover, he does not say that the sailing was continuously south or north, but merely says that Diogenes was carried along by the north wind, while Theophilus sailed with the south wind. That the wind kept the same strength and direction during the whole voyage is related in neither case, and it is incredible that for a space of so many days in succession, it should have done so. Therefore, although Diogenes sailed from Aromata to the swamp to the south of which lies the promontory of Rhaptum, in twenty-five days, and Theophilus from Rhapta to Aromata

a greater distance, in twenty days, and although Theophilus tells us that a single day's sailing under favourable circumstances is calculated at 1,000 stades (and this computation Marinus himself approves) Dioscorus nevertheless says that the voyage from Rhapta to the Promontory of Prasum, which takes many days, as computed by Diogenes is only 5,000 stadia. The wind, he says, varies very suddenly at the equator, and squalls around the equator on either side of the line are more dangerous.

I.17. The lakes from which the Nile takes its beginning are not near the sea, but are very far inland. The shore line from the Aromata promontory to Rhapta is otherwise than Marinus has shown it to be; nor can an ordinary day-and-night voyage be counted in stadia because of the changeableness of the winds at the equator, but is limited to about 400 or 500 stadia at the most.

There is, first of all, a continuous bay in which, after sailing for one day from Aromata we come to Panocone and to Oponé, an emporium, distant one day's sail from Panocone. Sailing from the emporium, they say that we enter another bay which marks the beginning of Azame, at the entrance to which appears the Zingis promontory, and Mount Phalangis, remarkable for its three peaks. The name of this bay is Apocopa, and it takes two days and two nights to cross it. After this is Parvum Litus (Little Shore), at the distance of two days' voyage, then Magnum Litus (Great Shore). Of the five distances, the last two are said to occupy the same time in sailing.

A further four days' sailing, they say, will bring us to another bay, in which there is the emporium of Essina. It requires two days and nights to cross this bay; then after a day and night sail one comes to the seaport of Serapionis; thence begins the bay which leads to Rhapta, a voyage of three days and nights. At the head of this bay they say there is an emporium called Tonicus. From this emporium toward the Rhaptum promontory there is, they inform us, a river called Rhaptus and also a city of the same name not far from the sea.

The bay extending from Rhaptum to the Prasum promontory, although great in size, is not of great depth. The barbarians who dwell on its shores are cannibals.

IV.7.	(Longitude)	(Latitude)
Acanna Market Place	82	7
Aromata promontory and market place ...	83	6
In the Barbaricus Bay		
Pano Village	82	5
Oponé market place	81	4.15
Zingis Promontory	81	3.30
Phalangis Mountains	80	3.30
Apocopa	79	3
Noti Cornu promontory	79	1
Parvum Littus	78	s 1
Magnum Littus	76	s 2
Essina	73.30	s 3.30
Serapionis station and Emporium	74	s 3

Tonice market place	...	...	...	...	73	s	4.15
Mouth of Rhaptus River	...	...	...	...	72.30	s	7
Rhapta Metropolis of Barbaria	a short distance						
from the sea	...	...	...	...	71	s	7
Rhapon Promontory	...	...	...	...	73.50	s	8.25
8.							
Prasum Promontory	...	...	...	...	80	s	15
Near this is an island towards the East, the name of which is :							
Menuthias	...	...	...	...	85	s	12.30

Around this bay the Anthropophagi Aethiopians dwell and from there towards the west are the Mountains of the Moon from which the lakes of the Nile receive snow water (57 s 12.3 — 67 12.30)."

III. Notes on the texts.

Periplus 16, first sentence: Schoff translates "Two days' sail *beyond*". I have taken the liberty of altering the word as it cannot be assumed from the use of the word 'apo' that the voyage continues in the same direction.

Ptolemy Bk. IV :—Different editions of Ptolemy give slight variations for some of these positions, and it would involve a great deal of irrelevant work to argue which are the best. For the position of Rhapta the variations are of no importance as they apply only to places north of it. For the longitude of Apocopa, I follow C. Müller; the figure given by Stevenson appears to be a misprint.

Something is clearly wrong with the latitude of Serapion, which in the Periplus, in Ptolemy Book I and in the order in this very passage should be south of Essina. I have made no attempt to clear this up.

IV. An attempt to fit the texts to the Geography of Africa.

In the Periplus and Ptolemy we have fragments of a number of estimates of the distance from Aromata (Guardafui) to Rhapta or its neighbourhood.

Periplus (adding two days for Aromata to Opone)

via Menuthias 25 days

Diogenes, travelling slowly and not quite to Rhapta ... 25 days

Theophilus 20 days

Ptolemy's own estimate — 13 degrees of Latitude ... 18 days

Marinus Tyrius (see also the argument in Ptolemy 1.8): a great deal longer in degrees, but a similar number of days.

Ptolemy gives careful reasons for being quite uncertain of his distances and shows that he has rather arbitrarily moved Prasum and Rhapta a long way north of the positions assigned to them by Marinus.

If we plot the course from Ptolemy Bk. IV and then divide it into 18 equal parts for Ptolemy Bk. I.17, and into 25 parts for the Periplus, we find that, with two important exceptions noted below, the agreements are striking and we have a very convincing line, but no scale. Our maximum is considerably below Marinus' 1,000 stades a day, which takes us well south of Cape Town; but we are at liberty to try any scale short

of this, and in fact eighteen to twenty-five days from Guardafui gives us an enormous margin of error.

The position of Menuthias in the Periplus, 300 stadia from the land and two days from Rhapta, cannot be reconciled with Ptolemy's 14 degrees East and five degrees South of the river mouth. Either there is a serious mistake or there are two islands called Menuthias.

Ptolemy's description of the position of the town Rhapta in Bk. I is inconsistent with that in Bk. IV. In Bk. I the town is "not far from the sea"; but in Bk. IV it is $1\frac{1}{2}$ degrees from the river mouth and due west of it. If both these statements are to be accepted the river must run almost parallel with the coast, like the Juba, and the coast must run East and West. This it does not do, for so great a distance, anywhere on Ptolemy's map or in fact, unless we identify the Rhaptos River highly improbably with the Zambesi or the Limpopo. I suspect that "not far from the sea" is correct and that the exaggeration up to 100 miles inland is caused by the reduction from Marinus' map, Ptolemy's new scale being too small to show a distance that is really "not far".

It seems therefore logical to start at the other end, to extract every possible detail from the local description, and then, if we find a place that fits this description, to see whether we can fit it into the whole map. I find that the easiest way to do this is to assume the identity of the Rhaptos river and see how the surrounding country fits in. I have assumed the Rhaptos to be every river from the Tana to the Limpopo, and of those that I have myself seen there is no doubt that the Pangani fits best.

If we imagine ourselves at the mouth of the River Rhaptos as described Ptolemy (I.17) we should be in a bay whose southern limit is a promontory. To the west of us is a town, not far from the sea, but definitely not on the sea. It is up the river and it and the river are called by a name connected with sewing. This word is probably not the common Swahili word *Kamba*, because this is itself Arabic and the Arab sailors would not have chosen the stem *rabata* in preference to it. To the south of us for a long distance there is a shallow sea.

To this description we may add from Ptolemy I.9. that somewhere in the neighbourhood are swamps or lakes. We cannot definitely state that Rhapta is connected with the sea by a navigable river; but if it is not then the swamps or lakes must be navigable or there will be no place for the sewed boats. We may add further, from the Periplus, that two days' journey from Rhapta, although but 300 stades from the mainland, is an island of which we have a fairly full description.

We must not, however, add "Among the Greek merchants of the first century trading with India was a certain Diogenes, who may have supplied the unknown Alexandrian author of the Periplus with some of his information. Diogenes, returning from a voyage to India in about 50 A.C., landed at Rhapta or Rhaptum. From some such point — Rhaptum in this instance may be distinct from Rhapta and equivalent to Pangani, a trading post at the mouth of the Rufu river, opposite Pemba island — Diogenes travelled inland for twenty-five days — so, at least, he stated —

and arrived in the vicinity of two great lakes and a snowy range of mountains whence the Nile drew its true sources."* What Diogenes did is difficult to say; what he did not do is travel inland.

Let us now repeat this description substituting Pangani for Rhaptos as the river mouth. But let us try to imagine first what changes have taken place in the scenery in the past eighteen or nineteen centuries, remarking that the level of the present coastline is slowly falling, but that the Pangani river is fast silting up. It is, therefore, allowable to assume that the present site of Pangani town is under water; but that the sea is shallower and the distances between Pemba and Zanzibar and the mainland are not greater than they are to-day. How great these changes may have been I am not in a position to assess; but I do know that the alluvial plain between the two scarps north and south of Pangani is a clear series of dunes built up of the soil carried down from Usambara and Kilimanjaro, that the river quite recently had a northern mouth the line of which is clearly marked by a creek and a depression which still very nearly reaches the sea at the northern end of the bay, and that the speed of deposit is so rapid that it can be noticed in a lifetime. This seems incidentally to account for the absence of even medieval relics in Pangani township.

