



TANGANYIKA NOTES AND RECORDS

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TANGANYIKA NOTES AND RECORDS

JOURNAL OF THE TANGANYIKA SOCIETY

This Society came into being on 8th August, 1947. Its objects are to promote the study of ethnology, history, geography, natural history, and kindred sciences in 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.

A major activity of the Society is the publication of *Tanganyika Notes and Records*, which was founded in 1936. The journal is issued twice yearly, and is priced at Shs. 12/- to non-members.

A lecture by an authority on some aspect of Tanganyika is arranged each month by the Society, to which members and their friends are cordially welcomed.

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Tanganyika Notes and Records, Nos. 6, 12, 13, 14. Twenty Shillings will be paid for any of these numbers, or would exchange with any of the following numbers: 4, 7, 11, 17.

NGINDO FAMINE SUBSISTENCE

By A. R. W. Crosse-Upcott

The Ngindo are no strangers to famine; nor is the borderline between want and plenty clearly defined. They suffer partial dearth almost yearly and a number of bush-foods, for which they have developed a taste, form part of their diet even when no shortage exists. Especially is this true of honey. The Ngindo themselves differentiate between "hunger" and "hunger that kills"; and examples, even of the latter, are not lacking. Most of the famines marked by loss of life belong to pre-European days, when tribal invasion would lead to hunger, more lethal by far than the actual fighting. The grim Ngoni repeatedly ravaged Ngindoland, enslaving, committing atrocities, and deliberately burning food-supplies. Indeed Chuma, name of the principal raid-leader in one of these waves, has entered the language as a synonym for hardship . . . after a dangerous or exhausting march the Ngindo still exclaim "Chuma!"

Three serious famines have punctuated the half-century of European rule. The first and most devastating was that following the notorious Majimaji Revolt, in which the Ngindo were unwise enough to play a spectacular part. Liwale, in central Ngindoland, was the sole German-defended post to fall to the insurgents. Direct reprisals do not seem to have extended beyond public execution of the ring-leaders, yet such was the dislocation and panic that regular husbandry virtually ceased for two whole seasons. Casualties were enormous, and many a laconic "died Majimaji" sprinkles the genealogies I have collected. The closing phases of World War I and more recently the sequel to an Evacuation Scheme complete the trio; but, in the latter case at least, what deaths have come to my notice cannot be attributed to hunger alone.

COURSE OF A FAMINE

After a good crop, the Ngindo can comfortably last out until the succeeding harvest; but more frequently, whether through over-sale, over-drinking, or genuine lack, their surplus comes to an end before then. Admittedly they grow, and did grow, cassava which bridges the seasons. But cassava is not inexhaustible, nor is it invulnerable, to drought and pests. Two or three lean months whilst awaiting maturity of the fresh season's quick-ripening crops may be expected as a normal event. The situation only grows serious when those crops, and in particular the slower sorghum staple, fail to yield; for the stored vitality of each individual remains high during the early rains, whilst honey and bush-fruits come in pell-mell. It is an ensuing dry-season without harvest that brings on acute distress. And as for a second abortive year, it will leave the people in a dangerous state of susceptibility to disease. Anyone who has observed the precarious health of a largely vegetarian tribe, balanced by an astonishing natural resistance, can appreciate the effect of a drop in that resistance.

EFFECT ON PHYSIQUE

The physical symptoms of hunger, perhaps dramatized, have been described to me by Ngindo who weathered all three twentieth-century famines. The legs are the first to lose flesh, and the rest of the body wastes away more slowly;

an advanced case may become unrecognizably sunken-featured with vision interrupted by the cadaverous folds of skin about the eye-sockets. Sometimes, though not always, the belly will swell. The voice ascends to a treble register, whilst difficulty may be experienced in swallowing. The teeth, however, remain sound. If lock-jaw sets in, the mouth may be prised open with an axe-blade inserted between the teeth and gruel administered—bee-larvae, as well as certain plant-products found in the forest, provide a substitute for the necessary flour. Hunger does not produce severe pain, its impact dulled by stupor; nor, for the same reason, does a starving man suffer from insomnia. Dizziness occurs. Digestion, excepting where bulky pips have the opposite effect, produces thin watery excretion. Debility does not lead to madness; and besides, violence would be beyond the sufferer's capacity. When he has trouble in getting to his feet, the end is near. A circle of torn-up grass marks the spot where a victim finally collapsed.

EFFECT ON SOCIETY

Deterioration in physique keeps pace with dissolving social bonds. All non-utilitarian activities cease. One sees no visiting; no work-parties; no dances; no sacrifices, beyond prayers to the sky-god Chapanganya for rain; no initiations; abbreviated burials in animal-burrows. Intercourse between humans falls into abeyance unless directed towards the alleviation of hunger; and this includes sexual intercourse. Husband and wife avoid intimacy not only because desire is absent, but also for fear of conception—a child born under such conditions would be doomed.

After distribution of the day's haul, each member of a domestic family, in sharp contrast with normal practice, eats apart. Until midday or late afternoon, depending on the rate of locating food, all except small children are away searching, leaving the homesteads almost empty. Some sleep out for days at a time in order to search further afield and more thoroughly. In poorly integrated families, tacit divorce occurs, the husband merely fending for himself if not actually driving out his wife. Such a separation may be permanent. In the event of a lucky strike the finder keeps the intelligence secret, even from close kin. Disclosure might precipitate a sort of "gold rush". The magnanimous man will produce the food discreetly in small instalments. A wealthy man, who has trekked to another area to buy food, will do likewise. He slips back unannounced at dead of night, buries the hoard, and sweeps the soil level to obliterate his tracks. Otherwise, money has no power.

In the case of theft, ordinarily a very grave offence in Ngindoland, no remedy exists beyond vituperation—assault might easily result in death! In the absence of assemblies, no case can get a hearing; hence the elaborate precautions taken by the holders of the only remaining form of wealth, namely food, to guard their treasure. Those who are lucky enough to possess seed for crops must exercise great self-control—and vigilance! Famished neighbours might even dig up freshly-planted groundnuts or beans. To counter the threat, farmers plant as early as possible and confine themselves to fallows rather than attempting to clear tracts of standing forest. Emigration provides one solution; but only if the shortage be localized. Such action carries a distinct stigma, which may deter would-be truants. Besides, the thicket-dwellers of central Ngindoland consider themselves far better off for bush-foods than those living in woodland or open country. No report of cannibalism has reached my ears.

SURVIVAL OF DOMESTIC ANIMALS

The tsetse-forested terrain of Ngindoland is almost devoid of livestock, so the Ngindo have nothing to consider beyond their doves and fowls. Of these, the latter can be left to their own devices, particularly in wet weather when white-ants are to be had aplenty. But first the flock is reduced to the pair essential for reproduction—the remainder will have found their way into the owner's diet! But the doves, gentle and helpless creatures, need constant attention. Only one type of bush-fruit, the *kipalapala*, can sustain them during its bearing phase. Normally they require grain. When all else fails, so it is said, a pit may be dug and filled with termite-earth, crushed and mixed with salt. After baiting with one or two rations of grain, the birds will allegedly continue to subsist for weeks on the earth-mixture itself.

PLANT BUSH-FOODS

(A) Fruits.

More numerous than any other category come the bush-fruits proper, mostly picked above ground, and varying in size from the minute *kipalapala* berry (this is an animal food only; the Ngindo claim to distinguish two varieties, both of which are thought to belong to the *Phyllanthus* species, though in the one case this determination was only provisional), to the imposing glossy sphere of the *ngichi tonga*. To give an idea of the complexity of this food-collecting science, of the *ngichi* alone there are four recognized types, only two of them safe eating, namely *ngichi tonga* and *ngichi mburuta*. A third, *ngichi ngulunguya*, is partly toxic. Whilst a fourth, *ngichi ngulube*, is so called because only the bush-pig (*ligulube*) can stomach it; and even he falls into a profound slumber afterwards. Almost without exception, these fruits are eaten raw, and some of them whole, pip, skin and all (examples: *mhowu*, *ndaba*, *mkwiru*, *mkwichimbi*, *njwechwe*, *nneyu*, *mbuputu*, and seventeen more). Of others the pip is discarded (examples: *ntobo*, *mkalakawa*) or the shell (examples: *mhwanga*, *ndumbi* and twelve more). Of the two last-named the former is tasty, but, being the product of the wild-rubber creeper, somewhat adhesive; the latter may cause chronic constipation in children owing to the size of its stones. Of others again only the flesh is palatable (examples: *mula*, *mpujupuju*, *kikoma ngunda*, *mkwaju*). In the case of this last, the pip, also edible though it needs processing, can be extracted by soaking. The *mpindimbi* fruit may be lightly pounded before serving. Of nuts I know only one variety, the tough *mkanganangu*, to which the Ngindo take an axe. Its kernel may be eaten raw or roasted. No wild animal has strong enough jaws to crack these nuts, which therefore remain intact as windfalls, and can be gathered a season or more later. Incidentally, wild animals and humans compete directly for certain bush-foods. Baboons are particularly unwelcome, owing to their destructive habits.

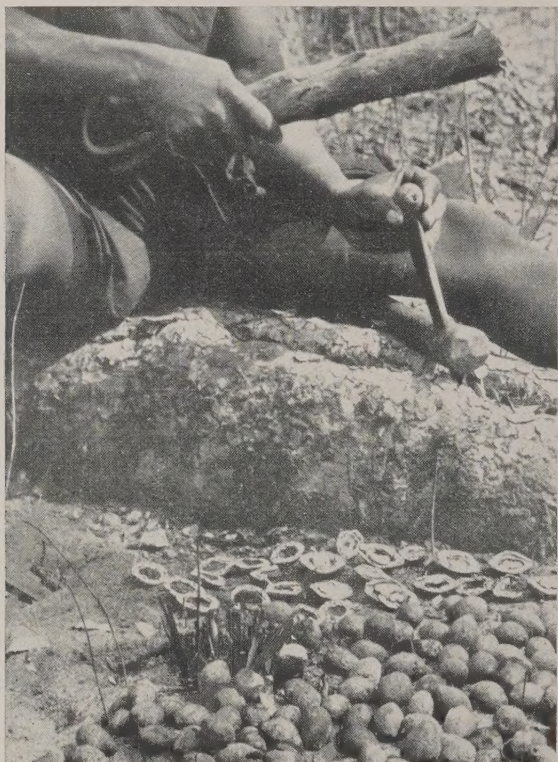
(B) Seeds.

Pips and seeds, being hard for the most part, require processing. An exception are those of the *ndwenje*. More commonly they are roasted (examples: *njekere*, *mhuja*, *ng'hungutwa*). Wild-growing seeds may also be boiled like any other bean (examples: *uhangwa*, and several varieties of *bwagi*). But the latter, which is probably the same as the "cowitch" of the upper Ruvuma river, mentioned by Livingstone (Livingstone, 1862), needs preliminary soaking in order to remove the outer husk, and the troublesome hairs on its furry pod

necessitate gathering long after it has shrivelled. The *mkwaju* pip, already mentioned, gives flour.

(C) *Grasses*.

Alone in resembling the staple cereals is *lumbunga* grass with its sand-like grain which, if it were not so awkward to gather in quantity, would be a regular



Cracking Mkanganangu Nuts on the blade of an axe.

food. Collectors suspend sifting-trays below their waists and rub the tall stalks between the palms. *Lumbunga*—note the similarity in name to *mpunga* (Kiswahili for “rice”)—is treated exactly as rice.

(D) *Roots and Tubers*.

Roots are a plentiful source of supply, especially the *unyanya*, which the Ngindo eat whether or not famine prevails. I have seen parties of women going a day's journey and more to gain access to likely thickets. Like the *king'ara*, a water-lily with edible stem, *unyanya* is generally boiled. Some common tubers have the same danger as certain types of cassava, being toxic in the raw state. Both *luhangai* and *likulumbonyo* need protracted sluicing in water, or preferably in a running stream, before they are pronounced “cold”.

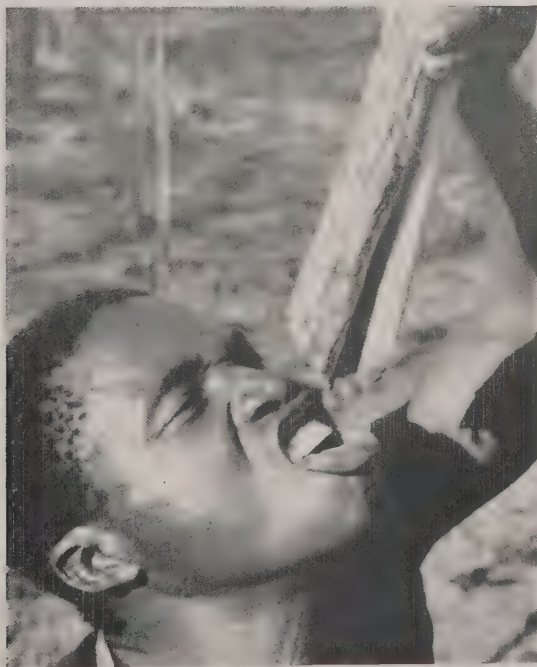
They may be pounded down to flour after sun-drying, as may the harmless *lutondwa*. Another edible tuber, *liliga*, contains a poison even more troublesome than that of *luhangai*. Sutherland, the elephant hunter, who coursed this region fifty years ago, gives a description of "*hanguy*", which is "used by the natives when short of other kinds of food, but a lengthy process of preparation, resembling that used in the manufacture of tapioca, is necessary". (Sutherland, 1912). Some of these ground-fruits can be eaten without processing (examples: *njekule*, *kinjambali*, *kihawa*, *ngwegwe*). Others, closely resembling the "cold" *unyanya* and "hot" *luhangai*, contain deadly and persistent poisons. These, and other such plants, have the generic name *lichinjire*.

(E) *Leaves*.

Wild leaves go to provide relishes even in normal times, and the *lindebele* makes an excellent spinach. They all need processing, the *ngumbu* and *mpuga mahoka* being crushed before boiling, *linyololo* and *luhunga* simply boiled, and *kipingu* boiled with or without crushing. The *nubili* leaf has the peculiarity of being boiled first and crushed afterwards.

(F) *Wood, Bark or Sap*.

Only two edible stem-elements have come to my notice, each with a contrary function. The *kipombo*, yielding a copious clear sap, can effectively quench



A man quenches his thirst from the succulent "*Kipombo*" creeper.

a man's thirst. It is obviously this same plant to which Sutherland refers as "*ntamba*". He and his tracker were desperate with thirst after an epic hunt in parched country when the tracker made a lucky find . . . "After he had cut several lengths of about two feet from the rope-like stems, we applied the sections to our baked lips, and greedily sucked the deliciously cool, watery juice" (Sutherland, 1912). The difference in names is quite consistent with the variations I found from place to place inside Ngindoland. This episode occurred near the upper Mbwekuru river where, as I have established, plant-names differ considerably from those used in the centre and north of the country.

The ash of a burnt-out *kikoma ngunda* bole is said to serve duty as a substitute salt. The Ngindo do without many near-essentials, but salt they must have. Compare this with Thomson's account of the "method by which the Mahenge (or Mbunga, a group with Ngindo affinities lying about 200 miles north-west of Liwale) obtain salt. They burn certain grasses, water plants and trees, the ashes of which are filtered through a cone of basketwork lined with leaves and filled with grass and mud. The salinated water is then boiled and evaporated, leaving a very impure salt behind" (Thomson, 1878).

(G) *Ground Fungi*.

A regular source of relish, whether or not the crops prosper, is fungi (*bwoga*), of which over twenty edible varieties are recognized. Most need no more than heating in water and peeling before they are ready to be eaten; but they may be dried and stored away (examples: *rukuu*, *mbawala*, *ngangarakata*, etc.). Only one, the *liyapowa*, is eaten raw. Another, *njecheche*, has to be boiled repeatedly to render it safe. As for the others—called *kikabwa* (singular, for plural *ikabwa*)—no wise man will touch them. One in particular is said to be so deadly that even a sniff will produce inflammation and swelling of the nostrils!

(H) *Tree Fungi*.

Libungumau, a variety which is found on the trunks of trees has the reputation of being toxic on all but two types of tree, *kibaba* and *nchenga*.

DAINGEROUS BUSH-FOODS

I have alluded to the careful processing required for certain potentially noxious substances, such as *luhangai* tubers. The stock Ngindo remedy for bush-food poisoning is to give the patient plenty of gruel so as to dilute the toxic agent. A not dissimilar remedy, by inference a miracle, is attributed to the Biblical prophet Elisha, who sent his servant out to seek food when "there was a dearth in the land". The servant "found a wild vine and gathered thereof wild gourds his lap full, and came and sliced them into the pot of pottage; for they knew them not". As a result, the sons of the prophets were soon in difficulties. "And it came to pass, as they were eating of the pottage, that they cried out and said, 'O thou man of God, there is death in the pot'. And they could not eat thereof". Elisha's answer was to order meal to be brought. "And he cast it into the pot; and he said, 'pour out for the people that they may eat'. And there was no harm in the pot" (from the second book of Kings, Chapter IV, verses 38-41). Honey produced by the *lipindula*, a small stingless underground "bee", is said to be extremely fatal unless the edible liquid-element



Bleeding honey from the poisonous *Lipindula* nest. Note orifice (lower R. H. side) to the underground nest.

is properly separated from the rest. The risk of poisoning is not confined to humans. For instance, the Ngindo reckon the *uhunihuni* leaf (plant not identified) to be dangerous to goats; whilst fowls will succumb if they feed on *lipindula* bees. (Identified by Mr. I. H. H. Yarrow as *Trigona beccarii* Gribodo—by courtesy of the British Museum).

HONEY

Honey, whether from man-made hives or natural cavities, whether from honey-bees or other insects, is owned to be vital to Ngindo subsistence in time of want; for, in sustaining-power per mouthful, the generally insipid bush-fruits stand no comparison with it. Honey, on the contrary, is dense, pungent, concentrated nutriment; and the Ngindo will expend energy recklessly to get it. It would be interesting to analyse the various Ngindo honeys. Possibly they contain more food-value than do the refined honeys produced elsewhere. Of course sometimes the drought that destroys crops will also affect the honey-supply; but a poor honey-season does not necessarily coincide with crop failure. Bees like to deposit their caches in smooth inaccessible limbs, and as a last

resort, large trees may be felled to bring the hoard within reach. My suggestion that it might be easier to burn the bole through, met with the objection that almost all varieties of bees allegedly eat their own honey if fire be present, and that the nest might be empty in consequence. Termite-earth may go to swell



Tree felled in order to reach bees' nest.

a small find and give it the bulk necessary to feed a whole family, a practice evidently common to other peoples in this region (Oates, 1939). According to this source, "*ngwegwe*" earth may be eaten in time of famine by the inhabitants of Newala District, either with or without honey (this *ngwegwe* has no apparent connection with the identical Ngindo plant-name mentioned earlier). Thomson observed of the Mbunga tribe, three-quarters of a century ago, that "A peculiar red clay with mica in it, and called *likite*, is eaten to a considerable extent by the women" (Thomson, 1878). I hope to treat the honey-craft in detail elsewhere.