Now we are in a bay: to the south-west we see a striking promontory running out into the sea. On several occasions and from several standpoints this promontory has puzzled me until I have suddenly realized that it is in fact the northern end of Zanzibar Island. It does, however, closely resemble Cape Delgado as seen from about the same distance. To the west of us, "not far from the sea", and about the same distance as the promontory, so that the shape, though not the scale of the map is retained, is a town on a river of the same name. The map shows it as Mnyussi or Mnyusi; but the local people call it Mnyuzi, using exactly the same form as *uzi* (plur. *nyuzi*) string or thread. It would in fact be fair to translate Rhaptos (masc. sing.) as Mnyuzi and Rhapta (neut. plur.) as *nyuzi*. To the south of us is, if we hug the coast, a shallow sea between the reefs and the mainland, and it is probably shallower than in the twentieth century: it stretches on south to Cape Delgado, which on the general scale of the map that we are building is called Cape Prasum. In front of us, to the east, is an island now called Pemba. It is reasonable to call it two days' journey away, especially if we intend to finish some way up the Pangani estuary; but at its nearest point to the mainland, some way to the north of us, the distance is about three hundred stades. It is low and wooded; it is well watered and we treat this as being the same as having rivers. It has in fact rivers quite as big as some of the famous rivers of Greece. There are many kinds of birds, and such "mountain" tortoises as are suitable to a low island. I suspect that the mountain tortoise is in fact any tortoise that lives on land and is merely to distinguish it from the sea

* Sir Harry Johnston: "A History of the Colonization of Africa," p. 44. Cambridge, 1913. Cf. also the same author. "The Nile Quest" p.22.

tortoise or turtle. There are no wild beasts — nor are there crocodiles; but this need not worry us, for Liddell and Scott give us for the first meaning of 'Krokodeilos' "a kind of lizard," and "crocodile" only as its second meaning. The description of fishing is satisfactory and the sewed boats have but recently disappeared.

If we accept the view that Rhapta was somewhere up the Pangani river we can suppose that the present swamp through which the Mnyuzi River runs into the Pangani was a navigable lake and that the whole river was called Mnyuzi. As the lake silted up the word Mnyuzi came to mean the little stream that still runs, while the main stream came to be called "The River". That clearly is the meaning of Ruvu, a word that can be found all over the map of East Africa. Later the estuary was referred to as "in the Valley", that is between the two scarps. This, I was frequently assured, is the meaning of Pangani; but I was quite unable to find any recollection of a *mtepe* being called a *pangaia*. Nor was I able to find any traditional meaning for the word Mnyuzi.

It may be conjectured further that as the water receded, the "emporium" moved to a site on the main river with a more permanent supply and better communications, and that this is the origin of Korogwe.

I cannot help feeling that there may be a connection between Mnyuzi and Menuthi-as. It is possible that one site was colonized from the other and that a native name not understood and the same name translated have been divided. If, further, there was a Zanzibari colony in Northern Madagascar as there now is, the same name might well be found there and this would account for Ptolemy's Menuthias. For the identification with all three islands Pemba, Zanzibar and Madagascar, see B. Fabricius' edition of the Periplus, 1883. Schoff suggests that "the name seems perpetuated in the modern Monfieh"; but, apart from the fact that there is no real n in Mafya as pronounced by its own people, this would really make it necessary to identify the Rhaptos with the Rufiji, which does not fit nearly so well in other ways.

To fit this assumption into the major geography we are confronted with a triangle with a base Guardafui (Aromata) to the Pangani river mouth (Rhaptos), which has for one side in fact latitude just over 17 degrees, and for the other longitude about 12 degrees, while Ptolemy gives 13 and 10½. This is not an unsatisfactory proportion; but it must be admitted that it would suit almost any place several hundred miles north or south of Pangani. But if we accept this we can put the Pyralae islands at the Lamu Archipelago. Two days and nights thence to Pemba is good going but not impossible. If so, Serapion, Nikon and Essina may be put close together in the same area and may be another example of the difficulty of changing the scale of a map showing some things close together and others very far apart.

Lastly, we may observe that we are here a reasonable distance from Cape Delgado, if this is Prasum, that we are half way thence to the Equator, that Ibo is about the most southerly point showing any signs of Arab settlement. It is also true that "towards the west are the mountains of the moon from which the lakes of the Nile receive snow water", but

these have nothing to do with the lakes referred to by Diogenes. It is, however, more than likely that there is some confusion between on the one hand the true Great Lakes and Mountains of the Moon and on the other Kilimanjaro and Meru and the lakes and swamps in their neighbourhood, Jipe and other lakes that are now dried up or swamps in the Ruvu-Pangani valley.

V. Final Note.

While I was following false clues and plotting Diogenes' imaginary journey, I found to my satisfaction that Kilimanjaro and Meru are in fact about 25 days' journey from Mnyuzi. This is no longer relevant; but the fact remains that if Mnyuzi was the emporium there must have been a trade route inland, and until the railway was built there was one used by caravans. This route did not follow the river all the way but cut across the steppe at the big bend. Here, I am told, two days from the river in either direction and two days from Bwiko, is an invaluable water hole that makes the short cut possible. Here there is a stone called Jiwe la Mungu. It is inscribed with letters which are "neither European nor Arabic" and the local people ascribe them to the WaYahudi. I did not find an opportunity to visit this intriguing place before my departure from Africa, and I pass the information on to anyone who would like to clear up a very attractive problem. Although stones of this sort are usually meteorites with natural markings, there is always a chance that there is a Phoenician inscription, so a good camera and implements for making a copy should be taken.

An Early "Sleeping-Sickness Settlement" in South-Western Tanganyika

By C. W. Hatchell.

A considerable amount of information regarding sleeping-sickness* and the outbreaks of it which have occurred in Tanganyika, is to be found in official records and in scientific journals but, there is not a great deal readily available to the ordinary layman. It is possible, therefore, that a short account of one of the outbreaks and the steps taken to deal with it may be of interest to readers of *Tanganyika Notes and Records*.

The outbreak with which it is proposed to deal is one which occurred in the area stretching from the northern shores of Lake Rukwa to the Ugalla River, which lies some seventy miles south of Tabora. The country is, for the most part, undulating and covered with open forest, generally known as Miombo, which provides light shade and little or no undergrowth. The soil is generally a light laterite, sandy in places, and the altitudes averages 3,000-ft. above sea level. The forest is infested by that species of the Tsetse known as *Glossina morsitans*.

The disease was first observed in late 1924, when it assumed almost epidemic proportions. Blood slides of persons affected were found by laboratory examination to be positive for Sleeping Sickness of the type known as the Rhodesian. This type of the disease can be carried by the Morsitans fly and is different to that known as the Congo type (*gambiense*), well known in Uganda and on Lake Victoria, which is carried by a different species of the fly (usually *Glossina Palpalis*—Ed.). The Congo disease is a slow killer but the Rhodesian type kills in a matter of months or even weeks. The two flies differ in their habits, for while the carrier of the Congo type of the disease prefers dense thickets close to water and, is thus limited in its range, the Morsitans ranges all over the forest which, in the area affected in 1924 and subsequently, amounted to as much as 50,000 square miles.

This forest was, at that time, inhabited by some 20,000 people living, for the most part, in small family settlements widely scattered through the forest, each with its two or three acres of cultivation surrounding it. It was rare to find more than twenty people in a settlement and rare to find two settlements closer to each other than five miles. In the

* It is perhaps worth drawing the attention of the general reader to the common confusion, (we have noticed it, for example, in a recent 'East African' novel), between Sleeping-sickness (*Trypanosomiasis*) and Sleepy sickness (*Encephalitis lethargica*). The former, the effects and combatting of which is dealt with in this paper, is of course a parasitic disease carried by various species of tsetse fly, both man and beast being affected variously by the several forms of parasite. The English name derives from the state of torpor which affects the patient in the last and usually fatal stages, particularly of the "Congo" or West African form of disease, *gambiense*. The disease can, of course, be readily cured if tackled in the early stages. 'Sleepy sickness' on the other hand, first prominently noticed in Vienna in 1917 and perhaps still most often diagnosed in Europe, is an epidemic virus infection of the brain bearing no relation whatever to *Trypanosomiasis*, which it only resembles in common with many other diseases in the state of lethargy or coma which it induces. It is much more similar to *Poliomyelitis*.—Ed.

cultivated areas around the settlements the tsetse was comparatively scarce but outside them very numerous. The inhabitants of these little settlements lived, always, on the border line of famine: they could keep no live stock, their harvests were precarious due to irregular rainfall, poor soil and primitive methods and even their water supplies were irregular and scanty so that in the dry season it was frequently necessary for the women to set out on a journey which lasted well into the afternoon, through the fly forest, to draw the day's supply. For a cash crop the people relied on beeswax and their cylindrical bark bee-hives could be seen suspended from the branches of the trees all over the forest. The only method, with which they were acquainted, of gathering the wax was to burn out the hive; a method which involved the maintenance of a very large number of hives and constant journeys through the fly forest. It will be seen, therefore, that once the fly became a carrier of the disease the dwellers in these settlements stood little chance of escaping infection.

The social organisation of these people was primitive and while Chiefs certainly existed and functioned, their powers and influence were very limited owing to the very scattered population, its great poverty and the fact that each settlement was, to a great extent, self contained and self sufficient without any great need for intercourse with its neighbours.

Such is a brief outline of the conditions prevailing in 1924, when a hitherto unknown sickness made its appearance at the settlement of Tumbu and brought to it a death rate so heavy that in a very short time the 16 families living there had either died or fled to neighbouring settlements. The disease radiated in all directions and with great rapidity and as further settlements were attacked and partially wiped out survivors fled in all directions, many carrying the disease with them and infecting the fly in new areas. By the end of 1924, a vast area was affected and refugees, many in the early stages of the disease, were scattered all over it.

Since the fly was responsible there appeared to be two measures which could be taken to control the spread of the disease, apart from medical treatment with drugs. It was necessary either to move the fly away from the people or move the people away from the fly. The only method known which would persuade the fly to move was to deprive it of the forest shade by cutting down the forest but, as some 20,000 square miles of forest harboured the fly, this method was scarcely feasible. It remained, therefore, to move the people out of the reach of the fly. The obvious course was to move them to the fly free open plains in the Dodoma and Itigi districts, by means of a wholesale and organised migration, but there were a great many objections to this course. Sufficient vacant land might not be available, climatic and soil conditions would be different and it seemed unlikely that the people themselves would ever agree to such a wholesale upheaval: the more so that they had still to be persuaded that the fly was the cause of their troubles. It was, therefore, necessary to search for some other means of saving them and quickly, for it was quite clear that if they continued to live in close contact with the fly they could not survive.

It was known that the tsetse is somewhat particular about the conditions in which it lives. It requires a certain type of shade and a certain type of soil in which to breed and the quality of the soil is to some extent governed by the quantity and quality of the shade available. If, then, the quality and quantity of the shade could be altered it seemed probable that conditions would become unsuitable to the fly and that it would desert areas where these alterations had been brought about. Investigations in other parts of Africa shewed that this was the case while other investigations had shewn that the fly is averse to open and cleared spaces and will travel but a short distance into them and will not remain in them. In fact: it was clear that cultivation is the most efficient barrier; for it eliminates almost all the conditions which the fly needs.

It was decided, therefore, that instead of wholesale migration the people might be persuaded to take up residence in fly free clearings within the forest. This would remove them from contact with the fly but would allow them to pursue their agricultural activities under conditions of soil and climate to which they were accustomed. It would also allow of their remaining in contact with the Spirits of the country and the ancestral spirits, separation from which had been one of their greatest objections to moving out of their own country; since they firmly believed that lacking the protection of these spirits further and worse disaster must inevitably overtake them. There were also the obvious advantages of opportunities to improve their condition of life by the introduction of schools and hospitals, instruction in better farming methods and a wider outlook, matters which could be tackled only in areas containing a reasonably large and concentrated population. Moreover, it would be possible to keep them under close medical observation with consequent early treatment of those who had been infected with the disease. These advantages, as might be supposed, were not so obvious to the people themselves. Accustomed, as they were, to live in small isolated settlements, they were not at all taken with the idea of going to live in large noisy settlements where life would be no longer free from civic responsibilities. Moreover, and this was the biggest obstacle, they were not convinced that the tsetse fly was the cause of the disease. They reasoned that their misfortunes were a punishment inflicted by the Spirits and would continue until the Spirits were placated. A great deal of effort was expended in endeavouring to persuade them otherwise but it had little real success, and it was eventually necessary to employ the more forceful method of threats of the anger of the Government, with consequent punishment, if they refused to move.

It was decided to clear five areas of approximately 6 square miles each and to concentrate the population in them. The forest trees were to be cut down and the houses of the future residents sited in the middle of the clearing, surrounded by a cultivated area, and a further cleared but uncultivated area beyond which would act as a barrier to fly endeavouring to enter the cultivated area. These areas were to be sited on the best agricultural land available where water supplies were to be had in adequate quantities. Once the inevitability of the move had sunk in,

the people were by no means unco-operative and this was in some measure due to the fact that they were freely consulted about the siting of the clearings and, in fact, made their own choice. No clearing was commenced until the people who were to live in it had 'vetted' the soil and water supplies and other conditions and were satisfied that no other more suitable site was available.

Once the sites were fixed the available man power was organised to commence the work of felling the trees. Most of the work had to be done with such tools as were available on the spot, for money was scarce and proper felling axes expensive. This, however, was not so great a difficulty as was expected for the men could work faster and better with their own axes, to which they were accustomed, than with heavy felling axes with which they had no previous acquaintance. As soon as the ground was clear the villages were laid out and simple and quickly built huts erected; for it was urgent to get the people into safety as soon as possible, and as soon as the huts were sufficiently advanced to provide minimum shelter, migration commenced.

The move was carried out on a co-operative system: each settlement assisting its neighbours to move their goods, but in many cases the main grain reserves had to be left till later in order that the people might begin cultivation in the new settlement in preparation for the coming planting season. Once the main cultivation was under way and the houses and grain stores completed there would be time to go and collect the grain reserves. At this stage a couple of light motor trucks became available and it was possible to cut rough tracks to assembly points so that the removal of the balance of grain and household goods could be carried out more rapidly and with fewer people brought into contact with the fly.

As funds became available it became possible to increase the staff to superintend and organise the work: medical orderlies and staff were augmented and the health of the immigrants kept under close observation. Routine examination and immediate treatment became possible and gradually the numbers of cases began to diminish as those who had become infected before entering the clearing received early treatment and those who had not been infected were removed from contact with the fly. Gradually the people began to think that perhaps, after all, there might be something in this theory that the fly was responsible.

Year by year more land was brought under cultivation and the barrier clearing pushed outwards. Improved methods of farming were introduced and new seed brought in. Goats and poultry were introduced and later it became possible to bring in a small herd of cattle, and so the wealth and well-being of the people increased. Commerce became interested and small shops were established to provide consumer goods and to purchase surplus produce. It assisted in the problem of transport of produce to

market by purchasing direct from the producer and arranging motor transport so that it was no longer necessary for the producer to carry his produce the many miles through the fly infested forest to the market at Tabora. The fisher folk living on the shores of Lake Rukwa and on the streams running into it also benefited. They lived in comparatively fly-free country but could only market their dried fish at Tabora which involved a journey of many days through the fly, with risk of infection and spread of the disease. With the introduction of commercial transport better and safer marketing was possible and moreover it became possible for the people living in the clearings to obtain a valuable addition to their normal diet.

By the early thirties one, at least, of these clearings had expanded to about 30 square miles, its inhabitants were well fed and prosperous, producing a surplus of foodstuffs which they could sell on the Lupa Gold diggings. They were well clothed and the women stylishly dressed in coloured prints instead of the bark cloth of earlier days. A small herd of cattle had become established while goats and chickens were to be seen in numbers. Conditions had improved beyond all reasonable expectations.

It had taken an emergency to bring about these sweeping changes and, although many people succumbed in the outbreak, their death brought good to the community and an improvement in its standard of living for which it might still be waiting had not Sleeping-sickness broken out and made drastic and immediate action unescapable.

With the rapid industrial expansion which is predicted for this Territory it may be that the demand for labour will denude these settlements of able-bodied men and as cultivation decreases the fly will advance and the work will be undone. It may be well to remember that the fly will advance more quickly than the cultivation recedes and that once the secondary bush has become established the task of driving back the fly becomes more difficult and more expensive. It is for the economists to decide !

Plain Thoughts on African Education

By J. M. Winterbottom.

Critics of African Education have always been vocal, but recently they have taken, to an increasing extent, to blossoming out into print. Mr. B. A. Shattock in "Oversea Education" 1946, pp. 292-5, and Mr. N. Langford Smith in *Tanganyika Notes and Records*, December 1946, p. 3, may be cited as examples of the type of criticism that has been levelled against our Education Departments. It is no doubt a very good thing that educational policy and practice should be subject to criticism and that the members of Education Departments should be kept on their toes by periodical challenges to justify themselves and their actions. But they, in their turn, have a certain right to expect that their critics should at least have read and thought about the matter themselves before they declare that the Departments "have altogether become filthy and there is not one of them that doeth good." Now the main burden of all the critics' complaints is much the same and it is put forward with an air of important and novel discovery that might become a famous scientist propounding a major generalisation. but actually only suggests that whatever else the critics read on education, they do not read each other. Even among laymen, this criticism was the basis of an article by Miss Field in "Oversea Education" as long ago as 1940. The gist of this new and original discovery is that our present system of education is turning out a race of "white-collar" workers who are ashamed to work with their hands; and that it is time to emphasise the importance of manual, and especially agricultural, labour and the sacredness of the land.

Unfortunately the accusation is one of those plausible half-truths that cause endless mischief. I propose to analyse the situation here. I shall do so first by tackling the criticism as though it were true and showing how and why it has been possible to make out a case for it at all; and after that I shall expose all those much more important facts that the critics have overlooked.

Education in the sense of schooling is essential, in a community at a low level of organisation, only for jobs in the class known in modern jargon as "white-collar". It has, therefore, always happened that the first result of the impact of schools on a primitive community, whether Anglo-Saxon or Mediaeval England or Bantu or Negro Africa, has been to send its products into such jobs — clerks, teachers, priests, lawyers. In the case of most of Africa, the European administrators and business men have paid wages sufficiently attractive to induce the Africans to undertake the, to them, otherwise pointless and profitless task of education so that the dull routine work of offices may be removed from the Europeans and performed at a lower cost than would have to be paid to white clerks. Amongst Africans, anyone could farm to some extent, but only those who had been to school could handle the novelties of the European books, typewriters and so on. In countries like South Africa, with a substantial white population, who wanted these semi-skilled clerical jobs to be kept

for their own children, the prestige value of such posts was increased for Africans, who could then say they were doing European work. Education Departments are not self-governing, self-providing entities; they are subject to direction from the central government authorities and would, in any case, have been obliged to produce such workers, whether they liked it or not. Nor can they be held responsible for the economic inducements held out. If blame is due for this policy, it must be shared between the central governments and their Education Departments — the latter should not be made the scape-goats for the former. When we consider, however, how recently it is in our civilised Europe that any man with a University degree would willingly take up agriculture or engineering as a profession, I suggest it is somewhat unreasonable to expect Africans to reach our present point in this respect when they are still so far behind in every other.