ALTERNATIVE BUSH-FOODS

Though in former days they were expert trappers, the Ngindo make no pretence of being hunters now; nor is their country so prolific in game, elephant excepted, as to make hunting easy. Besides, though observance might yield to desperate need, the game laws and Islam between them effectively eliminate animals as a source of food. Traditional clan-totems further restrict the choice open. Certain insects and small creatures which occur in sufficient numbers to make their capture worthwhile come within the Islamic prohibited-food categories—and the one aspect of the Faith firmly imprinted on Ngindo consciousness is its food-taboos! Locusts, however, may still be consumed. Perhaps fortunately, their appearances are erratic. Even the vicious red-ants used to provide a dish, first scorched by a fire-brand passed over their marching column, then roasted and powdered. Some varieties of caterpillar (*opa*, *kibungo* or *libungo*, etc.) may also give nourishment.

Sutherland enlarges on this topic. "Among their various foods the natives have one which they consider a special delicacy, although I am afraid it would hardly appeal to the civilized palate. This is a maggot, some three inches in length which they call *maungo*—it is a perfectly white mass of fat and I have often seen a native woman, after nipping off the head of a *maungo*, give the remainder to her child to suck as a teat" (Sutherland, 1912). Actually *mabungo*, the plural form of *libungo*, is a generic term for most of the bigger caterpillars. If need be, the Ngindo will eat certain grass-hoppers and bugs, or their by-products. For instance, what is described as the "excrement" of one of the latter even provides a gourmet's morsel, thanks to its sugary flavour. I tried it, and found the white fluffy substance pleasantly sweet (Mr. W. E. China determines this bug as *Fulgoroidea*, family *Flattidae*, genus *Ityraca*, probably *Ityraca patricia* Mel—by courtesy of the British Museum). The Ngindo snare small mammals and birds to some extent, but not on a large scale.

CONCLUSION

I do not claim to have exhausted the bush-food science of the Ngindo; but the hundred different varieties of edible plants that I recorded suffice to show how extensive it is. This, combined with the relative abundance of bush-foods in the thickets and forests of Ngindoland, might lead one to suppose that the Ngindo find famine subsistence easy, and that they scarcely need to cultivate at all. Such an impression would be totally false, and one has only to point to the "civilian" deaths in the Majimaji crisis. Nevertheless within limits the Ngindo do possess the means and the knowledge of survival. Their science is not in the least esoteric. Ngindo of all ages are likely to be expert collectors, a skill acquired in the course of regular bush-crafts such as bee-keeping. In fact, if the bush-foods were not so widely known, the population at large would have perished in past famines. The extraordinary degree of dispersal demanded by famine subsistence is not so extraordinary in its Ngindo context. Rather, it represents an extreme of the general Ngindo tendency towards fragmentation.

It has been shown that the Ngindo depend mainly on plants for their emergency food supply. Now, the vegetation changes appreciably from one part of Ngindoland to another; and even where a superficially similar forest prevails, the trees may vary in type or in the incidence of universal tree-types. Native botanical names will vary accordingly. Again, even one and the same

tree-type may have different names in different localities no great distance apart. Thus, the Ngindo living on the mid-Mbwemkuru river, less than 100 miles south of the group whose bush-lore I have studied in detail, have a substantially different bush-lore of their own. They use strange names for familiar trees; for instance, the common and conspicuous *mpindimbi* tree they call *ngulakula*. And they have bush-foods peculiar to themselves, the *nakachambali* leaf, *lihaka* beans, *muhilwa* fruits, and so forth. Not only are the aspect and composition of their forests quite distinct from those of central Ngindoland, but they may attribute distinctive characteristics to identical species of tree. Thus, they consider the *njekere* to be of value solely as a source of fish-poison, whilst they seldom eat the *ng'hungutwa* fruits for fear of swelling up and becoming ill. Variation of this sort greatly reduces the value of generalized information like Sutherland's—he drew on whole of southern Tanganyika in his memoirs (Sutherland, 1912).

Since it was not feasible to analyse the bush-foods, I had to leave unexplored the nutritional aspect of Ngindo famine subsistence. However, there is *prima facie* evidence that bush-foods contribute largely to the normal Ngindo diet. By relation to other African peoples, eating a similar staple crop-food and bean-relish, with meagre protein content, the Ngindo appear to enjoy reasonable health and physique, remembering that they are virtual vegetarians and never taste milk excepting from the breast. The inference is that the bush-foods provide extra food-value, especially in proteins.

On the other hand, it might be thought significant that infant-children, very prone to the effects of protein-lack, should have a high mortality rate among the Ngindo—from a sample of 740 live-births, delivered by 185 mothers (the total child-bearing strength of a large settlement), 39.5 per cent of the babies were stated to have died before the age of three. But I know little about the causes of such deaths or about the feeding-habits of infants. Sutherland's observation on caterpillars seems to indicate that they do get bush-foods (Sutherland, 1912). And it is likely that they soon take to solid foods, for I can state definitely that, in easier times, children are forcibly fed with porridge from the age of a few days. Moreover one sees little of the swelling and skin disorders associated with malnutrition among children. I can also state that bee-larvae and floury-honey may be fed to an infant-child when the mother's milk has failed. Therefore, the high infant-mortality cannot directly be correlated with supposed dietary deficiencies; in fact, the bush-foods may benefit infants as well as the other age-groups. Of course, adolescent children devote a large proportion of their time to locating and consuming bush-foods, especially those that can be gathered and eaten on the spot. And the adults show themselves scarcely less avid—one of the most insistent complaints of those Ngindo who were shifted to a strange habitat by the Evacuation Scheme was the absence of bush-foods in their new home. So, even if bush-foods were proved indispensable to the Ngindo diet, it is doubtful whether the discovery could be applied elsewhere; unless the desired wild plants were cultivated as a crop.

My primary object in collecting this material was to assess the accuracy of the native knowledge. In this I have been defeated, not only by the difficulty of identifying specimens, but also by the difficulty of ascertaining the true properties of the specimens identified. Yet a record of the native lore is both a step in this direction and a possible contribution to the important subject of nutrition in backward areas.

APPENDIX

LIST OF BUSH FOODS AND NOTES ON THEIR USES

All the botanical determinations are by the courtesy of the Director, Royal Botanic Gardens, Kew. It is emphasized that in many cases, owing to the inadequacy of the specimens collected, only approximate determinations could be made. I am also indebted to Mr. P. R. O. Bally, of the Coryndon Museum, Nairobi, for his preliminary identification of the material. Since, in this context, the determinations from Tanner, 1951, rest solely on coincidences in native names, they should be treated with great caution.

These notes are based mainly on statements made by Ngindo informants, only secondarily on actual observation. My own comments, if any, are in brackets at the end of each note.

In the case of the bush-fruits proper, I regret that I omitted to record the time of year that they ripen or are gathered. Almost always, however, this can be taken to be well into the rainy season: that is, from January onwards.

A. FRUITS

Ngindo Name	Latin Name	Manner of collection, preparation, and consumption
1. Kibaba	Probably <i>Ficus</i> sp.	The fruits are picked ripe, and will keep a day or two. They are quite sweet, but the flesh is meagre. The pip is swallowed, but not the skin owing to its furry texture. There is no processing.
2. Kijugu	<i>Capparidaceae</i> , genus uncertain.	Picked when ripe. the fruits are eaten raw there and then, though the dry shell is discarded. The flesh is sweet. ("Kijugu" may mean "the little groundnut").
3. Kikoma ngunda	<i>Hyphaene</i> ?	Either picked when ripe or gathered as a windfall. this fruit will stay fresh for a month and more. Only the sweet flesh is edible. Both pip and skin are discarded. The trunk may be burnt down to ash, which serves as a substitute for salt. (This is a dwarf palm commonly found in sandy stream-beds. "Kikoma" - means "Borassus palm", so "Kikoma Ngunda" may be translated "tame Borassus", i.e. literally "Borassus of the fields").
4. Kipurupuru	Not determined	No details available. (This is a largish drooping tree or scandent. A smallish shrublike plant goes by the same native name, though it has no edible fruit. Neither of these plants was identified).
5. Kiumbaumba	<i>Rubiaceae</i> , genus uncertain	Picked when ripe, the fruits are eaten raw there and then, though the dry shell is discarded. The flesh is sweet.
6. Mbanganakachwena	<i>Leptactina</i> sp.	The fruits are picked when ripe, or nearly so. They can be stored for a few days. Only from relatively unripe fruit is the skin discarded, owing to its bitter taste. Otherwise the fruit is eaten whole. Its flavour is sweetish, and the pips tend to cause constipation in children.
7. Mbome	Genus uncertain (may be <i>Landolphia</i> sp.)	The fruits are picked when ripe and have to be eaten almost immediately, i.e. they are seldom brought back to the homesteads. The fruits are eaten whole, though the bitter skins are always discarded, and the small pips pass easily through the system.
8. Mbuputu	<i>Grewia</i> sp.	The fruits, which are picked ripe, are not sufficiently durable to be taken home. They are eaten raw and whole, even though the skin tends to be sticky.

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| 9. Mhowu | <i>Uvaria sp.?</i> * | The fruits are picked when ripe and eaten raw, mainly in the forest. The flesh, described as very sweet, is not at all durable. The pip is swallowed whole and passes intact through the system . . . the Ngindo swallow pips whenever possible so as to derive the maximum nourishment. Children are liable to constipation as a result, but parents may clear this by inserting a finger into the anus. The skin is eaten as well. These fruits cause no other ill effects on the digestion. (The fruits look like miniature yellow plums, with soft juicy flesh, a pip about half an inch long, and a slightly furry skin. The flavour is indeed delicious and the flesh forms a substantial layer by comparison with that of most bush-fruits). |
| 10. Mhuluhuti | <i>Syzygium cordatum Hochst.</i> | The fruits, picked ripe, are not at all durable. Fairly sweet, they are eaten whole and unprocessed. |
| 11. Mhumbuka | <i>Salaria bussei Loes.</i> | The fruits are picked when ripe and will keep for a few days. Nevertheless they are seldom taken home. The hard skin is discarded, but otherwise the fruit is eaten as it is, in the raw state. |
| 12. Mhurukatuku | <i>Vitex sp.</i> | Gathered as recent windfalls, the fruits will keep a matter of weeks. They have a repellent smell, but the taste is sweet. They are eaten whole. There is no processing at all, and the seeds are broken down by the digestion in the same way as the rest of the fruit.
(The tree is extremely similar to No. 25 of which it appears to be a dwarf thicket-bound variety). |
| 13. Mhwanga | <i>Landolphia sp.</i> | Picked when ripe, these fruits last a month or more, thanks to their hard shell, which has to be discarded. The flesh is sweet though adhesive; and the pips are eaten too. There is no processing. If large quantities are consumed, they cause the stomach to churn. (This is the wild-rubber creeper. The round billiard-ball sized fruits are delicious, though the flesh is difficult to suck away from the numerous irregular-shaped stones, which seem on the big side for swallowing). |
| 14. Mhwiru | <i>Vangueria sp.</i> | The fruits may be picked from the tree when ripe, or nearly so, and gathered as recent windfalls. They will keep for several days. They are rather insipid, and the skin is discarded unless the famine grows really severe. They are eaten raw.
(The Ngindo differentiate two types of this tree; the fruits of both are edible and treated in the same way; it is the one associated with woodland that appears in the list of determinations; the thicket one could not be identified). |
| 15. Mkanganangu | <i>Vitex sp.</i> | These nuts are gathered as windfalls. They are very hard and durable. Once cracked open with an axe, their flesh may be either eaten raw, or roasted and ground down to a powder, which is added to ready-cooked leaf-relishes as an appetiser. |

*Henceforth, unless otherwise stated, it can be assumed that any pips that are swallowed do pass intact through the system, and that the edible portions can be digested normally. Informants specify that some types of pip will sprout from the excrement, but not others.

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| 16. Mkuju | <i>Ficus sp.</i> (Tanner 1951 suggests <i>Ficus brusei</i>). | (The raw nuts are excellent, something like a brazil-nut. They are gathered even in normal times).
The fruit is picked ripe, and must be eaten without undue delay, preferably on the spot. It is consumed whole and raw. The flavour is fairly sweet, but the hollow centre frequently contains insects.
(This is a kind of wild fig, a massive tree but with insipid and undersized fruit clustered around the trunk). |
| 17. Mkundwaubi | <i>Antidesma venosum Tul.</i> | Picked when ripe, the fruits are eaten raw there and then, though the dry shell is discarded. The flesh is sweet.
("Mkundu wa ubi" may mean "Leopard's anus"). |
| 18. Mkungumwali | <i>Hexalobus sp.</i> | The fruits are picked when ripe, or nearly so, they can be stored for a few days. The fruit is eaten whole and the flesh is sweetish. |
| 19. Mkwaju | <i>Tamarindus indica L</i> | These fairly durable fruits are picked when ripe. The skin is hardish and therefore discarded. The flesh is sweet, though sometimes it turns bitter when soaked in water, in which case wood-ash is added to it to reduce the sourness. It is liable to cause diarrhoea. The reason for soaking is to allow the pip (which can be swallowed) to be separated. The pips can be pounded into a tasteless flour.
(This is the tamarind tree, whose fruits are very abundant and quite palatable in the raw state). |
| 20. Mkwichimbi | <i>Manilkara sp.</i> | Similar to No. 21, except that the fruits are picked when ripe and that the skin is adhesive. |
| 21. Mkwiru | Genus uncertain, ? <i>Vangueria</i> | The fruits are gathered soon after they fall, but do not last any appreciable time. Eaten raw, pip, skin and all, they are very sweet-flavoured. |
| 22. Mlyembunju | <i>Olex dissitiflora Oliv.</i> | The fruits, picked ripe, are not at all durable. Fairly sweet, they are eaten whole and unprocessed.
("Mlye mbunju" may mean "he eats it the eland"). |
| 23. Mmungo | <i>Landolphia ? kirkii Dyer</i> | Similar to No. 9, except that the fruits are less sweet, somewhat more durable, and much bigger.
(The shell is hardish and not palatable, having the size and shape of a golf-ball. There are numerous irregular stones fitting together, with moist flesh in the interstices). |
| 24. Mpilipili | (Not collected) | No details available.
(It has the same native name as the "red pepper" plant). |
| 25. Mpindimbi | <i>Vitex sp.</i> | The fruits are for the most part recent windfalls and can be stored for several days. They are sweetish, gentle in effect, and generally eaten in the unprocessed state. They may be lightly pulped in a mortar before serving. (Sutherland, 1912, describes these fruits as "pitimbie"). |
| 26. Mpingi | <i>Ximenia ? caffra Sond.</i> | The fruits are picked ripe and do not last. They are very bitter to the taste; and the skin, which is discarded on that account, is especially so. They are eaten in only small quantities at a time. Since one cannot |

- gorge oneself at a sitting, they are sometimes gathered and taken home, where they might provide snacks, taken at frequent intervals. (The flavour is indeed very bitter, though refreshing. The fruit resembles a tiny purple damson-plum).
27. Mpujupuju *Pseudolachnostylis maprouneifolia* Pax var. *glabra* (Pax) Brenan
Picked when ripe, the fruits will keep for a few days. Once the hard shell has been discarded, they may be eaten as they are, though the pips are discarded too unless the famine is very severe; otherwise they may lead to constipation, owing to their size.
28. Mpunju Genus uncertain. (Tanner 1951, suggests *Annona chrysophylla*)
The fruit is picked ripe and eaten raw. The skin is usually, though not always, discarded, but the pips are swallowed. Though not at all durable the fruit may be taken home. The flavour is described as moderately pleasant and sweet.
(Sutherland 1912, alludes to this as the "topie-topie" from the Kiswahili name of the tree, Mtopetope. The fruit is anything up to size of a tennis-ball and quite tasty. It strongly resembles the "custard apple").
29. Mula *Parinari curatellifolia* Planch. ex Benth.
Gathered as recent windfalls, these fruits can be kept a few days. There is no processing. Both the skin, which is sour and sticky, and the pip are discarded; but the flesh is sweet.
30. Ndaba *Flacourtia* sp. (Tanner 1951, suggests *Flacourtia indica*)
The fruits are picked when ripe and have to be eaten almost immediately, i.e. they are seldom brought back to the homesteads. They are eaten whole, without any processing. Their flavour is sweet and effect on digestion normal. (Sutherland 1912, lists this among the edible fruits consumed fifty years ago. He gives the spelling "Ndava". The fruit is a large yellow berry, not very tasty or succulent).
31. Ndumbi *Salacia* sp.
Picked when ripe, these fruits can be kept a few days without rotting. They need no processing though the outer shell is discarded. The pips are sizeable and sometimes lead to severe constipation, but are not otherwise harmful. However, it is believed that the fruits, when consumed in large quantities, may render a man lame owing to swelling of the legs, a serious matter in time of famine; for the food-collector must keep mobile.
32. Ndoro *Landolphia petersiana* (Klotzsch) Dyer
The fruits are picked when ripe, or nearly so. They can be stored for a few days. Only from relatively unripe fruit is the skin discarded, owing to its bitter taste. Otherwise the fruit is eaten whole. Its flavour is sweetish, and the pips tend to cause constipation in children.
33. Ndengende (Not collected)
Both the fruit or seed and root are edible, but no details were to be had.
34. Nebelebe *Cassia* sp. ? *burtii* Bak.f.
The fruits are picked when ripe, and sometimes taken home, though they deteriorate quite rapidly. They are eaten whole and without processing.
(The Ngindo distinguish two other varieties of this tree, neither of them having edible fruits. All three are identified as belonging to the *Cassia* species).