Turning now to the second aspect of the case, let us consider the dignity of agricultural labour, the sanctity of the land, the importance of improving village life, the blessedness of working to raise up our people and all the other idealistic "carrots" by which our critics suggest we should lure the African donkeys back into the stable of the rural community. Clearly it is just as necessary that the African should have lofty ideals as that the Europeans should. Far be it from me to advocate a policy of each man for himself and the devil take the hindmost. But the first thing anyone engaged in African education has to do is to face unpalatable facts and no amount of emotional talk about the land can alter the fact that over large tracts of Africa it never has been and is not now capable of doing more than provide the barest minimum of food necessary to hold body and soul together for an extremely scattered population, with no margin against famines and no surplus for sale, even in places where there is any market in which to sell it. It may be that in years to come Agricultural Departments will succeed in creating in these regions a soil that will grow crops that are economically worth while and at a cost that the colonies can afford to pay. In the meanwhile, it is unfortunately true that the land, however sacred, is unfit for human habitation and the African, who has tried living there, knows it. The higher you raise his standard of living the quicker he gets out. Nor, in my opinion, is that a matter for regret; but it undeniably complicates the work of Governments since, as our critics have noted, the depletion of man power in the villages (which, as a matter of fact, is by no means confined to the educated) lowers the standard of living of those who remain there, disrupts their traditional methods of agriculture and turns the community into "remittance men" depending for some of the essentials and all the comforts of life on the money sent back by the absent wage-earners. In a community which has always been short of food and is now short of man-power as well, schemes of rural improvement, for teaching the people to grow more food and additional crops, to build better houses, to make their own pots and hoes, to weave their own cloth and all the other arty and crafty ideas dear to the hearts of persons with private incomes, are quite futile. The plain truth is

that subsistence agriculture and modern civilisation are incompatible and the African, who has tried both, prefers the latter, though he will save as much as he can of what appeals to him in his old system when he changes over to the new.

It is the failure to realise this fundamental situation that has led so many would-be reformers astray. We find, amongst Europeans, some who are never so happy as when they are working with their hands, others who frankly dislike this form of work and prefer desk work and others again who like both. Some of us are never happy in a city but wish to work on an outdoor job and some of us are wretched if deprived of our theatres, concerts, art galleries and cinemas and much prefer Wordsworth's poems to his primrose by the river's brim. Unless we are to assume that Africans have a totally different kind of mind from the Europeans — and no one engaged in African education would admit that for a moment — we must conclude that similar differences exist among them. The reasons for the unwillingness of educated Africans to return to farming are therefore two: (1) school, being in most places voluntary, naturally attracts the type that has least taste for working with its hands to a greater extent than other types; and (2) no African who has been taught to want a higher standard of living — good clothes, bicycles, iron pots, European plates and spoons, comfortable beds, mosquito nets and so on — will willingly return to subsistence economy. And it is unreasonable and immoral to expect him to do so.

These then are the reasons why so many Africans have been lost to the village communities and I contend that they are not only understandable but inevitable and good. The situations arising from this loss are not as good as they might be because we have not always had the courage to admit their inevitability and set ourselves deliberately to educate the Africans for them. Here Governments and their Education Departments have sometimes laid themselves open to criticism: the curious thing is that I have never heard that criticism made. It is also true that Governments have not always done all they might to develop potentially rich agricultural areas, though the difficulties of doing so in poor colonies with little available capital are often extremely formidable. That is no excuse for irresponsible critics blaming the educational system for not performing what is at once impossible and undesirable.

But I do not stop my criticism of the critics at this point. I go further and deny absolutely that Education Departments turn all Africans into "white-collar" workers. That only occurs in areas such as those discussed above, where the land is incapable of supporting a population of any density or in any comfort. Not all of Africa is like that and in those parts of it in which an educated African farmer can earn a living of a standard comparable to that he could earn as a clerk or teacher, he often is earning his living in that way. In such areas, Departments of Education

and Agriculture, together with voluntary agencies, are combining to give a real rural bias to education and this bias, in such cases, is not just an artificial thing imposed from without but a thing full of meaning to the pupils. I have myself recently written an account of such an area and such a system in "Oversea Education".

Finally, I would attack one further implication of most of our critics' remarks and that is that all, or nearly all, their proposals are essentially a plea for all African education to be vocational. That is, quite frankly, the attitude of most Africans to education but no educationist could accept it. By all means relate your education to the life and environment of the pupils, for that must be the starting point of any successful education; by all means strive to make your pupils better farmers, clerks, teachers, medical orderlies and so forth; but the true aim of education must always be to liberate the spirit and the intellect, to train the pupil "so to live that in affirming his own personality, he helps others to affirm theirs." No lower ideal than this will satisfy the best of our educationists and towards it, however stumblingly and imperfectly, we must aim.



Notes on Uvinza, Tongwe and Ubende, Western Tanganyika

By Captain C. H. B. Grant.

The southern half of Uvinza, Tongwe and Ubende lie south of the Malagarasi River. The three together cover an area of some 9,900 square miles. They occupy about 170 miles of the western shores of Lake Tanganyika. The southern boundary is from the Tenilo rock in the lake to Kikankho Hill, Ipungulu Hill and a point on the Kabenga River about $1\frac{1}{2}$ miles south of Kapilula. The greater part of Tongwe and Ubende is very picturesque with its great scarps, mountains, perennial rivers and mainly evergreen vegetation, though in southern Ubende the trees are leafless and the rivers cease to run in the dry season. The mountain ranges in the western areas have a north-western to south-eastern trend, but in the interior appear to follow no general direction. In the central area of some 1,300 square miles, the country is more rolling and hilly than mountainous, the dominant feature on the eastern side being Ikuse Mountain, 6,090 feet a.s.l. The highest point is that of Kungwe Peak, 8,520 feet a.s.l., or 6,020 feet above lake level, and elsewhere the mountains vary from 5,000 to 6,000 feet a.s.l., some being long whale-back ridges and others rising steeply and abruptly in grand rugged masses picked out in such features as Kakungu, Mwese and Itiaso, all over 6,000 feet a.s.l.

About 10 miles south east of Sibimbi is a remarkable sheer precipice walled in on three sides, the serried rock blocks appearing as though they had been built up by the hand of man. From this 600-foot gorge, known as the Fianza Ya Ukasi, flows northward one of the tributaries of the Mvugazi.

Close here is a hill from the top of which can be seen the mountains of Heru in the Kasulu district.

Among the many rugged or steep ranges may be mentioned Ihila, Kafuta and Wansisi.

The whole area is clothed mainly in the ordinary type of open forest with some thorns, proteas being found on the high tops. The valleys are forested where the rivers debouch from the mountain sides, with gallery forest marking the course of some of the rivers, though the main forests occur nearer the lake at Kabogo and Kungwe. Bamboo is plentiful, some ridges being covered with it, and a larger kind of some 60 to 80 feet high and some 12 inches in circumference is found on Kungwe. Raffia palms are plentiful in the valley of the Luegere, and a very fine large form of maidenhair fern is found at the head of the Mabiesie River on the southern slopes of Mwese, and grew prolifically in a tub on the verandah of my quarters in Kigoma. High, straight trunked *Murumba** are to be seen here and there, out of which canoes are fashioned, the felled log being dragged over mountains and streams to the lake shore.

Most of the rivers are of no great length and are not navigable except for stretches of the Malagarasi. The largest is the Nyamanse in the east.

* *Neoboutonia macrocalyx* Pax? — Ed.

and the Lugufu, which runs right across northern Tongwe from east to west. The many perennial rivers flow through rocky scarped country. The Lugufu is a perennial river at its eastern and western ends, but the central stretches flow underground in the dry season, leaving a wide open and flat valley of dry dust over knee deep, the surface left corrugated by the last of the surface water. So fine is the dust that it rises in clouds from every step one takes. The outstanding feature of all Tongwe and Ubende is the Kungwe-Mahare massif. I first saw this from the lake steamer, and on consulting the German 1 : 300,000 map, realized that here was a fine field for plane tabling as the old map gave no idea whatever of the actual topography. From the deck of a lake steamer this massif presents two parallel ranges running north and south, the nearer one along the lake shore and sloping steeply to the water's edge. From this view-point the impression is that of a long valley between these two ranges, and one naturally visualizes the drainage flowing east and west off the slopes and being carried by a central waterway due south to the lake at the southern end of the Mahare. Small streams can be seen debouching from the nearer range, but these give the impression of draining only the western face, and all, except the Lubulungu and the Lubugwe, fall over steep ledges into the lake. Cameron,* who, in March 1874, was the first white man to see this wild and picturesque mountain range, records seeing crystal torrents and waterfalls.

The drainage system on the eastern side of the Kungwe-Mahare was what one expected to find, that is rivers running parallel with the mountain range, but the drainage system on the western side was surprising and unexpected. The central waterway flowing southward down the valley was not there, and in its place the drainage from the western escarpment of the Kungwe-Mahare was carried to the lake by rivers running due west, three of which, the Lubugwe, Katimba and Lumbya, cut through the mountain range along the lake shore. The pre-conceived theory based on the appearance of these two parallel ranges, was very rudely shaken and this was all the more remarkable owing to the solid appearance presented by the nearer ranges, except at its northern end, where an obvious gap, later proved to be that of the Lubulungu, was to be seen. I explored this river and the first three miles as the crow flies took four hours' walking, most of it over the very rocky bed of the river, after which one followed the path along the steep mountain sides to where it joined the path from Ujamba to Kalya.

Ujamba is the only village on the top of the Kungwe-Mahare massif, most of which is too steep for cultivation or lacking perennial water.

It is an intriguing piece of terrain, and I had intended climbing to the top of Kungwe Peak, but was unable to find time to do so.† The 1,000-foot gorge of the Vimbie, about one and a half miles east of Ujamba, was a surprising feature as there is no indication of it as one looks across the flat open ground, until one is on its brink.

* 'Across Africa', 1877.

† For an account of an ascent see 'Mkungwe Mountain' by C. C. O'Hagan. *Tanganyika Notes and Records* No. 9 of June, 1940.

Kabogo Head and Sansa Point are held in reverence by those who travel on the lake. Kabogo is a Chiefteness and Sansa her wife. Before the days of steamers, if a traveller did not propitiate the spirits by placing a goat or fowl on Kabogo Point, the craft could not make the Head. No doubt the real reason is to be found in the winds that suddenly spring up causing rough water and driving back vessels making the point. When I rounded Kabogo in December, 1925, a local native whom I had aboard the motor boat, exhorted the spirits to give us a safe journey, luck in game, food, and all matters appertaining to our welfare. A few miles south of the Head the engine gave me a lot of trouble, so I must have offended the spirits, as I had smiled at the solemn mien of my passenger. To this day the natives place food on Kabogo Point, and I saw a piece of red bunting flying on a stick stuck in the rocky point, and was told that an Ufipa fisherman had placed it there as his daughter was ill.

The change in the water level of Lake Tanganyika is well known to have been caused by the Lukuga river on the Belgian side discharging its waters westward. This may have been caused by the gradual rise of the lake level when the weight of water broke through the Lukuga Valley: it was perhaps a repetition of what had occurred over long periods, and would no doubt occur again if the entrance to the Lukuga was not artificially kept clean. This appears to be borne out by Cameron's remark that he passed over the sites of many villages and stumps of trees that were under water and had once been part of a cultivated and inhabited plain. This was apparently near the mouth of the Musamwira River. The exact date of the last break through of the Lukuga is not known, but we do know that in May, 1874, Cameron found it flowing out of the lake. He does not, however, tell us whether a noticeable fall in the lake level was to be observed by the marks on the rocks and beaches. The old water level marks are still to be seen on rocky headlands and in the raised beaches. Judging by the several beach levels it would appear that the fall to its present level must have spread over a number of years. This very considerable change in water level has in many places had a profound effect on the topography of the shoreline. It is particularly noticeable in the plain at Karema and the several promontories that were once islands. Cameron passed between Kabogo and the mainland in March, 1874, by a channel two and a half miles long, 300 yards wide at the entrance, and one and a half miles wide in the middle, but there is now merely a headland known as Kibwesa Point. All along the lake shore and up the Malagarasi River as far as the Nyanza Salt Mines, indications are apparent of the old water levels, some quite a distance from the present shoreline, and an interesting survey could still be carried out of the original littoral topography. The principal economic value of this fall in lake level is the easy route by which the railway has entered Kigoma and the now fertile plain west and south of Ujiji, through which the Luichi River flows to the lake. Elsewhere the areas exposed have not been much utilized, probably owing to the sparseness of the population. The present inhabitants of Tongwe/Ubende say it was once practically uninhabited, they themselves having come mainly from the Belgian Congo,

and some from the country north of the Malagarasi. This origin is emphasized in many of their customs.

Along the lake shore there is a sprinkling of Ufipa fisherfolk. Uvinza, Tongwe and Ubende suffered much in the past from local wars and raids, chief among which was that of the Watutu Zulus (Wangoni) about 1855, under Mirambo (1832-1884) and Mutambarika, who is said to have been one of Mirambo's sons. They invaded the district, and besides raiding Ugoi (Ujiji) three times (though in 1858 it is said they were beaten off by the Arabs), spread death and destruction through Uvinza and at least as far north as Kibondo, carrying away the women and stock. At the south end of Lake Tanganyika the Impis divided, one entering the Belgian Congo; but the history of their activities in that country does not appear to have been recorded and, somewhere near the present line of the Central Railway, part of the eastern Impi turned back. In Tongwe several of the villages beat them off, as the people had acquired guns, doubtless from the Pangani traders and the Arabs, while the Zulus were only armed with assegais, clubs, and shields. These Watutu Zulus were called Wawibwi, one of the local names for the wild dog. Except in Tongwe the people everywhere are said to have fled at their approach. Evidence of their raids through Tongwe is found in the cairns of stones, made by each warrior throwing a stone on to the heap, erected here and there where loose rocks and stones are strewn over the surface. Four cairns are to be seen on the Mukuba Hills, two at the western end of the Butandula Mountains, one between the Mulufesi and Kasongwe Rivers, and one at the headwaters of the Mfungesi in Busongoro. The people vouch for the authenticity of these interesting historical cairns, and if we were to count the stones of, say, the four cairns on Mukuba, we ought to get a good idea of the number of warriors forming the Impi that passed by that route. These cairns are not found elsewhere in the Kigoma district. It is not known whether any returned to Angoniland, but Mirambo and the majority of his following finally settled in the Tabora country and were absorbed in the local population.

Game is not plentiful in this part of the world and consists mainly of Topi, Bushbuck, Reedbuck, Klipspringer, Duiker and a few Roan. Elephant occur along the Luegere valley, and a wide path which goes over the ridge of Pinga Hill is as bare and smooth as a well made motor road. A word to those who travel in small craft on Lake Tanganyika. It is usually calm at night with the wind off the land, but it veers round towards midday bringing up a short dangerous choppy sea, and I have myself in a small motor boat been compelled to steer westward for five or six hours and be out of sight of land before the wind again changed in the late afternoon and allowed me to make safely for land. The natives know and understand their lake and their advice should not be ignored. Off the mouth of the Malagarasi River shallows occur a very considerable way out from the last reed bed. When I first passed that way the water was getting choppy and the risk of bumping and swamping the motor boat was great. I was indeed thankful when, none too soon, I ran off the bank into deep water.

I saw no cattle or goats anywhere, though at one time a small herd of the former were kept by the chief at Sibimbi. The people live on the produce of their small gardens, the natural resources of the country, and fish.

The late Charles Grey, who was killed by a buffalo under Kungwe in 1928, must not be left out of this picture, for he collaborated with me and surveyed a great deal of the lake shore, fixing the exact position of Kungwe and other peaks.

Notes

ANGONI RAIDS IN THE RUFIJI DISTRICT

By R. de Z. Hall.

"But nowadays we have peace, thanks to the Europeans: and even our revenge over the Angoni. Where we used to run before their spears, now we see them going to look for work on plantations and even working for us for the price of a pishi (litre) of salt." An old Pogoro man of Mpanga, in the far west of the Rufiji District, had been reminiscing over the slave-raids which went on until fifty years ago, and this was the end of his tale.

These raids took the Angoni on the one hand as far a-field as Busambiro near the southwest of Lake Victoria, where there were ten years ago frescoes on the walls of the Chief's house at Nyantakara, depicting Angoni warriors:* and on the other, to Bagamojo, where they came into contact with and were sheltered by the early German occupants. The Rufiji District was comparatively near the point of origin, and the forays are remembered not only at Mpanga, but at Mohoro, ten miles from the coast, and in the Magoro Hills in the north-east of the District.

The Pogoro tale was one of terror recurring almost every year. Themselves a peaceful, agricultural people, with no wider organisation than the family group, their only recourse was to scatter into the bush, or to flee in their canoes to the opposite side of the Rufiji from the route of the raid. To build solid huts was useless, since the Angoni burnt as they went, and to cultivate more than the bare minimum had no profit, since anything the Angoni found was looted. Living under such conditions it is only in recent years that the Rufiji Pogoro have begun to cease to live in scattered hamlets and to form villages. And it was in this hard school that they learnt a very striking adeptness in the relief of food shortage by gathering berries, roots and grasses from the bush. The habit is so ingrained that they still prefer, under happier present-day conditions, to eat what they reap in a good year, and to rely on the bush to help them out in a bad one, rather than maintain food reserves (a trait in which they are not unique).

Others of the old men present took up the tale. One remembered being taken off to hide in the bush while a boy: and how his father had warned him against strangers with pierced ears. Another spoke of how the very appearance of the Angoni, with their red garments, their great spears, and their long ox-hide shields, was enough in itself to paralyse resistance. And the oldest man of all recollected that once the Angoni had been resisted. A leader named Kigumi, from the Mahenge direction, came over and gathered the men and made a stockade in the forest behind Mpanga, which for two successive years the Angoni leader, Luhuhu, was unable to take, being driven off by flights of arrows shot from the trees: but in the third year, it fell and Kigumi was killed. His son carried on

* And also a fine representation of Crown Prince Wilhelm's wedding!—Ed.

in his place, but was killed too, after which flight was their only recourse. Only during the rainy seasons was there respite. Some twenty miles east, near Mapururu, part of Maba, the Makuka and Mlanzi clans, of Hehe origin, had rallied under Mgonza, grandfather of the present Native Authority of the area, against this same Luhuhu. A number of them were armed with muzzle-loading muskets, but the Angoni drew their fire and charged while the musketeers were measuring out their customary six fingers-breadth of powder and reloading. The Hehe broke : and thenceforward Luhuhu raided unchallenged.