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| 35. Ngambo | <i>Manilkara mochisia</i> (Bak.)
Dubard. | The fruits, picked when ripe, do not last long, but are sometimes taken to the home-steads. They require no processing. The pip is eaten, the skin adhesive and the flesh quite sweet. |
| 36. Ng'humu | Genus uncertain (may be
<i>Bombax rhodognaphalon</i> as
suggested by Tanner 1951) | The durable seeds are collected as windfalls and roasted, when once the outer fluff has been removed. They may be pounded after roasting and be eaten in powdered form. There is scarcely any flavour.
(The seeds are very distinctive, owing to the mass of fluffy fibres that envelop them. In local Kiswahili, the tree is called "Msufi mwitu", or "wild kapok"). |
| 37. Ngichi mburuta | <i>Strychnos</i> sp., ? <i>spinosa</i> Lam.,
sens. lat. | The fruit is generally collected as a windfall and may be stored for a few weeks. It is eaten raw, but the hard shell is discarded. The Ngindo claim the flesh is sweet, and the pips are swallowed. |
| 38. Ngichi ngulunguya | <i>Strychnos</i> sp., (Tanner 1951,
suggests <i>Strychnos suberi-
fera</i> for the plain "Ngichi?"
tree). | Same remarks as 37. The flesh is quite sweet but mildly noxious. If eaten in any quantity it causes the thighs to become swollen.
(The fruits are much smaller than those of Nos. 37 and 39; and the tree is much larger and denser, in fact totally different in appearance. "Ngulu nguya" may mean "big lima beans". The other Ngichi mentioned in the text, namely "ngulube", also belongs to the <i>Strychnos</i> species). |
| 39. Ngichi tonga | <i>Strychnos</i> sp., ? <i>spinosa</i> Lam.,
sens. lat. | Same remarks as 37.
(The fruit, sometimes called the "Kaffir orange", is a glossy green, turning to yellow and black when very ripe and the size of a cricket ball. The flesh is moist and scanty, coating the big irregular pips. The flavour is strong and somewhat tart. Sutherland 1912, mentions it as "Matonga", plural of the single "Litonga" fruit). |
| 40. Ngombe | (Not collected) | No details available. |
| 41. Ngombokwa | (Not determined) | No details available. |
| 42. Ngungungu | (Not collected) | The fruit is picked ripe and remains fresh only a couple of days. It is eaten whole and raw and has a moderately sweet flavour. The root is also edible. It must be peeled, pounded down to flour, then boiled as porridge. |
| 43. Njwechwe | <i>Annonaceae</i> , genus uncertain | Picked when ripe, the fruits are eaten whole and unprocessed on the spot. Though fairly sweet, they are not consumed in any bulk (Luchwechwe can mean "tomato", plural Njwechwe as here). |
| 44. Njengechenge | Genus uncertain (probably a
<i>Salacia</i>) | Picked from the branch and eaten whole, these fruits are not at all durable. They have an unpleasant flavour and cause discomfort and turmoil of the stomach if eaten in bulk. |
| 45. Nkalakawa | Uncertain | The fruits, picked ripe, are not at all durable. Fairly sweet, they are eaten whole and unprocessed, though the pips are too big to be swallowed as a rule. |
| 46. Nneyu | <i>Rubiaceae</i> , genus uncertain | Picked when ripe, and eaten whole and unprocessed, the fruit is sweet and can be taken home. It is not consumed in any bulk. |

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| 47. Nnonji | Genus uncertain (Tanner 1951, suggests <i>Bombaca</i> <i>ceae</i> , <i>Adansonia digitata</i>). | The fruits are gathered as windfalls, and the pith or flesh is eaten raw. Its flavour is said to be moderately sweet. The pips which are more durable, should be roasted before serving. Salt is generally added to supplement the otherwise insipid taste.
(This is the Baobab tree, which is not at all common in central Ngindoland. However it occurs in the extreme south and in other areas around the periphery). |
| 48. Nongamera | (Identity uncertain) | The fruits, picked ripe, are not at all durable. Fairly sweet, they are eaten whole and unprocessed. |
| 49. Ntau | <i>Grewia</i> sp. | The fruits are picked ripe and eaten on the spot. They are quite palatable. Even though the skin tends to stick to the teeth, the whole fruit can safely be consumed. |
| 50. Ntiko | (Undetermined) | The fruit is picked when ripe, and keeps long enough to be taken home. It is eaten whole without processing. The flavour is sweet. |
| 51. Ntobo | (Uncertain) | The fruits, picked when ripe, do not last long. However, they are sometimes taken home. There is no processing, though the pip, which comes away easily, is discarded. The flesh is sticky and not very sweet. |
| 52. Unywemachi | (Genus uncertain) | The fruits, picked ripe, are fairly sweet, and eaten without processing. They are not very durable. ("Unywe machi" may mean "drink water"). |

B. SEEDS

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| 53. Bwagi likwana | <i>Mucuna</i> sp. | The pods are gathered long after they have dried and withered. Otherwise the fur will cause extreme skin-irritation. The hard seeds are not necessarily destroyed by bush fires, unless the heat be unusually intense. They can be stored indefinitely. The manner of preparation is to remove the pods and boil the seeds lightly. Their outer shells can then readily be removed by hand. Next, the kernels are boiled again at length until thoroughly soft, when they are used as a relish like ordinary beans. They are mild on the stomach, but insipid to the taste.
(The plant is a low creeper often found in tall grass or undergrowth, hence prone to bush fires. The fur is troublesome). |
| 54. Mhuja | <i>Sterculia quinqueloba</i> (Garcke)
<i>K. Schum.</i> | The durable seeds are gathered from the ground and roasted. They are tasteless and need to be spiced with salt.
(The pods of this tall, handsome tree snap open to scatter the tiny seeds, but do not fall. It is therefore troublesome to locate the seeds. This is purely a famine-food). |
| 55. Ndwenje | <i>Sclerocarya</i> sp.? | The seeds are gathered as windfalls and will last a week or so. Consequently they are taken home more often than not. The outer shell and flesh, though somewhat unpalatable, are fit to eat in the raw state, and the pip, the shell of which is discarded, may be cracked open and eaten, also raw. This inner flesh does not have the taint of the outer. |
| 56. Ng'hungutwa | <i>Kigelia</i> sp. (very probably
<i>Kigelia aethiopica</i>) | The seeds are extracted from the pods, which are gathered as windfalls. They are simply roasted. Lengthy storage is possible. The seeds need to be pounded for toothless elders. (This is the commonly encountered "sausage tree"). |

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| 57. Njekere | <i>Amblygonocarpus andongensis</i>
(Welw. ex Oliv.) Exell et
Torre | The pods are gathered as windfalls, and can be stored indefinitely. It is the seeds which are edible, and these are either roasted and served whole, or roasted and pounded into a dry powder. Salt is generally added so as to give the stuff some savour. It is heavy and clogging, and frequently gives rise to constipation.
(This is definitely a food only in time of emergency. The tree is common in central Liwale, and one sees a dense carpet of pods beneath it as a rule, i.e. no attempt has been made to collect the seeds). |
| 58. Uhangwa | <i>Eriosema psoraleoides</i> (Lam.)
Don | The pods are picked from the plant either when mature or at a later stage when they have begun to shrivel. The seeds will keep indefinitely and must be lightly boiled, then served in the manner of beans. Their flavour is described as quite pleasant. |
| C. GRASSES | | |
| 59. Lumbunga | <i>Panicum maximum</i> Jacq. | This is a grass-like plant, and the grain is gathered in sifting-trays held by the harvesters, who rub the ripe heads between their palms. The tiny granules are roasted, left to dry off thoroughly and then pounded. They can thereafter be boiled just like rice. They are considered very palatable and generally eaten alone, though salt and relish may be added if available. |
| D. ROOTS AND TUBERS | | |
| 60. Kihawa | (Not collected) | Dug up well into the rains, this root is not at all durable. It is simply boiled and eaten alone or with salt, though without further processing. |
| 61. King'ara | <i>Nymphaea</i> sp. | This plant can be collected at any time of year where there is standing water. The edible stem keeps for a week or more and only needs to be boiled or else roasted in hot ashes. It is palatable, and should be served alone, with salt for seasoning.
(This is the big water-lily, with vivid mauve or white blossoms, found on most of the ponds of Ngindoland. Generally these ponds dry up before the ensuing rains). |
| 62. Kinjambali | <i>Asclepiadaceae</i> ,
genus uncertain | This fairly durable root is dug up in the rains. It needs no processing, though it is usually cut into strips before serving. If collected early in the rains it tends to have a bitter taste, which later on becomes diluted. |
| 63. Likulumbonyo | Genus uncertain | The best time for digging up this tuber is early in the rains. If left till later, it gets too watery. Once dried, it will keep for several months. It needs considerable processing in order to remove a poisonous element which is present in the raw state. First the tuber is boiled and cut into strips, which are sluiced in water for several days. Only after further boiling is the food safe for human consumption. Generally it is pounded down to flour, then cooked as a porridge. Owing to its lack of flavour, salt or relish is added. |
| 64. Liliga | (Not collected) | The same precautions are necessary as for No. 63, though the poison in this root is even more persistent. It is regarded as being very tasteless. |

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| 65. Luhangai | <i>Dioscorea</i> sp. | The same as No. 63. |
| 66. Lutondwa | <i>Araceae</i> , genus uncertain | This mildly noxious root is dug up in the rains and gently pulped on a smooth strip of bark. It is then soaked in a water-pot and stirred briskly. Finally the scum is taken off and discarded, whilst the edible sediment is sun-dried and pounded into flour. The whole process can be completed in a day. The flour, which will keep a long while is boiled up into porridge. It is regarded as being quite good to eat.
(The plant's native name means "star", probably from the shape of the slender radiating leaves and from the silvery appearance of their undersides.) |
| (33. Ndengende | (Not collected) | See previous note on No. 33). |
| (42. Ngungungu | (Not collected) | See previous note on No. 42). |
| 67. Ngwegwe | (Not collected) | The same as No. 60. |
| 68. Njekule | Apparently <i>Dolichos taubertii</i>
Bak. f | The same as No. 60. |
| 69. Unyanya | <i>Dioscorea</i> sp. | The root is dug up late in the dry-season when the plant has already withered. If dried, it will keep for weeks. More often it is rendered into flour by two different poundings, with a period of sun-drying in between. Then it will keep indefinitely, and only needs to be boiled before serving. It is thought to be appetising.
(This food is both plentiful and popular. The root itself is long and slender. Though brittle, it is not at all hard, and can be eaten raw just as it is. The flesh is moist and crisp, like a tasteless watery radish). |
- E. LEAVES
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| 70. Kipingu | <i>Acanthaceae</i> , genus uncertain | Picked during the rains, this leaf is boiled. It is served as a relish, with salt. The green leaf will soon wither, but the processed food may be stored for a long while if dried. It has a tang like cassava-leaves and is easy on the stomach.
Same as No. 70. |
| 71. Lilende | (Not collected) | Same as No. 70. |
| 72. Lindebele | (Not collected) | Same as No. 70.
(This relish is very good to eat, like rich garden-spinach). |
| 73. Linyololo | <i>Sesamum</i> sp. | Same as No. 70. The food is mild-flavoured and oily in texture. |
| 74. Litindiba | <i>Acanthaceae</i> , genus uncertain | Same as No. 70. |
| 75. Luhunga | <i>Lactuca</i> sp. | Same as No. 70.
(The Ngindo distinguish two varieties of this plant, claiming that only the one found in the valleys is edible. The upland variety, identified as <i>Vernonia poskeana</i> Vathelet Hildebr., appears to be substantially different). |
| 76. Mpira | Manihot ? <i>glaziovii</i> Muell.
Arg | Same as No. 70, but the leaf is pounded before cooking.
(This is the exotic-rubber tree, introduced by the Germans before the 1914-18 war but now growing wild in and around a derelict plantation). |
| 77. Mpuga mahoka | (Not collected) | Same as No. 70 excepting that the flavour is unpleasant.
(<i>"Mpuga mahoka"</i> may mean "wind of the ghosts". There is also an <i>Mpuga</i> tree, so an alternative translation is "the <i>Mpuga</i> tree of the ghosts"). |

78. Nakatukwa	<i>Talinum caffrum</i> (Thunb.) <i>Eckl. et Zeyh.</i>	Same as No. 70. The leaf is soft and pulps very easily.
79. Ngumbu	(Not determined)	Same as No. 70, but the flavour is milder.
80. Nubili	(Genus uncertain)	Same as No. 70, but the leaf is usually cooked, then pounded and then recooked. The taste is not very palatable.

F. WOOD, BARK OR SAP

81. Kipombo	<i>Cissus integrifolia</i> (Bak.) <i>Planch.</i>	The stems can be cut at any season and the sap is drunk in the raw state. It is tasteless like water. (The creeper has a dead appearance. It is very soft and can be sliced into sections about two feet long with a knife. Several of these are held horizontally in a bundle and then tipped up into the drinker's mouth or over a container. The clear, almost tasteless fluid then literally pours out). See previous note on No. 3.)
(3. Kikoma ngunda	<i>Hyphaene</i> ?	

G. GROUND FUNGI

NOTE.—Unless otherwise stated, it can be assumed that the season of collection, the storage, processing, and digestibility of all the following fungus-foods are the same as for No. 82.

82. Bwoga kikongono-chang'unda	(Not collected)	This fungus is gathered during the rains and will keep indefinitely if processed and dried. Otherwise it rots immediately. The manner of processing is to boil it, allow it to cool, and then dry it out in the sun. It is not eaten directly after the boiling, due to the presence of a taint which later fades. It has no ill effects.
83. Bwoga lingubale	(Not collected)	This fungus is considered very palatable indeed, and has copious flesh.
84. Bwoga lingujuju	(Not collected)	This fungus is considered very palatable indeed.
85. Bwoga liyapowa	(Not collected)	Alone among the ground-fungi, this one is eaten raw. The rest serve as relishes to go with a foundation dish. The Ngindo are very partial to this fungus.
86. Bwoga lukirwandanga	(Not collected)	Very palatable indeed.
87. Bwoga mbawala	(Not collected)	Though palatable this fungus has an oily consistency. ("Mbawala" is the Ngindo name for the bush-buck).
88. Bwoga nderamule	(Not collected)	This fungus is alleged to have a slight taint and a very high oil content.
89. Bwoga ngangarakata	(Not collected)	This fungus is considered good eating.
90. Bwoga njecheche	(Not collected)	Though tasty, this fungus is poisonous to man unless specially processed. It has to be boiled twice, with an interval of two days in between.
91. Bwoga rukuu	(Not collected)	Same as No. 82. ("Rukuu" means "navel", and the fungus is so called from the raised central boss).
92. Bwoga uchege	(Not collected)	Same as No. 89.
93. Bwoga uhuluku	(Not collected)	Same as No. 87. ("Huluku" is the Ngindo name of a type of duiker).
94. Bwoga ujombo	(Not collected)	Same as No. 89.
95. Bwoga ulelema	(Not collected)	Same as No. 87.
96. Bwoga umembe/uhinda	(Not collected)	This fungus matures and withers very rapidly indeed. It is pleasant tasting.

97. Bwoga ugangoro/ ngongoro	(Not collected)	Though not unpleasant, this fungus should be eaten only in small quantities; otherwise it will cause the limbs to swell as in what the Ngindo term "heart disease". ("Ngongoro" is the Ngindo name of an unidentified type of tree).
98. Bwoga ungolabele	(Not collected)	This fungus is considered palatable.
99. Bwoga ungunguta	(Not collected)	Same as No. 89.
100. Bwoga upugupugu	(Not collected)	Same as No. 89. (Identified as being of the <i>Markhamia</i> species the Mpugupugu is a common thicket tree. Tanner, 1951 suggests <i>Markhamia obtusifolia</i> . Where a fungus is associated with a tree in this way, it is because the natives believe that particular type of fungus to be found only beneath that particular type of tree).
101. Bwoga utembo	(Not collected)	Besides being palatable, this fungus has abundant flesh. ("Ndembo" is the Ngindo name for "elephant").
102. Bwoga utumbati	(Not collected)	Though good to eat, this fungus has a rubbery texture. ("Mtumbati" is a conspicuous type of tree belonging to the <i>Pterocarpus</i> species).
103. Bwoga utundu	(Not collected)	Same as No. 89.
H. TREE FUNGI		
104. Bwoga libungumau	(Not collected)	This fungus may be eaten raw if found to be growing on the Kibaba tree, but otherwise it should be cooked. It has a slight taint. (The Kibaba, identified as probably belonging to the <i>Ficus</i> species, is a prevalent thicket tree. The only other type of tree on which this fungus is said to be edible, the Nchenga, is perhaps the commonest of all the woodland trees. It is tentatively determined as being of the <i>Brachystegia</i> species).

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BLESSING THE YEAR: A WASI/RANGI CEREMONY

By H. A. Fosbrooke

Editor's Note: This article is the first of two by Mr. H. A. Fosbrooke, the second is called "A Rangi Circumcision Ceremony, Blessing a New Grove" and follows on page 30 of this number. Each article has 12 illustrations, but owing to the cost of plates it has not been possible to publish all the photographs, however, Mr. Fosbrooke has kindly presented the full set of 24 photographs to the King George V Memorial Museum, where they may be viewed.

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INTRODUCTION

This paper gives a description of the blessing of the year, witnessed on 1st December, 1953, at Kolo, where the Chief of Irangi's headquarters is situated, seventeen miles north of the District Headquarters at Kondoa. This chiefdom consists of 104,748 inhabitants of whom 81 per cent belong to the Rangi tribe of Bantu origin, and 11 per cent to the Alawa or Wasi, a splinter off the Iraqw, possibly a Hamitic group but certainly non-Bantu, mostly living in the Mbulu District. For the purpose of identification, it is necessary to record the venue of the ceremony as being in the area of Headman Ramazani Mkwata under Sub-chief Hamisi Mresa of Kolo, who is, in turn, under Chief Heri Salim of Irangi. It must not be taken as derogatory of this functioning political hierarchy when it is explained that the whole system is non-indigenous. In pre-Colonial times both Rangi and Wasi political systems were segmentary, each local community, under its own leader, *Hapaloimo* (Wasi) or *Mwenesi* (Rangi), being an independent unit. It is the ceremony of one such area, Dirava, which is described below.

The Dirava area is one of three such indigenous units in Headman Ramazani's country, the total tax paying population of which is just under 600. This area was originally Wasi, but has been subject to heavy infiltration of Rangi from the "cradle" area of the latter tribe, Haubi, situated a few miles to the south-east. The present ethnic composition of the area is about two Rangi to one Wasi.

Though mission work (mainly Roman Catholic) goes on in other parts of the chiefdom, in Dirava there is not a single Christian. The majority (82 per cent) are Islam and the small proportion of pagans are to be found in the older generation. By virtue of precedence of arrival, the "ownership" of the country rests in the Wasi, in the person of Ndarera Lali, of the Ivvara clan. This old gentleman, aged about seventy but looking older (Plate I), holds the office of *hapaloimo*. In point of fact, apart from gracing it with his presence, the substantive head took little active part in the ceremony which was conducted in the main by his younger brother, aged c.62.

The degree to which the Wasi and Rangi jointly participated could not be ascertained by actual count at the ceremony (this would have been injudicious) but I was assured that both groups were participating. Confirmation of this was forthcoming from the Rangi sub-headman of the area, who could recall the names of those called on to contribute the sacrificial lamb over the last thirteen years. These consisted of nine Wasi, three Rangi (including the sub-headman himself) and one Burungi, figures not disproportionate to the ethnic composition of the group.