THE LIP PLUG, OR "NDONYA" AMONG THE TRIBES OF THE SOUTHERN PROVINCE

By D. F. Bowie.

Like most African customs, it is difficult to trace the origin of the lip plug which is still worn by the elder women in most of the Southern Province tribes. Amongst the younger generation of Africans it is thought that it was introduced during the slave raiding days to prevent the women from being carried off into slavery. This rather drastic method of safeguarding the chastity of the tribal virgins is possibly a reasonable theory, but a false one. The older men say it was in existence long before the slavers or the Wangoni raiders arrived, and that it was originally used as an ornament, though they agree that later it was found to be partially successful in damping the ardour of amorous conquerors.

The plug is worn principally by those tribes who came originally from Portuguese East Africa, and can still be seen amongst the women of the Makua, Mwera, Makonde, Mawiha and Metu tribes. All these tribes have a common ancestry with the Yao, and all are sections of the Anguru, a generic term for a vast tribe inhabiting the country from Lake Nyasa to the Indian Ocean, and from the Rovuma to the Zambesi. Livingstone referred to the tribes of Nyasaland wearing ivory and quartz lip plugs, though in Tanganyika ebony is used by most of the tribes in the Southern Province. The Wamatengo of Songea and the Wangindo of Liwale also adopted the use of the lip plug, but amongst the Wangindo it is not seen to-day. Large numbers of the Wamatengo women have taken it out, saying that they prefer a split lip to the discomfort and the disfigurement of the plug. No doubt the Ngoni influence was largely responsible for this disgust and dislike of the plug, as I have heard the Wangoni describe some of the women wearing it as "wart-hogs." It is interesting too to note that the Yao women do not wear the plug, nor is it to be seen amongst the old women of Tunduru, which is the stronghold of the Wayao. It is fairly certain however that in the old days they did wear it, and the early abandonment of its use can be explained by the close contact that the Wayao had with the Arabs for over two centuries, the influence of Mohammedanism and the intermingling of the two races, and the adoption of new ideas and customs. The Wayao too are a fighting tribe and carried out a highly profitable trade in slaves with the Arabs and the Portuguese.

Under the Arab — Islamic and European — Christian influence, and with the opening up of the country, more and more young men and women were able to visit the coast and come in contact with other tribes. The use of the plug was gradually abandoned and replaced by the more attractive Arab button as a form of adornment.

When a girl was five or six, she was taken to one of the old men of the tribe who specialised in preparing the plugs. An old woman was responsible for piercing the lips and preparing them for the lip plug. She first marked the top lip with ash where she intended to pierce it, then rubbed on the blood of a bed bug (*kunguni wa kitanda*) which is used as a disinfectant and prevents the lip from swelling. The lip was then pierced with a thorn and a blade of grass inserted in the hole. After three days another piece of grass was put in a little bigger than the first. This was repeated every four days until the twelfth day after the first incision, when a millet stalk about the thickness of one's little finger replaced the grass. Seven days later another replaced it, the size of the middle finger. This was kept in the lip for a month. The lip had by now healed completely and the first lip plug was inserted.

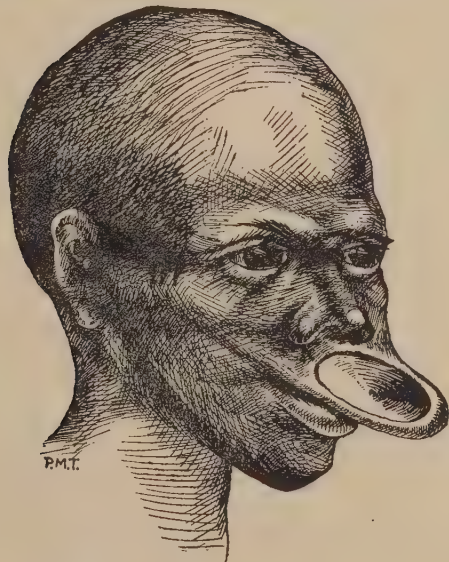
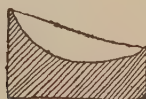
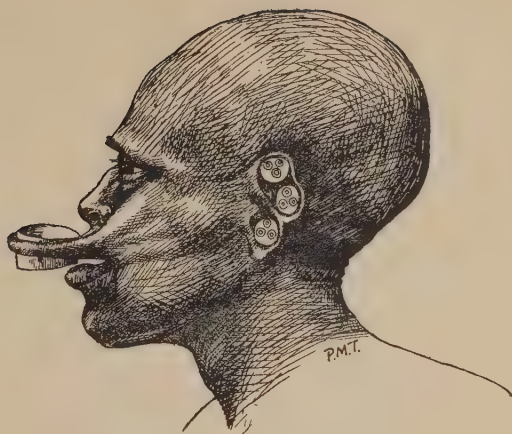
Most lip plugs are made of ebony, are hollowed out and vary in size. The first three plugs are little more than two inches in circumference and are used for shaping the lip. The first is removed and replaced after two months. The third is put in about four months later. When the third plug is put in the child also has her face incised with the tribal markings. The incisions are usually two or three small vertical lines, about a quarter or half an inch long next to the eye. The same methods are used for making these incisions as when piercing the lip, that is, ash and the blood of the bed bug are used and the marks incised with a thorn.

After the initiation ceremonies when the girl has reached puberty, a plug approximately five inches in circumference is worn and is kept in the lip until after the birth of her second child, when a six-inch plug replaces it. A matron with seven or more children has the privilege of wearing the largest lip plug, often seven inches in circumference. I am told that the Makonde plugs are as large as four inches in diameter and the size of the plug depends largely in the wishes of the wearer and the elasticity of her lip.

When the woman dies, the plug is removed and buried in the grave, a few inches from the top. At no time is the plug removed in public and is only taken out to be washed. Some of the older women have smaller plugs in the lower lip which are made from the mtama stalk, which in Kimwera is known as the 'Nyigulila'. This is rare and was practised more among the Metu tribe. Those who pierce the lip or make incisions on the face are paid fifty cents or a chicken for their services. The plugs are made by the men, the piercing and inserting of plugs by an old woman of the tribe. No special rights are associated with the wearing of the plug and it appears to lack any religious significance amongst the people.

Amongst the Wamwera the plug is made of ebony, and is highly polished. The Makonde plug is made from the *Mnyapukachambu* tree, which Mr. Giles of Newala says is Kimakonde and means "Sprouts in the

• Makonde 'lip-plug'



Mmera 'lip-plug'



dry season." The plug is polished with lime until it looks like bone. The Mawiha and Makonde of Mikindani have silver studs in their plugs. The Makonde plug goes right through the lip and can be seen sticking out top and bottom. The Mwera plug does not protrude. Mr. R. Brownlee, Dental Surgeon for the Overseas Food Corporation, Nachingwea, gave me the following notes on the effect of the plug on the teeth.

"The 'Ndonya' exerts a considerable influence on the upper arch, as can well be imagined. In most cases the crowns of the upper central incisors are displaced palatally. This is in direct relation to the size of the plug. If shallow, the plugs press mainly on the premaxillae just below the nose and thus the pressure is only on the apices and tends to force the crowns of the incisors labially. Usually the plug is quite deep and then pressure is transmitted directly on to the crown forcing the tooth in a palatal direction.

The lateral incisors are usually much further away from the mid-line than one would expect and as a rule are rotated. The canines are almost always in normal position.

The degree of abrasion shown by the centrals and laterals is considerable as the *ndonya* rubs against them continuously with every movement of the mouth. The labial surfaces are flat and polished and in a great many cases the teeth are only half their original thickness.

It is not possible to see many cases where all the incisors are present as the pressure on the teeth from the plug causes them to become loose and lost at an early age.

The plug exerts a pull on the cheeks causing them to press against the maxillae and the effect of this is most obvious in the bicuspid region where narrowing of the arch is easily discernible.

The lower arch is not as distorted as the upper but narrowness in the bicuspid region is obvious, and would be expected from the description given of the effect of the maxillae of cheek pressure.

The observation of this condition is of interest in that one has a fine example of the effects of continuous pressure on the maxillae."

STRUCK BY LIGHTNING

Anon.

The following account contained in a letter written shortly after the experience in April 1843, has been received from a contributor who prefers to remain anonymous.—Ed.

Many thanks for your letter of 19th. I am quite fit again now, but am not returning to work till after Easter. The Doctor has signed me off till then. It was an unfortunate business, but we are very lucky indeed to have 'got out of it as well as we have.

"It" happened about 10 a.m. One of those severe local thunder storms, which are common here at this time of the year, came up off the lake. I was about to start for K——, and had decided to wait till the storm had passed. I went into the bathroom to get something, when there was a terrific crash and flash. I felt very thoroughly "piga-ed", and was conscious just long enough to realise what had happened. I then collapsed, but

must have come round almost immediately for the next I remember was, lying on the bathroom floor, amidst a terrific noise. Actually I do not think that in fact there was any noise, it was some mental trick. I heard my wife shout, dimly as though she was a long way off. I tried to shout back, and to get up, but could not move at all. I then lost consciousness again.

At the time, my wife was bathing our young son, and had the wet baby on her lap; she felt the shock but was not hurt, only badly frightened. The infant of course was frightened but soon recovered and does not seem to have been greatly upset. My wife shouted for me and took the baby into the bedroom. Receiving no reply, she asked the boy, who at first made evasive replies and then said I was dead. My wife then went into the bathroom and found me stretched out, my body rigid and my eyes open. She sent for help and my neighbour came across right away, and carried me on to the bed, and then went for the doctor.

I came round in about 20 minutes, and was almost immediately mentally normal, but most of my left side, and the whole of my right side below the belt was numb and paralysed. When the doctor came, he found a burn down my right side, but not very serious. In about 3 hours I had recovered the use of my limbs.

The next day I was much better and in the evening walked across to the next house. The following day however I was not so good. My limbs ached and were very stiff; this has gradually worn off and I am now fit again, and none the worse.

Various small pieces of wood and plaster were knocked off the house, and one window pane broken. The sole of my right sock, a new one, completely disappeared, and the side of my right shoe was blown out. Two holes were made in the concrete floor of the bathroom, where I was standing, as if someone had tried to drive a large nail into the floor.

FIVE FABLES

Recorded by G. G. Rushby

THE RABBIT AND THE CROW

Long long ago Mr. Rabbit sat down to rest under a tree. Soon a Crow alighted on the top of the same tree and he had a piece of meat in his beak.

When Mr. Rabbit saw that the Crow had a piece of meat, he wanted to take it from him, but he had no way of getting it from the Crow's beak. He then said to himself, "What shall I do so that I may be able to get that piece of meat?" He then thought of greeting the Crow. "Good morning Mr. Crow," said Mr. Rabbit. No reply came. He spoke again, "Good morning Mr. Crow. I have been under this tree here the whole day long waiting to hear your sweet and soft voice. Will you sing a little, I shall be very pleased to hear you." The Crow was very flattered to hear what the rabbit said and he began to sing, "Caw! caw! Caw!" but before he had finished singing, the piece of meat dropped down to the ground. The Rabbit picked it and went away without staying to listen to the Crow any more.

A story from the SAFWA tribe of TANGANYIKA as told by Game Scout GABRIEL KAYETA.

THE TORTOISE AND THE HYAENA

A Tortoise was eating the little mushrooms when a Hyaena came along and said, "What are you doing there?" The Tortoise replied, "I am eating the little mushrooms." And the Hyaena said, "You are eating earth that will cause insanity, that is a bad thing." Then he lifted the Tortoise up and stuck him in the fork of a tree. The Tortoise tried to get down but failed and said, "I shall die here; if I jump I shall be smashed in bits." Later there came by a Leopard who said, "Do you also climb trees, Tortoise?" And Tortoise replied, "The Hyaena is the person who stuck me here and now I can't get down if I try." The Leopard said, "Hyaena is a bad lot." and he took the Tortoise out of the fork.

The Tortoise said, "You have done me a kindness, now let me make you beautiful," and Leopard replied, "Do make me beautiful." So the Tortoise began the work of beautification; saying, "Where your neighbour is satisfactory, be you also satisfactory; where your neighbour is satisfactory, be you also satisfactory!" And suddenly all the beautiful markings appeared on the Leopard. The Tortoise said, "Go to where the people are hoeing." And when the people saw the Leopard they said, "Oh! the beautiful beast! Oh! the beautiful beast! Catch it and let us domesticate it." The Leopard ran off and got in among the bushes and came where the Tortoise was, and Tortoise asked him, "What did the people do?" Said the Leopard, "They praised me tremendously." And the Tortoise said, "Off you go then."

The Leopard went off and met a Zebra who asked him who had made him beautiful and the Leopard said, "It was the Tortoise." So the Zebra said, "Perhaps he will make me beautiful also," and came to the Tortoise with the words, "Put beauty upon me please!" So the Tortoise said, "Come here!" and began the work of beautifying him. "Where your neighbour is all right, be you also all right; where your neighbour is all right, be you also all right." And there! suddenly! all the beautiful markings appeared. And Tortoise said, "Go to where the people are hoeing." The Zebra suddenly appeared there and when the people had looked they said, "Oh! the big beauty! Oh! the big beauty! Catch it and let us domesticate it." So Zebra cleared off and dashed into the bushes and came to where the Tortoise was, who asked him, "What did the people do?" "They praised me," said Zebra. "Off you go then," said Tortoise.

The Zebra met Hyaena who asked, "Who made you so beautiful?" He said, "It was the Tortoise." So the Hyaena said, "Let him beautify me too," and went away to the Tortoise with the words, "Make me beautiful!" "Come," said the Tortoise, and began the beautifying of him, saying, "Where your neighbour is a bad lot, be you also a bad lot." And then he said, "Go to where the people are hoeing." "That's an evil thing! That's an evil thing! Kill! Kill!" cried the people; and the Hyaena turned tail and fled, dashing into the bushes and saying, "I will smash Tortoise to-day when I find the little beast! Previously I only stuck him up in a tree-fork." And he burst out upon the spot but found no sign of the Tortoise; it had gone down a hole. So nowadays in the villages they laugh at a Hyaena. You see that one evil follows upon another.

A story from the HENGA tribe of NYASALAND, as told by Game Scout FRANK G. NYIRENDA.

UNREASONABLE COVETOUSNESS BRINGS ITS OWN REWARD

Long long ago, the Rabbit and the Hyaena were friends. They were walking, playing and eating together. One day the Hyaena desired to eat Goat's meat, but he had no way of getting it, so he explained all his needs to his friend, the Rabbit. The Rabbit replied that he could get a Goat very easily.

Next morning the Rabbit went out for a walk and soon after he saw a Goat feeding on soft grass. The Rabbit came across and they greeted one another. Then they began talking about the Hyaena and his spots. The Rabbit told the Goat that, if he really wanted to see the Hyaena, he should go and climb into a tree near the water hole, where he could easily see him. The Goat agreed and he went to the water hole and climbed into the tree.

The Rabbit, after leaving the Goat, went very fast to his friend the Hyaena and told him that he had seen a goat in the water hole in their field, and the Hyaena went quickly to get it.

When the Hyaena arrived at the water hole, he saw the reflection of the Goat on the surface of the water and thought that it was the goat itself. He jumped on it, but did not get it. Again the second time, and so kept on attacking until he got tired, without achieving anything. He went back home very annoyed.

When he reached his friend the Rabbit, he told him all that had happened on attacking the goat in the water hole and how he had been unsuccessful. The Rabbit replied, "Didn't I tell you to look in the tree? The Goat might have run away while you were attacking the water. Moreover, you have done a thing which is contrary to my instructions."

Next day the Rabbit went to the old Goat to ask him whether he had seen the Hyaena. The Goat replied and said, "I have really seen the Hyaena, but was not successful in seeing his spots for I was very far up the tree. I wish I could see him again." The Rabbit told him to go again to the same place but not to climb so far up the tree. The Goat went and did what he was told.

The Rabbit returned to his friend the Hyaena and told him that he had seen the Goat again at the former place, "Go to the water hole and look in the tree and you will see the Goat." The Hyaena went there and found the Goat in the tree near the water hole. He caught him and ate him up. Then he went back to his friend happily and thanked him. That was the end of the Goat.

II. THE DEATH OF THE HYAENA

Brother Rabbit and brother Hyaena went on staying together in friendship for many days. One day the Hyaena thought of getting a Zebra

for his food. He told his friend that he would be very grateful to have his assistance again. The Rabbit agreed to do what his friend wanted, and so the Hyæna was very pleased.

Next morning the Rabbit told the Hyæna that he knew the place where Zebras fed, and that if they went there, they would easily get them. The Rabbit continued, saying that when they reached the place and found a Zebra, his friend should attack the hind part of the animal by catching hold of the tail, and he himself would attack the front part, because being very small a Zebra would not be in danger from him. Off they went to hunt a Zebra.

When it was about noon, they found a Zebra resting under a tree. The Rabbit told the Hyæna to creep upon the animal slowly and he himself would go to the front of it. As soon as the Hyæna came near the Zebra, he caught hold of its tail to attack him. The Zebra was astonished and found that he was being hurt. He began kicking the Hyæna with his hind legs. The Rabbit shouted in a very strong voice to the Hyæna and said, "Hold him, hold him Mr. Hyæna, hold him strongly. Don't leave him. If you lose him don't blame me again as you did last time."

The Hyæna hearing what the Rabbit said, continued attacking strongly although he was being kicked. At last he failed. He lost his hold on the Zebra's tail and fell down dead. The Zebra ran away very fast and was never seen again. The Rabbit went back home and lived happily and peacefully.

Moral: "The Goat and the Hyæna died because of their foolishness."

A story from the HENGA tribe of NYASALAND as told by J. BODDINGTON GONDWE.

IT IS NOT WISE TO INSULT ONE'S SAVIOUR

Once upon a time there were many kinds of Animals living in a certain Steppe. There was also a River that crossed the middle of this Steppe and which had no bridge, ford or any means of crossing. All the animals were, therefore, unable to cross the river to the other side.

One day during Summer, on the side of the river where the animals were the grass was set on fire. All the animals ran to the river but they could find no means of crossing. They kept on saying to one another, "What shall we do to get beyond the River. We shall be burnt to-day." Soon the Water Lizard (Monitor) heard their noise. He came out of the water and asked them, "What do you all want." They replied, "We want to cross the river to the other side. Our side is on fire to-day and we have no way of crossing." The Water Lizard stretched himself right across the river from one bank to the other. He made himself into a bridge and told all the animals to cross on his back one by one. And so they all went across.