Some final preliminary details before proceeding with the actual description of the ceremony concern the composition of the participating group by age and sex, their dress, and general demeanour. Except two small girls, aged between nine and ten, no females were present at the ceremony. The males comprised three groups, the elders, the men, and the boys. These are not merely descriptive, but precise terms, the elders consisting only of grandfathers, the "men" being adult tribesmen from initiation upwards, but excluding grandfathers, and the "boys", the uninitiated. The groups kept themselves apart during the ceremony, as each had a different part to play. The elders numbered twenty-five, the men more than forty, and the boys two (plus two or three youthful hangers-on) who sat apart with the two girls.

No special dress or insignia was donned for the occasion. In fact, "every-day" dress seemed to be worn intentionally, as in an Islamic group such as this, a Mohammedan ceremony would have brought out an array of *kanzu* and skull caps. Concerning the demeanour of the participants, on the one hand they did not appear to be overawed, voices were not hushed, the ritual was liable to interruption and correction and the beer was drunk with obvious enjoyment and not just as a ritual. On the other hand, there was no frivolity or lightheartedness about the show. I myself was accepted and privileged to attend on the grounds that I was recording the proceedings for the benefit of future generations: further, I was unlikely to want to work any evil against the community. But, as explained above, women were rigorously excluded, a Gogo tribesman who put in an appearance was politely but firmly turned away, whilst even the residual grain, strained from the beer, was removed to a neighbouring house for subsequent burial so that no evil-minded person should remove it and practise magic on it against the community.

PREPARATION FOR THE CEREMONY

As I was not present in the area in the period during which preparations for this ceremony were being undertaken, the notes which follow were obtained from informants. When there is an upsurge of opinion that the time is approaching that a land blessing ceremony should be undertaken, expressing itself in much casual conversation, a meeting is finally decided on. At this meeting it must be decided who contributes the beer which is to be brewed for consumption on the sacrificial ground. In addition, outlying houses which a "beating the bounds" party will pass close by are also required to have refreshments (alcoholic) ready for the party as it passes by, so these houses must also be decided upon in advance.

Reports are received at this meeting if anyone has damaged the boundary marks in any way, either by cutting the boundary trees or firing grass in the vicinity of the boundary rocks. Should this have occurred, it is necessary for the

offender to contribute a sheep to be sacrificed on the spot to "cool" the country. This idea of "cooling" the country after any damage dominates the thoughts of the people to a considerable degree. It will be referred to again later, but in passing, it might be mentioned that after the first heavy rain, rain water should not be used for drinking without a sheep being sacrificed to "cool" the water. Again, if heavy rain causes a washaway and thus cuts the ground and causes a gully to commence, a sheep should be sacrificed to "cool" the country*.

In the past, a sheep was slaughtered and its stomach contents mixed with the seed before planting and, at harvest time, another sheep was slaughtered to "cool" the country once again after the damage thought to be caused by the cutting of the crops. The immigrant taking up new land is also required to "cool" the country as his breaking the land for house and fields will generate heat. Even when a flagstaff was required at the Native Authority Headquarters, the country had to be "cooled" after the digging of the necessary hole.

This, as I have said above, is the conceptual approach. It is what the Rangi consider necessary; how far it is carried out on each occasion is uncertain. What is certain is that at least the annual blessing takes place, as informants could catalogue, with considerable agreement, the people who had contributed the necessary sheep for the past ten years or more. This reveals the discussion that must take place at these preliminary meetings; for only constant repetition, argument, claim and counter-claim could keep this knowledge alive.

DESCRIPTION OF THE CEREMONY

It is about 11.00 a.m. and some forty people are assembled at the sacrificial tree, including the younger brother of the head of the land unit who assumes the role of Master of Ceremonies throughout and is subsequently referred to as the M.C. He has just arrived, with a swizzle stick in his hand. Of the assembly, ten or so are elders, the majority early middle age types, i.e. "men" in terms of my earlier definition, a few schoolboys on the fringe of the group and about five seven-year old children, the participants referred to below, with accompanying friends.

Beneath the tree there stands on the east side a split gourd into which a swizzle is placed, and two small calabashes of beer. The former contains leaves and twigs of a shrub called *lufulufulu* which has been brewed and mixed with water, which must not be boiled. This has been done in advance by the M.C. The two small calabashes contain *togwa*, that is, unfermented beer, the significance being that beer is "hot", whilst *togwa* is a counter-balance, being "cool". On the other side of the tree, the hornblowers are repairing and tuning their horns, stopping holes with beeswax, damping the inside of the horns with a little beer, and tuning until a sufficiently resonant note is obtained. These efforts attract considerable criticism; one man remarks "the proper hornblowers have gone out to work: these are only children!" To one side, the sacrificial sheep, which must always be black, without blemish, and an entire male, is tied up and large gourds of beer are dotted around.

*The cynical may well say, when surveying the scarred and eroded landscape of Irangi, that were this precept strictly adhered to, the over-stocking problem would immediately be solved, at least as far as small stock is concerned!

About half an hour later, the head of the group arrives: a bent old man—see photo—who looks much older than his seventy years*. Up to this time no beer has been drunk and everyone stands or sits around quietly expectant. The ceremony commences by the M.C. walking twice round the tree, carrying the sacrificial sheep and chanting:

“Howa! Howa! giere gatie!”

meaning

“Howa! Howa! let the spirits sleep.”

This song is in the Wasi language: the following two songs, in Rangi, were also used in the course of the ceremony.

“El, Hoio

Varimo Valale!

(let the spirits sleep)

Turinge nasi.

(let us walk round the country)

Mbula na uje.

(let the rain come)

Mbula kiririma iyolo!”

(rain, rumble in the evening)

and

“Mbula sengerielo

(Rain, assemble the clouds!)

Mbula ikule

(Rain, may you be big!)

Uje varise va ndama.”

(Rain on the herders of the calves)

Following the M.C.’s circumambulation a group of three “men” walk twice round the tree, the middle man carrying the sheep. This is then slaughtered by one of the “men”, while the M.C. twizzles his swizzle stick in the adjacent half gourd mentioned before (Plate IIa). This has been previously filled with the liquid noted above which, when agitated, generates a considerable amount of lather. When this overflows from the gourd, the M.C. takes it up in his hand and scatters it around, calling out “*Howa! howa!*” He is followed by a “man”, subsequently referred to as Assistant No. 1 or A.1, who goes through the same process of swizzling (Plate IIb) and scattering the lather, and he in turn is followed by a third, Assistant No. 2 or A.2, and again by a fourth, A.3. A.1 is a Wasi who comes from a distant corner of the area. A.2 likewise is a Wasi with a Rangi mother, whilst A.3 is a Wasi, son of the M.C. Considerable significance obviously is attached to the scattering of the lather, as one of the participants carefully removes his hat and *shuka* or cotton sheet worn like a toga before performing. I am informed that should anyone use this cry “*Howa! howa!*” on any occasion other than at the proper ceremony, he would be fined a cow.

While this is going on, the sheep is skinned on its upper side only and the half skin severed from the carcase (Plate III). This bit of skin is handed to A.2 who cuts it into long strips. Meanwhile A.3 has removed the stomach contents of the sheep and squeezed the juice thereof into the gourd, passing the dry residue to the M.C. A.2 is meanwhile climbing the tree, around which he ties the long

*I estimated his age to be this by such events as the 1890 smallpox, the arrival of the Germans, etc.

strip of skin at a height of about ten feet off the ground. The M.C. now calls on the assembly to come near and start drinking. The time is twelve o'clock. The beer is distributed in orderly fashion and drunk by groups of the "men": the elders do not drink at this time: they are engaged in splitting the remainder of the skin. The hornblowers are indulging in a final tune up.

A young girl now appears and sits at the base of the tree. She holds a small gourd containing seed of every sort planted in the area and a little beer. This will be carried around when the bounds are beaten and finally brought back to the sacrificial tree. This seed will then be distributed to the participants of the ceremony who will mix a little when planting the coming season's crops. Another little girl comes along and likewise two young boys. Of these, one girl and boy are Wasi, and one boy and girl Rangi. This group sits apart at the base of the tree, and is given beer to drink. Meanwhile the M.C. addresses the assembly, telling those who are to go around beating the bounds that they must be well mannered and, when given beer to drink, receive it with due gratitude. By now the drinking is over and the residual grain from the beer is taken away on a tray to a nearby house.

The bound-beating party is now getting ready. The two leaders, who are paternal grandsons of the head of the group, are given bits of the split skin to hang on the boundary trees as they pass. Twigs of the sacrificial tree are broken off to use as brushes for scattering the remains of the liquid in the half gourd. The bound-beating party then walks around the tree: the two leaders first, then the group of children—two boys and two girls—followed by a large group, in the middle of which are the hornblowers. A black ewe lamb and a black hen have meanwhile been produced and these are carried round by the bound-beating party; they are *not* slaughtered, but finally returned to their owners at the conclusion of the ceremony.

With the departure of the bound-beating party, the elders get down to their drink and food, the latter comprising the meat of the sacrificial sheep which must be roasted with firewood broken from the sacrificial tree and not with firewood from any of the adjacent houses.

Returning to the bound-beaters, the party soon passes through the Native Authority Headquarters. The boundaries are so scrupulously followed that the party make a point of passing between the court house and adjacent court clerk's quarters only a few feet away. To deviate to one side or the other would involve departure from the precise boundary and such would not be countenanced. This party, which set off shortly after midday, did not return till after 8.00 p.m. In the course of their bound-beating the men of the party are refreshed with beer at pre-arranged houses, whilst the children are given a type of porridge normally only used for young children at the weaning period, of a consistence halfway between that of gruel, *uji* in Swahili, and *ugale*, stiff porridge. Meanwhile, the elders, having completed their eating and drinking, disperse to their homes.

ANALYSIS

In discussing this ceremony, one of the things to note is the imagery employed, the black sheep equating with the black clouds and the froth with the gathering of the clouds before the rains. It would be possible to develop an analysis of this ceremony along such classical anthropological lines, but my objective was rather to study to what degree the two tribes, Wasi and Rangi, were blending and

to what extent jealousies and tensions existed between the two. I was also anxious to note what concessions were made to modern conditions and with what degree of cynicism the ceremony was regarded by the modern generation.

In this connection, it is of interest to note that the area concerned was adjacent to the chief's headquarters where the Native Authority School had been established for the last twenty-five years. In addition, the land abuts on to the Great North Road, where the constant opportunity of contact might well have undermined indigenous religious belief. In addition, as already shown, a large proportion of the population is Mohammedan, though there are no Christians in the area.

The outstanding impression one gained was that the belief in the presence of the ancestors was very real and secondly that much depended on the business of "cooling the country". This concept of "heat" and "cold" was manifest throughout. The man who has cut a tree or burned grass in the neighbourhood of the boundary rocks has generated heat, so a "cooling" ceremony must take place. When new land is broken, either on purpose as in the case of a new immigrant, or accidentally by erosion, again "heat" is generated and "cooling" must follow. The same idea occurs in the case of circumcision ceremonies, where the spilling of blood in any previous quarrel amongst the participants is regarded as having generated "heat" and again cooling must take place, before the ceremony can proceed.

Insofar as cynicism on the part of the younger generation is concerned, no signs of this were observed at all. The whole ceremony was conducted with restraint and dignity; no squabbling occurred at the drinking nor did unseemly arguments about procedure occur. A large proportion of the population turned out. On checking the absentees, I was told that seven were absent in employment and a number could not attend owing to such unavoidable duties as herding, but no case came to light of any individual willfully avoiding attendance without excuse.

Little concession was made to modern conditions. It is interesting to note that the boundary of the land unit in no way coincides with that imposed by political boundaries; the unit lying in three separate headmen's areas. It was noted above how the bound-beating party was not deterred by the fact that the Native Authority Headquarters sprawled across the boundary. They went right through the compound of the court and through the clerk's courtyard.

As far as the two tribes, Wasi and Rangi, are concerned, the harmonious blending of the two cultures was quite remarkable. For instance, some of the incantations were in Wasi and some in Rangi. Of those who officiated, Wasi predominated, as was natural since they were the "owners of the country", but certain Rangi also performed. Of the children, one boy and one girl came from each tribe. Likewise, those who had contributed the sacrificial sheep in the past were drawn from both tribes; also, of the houses selected as stopping places for refreshments, some were Wasi and some Rangi.

The above information appears to me to be of considerable value to Government, as it reveals the existence of a ready-made unit of land tenure and land utilization. This unit does not coincide with the present political boundaries, so that one group of people receive their official instructions in these

matters from three different sources. Another factor of practical value is the revelation of the harmony that exists between the Wasi and Rangi. In these circumstances, should any tensions occur as between Rangi and Wasi, these are more likely to be artificially fostered for political ends rather than a spontaneous manifestation of a general dichotomy between the two tribes.

Finally, one point which struck me was the genuine respect which the younger generation held towards tribal tradition. In common with all other areas, there is, of course, a certain breakdown. In fact, I heard one elder say to a youngster, "You see, our ceremonies are not as foolish as you like to think, otherwise the European would not come and write them all down." But both by their attendance and general demeanour the young men exhibited a respect toward the ritual equal to that of their elders.



I. The Lineage Head.



IIA. The M.C. works the swizzle stick.



IIB. His assistant takes a turn.



III. The slaughtered lamb.



IV. The bound-beaters on the march.

A RANGI CIRCUMCISION CEREMONY

Blessing a New Grove

By H. A. Fosbrooke

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INTRODUCTION

This account is of a circumcision ceremony witnessed by me in December, 1953, in the Chungai area of the Kondoa District. The interest of the ceremony was enhanced by the fact that it was the first to take place in that particular area. This meant that the site of the ceremony had to be consecrated. Such ceremonies only take place at rare intervals as the tribes expand into new areas. The contributions of the two tribes, Wasi and Rangi, to the ceremony, form an interesting study; as so frequently occurs, the original possessors of the land are held in especial respect by the immigrants on such occasions as it is only through them that contact can be made with the spirits on whom the prosperity of the community depends.

The Wasi are non-Bantu folk, possibly of Hamitic origin, and form an offshoot from the Iraqw (Wambulu) and Gorowa (Wafiome), the main inhabitants of the Mbulu District. They number about 11,000 and in their Bereku highland area have been swamped out by the more rapidly expanding Bantu Rangi, who now number nearly 90,000. The possibilities of expansion in the hills is now exhausted, so, with Government assistance, an area on the plains to the east has been opened up for settlement. Roads have been constructed, water piped from the hills and local courts, dispensaries, trading centres and markets established. Assistance in transport and house-building has been offered to the new settlers and it is in one section of this expansion area that the ceremonies described hereunder were witnessed.

The country itself is flat and featureless, denuded of bush and trees as an anti-tsetse measure. It is backed to the west by the line of the Rangi Scarp (Plate I) where lie the only sources of water: some of these have been piped out on to the plains. To the north, east and south lies the limitless horizon of the Masai steppe. The pattern of settlement is one of scattered homesteads rather than villages, but the houses tend to congregate on the slightly elevated ridges of brown earth, avoiding the heavy black cotton soil only suitable for grazing. The time of year is December, the height of the dry season with the sun at its hottest and the hooves of cattle churning up dust on the stubble grazing of last year's cultivation.

The main actors are two: the "Owner of the Land" and the organizer of the ceremony, referred to in this account as the O.L. and the M.C. (Master of Ceremonies). The former claims to be Wasi, though his detractors say that he is predominately of Rangi origin. This implies that there is a prestige value in being regarded as Wasi. This feature has been noted in other connections. He is involved in this circumcision by virtue of the fact that he is the "Owner of the Land" in that part of the upper area which abuts on to the area in question. Even when this was uninhabited bush, the O.L. had a tenuous hold of it; now it is inhabited, not only does he regard it as an area over which he has rights, but equally the people who have migrated into the area acknowledge these rights. Hence the O.L. has been brought down from his home in the hills and deferred to, by Rangi and Wasi alike. He is a young man in his early thirties, unprepossessing in appearance and unforceful in character.

The other chief actor is the M.C.—a Rangi. His office is not an hereditary or statutory one. Anyone of standing who is sufficiently assured of his social position that he knows he will get enough public support can run a circumcision ceremony. No specific fee attaches to the office, but the M.C. will have his fields cultivated free next season by those who participated in the ceremony. In the present case, the M.C., a man of such an age that his eldest daughter has recently married (but is still childless), can rely upon such support, because his father had previously run a similar ceremony in the hills. This is the first ceremony to be held in the lower area and for this purpose the M.C.'s father had handed over to his son a ceremonial axe. A similar axe is also carried by the O.L. On this occasion the M.C. must wear hide sandals, not leather or rubber shoes, and carry a twig of castor oil plant. Apart from this, the dress of all participators is such as one would expect in a highly Islamized peasant community—the men in shirts and khaki shorts or long trousers covered either by *kanzu*, the Swahili "nightshirt", or *shuka*, an untailored toga of white cotton material. The women wear either a coloured print gown covered with a black *bui bui* (overcloth) or a pair of *khanga*, matching gaily printed squares worn one around the body and the other as a kerchief over the head and shoulders.

THE BLESSING OF THE SITE

The ceremony being described divides itself into two distinct phases—the blessing of the site and the actual circumcision ceremony. The former takes place on the day previous to the latter and once performed, need not be re-enacted prior to future circumcisions on the same site. Throughout the settled area of Rangi, these sacred sites can be readily recognized as a group of trees, a grove; for the felling of timber in the prescribed area is forbidden.

Arriving in the afternoon at the homestead of the M.C., one finds a large quantity of beer brewed and the hornblowers tuning up. There are a couple of these horns on this occasion and these are of special significance. Each is comprised of two kudu horns: one welded on as an extension over the other with a beeswax adhesive. In the tuning process, the horns must be given the correct degree of moisture, supplied by a few drops of beer. They then emit a resonant booming note. They may not be looked upon by women and, in consequence, the operators perform behind a screen of cloth (Plate II) and when moving from the house to the circumcision site are likewise screened. To one side of the compound a large number of beer jars and beer troughs are in readiness in the charge

of the wife of the M.C. and a black ram is tethered in one corner ready for the sacrifice. Four initiates should have turned up in readiness for the blessing of the site, but as they have not arrived, the initiative is taken by an elder, the M.C.'s mother's brother, who suggests that the blessing should commence.