The last two to cross were the Tortoise and the Chameleon. The Chameleon said to the Tortoise after crossing. "The thing on which we crossed the river was nauseating and it stank." The Tortoise replied, "Chameleon, don't be so rude." They then went away. The Water Lizard heard what the Chameleon said, but said nothing, he just kept quiet.

Days went by until the next Summer. When the grass was completely dry again, people set fire to it on the side where the animals had gone.

The Steppe was now on fire and all the animals ran away to the place at the river where they had last crossed. They began talking about how they could cross again to the other side and be safe from the fire. The Water Lizard came out of the water again and did as before. All the other animals went safely across on the Water Lizard's back. Then came the Tortoise and the Chameleon who are always the last. The Water Lizard did not forget what the Chameleon had said last time and he was now awaiting his revenge. The Tortoise went first and last came the Chameleon, but when he was half-way cross, the Water Lizard sank into the water. The Chameleon cried out, "Save me, save me, I am drowning." The Water Lizard replied, "Why don't you save yourself. Was it not you who said the last time you crossed that I am nauseating and stink? Save yourself! You need not ask anybody to help you." So the Chameleon died.

A story from the HENGA tribe of NYASALAND as told by Game Scout FRANK G. NYIRENDA.

CORRECTION

It is regretted that in the Clan and Sub-clan Table on pp. 40-41 of H. A. Fosbrooke's Sociological Survey of the Masai (*T.N.R.* No. 26, December, 1948), the square brackets indicating exogamous groups were omitted. These groups are in fact as follows:—Engidong-Parkinnet; Parsingo; Engaje-Nanuki or L'oodo-gishu; Partimaroi-Parsa Buko; Sitayo-Keri-ngishu; Masangwa-Moingo-L'oorok-kishu; Parserengo-Mukulere-Parsindei-Kivuyuni; Nanaapowaru-Lais; Loiger-Kiveron-Pirda; Munai-Jagei-Kuyuni-Paralangat-Maravashi; Sesoikineji-Kisikon-Parsais-Paramangi; Makuperia; Lema; Mosejwa; Pojos; Mohono; Parsele-Maraani-Leberet.

A FOOTNOTE TO NOTES AND RECORDS No. 26 (the 'Masai' Number)

The following little story is quoted by kind permission of the Provincial Commissioner, Northern Province, Mr. T. M. Revington, who recorded it very recently:—

"A Masai snap-shot: Scene: the District Commissioner and his No. 2 in the midst of the very desolate bush between Loliondo and Sonjo. Enter a little gnome with a thin stick, followed by (1) very tall Moran with spear and (2) very broad Moran with club. The gnome turns out to be a Native Authority messenger, who, after a 40-day safari in lonely lion filled bush, has arrested a cattle thief — the tall Moran with the spear. D.C.: 'Well, as you're not armed and he is, I am glad you've had the sense to pick this escort with the club!' Gnome: 'Escort, Nothing! He's a stroke of luck — picked him up on the way — wanted in Arusha for years for murdering his mother. I used to handcuff the pair of them when I first took them in tow (handcuffs produced from old Lyle's Golden Syrup tin as evidence of accuracy), but I soon found they were decent fellows. Well, time's getting on, Bwana, time's getting on; must get these fellows to Loliondo Jail before dark, you know, can't expect the warders to sit up all night. Good morning!'"

TANGANYIKA SOCIETY NOTICES**Need for new Members.**

Subscribers and other readers are earnestly invited to assist the committee by encouraging new members to join the Tanganyika Society. The position is quite simply that unless the number of subscribers, at present standing at about 500 can be increased by 50 per cent. to 750, before the end of the year, it will be necessary to double the rate of subscription in 1950.

For some time the production of this Journal has been financed from reserves accumulated during the period when it was printed as an official publication by the Government Press. But it is now necessary that we should be self-supporting and if the present size of the journal, the number of illustrations and the general standard are to be maintained, while allowing a margin to cover and extend the other activities of the Society, this can only be done by an increase of Membership or by abandoning our low and attractive rate of subscription.

The Committee and it is felt most of our members would prefer the former alternative and it could easily be achieved if each member would persuade one non-member friend to fill in the application form printed as the last page of this issue and send it in with his subscription at an early date. Further application forms can be obtained on request.

Back Numbers and Separates.

The following back numbers are at present obtainable, Shs. 5/- each to members, Shs. 7/50 to non-members:—

No. 4, 5, 22, 23, 24, 25 and 26.

A very few copies of the following numbers are also available at Shs. 7/50 each (the Society is always ready to buy back these or other rare numbers from anyone who can spare them).

Nos. 1, 2, 3, 7, 10, 11, 16, 17 and 21.

Unobtainable at present are:—

Nos. 6, 8, 9, 12, 13, 14, 15, 18, 19 and 20.

The following separates and supplements are available:—

Arabic script for students of Swahili, by J. W. T. Allen (Shs. 5/-).

The International Red Locust Control, by A.P.G. Michelmores (Shs. 2/-).

Rezende's Description of East Africa in 1634 by Sir John Gray (Shs. 2/-)

Tanganyika Arrow poisons by W. D. Raymond. (Shs. 2/-).

Utenzi wa Kiyama. Edited and translated by the Rev. John Allen (Shs. 2/-).

Separates at Shs. 2/- each of all papers which have appeared in Notes and Records Nos. 25, 26 or the present issue.

ASSISTANCE TO DAR ES SALAAM MUSEUM.

The Board of Trustees of the King George V Memorial Museum has stated that it would be greatly appreciated if Members of the Society would assist the Museum by donating or purchasing on behalf of the Museum any articles of ethnological or other scientific interest suitable for display. Members are, therefore, asked to bear this request in mind, and to forward any such contributions to the collections to the Curator, King George V Memorial Museum, P.O. Box 511, Dar es Salaam.

The Museum is prepared to refund any expenses incurred, but if the sum involved is greater than Shs. 20/-, the Board requests that inquiries may first be made from the Curator to ascertain whether the article is in fact required.

THE TANGANYIKA SOCIETY.

APPLICATION FOR MEMBERSHIP

To The Honorary Secretary,
THE TANGANYIKA SOCIETY,
P.O. Box 511,
DAR ES SALAAM.

(Please delete as necessary)

Sir, I _____ Ordinary _____
_____ desire to be enrolled as an _____ member(s) of the
We _____ Institutional _____
Tanganyika Society.
Full Name(s)

Address

my cheque
I enclose postal order for Shs. _____ /- on account of _____ years'
cash
single/family subscription.*

I enclose a banker's order for the amount of my/our subscription.*
Yours faithfully,

Date

* NOTE : Ordinary and Institutional membership is Shs. 10/- per annum.
Family membership allowing members' families to make use
of the Society's Library, attend its lectures ,etc., is Shs. 15/- p.a.

**Please forward completed form to the Honorary Secretary,
The Tanganyika Society, P.O. Box 511, Dar es Salaam.**

Date.....

To, The Manager,

.....
(insert name of bank)

Please pay the Honorary Treasurer, The Tanganyika Society, the sum
of Shs..... and thereafter the sum of Shs..... every year
Ordinary
commencing 1st January, 19..... being my subscription as an Institutional
Member of The Tanganyika Society.

20 ct. stamp

Signature.....

Address.....

THE TANGANYIKA SOCIETY

c/o King George V Memorial Museum,
P.O. Box 511,
DAR ES SALAAM,
Tanganyika.

This Society came into being on August 8th, 1947. Its objects are to promote the study of ethnology, history, geography, natural history and kindred sciences in their relation to Tanganyika; to co-operate with the King George V Memorial Museum to this end; and to encourage and facilitate the publication of records and studies in these subjects.

In pursuance of these aims, a major activity of the Society has been to take over and continue publication of "Tanganyika Notes and Records" from the Editorial Committee by whom it has been carried on so successfully since its foundation in 1936. The journal is issued twice a year, in June and December, priced at Shs. 7/50 a copy to non-members.

The Society enjoys the hospitality of the Museum as its headquarters, and this helps to foster close co-operation between its members and the Museum Trustees. Members of the Society are privileged to use the Museum library, and in return the library is enriched by the exchange journals and reports donated by the Society. The Museum is also the meeting place for discussions or reading of papers on subjects within the Society's field of interest.

The subscription rate for ordinary members (who are entitled to borrow from the library, and receive "Notes and Records" free) is Shs. 10/- per annum. Associate members (who may attend all meetings, and read in the library, but do not receive the journal), pay an annual subscription of Shs. 2/50. Societies, clubs, libraries, schools, etc., may join as institutional members, at the same rate as ordinary members. Societies or institutions which publish journals or reports of interest to the Tanganyika Society are invited to enter into exchange arrangements; a specimen copy of "Notes and Records" will be sent on request.

The success of the Society will depend on its members, both in numbers and active interest. The committee has set as its target to obtain 1,000 members in the first two years. There is no doubt that there are quite enough people interested in the Society's objects to enable this figure to be quickly passed, were they all to join now. On our success in attaining our membership target will depend the Society's ability to maintain the journal at its present high standard and low subscription rate, and to contemplate embarking on other ventures.

Send your subscription **now** to the Honorary Treasurer at the above address.