The O.L. and the M.C., together with the latter's mother's brother, and sundry other persons of indeterminate standing in the area, proceed to a site previously chosen, about eight hundred yards away. This is in the bed of a sandy water course, some ten yards broad with banks about six foot high. On the northern bank stands a young fig tree about twenty feet high (Plate III) which will be the centre of the sacred grove due to grow here in the future. Arriving at the spot, the O.L. takes the initiative. Standing in the centre of the group he announces in Swahili that the tree must never be cut, that any further trees which spring up in the area, which he delimits by pacing, should likewise be respected, and that no cultivation must take place within three yards of the river bank anywhere in the vicinity.

Then follows an awkward pause as the firesticks, with which the ceremonial fire should be lit, have been left behind, and likewise the firewood has been forgotten. This omission is rectified by sending to the nearest house. The firewood is brought and also some burning embers. These are used instead of the ceremonial kindling by firestick, one elder remarking "When the lion cannot get meat, he must eat grass". While the fire is being lit, a group, headed by the O.L., but excluding the M.C., circumambulates the site—one elder carrying a ewe lamb and another a hen. These are not for slaughter, the sacrificial ram remaining in the centre and not being carried around. The O.L. holds his ceremonial axe aloft and the hornblowers, who are part of the party, perform continuously.

Two open gourds of previously prepared medicine are also carried by the party and the contents sprinkled with leafy twigs. One contains beer and the other a mixture of white earth and water. The party starts off by chanting "Let our spirits sleep well".

After completing the round of the site, the ram is slaughtered by having its throat cut without ceremony. It is left for some time while the elders settle down to beer drinking. It is then skinned and cut up, the stomach contents are thrown around to the four quarters of the compass—but not mixed with medicine and sprinkled around as in the case of a rain ceremony.

By now it is evening and the beer being finished, the party returns to the M.C.'s house. Certain elders are named and given the duty of sleeping at the circumcision site and the privilege of eating the meat. They perform the latter but avoid the former duty, going home to sleep. On arrival in the morning, the bones of the ram and its skin have been torn and dispersed by hyenas, but no one is worried by this.

The site for the girls' ceremony has already been chosen between the M.C.'s house and the site described above. This site is also circumambulated by the same party as attended to the boys' site with similar ritual. Thereafter the party proceeds to a place where some time previously there had been a fight, resulting in the spilling of blood. It was necessary to cleanse the country and a special sheep should have been slaughtered. The offender, however, had failed to provide this, so the visit of the site-blessing party was a compromise.

AT THE M.C.'s HOUSE

As already explained some of the initiates should have turned up prior to the visit to the site, but in fact failed to do so. By evening, one has arrived at the M.C.'s house, a lad aged between eight and nine. He is accompanied by a large following of relatives and friends (Plate IV) and is led straight into the house. Initiates must sleep in the area usually reserved for the goats and are not allowed to join in the dances or celebrations that evening.

At 8 a.m. on the following morning, both the boys' and the girls' sites are untenanted. At the M.C.'s house a few elders are sitting around and the women are engaged on final preparations with the beer. In one corner of the veranda, the hornblowers are tuning up and in general there is an air of expectancy as though waiting for something to happen.

Visitors trickle in one by one and some fall victims to a trick which has been set for them, namely, the M.C.'s stool is left vacant and placed in such a position that an unwary young man, unversed in etiquette, may be tempted to sit on it when he arrives. Should he fall for this, one of the elders removes the offender's hat for the return of which he must pay a forfeit in the form of a chicken. This play continues during the whole of the morning. Beer drinking commences about 8.45 a.m. There is no particular ceremonial order of precedence.

Another elder of status arrives carrying his axe aloft. He is the father-in-law of the M.C. who was, in fact, a M.C. in the upper area from which he has recently migrated. More and more people arrive, the men joining the beer drinking and the women hanging around on the circumference of the circle. The horns, now sufficiently tuned, are taken out of the compound duly screened, while the women turn their backs. The fine for inadvertently seeing the horns is heavy—an ox.

There is discussion amongst the elders concerning the payment of dowry by the parents of the initiates. All marriage payments must be completed before the eldest child of the marriage is circumcized. If not paid up, there will be a hold-up in the ceremony and the person responsible for the delay will have to foot the bill for feeding the initiates at the M.C.'s house until final payment is made and the ceremony can be recommenced. It is now ten o'clock and the initiates begin to come in—a group from here and a group from there. The women lead, the initiates next and then the men and hangers-on. The female initiates are carried on the shoulders of their sponsors covered with a white cloth, whilst the boys walk in the centre of the group accompanying them. Both male and female initiates go straight in to the M.C.'s house where the pre-circumcision meal is being prepared. A goat is slaughtered, skinned and cooked, and porridge prepared. This food must not be touched by the initiates, but fed to them by their sponsors. As can be imagined, this occupies the whole of the morning, roughly from 8.30 to 12.30. Small spontaneous dances have sprung up in the vicinity of the M.C.'s compound, one is the *Ikoma* dance. Finally, when the initiates have finished their meal, the organizers, led by the M.C., come out with ceremonial axes uplifted and the whole party moves from the M.C.'s house to the circumcision site. Each male initiate is accompanied by his sponsors and a group of relatives, but the female initiates remain behind to be collected later by the women and taken to their site independently.

The whole party moves across the plain, arriving within fifty yards of the boys' site. The women are turned back and return home to conduct their own ceremonies on the girls. The men proceed to the site, break up into groups and the operations commence.

THE OPERATION

The actual operation is not pretty to watch, though it attracts large numbers of spectators. Once the crowd moves off from the M.C.'s hut to the circumcision ground, the operators get to work: half a dozen operations may be going on at the same time, each surrounded by a crowd, as in the case of a street accident. Pushing one's way into the centre there one finds, sitting on the ground under the scant shade of a castor oil plant, the boys' sponsor. The subject, completely naked, is seated between the sponsor's legs, which are entwined round the boy's legs so as to keep them motionless and apart. The subject's head is thrown back and tucked under the sponsor's left upper arm which, passing between chin and chest, ensures that the subject cannot witness the operation. The sponsor's left arm can look after the corresponding arm of the subject and his right arm is completely free to hold the subject's right arm. The operator kneels between the subject's legs whilst an assistant kneels to the right of the operator outside the triangle formed by the sponsor's legs.

The operation does not conform to popular accounts—e.g. Jomo Kenyatta, *Facing Mount Kenya*, page 146—"in quick movements, and with the dexterity of a Harley Street surgeon (she) proceeds to operate on the girls", or Elspeth Huxley, *Red Strangers*, page 108, "The circumcisor walked slowly up to the first boy and drew a knife from a leather bag on his arm. Without further preliminaries he bent over, cut the foreskin with a few deft slashes, and pinned it back with a thin skewer. Blood spurted but the boy did not wince", and likewise in the case of the girls, "They, like the boys, bore without flinching the pain that seared their nerves when the circumcisor, with a flick of the knife, amputated the clitoris and then, with two more slashes, the lips of flesh on either side."

The standard works which I have been able to consult describing circumcision in this area do not, like the above, emphasize the speed of the operation. They make no mention of timing at all. But there is a wealth of detail on early morning ceremonies after a cold bathe, which helps to deaden the pain; there is mention of the ceremonial hide or skin on which the subject sits, the razor-sharp knife of traditional design, the ceremonial disposal of the foreskin, the necessity for stoicism, etc., etc.

The Rangi youth enjoys none of these privileges. He sits under the scant shade of a castor oil tree; half a dozen unskilled operators are at work, each on his own victim, with a cheap penknife; each operator has an assistant, so that two pairs of bloody hands are pawing, pushing and pulling the victim's lacerated penis for a period varying from five to ten minutes, cutting here and trimming there. The subject's thighs get bloodier and bloodier as the operator and his assistant use them as a convenient towel on which to wipe their hands. At first the victim shows obvious signs of pain and distress but the strain eventually tells and he falls into a condition of lassitude or semi-coma. The sponsor's grip can thus be relaxed, so that the subject has finally to be propped up, when he sits up to witness the final severance of the fore-skin. The severed flesh receives scant consideration, being dropped into a hole in the sand made by the operator's hand or foot.

The crowd seem interested, but unaffected by this display of operative incompetence. I heard one sponsor, obviously distressed by the pain being inflicted, remonstrate with the operator, and at the same time encourage the subject, telling him that once it was over he could become betrothed to a girl.

The local Native Authority dresser is in attendance and in fact operated on two of the twenty or more candidates. But in the cases I saw he displayed little more competence than the local operators. He had the trappings of kidney bowl, cotton wool, acroflavine, etc., but he had forgotten to arrange for a clean water supply and when he asked for some, was given dirty milk-coloured water out of a gourd.

Singing and dancing is going on all the time—one song heard is:—

Hunger is bad.

Hunger is like a lion.

Hunger is bad.

It makes us eat locusts.

THE POST-OPERATIVE PERIOD

To round off the picture it is necessary briefly to describe the subsequent events. The initiates sleep on the circumcision site for a few days (the period varies) and then are allowed to go home—but they are still in a state of ritual impurity. They are daubed with white clay and may not mix with the community. They are called up from time to time by the M.C. who is required to initiate the next step—release from seclusion*, when all are healed.

On the appointed day all the initiates and their sponsors assemble at the M.C.'s house, where beer has been brewed. The initiates are ritually washed and anointed with oil. They disperse first to their fathers' siblings and finally, after a few days, return to their own homes. The boys maintain cohesion as a group, at times living by themselves in bush camps—not organized initiation camps with sponsors conducting organized teaching, etc.—at times living at home but assembling as a group for joint activities. One duty is the cultivation of the M.C.'s fields. This privilege is accorded to the M.C. in lieu of any fee. Finally if the boys have been in camp, the flimsy huts are ritually burnt by the M.C.: to disband the camp without the M.C.'s sanction is an offence punishable by a fine—one sheep.

DISCUSSION

As mentioned at the beginning of this description, the ceremony was attended and described with a view to discovering the degree to which a freshly settled area was settling down to normal tribal life. Hence one's observations were directed towards the inter-tribal aspects of the ceremony and the degree of social cohesion that was springing up in the area rather than to the more orthodox anthropological lines of discovering the relationship of the initiates and their sponsors, etc., etc. It was apparent that a certain prestige value was attached to being a Wasi, as they were the original inhabitants of much of the country into which the Rangi were expanding even in pre-European days. The account of the ceremony of blessing the year, published on page 21 of this issue, describes a ceremony not unlike the present in one of the pre-European expansion areas: the blending of Wasi and Rangi custom here was most marked.

*There are indications that previously the whole of this period was spent in a seclusion camp and that the return home is a modern innovation.

In the present case, the majority of the people concerned were Rangi, but there was no marked dichotomy between them and those of Wasi origin. It appears that there is a harmonious blending occurring here just as in the older resettlement areas.

One of the general impressions of the whole ceremony was the incompetence of the performers and the lack of adherence to details of ritual. The fire sticks had been forgotten and in these circumstances a fire lit from embers was permitted. In another instance, although I had been told that all the meat of the sacrifice must be consumed on the circumcision site, the elders offered me a leg of mutton to take home. This I tactfully refused, pointing out the necessity of all being consumed on the spot. The attitude was "I suppose you are right, but it would not have mattered very much". Another example of departure from ritual concerned the alleged necessity of sleeping on the site. This was not adhered to but no one seemed at all worried by this.

Another impression gained was that the participants felt that the spirits of their ancestors were really present with them but that they were not over-awed by these circumstances. Conversation was casual and there was none of the attitude of hushed whisper about the performance. Although the Rangi word *warimu*, Swahili *wazimu*, meaning "spirit" was used in the incantations which I heard on the boys' site, when describing the ceremony at the girls' site the O.L. said that they called upon the *malaika* meaning "angels" or "good spirits". To repeat, in general there was the impression that a "host of witnesses" was present, but that the participators were by no means intimidated by this.

As far as I could make out, only one concession was made to my presence, namely, the O.L.'s declaration was made in Swahili. He was probably out to impress me of his power and status. It will be interesting to see if the prohibition against cultivation and bush cutting in the vicinity of the fig tree is adhered to. I have every reason to anticipate that it will be, for the sacred groves in the upper areas are still respected in spite of the spread of Islam and Christianity in the area.



I. General view of ceremony and terrain.



II. The screen hiding the hornblowers.



III. The sacred tree, centre of the new ground.



IV. The initiate enters the compound.

SOME DETAILS OF THE FIRST TWENTY-FIVE YEARS OF FLYING IN TANGANYIKA, 1914-1939

By Wing Commander A. M. D. Howes

ACKNOWLEDGMENTS

The Konigsberg Adventure by E. Keble-Chatterton.

My Memories in East Africa by General Von Lettow-Vorbec.

Early in 1914 the Government of German East Africa was making arrangements to hold an exhibition at Dar es Salaam during August. One of the exhibits was to have been a civil aircraft. This was shipped to Dar es Salaam in the s.s. *Tabora* and arrived sometime in July.

The German Army requisitioned this aircraft in the early days of the war, and subsequently tried to put it into service, but it was crashed on the 15th November killing the pilot, Lt. Hennesberger.

The next aircraft to arrive was an old Curtiss hydroplane which had been giving exhibition flights over Durban harbour during July, 1914. The Admiralty purchased this aircraft, gave the pilot, Mr. Cutler, a temporary commission in the Navy and shipped the aircraft up to Mafia in the Union Castle liner s.s. *Kinfauns Castle*. She arrived off Mafia on 15th November, 1914 and it was intended to use the aircraft in locating the German cruiser *Konigsberg*, and directing the fall of shot.

Cutler was comparatively inexperienced and there was no-one to advise him on the adverse flying conditions we now know exist in the tropics. In *The Konigsberg Adventure* Keble-Chatterton writes that: "this aircraft was as old as the hills, was very fragile and the radiator leaked like a sieve".

Cutler found that the three-ply on the hull was coming apart due to the heat from the iron decks melting the glue. The short rains were about to start, and there was no shelter for the aircraft.

He made his first flight from the water on the 19th November in bad weather, and landed successfully about fifty minutes later. He was apparently unaware that he had landed near Okusa Island about eighteen miles south of Mafia, and it was some hours before he was located. The radiator of his engine was leaking very badly, and a "Ford" car radiator was obtained from Mombasa and fitted into the aircraft.

So urgent was the need by the Navy for aircraft to destroy the *Konigsberg* that the s.s. *Kinfauns Castle* was sent down from Mafia to Durban to fetch a new hull. When the aircraft was repaired, Cutler was able to take-off with an observer and flights were made over the Rufiji Delta on the 4th, 7th, 8th and 9th December; on the 10th he was shot down and taken prisoner and his observer was killed.

Early in January, 1915 it was learnt that some land aircraft were likely to be available and on the 10th January work was started on the construction of a landing ground at Mafia Island. This appears to be the first landing ground to be constructed in Tanganyika.

Two Sopwith seaplanes with Gnome Monosoupape engines were brought from Bombay to Mafia. These engines had no carburettor, and considerable difficulty appears to have been experienced in obtaining the right fuel mixture for them.

F/Lt. Cull made several attempts to take-off from the water in one of these aircraft carrying an observer, two 50-lb. bombs, and two 16-lb. bombs. With this load the aircraft failed to become airborne. After four days' trials, Cull eventually took off without an observer or bombs and with sufficient petrol for one hour's flying. With this reduced load he was able to reach an altitude of 1,500 ft. He was unable to obtain full power from the engine, and he experienced considerable trouble with leaking floats as the glued joints would not stand up to the heat, and he also found that the india-rubber tubing was perishing.

During June two Henry Farman and two Caudron land aircraft arrived; a hangar which was prefabricated in Mombasa was brought to Mafia and erected in two days on the aerodrome. Of these aircraft the first Caudron was wrecked in the trial flight, one Henry Farman crashed due to engine failure, but F/Lt. Cull and his observer were able to observe the fall of shot and to signal corrections by W/T until the third aircraft was shot down. By the end of the campaign there were three Short seaplanes left, and these were destroyed by the Navy off Mafia Island before they left. In September, 1915, two Caudrons were railed up-country from Mombasa. Details of the use of these aircraft during the land campaign are uncertain, but bombs were dropped on New Moshi and later on Handeni. As the range of operations of these aircraft did not exceed 150 miles, it is probable that a landing ground was made at Moshi and possibly in the same area.

There is a report that a landing ground was cleared at Kilwa during the 1914-18 War, but I have not been able to trace any record of any aircraft landing there.

CAPE TO CAIRO ROUTE:

Early in 1919 the air route Cairo to the Cape was surveyed and declared open in September of the same year after aerodromes had been cleared at:

SHIRATI (NORTH OF MUSOMA)

MWANZA

TABORA.

The practice at that time was to find a level piece of ground, and clear the bush by hand labour. Plant used consisted entirely of *jembe* and axes.

During the early part of 1920, five aircraft made attempts on the London to Cape Town flight. Only one of these aircraft reached Tanganyika; this was a Vickers Vimy, with two Rolls-Royce "Eagle" engines of 350 h.p.; this aircraft had a cruising speed of 85-90 m.p.h.

The crew were Captain S. Cockerell, Captain F. C. Broome, Sgt. Major James Wyatt and Mr. C. Corby. Dr. Peter Chalmers-Mitchell on the staff of *The Times* joined the aircraft at Cairo.

24.1.20. The aircraft left Brooklands and reached Manston.

25.1.20. Reached Lyons.

26.1.20. Landed at Istres, near Marseilles.

27.1.20. Reached Rome.

- 28.1.20. Reached Malta.
- 29.1.20. Reached Tripoli.
- 1.2.20. Reached Benghazi.
- 2.2.20. Reached Sollum.
- 3.2.20. Reached Cairo.
- 6.2.20. Reached Luxor, experienced engine trouble.
- 12.2.20. Reached Malakal and Mongalla, and landed on the banks of the Nile.
- 15.2.20. Returned to Mongalla for repairs.
- 20.2.20. Landed at Kisumu.

Arrangements had been made to ship new engines out by sea to East Africa and to install them at Kisumu when the aircraft arrived. On arrival at Kisumu it was learnt that the ship carrying the engines had caught fire and sunk. As the engines in the aircraft appeared to be functioning satisfactorily, it was decided to continue the flight. The aircraft reached Mwanza, made temporary repairs and then flew to Tabora. Further repairs were made at Tabora, but on the 27th February the aircraft crashed on take-off due to failure of the starboard engine and was a total loss. One of the propellers of this aircraft is now in the bar at the "Dar es Salaam Club". Insufficient credit has been given to this first flight from London to Tanganyika as the goal was Cape Town.

The first flight from Cairo to the Cape was made by Lt. Col. Van Ryneveld and F/Lt. Quinton Brand, but they used a number of aircraft to complete the journey. They started from Brooklands on the 4th February, 1920, in an aircraft known as the *Silver Queen* and reached Cairo on the 9th February. On the 10th February they attempted a night flight from Cairo, force-landed near the Nile early on 11th February, and wrote the aircraft off. The engines were removed, and the party returned to Cairo. The engines were installed in a second aircraft known as the *Silver Queen II*. This aircraft landed at Shirati, near Musoma, then flew from Shirati to Abercorn, and eventually reached Bulawayo. The aircraft failed to clear a low line of hills soon after take-off, and was written off. Another aircraft was sent up from the Union and in this aircraft Lt. Col. Van Ryneveld and F/Lt. Quinton Brand reached the Cape.

Presumably Tanganyika was comparatively unknown to the British Public in those days, but the honours of opening the route England to Tanganyika clearly go to Capt. Cockerell, and the only record is in the "Dar es Salaam Club".

There is a gap of five years in the aviation history of Tanganyika from 1920 to 1925, and the next pioneer flight was that made by Sir Alan Cobham. It is probable that the aviation companies reduced staff considerably after the war, and there were few military aircraft with sufficient range or suitable air-cooled engines to undertake flights through the tropics.

On the 16th November, 1925, Sir Alan Cobham set out from Stag Lane in London in a De Havilland 50 fitted with a Siddeley Jaguar air-cooled engine with an engineer and a photographer. He landed at Tabora on the 26th November; Cobham was in no hurry on this outward journey as he was trying to sell aviation to the people in the territories he passed through; he reached Cape Town on the 17th February, 1926.

On his return flight he raced against the Union Castle Mail Steamship Co.'s s.s. *Windsor Castle* and left Cape Town on the 26th February, reaching Croydon on the 13th March, beating the mail boat by a few hours.

On the 1st March, 1926, the first R.A.F. flight left Cairo for the Cape with the intention of investigating the possibility of a civil air service through Africa. The flight consisted of five two-seater Fairey IIIF bi-planes with Napier Lion engines. On the return flight these aircraft were fitted with seaplane floats at Aboukir and proceeded to Lee-on-Solent. A routine flight, Cairo to the Cape, was made in each succeeding year up to 1931.

In 1931 a Vicker's Victoria troop carrier capable of carrying 23 passengers accompanied the flight for the first time.

There were a number of record attempts during this period, the most notable being that by Lt. R. F. Caspareuthus who flew a Puss Moth from Lympne to the Cape in eight days.

Towards the end of 1928, the Tanganyika Government decided that air communications were necessary to Tanganyika, and Mr. P. E. L. Gethin, then Director of Surveys, persuaded Government to purchase a small aircraft for air survey duties.

Tanganyika's first aircraft, VR-TAA, an Avro-Avian, single-engined bi-plane, arrived in Dar es Salaam and made its first flight in March, 1929, from Mkego (Dar es Salaam) landing ground.

The Tanganyika Government subsequently acquired another Avian VR-TAD, and three Avro 623 three-seater survey aircraft, VR-TAB, VR-TAC and VR-TAE and a single-seater Comper Swift VR-TAF.

On 1st April, 1932, there were four pilots on the staff of the Survey Department, three engineers and one photographer, viz.:

Mr. J. H. Tanner	
Mr. A. N. Francombe	
Mr. V. W. Soltau	
Mr. A. M. D. Howes	
Mr. Templeman	} <i>Engineers</i>
Mr. Roberts	
Mr. Macpherson	
Mr. Herring	<i>Photographer</i>

The pilots were all surveyors and flying was carried out on a part-time basis. Flying pay was Shs. 2/00 per hour. The Engineers were on full-time.

In 1933-4 the depression was experienced in East Africa, and the Air Unit was reduced in size. Messrs. Francombe and Soltau joined Wilson Airways.

The two Avians were sold to Lupa Airways, a small firm based at Mbeya which lasted about six months. Messrs. Roberts and Macpherson were released.

On 31st May, 1935 the Comper Swift was sold to Mr. Currie at Nyeri for £151.

Two of the three-seater aircraft remained with the Department until the outbreak of war, and were used mainly for air survey duties and transporting Government officials. They were taken over by the R.A.F. in September 1939 and used for training.

Although Wilson Airways was formed in Kenya in 1929, a branch was not established in Dar es Salaam until 1933.

During succeeding years Wilson Airways opened up a number of internal communications flights throughout Tanganyika, at first with small single-engined aircraft such as Puss Moths, Leopard Moths and the Vega Gull, and then these

aircraft were slowly replaced with twin-engined aircraft, viz. De Havilland Dragon, De Havilland Dragonfly and later the De Havilland Rapide. A number of these aircraft were still in service at the outbreak of war, and they were all taken over by the R.A.F.

In February, 1930, an air route survey party arrived in Tanganyika, and wireless stations were proposed at Moshi, Dodoma and Mbeya.

By April, 1930, the Cape to Cairo route was beginning to take shape, i.e. Nairobi-Moshi, Dodoma-Mbeya, with emergency landing grounds at Masai Steppe, Kondoa, Migoli, Iringa-Mhambu Brandt.

On 1st April, 1930, Mr. P. E. L. Gethin, was appointed Director of Civil Aviation with a nominal salary of £100.

A number of sites for landing grounds had been found and £1,900 was allocated for the construction of that part of the air route, Cairo to the Cape, which passed through Tanganyika.

In January, 1931, the subject of the size of landing grounds required at high altitudes had reached Secretary of State level, and minimum dimensions were laid down for the Union. Owing to the prevailing high temperatures in the Tropics, these dimensions were insufficient for East Africa, and Kenya and Tanganyika had already laid down slightly different figures. (A copy of a performance table of the De Havilland 66 Hercules is attached as Appendix "A").

It is of interest that the length recommended for large aircraft at aerodromes over 4,000 ft. was only 1,000 yds. Relative density and corrections for temperature had, at last, been considered officially.

Flights were made all over Tanganyika by the Government aircraft, and small landing grounds were prepared at most Administrative centres. This had the effect of enabling officers to take their wives up-country, as the Government aircraft were available when medical attention was required.

Sir Stewart Symes did a lot of flying in the Government aircraft usually with two aircraft in convoy, but sometimes the pilot had to act as A.D.C. Occasionally his topi was left behind or the second aircraft carrying the luggage force-landed somewhere else, and then there was trouble! The pilots carried a funnel and chamois-leather and filled up from four-gallon debbies of motor spirit. It was customary to take sausages or kippers as a treat for hosts up-country as these were unobtainable.

A lot of air photographs were taken; admittedly they were not very good by modern standards, but the aircraft instruments were crude and the camera was located behind the pilot's seat, so it could not be levelled in the air. The camera was operated by dry batteries, and these usually failed after half-an-hour's flying, and the shutter then had to be operated by the pilot.

All the Mufindi rivers were stocked from the trout spawn which was flown up to Matanana in April, 1932. As far as I know their progeny are still there.

Maps were bad, and aircraft flew along roads or railways whenever possible. The route to Tanga followed the coast, and when crossing to Zanzibar the aircraft climbed to 10,000 ft. before crossing the water so that in the event of an engine failure the aircraft could glide to shore. A few forced landings were made, but the pilots always managed to fly back from them. Time was not important as the aircraft were not being operated to schedule, and if the weather looked bad you stayed on the ground. The normal route from Dar es Salaam

to Iringa was via Kilosa and Gulwe, as this avoided flying over bad country. The aircraft had no wheel-brakes and taxiing down-wind was sometimes difficult. No radio was carried and weather forecasts were not available.

IMPERIAL AIRWAYS.

In October, 1930, an agreement was signed between the U.K. and Imperial Airways Ltd., to operate an efficient and regular air service for the transport of passenger, mails and freight between Alexandria or Cairo and Cape Town.

It was proposed to operate a weekly service in each direction. In the first instance it was intended to operate a section as far as Mwanza commencing on the 1st January, 1931. In actual fact due to a number of delays the first Calcutta flying boat did not reach Mwanza until the 10th March, 1931. This service was supposed to connect with the mail train, but as the aircraft was two days late the train left without the mail. Air mails were similarly dispatched from Dar es Salaam by the up-train to connect with the service at Mwanza. The scheduled service from England was operated in three sections, i.e. London to Cairo by flying boat, Cairo to Khartoum by land plane and Khartoum to Mwanza by flying boat. Owing to difficulties in obtaining spare aircraft there were considerable delays on one or other of these sections. On the first eleven outward services from the U.K. only four reached Mwanza on time, and of the first ten inward services again only four reached London on time. Two of these missed the connections at Cairo due to the unserviceability of the flying boat, and in fact the mails reached England eight days late. It had been intended that the extension to the Cape should begin three months after the inauguration of the service London/Mwanza, but for a number of reasons including (a) delay in acquiring new aircraft (b) delay in completion of the radio stations and aerodromes in Central Africa, the first through service to the Cape did not in fact begin until January, 1932. Owing to the bad weather experienced over Europe during the winter months, a winter timetable was introduced on the 15th October, 1931 (a copy of this is shown as Appendix "B"). This shows that on the sector Paris to Brindisi passengers and mail were carried by train. The whole journey took eight days and the cost was £95.

The first return flight from the Cape to London left Cape Town on the 27th January, 1932, in the three-engined De Havilland 66 Hercules aircraft piloted by Captain Caspareuthus, who is now a member of the staff of the East African Directorate of Civil Aviation. Mwanza was no longer used, and the route through Tanganyika by this aircraft was Mbeya, Dodoma, Moshi, Nairobi. Radio stations had by then been erected at all three places in Tanganyika. The Hercules were later replaced by the new four-engined Armstrong Whitworth Atlanta aircraft. Towards the end of 1931 airmails for eastern Tanganyika were off-loaded at Kisumu, and were brought down by Wilson Airways aircraft.

When the through Cape service was introduced in 1932, the mail was off-loaded at Dodoma and brought down to Dar es Salaam by train. Occasionally when the aircraft was late this mail was collected by one of the Government aircraft.

During 1931-2 the Government aircraft had been operating throughout Tanganyika carrying a few mails and passengers, but the only regular route was the short section Dar es Salaam/Tanga/Mombasa, which was operated as a mail service for a trial period of three months, and then Wilson Airways took over this route and a number of others in Tanganyika.

Towards the end of 1935, Imperial Airways decided that it would be preferable to replace the three types of aircraft now being used by the new "C" class flying boats and operate these aircraft from Southampton to Kisumu and thence to Mombasa and along the coast to Durban.

The Kenya Government objected most strongly to Nairobi being by-passed, but unavailingly, and on the 1st July, 1937, the flying boats started a bi-weekly service in each direction calling at Dar es Salaam and Lindi. This service continued up to the end of the war.

The Rhodesias were served by a De Havilland Rapide service calling at Mbeya, Dodoma, Moshi and Nairobi.

At the outbreak of war, all civil aircraft were taken over by the R.A.F. and civil flying ceased in East Africa.



Puss Moth.



De Havilland 66 (Hercules).



"C" Class Flying Boat.

APPENDIX "A"

PERFORMANCE OF AIRCRAFT AT HIGH ALTITUDES

DE HAVILLAND HERCULES 66, WEIGHT 15,600 LB.

Take-off distance at 8,500 feet	274 yards
Distance to take-off and climb to 20 metres at 8,500 ft.	690 yards
Take-off distance at 7,000 ft. i.e. approximate equivalent altitude of a place at 4,000 ft. in South Africa	231 yards
Distance to take-off and climb to 20 metres at 7,000 ft.	620 yards
Take-off distance at 4,000 ft. i.e. approximate equivalent altitude of a place at 2,000 ft. in South Africa	240 yards
Distance to take-off and climb to 20 metres at 4,000 ft.	455 yards
Normal gliding angle (independent of height)	7°
Ceiling with one engine cut out	1,600 feet.

APPENDIX "B"

WINTER TIMETABLE 1931-2—15TH OCTOBER, 1931 TO 15TH MAY, 1932

DAY:	LST.	GMT.	SECTOR:
SOUTH BOUND			
WEDNESDAY ...	1230	1230	Croydon-Paris.
THURSDAY ...	—	—	Paris-Brindisi (train)
FRIDAY ...	1130	1030	Brindisi-Athens.
SATURDAY ...	0800	0600	Athens-Mirabella-Alexandria-Cairo.
SUNDAY ...	0730	0530	Cairo-Assiut-Assuan-Wadi Halfa.
MONDAY ...	0800	0600	Wadi Halfa-Atbara-Khartoum.
TUESDAY ...	0500	0300	Khartoum-Kosti-Malakal-Juba.
WEDNESDAY ...	0800	0400	Juba-Kampala-Kisumu.
THURSDAY ...	0700	0430	Kisumu-Mwanza.
Note: Connection from INDIA, PERSIA, IRAQ, arrives CAIRO Saturdays.			
NORTH BOUND			
THURSDAY ...	1100	0800	Mwanza-Kisumu.
FRIDAY ...	0915	0645	Kisumu-Kampala-Juba.
SATURDAY ...	0500	0300	Juba-Malakal-Kosti-Khartoum.
SUNDAY ...	0730	0530	Khartoum-Atbara-Wadi Halfa.
MONDAY ...	0620	0420	Wadi Halfa-Assuan-Assiut-Cairo-Alexandria.
TUESDAY ...	0700	0500	Alexandria-Mirabella-Athens.
WEDNESDAY ...	0800	0600	Athens-Brindisi.
THURSDAY ...	—	—	Brindisi-Paris (train).
FRIDAY ...	0830	0830	Paris-Croydon.

Note: Connection to IRAQ, PERSIA, INDIA leaves CAIRO Tuesdays.

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NOTE ON TABORA EMERGENCY COINAGE

By D. M. Phatak

Dies used for the 20 heller coins (brass or copper) which were struck at Tabora on the Central Railway line.

In para. (c) 2 of his article (page 40 of *Tanganyika Notes and Records* No. 31, July, 1951) Mr. P. J. du Toit has stated as follows:—

“Two dies were used of the 20 heller coins. In the one the crown on the obverse side is bigger and the lettering smaller than in the other. The differences on the reverse side are less noticeable.”

When I read this note, I examined carefully several 20 heller coins, of brass and of copper, which I had in my possession, and I have come to the conclusion that there were more than two dies, I have three distinctly different coins which are illustrated in the photograph.

Coin 2 is quite different from either coin 1 or coin 3, which appear to be alike, but in coin 1 on the reverse side, the two “lls” of “heller” are different, and on the left hand stem, there are only nine leaves instead of ten as in coin 3.



IN SEARCH OF THE HISTORY OF THE "TABORA SOVEREIGN"

By G. S. P. Freeman-Grenville, D.Phil., F.R.N.S.

In 1956 the prompt action of Mr. J. F. R. Hill, then Chairman of the Trustees of the King George V Memorial Museum, enabled the acquisition of a specimen of this comparatively rare coin, which had come on the market, for the national collection. The so-called "Tabora Sovereign" has already received some attention in *Tanganyika Notes and Records*(¹), and here the discussion can be carried a stage further. But there is still much more to be known, and it is to be hoped that discussion will continue.

Properly speaking this gold piece is not a sovereign at all; my excuse for calling it so is that the name "Tabora Sovereign" has become traditional in Tanganyika. The term sovereign means a gold coin worth a pound sterling which displays the head of the ruler. Correctly, this is a fifteen-rupee gold piece. Why the tradition of German gold coinage was broken in this instance, and the sovereign's head not displayed, cannot at present be explained.



The specimen in the King George V Memorial Museum may be described as follows:—

*AV. Condition good, slightly worn by usage.

Obverse: Within a plain circle and a circle of dots, the Imperial German eagle crowned, charged with the arms of Prussia, surrounded by the legend:

∴ DEUTSCH OSTAFRIKA ∴ 15 RUPPEN

Reverse: Within a plain circle and a circle of dots an elephant with extended trunk passing a range of mountains showing six peaks: the bottom separated by a line, date and mint-mark for Tabora beneath:

• 1916 •
T

Rim: Plain.

There are similar specimens in the British Museum and in the Ashmolean Museum, Oxford, which likewise show signs of wear by usage.

(¹) P. J. du Toit, Notes on the Coinage of German East Africa (Tanganyika), *T.N.R.* No. 31, July 1951; D. M. Phatak, letter in *T.N.R.* No. 32, January, 1952; idem, letter in *T.N.R.* No. 33, July 1952; U. Trappe, letter in *T.N.R.* No. 32, January, 1953, quoting a report of a German newspaper *Übersee-Nachrichten*, of 15th November, 1952, D. D. Yonge, Tabora Emergency Coinage, *T.N.R.* No. 44 September 1956, p. 63.

*AV, Diphthong is the technical sign denoting gold.

No other gold coin was ever minted by the Government of German East Africa, and their reason for doing so in 1916 is still obscure. The very small number of these coins minted—only about 2,000—does not suggest that it was to combat a shortage of gold currency. Moreover, such a difficulty could easily have been overcome, as it was in contemporary Great Britain and elsewhere, by a paper issue.

Du Toit remarked that the pieces “must have been struck with dies made by an engraver of great skill and artistic ability”, which led him to conclude that they were made in Germany, and smuggled into East Africa in 1916 by submarine.⁽²⁾ In fact, this hypothesis raised more questions than it answered. Fortunately it led Phatak to make enquiries in Tabora, the traditional place of minting, and one which is now indubitably correct. He was told that the pieces were made from dies cut there by a Sinhalese engraver, an employee of one or more Dar es Salaam firms, and that subsequently this person “was sentenced to some years’ imprisonment for making counterfeit Tabora Sovereigns in Zanzibar”.⁽³⁾

His account, which was obtained from local residents, certainly disposed of the submarine story, although it did not prevent it from being repeated in the German press⁽⁴⁾. There is, however, a curious connection with two German vessels which has now come to light.

Phatak’s two letters made me wonder if the engraver’s name could still be traced. There was an obvious clue in the allegation that he was tried for forgery in Zanzibar. Careful consideration of the clue, however, suggested that it was inherently improbable. Why should a man wish to utter forged German fifteen-rupee gold pieces in Zanzibar with German power in East Africa crumbling, if not fallen?

By the kindness of Sir John Gray, formerly Chief Justice of Zanzibar, the Court records were searched: they did not disclose a case of this kind against a Sinhalese, nor, indeed, against anyone else. Negatively, it was at least satisfactory to clear this charge, but it took the enquiry no further. Sir John Gray also asked a number of Sinhalese shopkeepers in Zanzibar; they knew nothing of such a person. Instead, there was a fresh problem—how such a story got about.

I then started enquiries among the Sinhalese community in Dar es Salaam. The chances of finding out about the making of gold coins forty years ago seemed remote; but eventually I was able to find Mr. D. G. A. Jameshamy, now an employee of the Ceylon Jewellers, who had known the engraver personally and the history of the minting. Mr. Jameshamy has lived in Tanganyika for more than fifty years, and must be among the longest established residents.

The name of the engraver of the dies for the “Tabora Sovereign” was Vathiare. A Sinhalese, he came to Dar es Salaam to work as a gold- and silver-smith in 1910, when the German Government held a trade fair. He had previously worked in Messrs. H. H. Malis de Silva’s principal branch in Zanzibar. He died in 1926.

In 1915, Mr. Jameshamy said, the German Government asked for men from Messrs. de Silva’s shop in Dar es Salaam to go to Tabora to operate a

(2) *Op. cit.*, p. 41.

(3) *Op. cit.*, January 1952, p. 104.

(4) *Trappe, op. cit.*, p. 95.

mint. Four men went, all Sinhalese: Vattiare as foreman, with Messrs. Simion, Chareshamy and L. B. Charleshamy. The Germans had made a machine for minting coins with assorted machinery from the wrecks of the *Kronberg*⁽⁵⁾ and *Tabora*⁽⁶⁾. For this machine they required a man capable of designing and engraving the dies: these tasks were assigned to Vattiare⁽⁷⁾.

A quantity of gold had been brought from the mines at Sekenke, which contained a proportion of silver. As minted, the pieces were of eighteen carat gold. Vattiare was responsible for the actual stamping, while his three colleagues were employed in smoothing the pieces of roughnesses. Evidently the machinery was somewhat "Heath Robinson", which would account for this necessity, and, with the probability that more than one die was used, for the minor differences noted by Phatak⁽⁸⁾.

Mr. Jameshamy says that minting took place both in 1915 and in 1916. Certainly the only known issues are dated 1916: and only these are noted in Wayte Raymond's *Coins of the World, Twentieth Century Issues*.⁽⁹⁾ In 1915 it would be reasonable, in minting coins, to date them 1916, if they were for issue in that year.

Only 2,000 of these attractive gold pieces, says Mr. Jameshamy, were minted altogether. They were not originally intended as coins, but to be given as presents and souvenirs. The German banks sold them at their face value, but they rapidly acquired an inflated value as a result of a general scarcity of gold and of gold currency. At the peak of this inflation they reached a value equivalent to Shs. 200/-. At this time a tale was spread by certain money-changers that Vattiare had forged them in considerable quantities in Zanzibar, and had been imprisoned there for it. Those who knew Vattiare knew the rumour to be untrue—as indeed the Court records bear negative witness: but it served the purpose of the money-changers in undermining confidence in their inflated value as currency.

It is certainly satisfactory to be able to record so much more about these coins. But there are many more questions one would like to ask. What was the German motive? The *Deutsch Ostafrika Gesellschaft* had minted silver and copper in Germany for East Africa in 1901; in 1904 the first official silver and copper issues, minted in Berlin, were issued by the German Government. Before 1916 the Germans had never minted special gold coins for East Africa, but had used those of the Fatherland. If, in 1915, they had found themselves short of gold currency, they could hardly have expected to remedy the deficiency by such a small issue.

It may be hoped that one day German documents may disclose the origin and history of this issue from official sources.

(5) G. W. Hatchell, *Maritime Relics of the 1914-18 War*, *T.N.R.* No. 36, January 1954, pp. 1-3, gives the history of the *Kronberg*. It lies in Manza Bay, between Moa and Tanga.

(6) *Ibid.*, pp. 4, 7-8. The *Tabora* was sunk in Dar es Salaam harbour.

(7) This disagrees with Trappe's statement, *op. cit.*, p. 95, that the original design was by a Mr. Voight, of the Railways Administration, Tabora. Perhaps he prepared a design on paper, which Vattiare subsequently adapted to the die. Close examination of the design suggests a certain oriental quality. It would be interesting if the six peaks could be identified: they do not correspond to any mountains in Tanganyika known to the writer.

(8) *Op. cit.*, July 1952, p. 107.

(9) 4th edition, New York, 1951, p. 107, gives illustrations of this as well as the Tabora silver and brass issues of 1916. This is a standard work, and it would be temerarious to contradict it without tangible proof. I have been unable to find out the number of the silver and brass issues minted.

SUKUMA ANCESTOR WORSHIP AND ITS RELATIONSHIP TO SOCIAL STRUCTURE

By R. E. S. Tanner

This article seeks to prove that in present-day Sukuma society ancestor worship provides a number of obvious sanctions on relations within the family and of individual members with each other, which give a deeper meaning to the rights and obligations of kinship.

These sanctions are motivated by the belief that the living and the dead within the lineage have an essential and continuous unity which necessitates action by the living, to ensure not only their own survival but also the survival of their ancestors in their descendants' memories. This gives added importance to the system of formal duties within the family which have a bearing on the continuance of the lineage.

It is hoped to show that in all phases of Sukuma life today except those connected with political structure, the principles of ancestor worship still have great validity not only as a channel of behaviour patterns but as a sanction against social deviation.

I.—IN SOCIETY

The Sukuma believe that their ancestors continue to take an active interest in their descendants, and may promote their general welfare or cause them trouble either because of individual malevolence or because they consider that they have been forgotten and wish to jog the memories of their descendants into remembering them.

Their benevolence takes the form of ensuring family health, plenty of children, good harvests and a large number of cattle. Their malevolence can cover the whole field of human suffering from sickness and death to everyday bad luck. Nowadays their field of activity has become a little circumscribed by the gradual permeation of ideas of European medicine. Syphilis is no longer ascribed entirely to ancestral malevolence as they have seen the results of medical treatment and, similarly, diarrhoea may well be attributed partially to the drinking of dirty water, but everything which has no readily explicable answer comes entirely within the scope of their malevolence; sick cattle, infertile wives, failure to get due promotion, madness in a child, loss of popularity, false accusations of witchcraft are all due either to ancestors or to witchcraft. It is not that there are really two categories of causes, but only that some ills are more and others less affected by the ancestors; this is, as it were, a sort of sliding scale on which the position of the sickness or misfortune is fixed by divination.

Such trouble being attributed either to ancestors or witchcraft, divination would be carried out by one of the regularly practising magicians. Divination can take several forms, inspection of the entrails of immature chickens or adult goats, watching the movements of a piece of wood floating in a bowl of ritual design or by putting the sufferer or the magician into a state of hysteric dissociation. If the divination discloses that a particular ancestor is responsible, then propitiation is prescribed in a variety of ways, sacrifices in the family and

the dedication of animals to that spirit, the erection of spirit houses in the compound, and the wearing of the hair or certain ornaments as that ancestor used to do himself. There are many possible cures which include almost every conceivable type of activity from the taking of herbal medicine to the following of a particular and individual taboo.

The spiritual life of an individual ancestor lasts as long as the dead person is remembered in prayers and sacrifices and this period is found to vary with the social and political status of the descendants. In the average family of no great social pretensions, the remembered and therefore active ancestors would be unlikely to exceed the grandfather and the three generations preceding him. When we consider that we ourselves rarely if ever know our greatgrandparents by name or even by reputation, the limitations of such a system can easily be recognized. It only becomes socially imperative to remember more in a chief's lineage where his descent becomes not only of immediate importance to himself in justification of his position but is also crystallized in the mythological charter of the tribe itself.

The higher the social standing of the individual, the greater the number of ancestors necessary to maintain that social standing and to obtain supernatural assistance. Thus there are a greater number of ancestors to keep in touch with if he is to be healthy and successful in his life and a greater proportion of his time has to be devoted to their propitiation. Personal extravagance and desire for fame and position are never expressed in the idiom of ancestor worship and have their outlet in other forms.

The activities of ancestor spirits are confined to their respective families and they cannot take action outside their own kin; in fact the whole conception of magical action in witchcraft, as well as spiritual action through the ancestor spirits, is dependent upon the formal lineage of known names. The ancestor cannot be of use to the living unless he is addressed by name and the wizard in his invocation or the aggrieved man in his action against the thief and adulterer, can expect no results unless the name of the subject is known.

The ceremonies connected with ancestor worship suggest that the Sukuma believe that their ancestral spirits are in a position to help the living and even to intercede on their behalf with the Supreme Being; this does not necessarily mean that the spirits have power in their own right. The implication is rather that whatever influence the spirits possess and exercise on behalf of the people on earth is due to the Supreme Being or that the descendants can have good fortune by neutralizing the possible malevolence of ancestors by propitiation ceremonies.

The relationship between the living and the dead was once expressed in a fairly regular system of rites, dawn and evening thanksgivings, harvest festivals and others of a similar nature. This implies that the spirits expect their share of whatever prosperity comes to their living relatives and their households, and that if they do not receive this share they will cause trouble as a means of getting themselves remembered. Whereas in the past these regular rites were a part of family life and the remembrance of ancestors was part of the cultural complex into which everyone was born, nowadays it is no longer considered necessary to remember them in this way, and ancestor worship only takes place when the descendants are in trouble and propitiation becomes necessary for their own salvation.

This, it seems, is because the practice of ancestor worship has ceased to be a political necessity. At one time the chief was the centre of a regular round of rites to which the economic and social life of his people was geared. Nowadays, apart from any question of whether the chief would carry on these rites for personal reasons, he is inhibited against them by the expressions of distaste of most of the Europeans whom he meets when they are confronted with ceremonies which to them smack of witchcraft. Thus the ordinary man sees these ceremonies dying out at the centre and, as his ceremonies are no more than a pale reflection of those carried on by his social superiors, he lacks the incentive to carry them out for their own sake before the events which they were once supposed to precede. It is only when things have gone wrong that he is able to carry out ancestor worship with any conviction. The fundamental principles and beliefs have not been greatly changed through this and only the centre of activity has been moved out of the social sunlight into the shadows of every individual's personal conscience.

The ancestors are one stage nearer the Supreme Being than the living and are therefore regarded more as a link with the supernatural powers than an end in themselves. The Supreme Being is not usually mentioned in ancestor ceremonies and, if he is brought in, the conclusion of the ceremony is offered to him for his confirmation. However strong the ancestors may be there is never any diminution of the paramountcy of the Supreme Being who is perhaps too dominant a power for the ordinary person to approach and he is therefore approached indirectly.

There is always a more personal relationship with the ancestors than would be possible with the Supreme Being so, just as it is necessary to presage overtures to relatives with a gift, the ancestors must be remembered and take part in any celebration by the throwing of meat and the blowing out of beer over the ancestor shrines. This is just a piece of meat or porridge and a mouthful of beer, not a full-scale meal; of course although it is called the food of the spirits, they know as well as we do that it is not and that in actual fact it is gobbled up by the dogs and chickens in a matter of seconds, but it is nevertheless obligatory and a very real part of their practice, paralleled possibly by our flowers of remembrance. The fact that it is done is another link in family unity, not as much of the living as of the dead.

Because of trouble attributable to their ancestors, some families dedicate a cow to them, with possibly a goat or sheep as well, although the latter is usually connected particularly with female ancestors. This cow is kept separate from the rest of the herd, is never slaughtered and is replaced by another as soon as she dies; her milk can only be drunk by those who have spent the previous night in the house and her meat can only be eaten by family members.

The ancestor shrines are wicker, branch and grass frameworks, present in most compounds, and are a potent reminder of the presence and indeed constant interest and influence of the dead over the living. They are called the houses of the spirits and form the foci of the religious life of the family. Ceremonies at the shrines must take place in the early morning or evening when the spirits are thought to be at home. These ideas are tenets of belief but it is not the same thing as saying that the spirits actually live in the shrines, since for most of the time the shrines are neglected and fall to pieces and indeed, always abused by the family's livestock.

II.—IN BIRTH

The Sukuma are very much concerned with the perpetuation of their lineages and consider that the only way the lineal descent can be broken is through failure to have legitimate children. There is no idea of the impersonal continuation of the line: the father of the legitimate child is in the agnate line and only through continuing that line can he be certain that he himself will be remembered, because in the spirit world the spirit cannot exist of itself but is dependent for existence on remembrance in the descendant's mind. The individual therefore has an interest in reinforcing the worship of ancestor spirits as the only known means of ensuring his own survival and it is a very strong prop to the principle of agnatic descent.

Men are therefore very concerned over the fertility of their wives, as are the women themselves; a large proportion of diviners' consultations, as well as those of herbalists and magicians, are concerned with fertility.

At birth and at the coming out of the house of the child when the umbilicus has dropped there are no ceremonies with which the ancestor spirits are connected. This is probably because the child has no place in the lineage until it has been given a name and is not a recognizable entity either for the ancestors or in itself should it die. The name is an essential requirement for the correct worshipping of ancestors and unless the ancestral line is recited in propitiation ceremonies there is no hope of their aid.

If as a result of some trouble and the divination of its cause, the name of an ancestor is given to the child, nothing more than the name is announced at the naming ceremony, and there is nothing permanent in such a name. The child may be given other names during his life by other relatives, by friends and by his dance societies and other means, and will be known by that which is used most by his friends and relatives. Such a naming fulfils an obligation and that is the end of the matter as far as the father is concerned. The child is not offered or shown to the ancestors soon after its birth as the child so early in its life has little value as an extension of the lineage. It is only when he becomes older and a potential link in the lineage that he becomes an entity and of concern to the ancestors.

III.—IN MARRIAGE

In ancestor worship the descendants are not regarded as separated from their ancestors; they are one continuous stream of kinship which has not been broken. The blood of the living is the same as that of the dead and lineage is conceived as an unending rope. It has already been stated that the cycle of an individual ancestor lasts as long as he or she is remembered by their descendants and that the lineage is a physico-spiritual continuum. Not only has a living man to carry out the due requirements of ancestor worship to ensure the spiritual continuation of his ancestors and thereby ensure his own prosperity, but he has to ensure his own survival by having legitimate offspring, and the marriage customs should be examined with this in mind.

Marriage is essential for the propagation of legitimate offspring and as variations of the correct form of marriage do not entitle the genitor to any children he may sire, the latter do not ensure his continued existence as an ancestor spirit. There is therefore a very strong sanction for correct marriage which, despite a wide variation in customary marriage procedure over the tribal area,

always entails the passage of bridewealth cattle from the family of the groom to that of the bride. These cattle signify the possibility of the payer's family obtaining immortality through legitimate children and have an almost sacramental value which should be remembered when purely commercial motives are attributed to the attachment of the Sukuma to their cattle.

It may be said that even in the irregular unions, of which there is a wide variety, there is always the intention in the background to legitimize the union sooner or later by the payment of bridewealth. When the bride is young the bridewealth is high but if an irregular union is formed and continues for many years, the woman's family may accept an almost nominal bridewealth payment because they have no hope of getting anything more.

Although such an irregular household would not have communal sanctions imposed on it direct pressure would be brought to bear both by the girl's family, because of their desire for bridewealth cattle which bring with them the power to perpetuate their own ancestry, and by the boy's family who would be naturally worried at the possibility of their own lineage dying out; it is distinguished automatically by name (*kaya ya butende* or *kaya ya dalali*) as a household of illegal union or without value. Examples are still to be found when checking tax registers.

The genitor has no rights in his children except in so far as he pays bride-wealth for their mother. The payment of cattle compensation for children sired illegitimately gives the genitor no rights over them and they remain lineal descendants of the maternal family. The child is the extension of his pater's agnate line and has no relationship to the ancestors of his genitor unless he is legitimized.

The children of a divorced or widowed woman go to the pater's family. If there is a marriage in which a woman has had children by a previous marriage ending in divorce or death, a goat (*mbuli ya kwinja bana kagati*) has to be given to the pater's family and is sacrificed in their compound. It does not seem that this is done to allow the children of the woman to visit her in her new house, but that through the sacrifice the woman's previous husband's family release her from any connection she has acquired with their lineage; it is significant that no ceremony takes place if the woman has borne no children in this previous marriage, for she cannot become a family member without having borne a child to the lineage.

The wife or wives of a deceased man may, if they are willing, be inherited by one of his brothers, as, if the dead man's family paid bridewealth cattle for her, it is entitled to substitute a brother in order that her reproductive powers may be utilized to the full. This is the bare framework of widow-inheritance which is based on the idea of ensuring the continuance of the lineage, not only in the hope of obtaining further children but also later to retain the mother within the family as a structural link in the lineage. It is hard to explain widow-inheritance fully except in terms of ancestor worship and this is illustrated by the fact that if the dead man was older than the brother inheriting his wife, the inherited wife will become his first wife and his own original wife his second. There are many other considerations, such as the reluctance of her own family to receive the widow back if it means that they will have to return a part of the bridewealth paid for her.

Ancestor worship, therefore, is a sanction against irregular unions and also maintains lineal descent as the important function of correct marriages. There does not seem to be any idea that the life-cycle is renewed when for example a child is given the name of an ancestor; there is nothing more in it than the giving of a name and the child does not become in any sense a reincarnation of the ancestor concerned. There are of course no age-sets so that the cyclic element is entirely absent from the social structure.

IV.—IN DEATH AND INHERITANCE

In the conception of ancestor-worship there is no idea of immortality of the body, perpetuation of social position attained or of political influence. The dead are disembodied spirits and in their spirit life they do not experience anything resembling their earthly life. The dead are buried and the living do not specifically regard the graves as the home of the deceased; admittedly they do erect so-called spirit houses but if a Sukuma is asked where the dead are living now, he will point to the skies; but how much of this is attributable to Christian influence it is hard to say.

The death of a child or young man is the occasion for more lamentations than for an old man, which is the natural thing to be expected. However, there is also some structural significance, since in the death of the young there is the potential dying out of the lineage while an old man has served his lineal purpose not only as a link but in ensuring his own remembrance after death through his own descendants.

Although we associate reincarnation with the soul, the Sukuma regard the heart as the centre of life and it is the heart which passes on into the spirit world. Although there is some individuality there, the ancestors are a collective group into which the deceased are incorporated *en masse*. An invocation always starts with the group and afterwards there is the listing of individual ancestors by their separate names, which is necessary to ensure help. It is very hard to interpret the idea of ancestor survival as the ancestors are so clearly regarded as a group while at the same time they retain their nominal individuality and their prominent earthly characteristics.

There are no folk tales of immortal chiefs or magicians and such examples of the supernatural as are produced seem more to be the prolongation of life through magic activities before death, than the return from the dead. There is a suggestion that some essence of the deceased remains above ground after burial; although this essence has a special name (*malungujima*) and seems to have the attributes of a ghost, it is not connected with ancestor worship and fades away with time. The deceased does not become an ancestor spirit at once and goes through a period of suspended animation until it becomes active after a few months. This essence of the deceased seems best explained by the fact that while the memory of the deceased is still green his relatives are more likely to see him or hear his voice because they have not yet attuned themselves to his absence. The proof that the deceased does not become an active spirit for some time lies in the invocations to the spirits which exclude his name until about six months after his death. The grave is more or less neglected instead of being the centre of sentiment or apprehension.

This may not always have been the case but nowadays the grave of an ancestor would be cleaned only as the result of a diviner specifically attributing malevolent activities to that particular ancestor, although with a man of a notably bitter disposition or who had quarrelled with his family a little of the mourning beer might be blown over his grave.

The cattle owner and family head is usually buried in the middle of his cattle byre. In fact everyone is buried in his own compound, both men and women, whether they possess cattle or not, and the only exceptions are unnamed children who have not survived long enough to become part of the lineage.

As has been seen, graves do not become the centre of ancestor worship, which is unconnected with specific places and, in so far as the lineage is concerned, the living place of each family is its own ritual centre.

The centre of the lineage and of the ancestor cult for any family is the senior male descendant. On the death of the father, the eldest brother becomes the ritual centre of the joint family's religious life, besides becoming by degrees the centre of his own joint family's spiritual life as his family forms round him. Although the operative powers for ancestor worship are agnatically retained, there is no such restriction on the number of ancestors who may influence their descendants. The great-grandmother of the wife is potentially as great a trouble maker for the family as the husband's great-grandfather.

On returning from the formal bathing which at the end of the mourning removes the ritual impurity of the death, the new head of the family, dressed in the family ancestor-worshipping outfit, announces to the assembled relatives and neighbours that he is the succeeding head of the family. Although there is no rigid formality in the rites or conditions associated with ancestor worship, there are certain basic principles which have to be observed, principally the use of some article used by the ancestors concerned, spear, cloak, armlets and other personal effects or an effective substitute and, of course, the use of the appropriate ancestor's names.

In ancestor worship the agnates are principally appealed to but in general the female ancestors are more interested in their female descendants and similarly male ancestors in their male descendants. There does not seem to be any formal recognition of the female elements in procreation, and the invocations are normally addressed to the fraternal deceased relatives by a term that does not include women. The physical duality of an individual's lineage is not acknowledged and the wife is never accepted entirely into her husband's lineage; it is her relatives who are responsible for her burial and not her husband's, even though she is no part of her own family's lineage structure and is buried in her husband's compound.

In death and in the inheritance deriving from it, ancestor worship unifies the family and forms a sanction against any attempted secession from the lineage. The approaching death and burial of a family head and, to a lesser extent, that of any other family member, is the occasion for a gathering of all near relatives, not only of those agnatically related but for the members of the sibling group as well, although because of the agnate set-up the compulsion is greatest for the men. The individual who does not come to such a family gathering when

duly informed lays himself open to the hostility of the ancestor spirits. There seems to be much the same sanction on the appearance of relatives at all important family events but of course the strength of the sanction is directly related to the structural distance and is not automatic.

V.—IN MAGICO-RELIGIOUS SPECIALIZATION

Within the framework of ancestor worship, all the different varieties of magicians are completely dependent on their own ancestors for success in their profession. If the ancestors withdraw their assistance from the magician he is no longer capable of carrying out his profession and is automatically retired from active work because patients will not consult a magician who is known to be unsuccessful.

We must remember firstly that magicians and chiefs are the most powerful and intelligent members of society, and that the power of the former still comes from ancestors' assistance in their magical activities, so that withholding of assistance means loss of power. The chief, of course, being recognized and supported by government, has no need to be preoccupied with the ancestor cult as he would have been in earlier times.

The complete rearrangement of the power structure in Sukuma society consequent on European suzerainty, although preventing the obligatory connection of chiefs with their ancestors, has led to a proliferation of magicians, all of whom are actively concerned in the purely practical aspects of ancestor worship. In fact they are walking advertisements of the successful practice of their art from which they receive considerable fees—the principal inducement for taking up this work.

The weird costume of the magician is not the result of some vagary of character or imagination. Each thing he wears is worn because his ancestors have told him through divination to wear it in remembrance of them. The objects which he wears, the length of his hair and the hides he is wrapped in, are all advertisements for the success of his association with his ancestors. His ritual staff has on it pieces of hide from all the animals which have been successfully sacrificed in propitiation of ancestors because of his divinations; in this way he flaunts his success.

Although magicians hold no political position in the village by reason of their abilities, they hold positions of considerable influence through catering for the magico-religious life of the majority. Western religion and medicine have made relatively little impact on Sukuma fundamental beliefs, as is shown by the popularity of magicians and the number of shrines in compounds. While the numbers of magicians is to a certain extent due to the power that such a position gives, an additional attraction is undoubtedly the income which success brings in. This is recognized by the fact that a female magician keeps the fruits of her own work even if she is married unless her husband has given additional bridewealth cattle to cover these talents.

The whole body of specialists carrying on the magico-religious life of the community, sorcerers, magicians, rain-makers, oracle-workers and diviners, ordeal-holders, twin magicians and bird-scarers, are personally interested in maintaining ancestor worship to support their own powers, while at the same

time they are a constant encouragement to others to enter these professions because of the personal power and economic security which they bring, indeed these aspects of Sukuma social life are undiminished in modern times, if indeed they are not on the increase.

VI.—IN KINSHIP

The ancestor cult has rules which embody the values set on kinship, the agnatic descent and the joint family with its formal head having ritual powers, the relative unimportance of the wife's family and the importance of legitimate children to ensure the continuance of the lineage, all of which combine in their conception of the essential family unity.

The strongest sanction on family unity is the formal curse, which is a ceremonial event requiring prior family agreement for its affectiveness. There are several types of offences which carry the possibility of a father's curse; incest with mother, between siblings and between them and their uncles and aunts and with their own children; disposing of the family's cattle without permission; failing to provide for parents in their old age and disobedience and violence to them. These offences should be examined against the background of ancestor worship, since the curse is formally imposed in front of the ancestor shrines.

Incest is not regarded as an unnatural offence but as a social one and it is doubtful whether there is basically any instinctive revulsion against it. The disposal of the cattle without the family's permission has much the same effect as preventing the lineage ensuring its own continuation so that a man doing this is consigning his father to extinction and the latter would be fully entitled to consider the offence in this light.

Quarrelling between parents and children has the effect of disturbing the family but not the lineage, unless the father becomes so annoyed with his child that he goes through a formal ceremony of disinheritance, which gives the son the status of illegitimate child. The father under this system of ancestor worship is in a strong position to ensure that he is well looked after in old age and the curse is a formal reminder of his power because, firstly, his own ancestors will bring misfortune on the erring son while at the same time the father, who may die at any time, stores up hate for use from the spirit world.

Whereas the father's curse requires the agreement of the family, the mother may curse at any time and is reputed to have a stronger power, possibly to balance her relatively insecure position since she holds little or no property in her own right and may be sent back to her own family at any time. The mother, since she is not a blood relative of the family and cannot utilize the family's spirit shrines, accompanies her curse with taking off her clothes, which may gain its forcefulness from the implication of incest.

The curse can only be used on a relative who is mentioned by name and there can be no cursing of an unknown offender; it does not require the presence of the named individual nor that he should know of the curse. The curse in anger is not active because it is not done beside the spirit shrines. The consequences of a curse are all the ills which are usually associated with irritated

or malevolent ancestors, such as infertility, prolonged poverty and mental unbalance. There is no method of avoiding a curse other than a request to the curser for its withdrawal accompanied by a propitiatory gift, and, although the acceptance of such a gift automatically reduces the strength of the curse, it must be formally removed at the ancestors' shrines for it to become completely ineffective. There is no doubt that the threat of a father's curse is a powerful sanction against the trend towards the disintegration of family groups, and that it is a supernatural sanction affected through the concepts of ancestor worship.

Although the eldest brother retains the ancestor worshipping articles and becomes theoretically the centre of the family's ritual life, there is in fact no such practical restriction. A younger son experiencing physical or spiritual trouble would go to a diviner who might advocate certain propitiation ceremonies for the ancestors. Although it would have been obligatory in the past for the elder brother to be called to carry out the ceremony on behalf of his brother, nowadays it is more likely that the latter would build a spirit house himself and beg from his elder brother some of their father's ancestor worshipping articles so that he may propitiate on his own account.

This seems to be a modern development to a certain extent following on social change; within living memory the social unit was the joint family of the father with his sons and their wives; on the father's death the eldest son took over the family and although of course there was a steady segmentation, the family continued to be a closely knit unit and even in its segmentation the units remained of substantial size. Nowadays the family would only unite for propitiation if a number of the family members were ailing and divination had indicated the necessity of a joint propitiation.

On the father's death, the family compound would remain in the possession of the elder brother and with it the shrines erected by his father as well as the latter's ancestor worshipping articles. On marriage a younger brother would live with his father-in-law for a few years and on his return he would remain in the family compound until he was sufficiently well-off to be given a fire of his own, which constituted the formal permission of the family head for a son to build a house of his own. The son was then formally recognized as an independent entity and gradually become capable of ancestor intercession on his own account and ultimately the centre of his own family's spiritual life. Nowadays the splitting up of the family takes place very much sooner and the joint family is the exception rather than the rule.

While it is suggested that the decay of the family has been accompanied by a decay of ancestor worship and that changes in economic and political structure have accelerated this change in the Sukuma way of life, their beliefs have been much more resistant to change. The almost instinctive belief in the powers of the ancestors is still a potent force in their lives but it is centred nowadays in the family rather than in the joint family and it has adapted itself to social change without any damage to its fundamental principle of the agnatic line. It would be quite true to say that the sanction of ancestor worship is no longer powerful enough alone to hold the joint family together, but each segment still has its own equally powerful ritual head.

VII.—CONCLUSION

In every sphere of Sukuma life except the political, ancestor worship is still making a positive contribution to the functioning of the social structure. The sanctions provided by this cult have assisted greatly in stabilizing their life and in preventing the enormous changes which usually accompany wholesale conversion to Christianity. The cult of the ancestors still presents a unified front and even though passive adherence may now be in the ascendancy, it must be classed as a conservative tendency on which Christianity has as yet made little impression. A further decay in the practice of ancestor worship will probably come and will accompany a far-reaching disruption of family life.

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VON DER DECKEN

By Sir Claud Hollis, G.C.M.G., C.B.E.

Baron Carl Claus von der Decken belonged to an old and wealthy Hanoverian family. Born in 1833, he was the youngest child of Baron Ernst von der Decken, who as an officer of the English Legion had fought at Waterloo, and who afterwards filled the appointment in Hanover of Equerry and Master of the Horse to Kings George III, George IV and William IV of England and Hanover, and of Ernst August of Hanover. His mother was a daughter of the Prussian Colonel Friedrich von Stechow. She married, as her second husband, Prince Hans Henry X of Pless.

Baron Carl Claus von der Decken showed early signs that he was destined for a scientific and adventurous career. At the age of eighteen he joined the army, but devoted a great part of his time to the study of mathematics, modern languages, zoology, botany, etc. He also undertook long journeys through many of the lesser-known parts of Europe. In 1858 he travelled and shot game in Algeria. On his return to Hanover, he decided to leave the army and become a scientific explorer; and an opportunity offered itself shortly afterwards which would enable him to join and finance Dr. Albrecht Roscher, who had already left Germany for Zanzibar.

Von der Decken arrived in Zanzibar in September, 1860, and was met with the news that Roscher had been murdered by natives between Kilwa and Lake Nyasa. Wishing to rescue Roscher's effects and avenge his death, von der Decken immediately set to work to equip a caravan. He sailed to Kilwa a fortnight later, but so many obstacles were placed in his way by the Arab authorities there that he was unable to depart for the interior until early in December. Then his troubles began in earnest. The Arabs and natives did all they could to defeat the object he had in view. His Baluchi askaris were mutinous; his porters deserted, stole his goods and threw away his loads; he was unable to purchase fresh provisions; his European companion, by name Koralli, nearly died; and his own life was threatened. He reached Mesuli in the Gindo country, 165 miles from Kilwa, on the 18th of December, but realizing that further progress was impossible, he returned to the coast and took ship to Zanzibar.

Von der Decken complained bitterly of the treatment he had received, and informed Colonel Pelly (H.M. Consul and Political Agent) that the Sultan (Seyyid Majid) had issued secret instructions to the Kilwa Arabs to prevent him from reaching Lake Nyasa. It is quite conceivable that the Sultan had taken some such action, for it is unlikely that he would regard with favour von der Decken's proposal to proceed into the interior with the avowed intention of taking the law into his own hands and avenging Roscher's death.

After a short stay in Zanzibar, von der Decken came to the conclusion that it would be better for him to explore the northern territories of the Zanzibar Dominions and their hinterland rather than hazard a fresh journey to Lake Nyasa. He accordingly decided to visit Mounts Kilima Njaro and Kenya, and settle once for all the still disputed question regarding the presence of snow-capped mountains in the interior of tropical Africa.

On the 28th of May, 1861, accompanied by Koralli and by a geologist named Richard Thornton, who, with Dr. (afterwards Sir John) Kirk, had taken part in Livingstone's ill-fated attempt to reach Lake Nyasa by the Ruvuma River, von der Decken sailed from Zanzibar to Mombasa in the brig *Africa*, which had been placed at his disposal by Seyyid Majid. The Sultan, outwardly at any rate, did everything possible to make von der Decken's next expedition a success, and provided him with letters of recommendation to the Liwalis of the coast towns. Having visited the Church Missionary Society's station at Rabai, where he met Rebmann, who gave him much useful information and advice, von der Decken left Mombasa for Kilima Njaro, via Mounts Kilibasi and Kadiaro, on the 24th of June, and reached his destination six weeks later. He explored the foot-hills and neighbouring country and attempted to ascend the mountain, but was only able to reach a height of 8,000 feet. He was, however, in a position to certify that Kilima Njaro was covered with snow, and his maps were at a later date found to be extraordinarily accurate. He returned to Mombasa via Usambara, the Uмба River and Vanga, and after visiting Takaungu and Malindi, sailed for Zanzibar, stopping *en route* at Pangani, where he had serious trouble with the Liwali.

His companion Thornton left him at Zanzibar to join Livingstone, but he died on Livingstone's steamer, the *Pioneer*, on the 21st of April, 1862.

Von der Decken remained in Zanzibar from November, 1861, till August, 1862, awaiting the arrival from Germany of Dr. Otto Kersten, a young scientist whom he had selected as his assistant, and a hunter named Androk. But the time spent in Zanzibar was not wasted, and his accounts of the history, geography, geology, zoology and botany of the Island are highly interesting.

The aim of the third expedition into the interior was to explore the region between Kilima Njaro and Lake Victoria, and to return to the coast by way of Mount Kenya. Kilima Njaro was reached in safety, and the explorers ascended the mountain to a height of 14,000 feet; but their further advance into the interior was opposed by the Masai, and they were obliged to return to the coast. They arrived in Zanzibar on the 30th of December, 1862.

The idea then occurred to von der Decken that the best way to reach Mount Kenya would be by making use of one of the rivers that were believed to rise in that mountain and flow out on the east coast, and for this purpose he ordered a paddle-wheel steamer from Europe. But two and a half years were to elapse before he was in a position to renew his explorations into the interior of Africa. A steamer of the dimensions he required could not be obtained, and in the meantime he had made arrangements to visit and explore the Comoro Islands, Madagascar, the Seychelles, Reunion and Mauritius. In Reunion his faithful companion and servant, Koralli, died, and as he found Madagascar in such a state of unrest that he could not leave the coast, he decided to return to Europe to supervise personally the construction of his steamer and to select the necessary staff. He arrived in Hanover in September, 1863, and had a great reception, not only there, but at all the principal capitals of Europe. Nowhere was he more warmly welcomed than in London when he went to receive the Gold Medal of the Royal Geographical Society which had been awarded to him.

Arrangements were made in Hamburg for the construction of a paddle-wheel steamer, which he named the *Welf*, and also of a steam launch, the *Passepartout*. Von der Decken's old friend, Count von Goetzen, offered to accompany him

on his next expedition, and he selected and engaged the following persons as his staff: Lieutenant Carl von Schickh and engineer Nikolaus Kanter (both of the Austrian Navy), Dr. med. Hermann Link, Eduard Trenn (artist), Richard Brenner (forester), Albert Deppe and Hitzmann (mechanics), Bringmann (carpenter), and Karl Theiss (cook).

Von der Decken, von Goetzen, the European personnel, the *Welf*, the *Passepartout*, 300 tons of coal, and all the stores, rifles, tents, etc., necessary for the expedition reached Zanzibar before the end of November, 1864, where they were received by Dr. Otto Kersten.

The assembling of the *Welf* and the *Passepartout* took place on the sea-front at Zanzibar. The latter was ready in February, 1865, and von der Decken spent the next two months exploring in his launch the entrances to the Tana and Ozi Rivers. In June the *Welf* was launched and flew the Hanoverian flag. After saluting the Zanzibar flag, the whole party with the exception of Count von Goetzen and Dr. Kersten (who were ill and had to return to Europe), proceeded to Lamu, whither they were escorted by H.M.S. *Lyra*. From Lamu the *Welf* and the *Passepartout* steamed to the Tula River, but whilst exploring this region the crew were attacked by cholera, which was raging in the neighbouring villages. Eight men died, and von der Decken himself fell ill but recovered.

On the 29th of July the *Welf* and the launch left for the Juba River. Whilst crossing the bar the *Welf* ran ashore, but was floated again without any material damage and anchored off Jumbo. The *Passepartout* was less fortunate. She was driven out to sea and became a total wreck, the mechanic Hitzmann being drowned.

After overcoming certain difficulties and objections which the Somalis raised to the *Welf* proceeding up the Juba River, the expedition left Jumbo on the 15th of August and arrived a month later at Bardera, a fairly large and important Somali centre, 165 miles from the mouth. A week was spent at Bardera, and then the journey was continued; but some 20 miles further on the *Welf*, whilst negotiating some rapids, ran on to the rocks and was wrecked. The remains of the vessel are still (over sixty years later) to be seen in mid-stream.

Von der Decken now decided to continue his journey on foot, but he found it necessary in the first place to return to Bardera to purchase provisions. Accompanied by Dr. Link, his trusty headman Mabruki Speke (who had formerly travelled with Captain Speke), and by some of the crew, he rowed to Bardera in his gig, whilst the rest of the party pitched their tents on shore.

On the 1st of October, without any previous warning, the camp was attacked by Somalis, and Trenn and Kanter and several of the crew were killed. Brenner saved the situation. He was a short distance away from the others and was the only one properly armed. He shot a number of the marauders and enabled his companions to escape. There remained now only five Europeans (von Schickh, Brenner, Deppe, Bringmann and Theiss) and eight natives, two of whom were wounded. The thirteen men embarked in the only remaining boat, and having taken their rifles, some food, ammunition and money, abandoned everything else and started to row back to the coast. They arrived off Bardera at night when the moon was shining. All was quiet in the town, and as they could not see von der Decken's gig, they feared the worst must have happened, and passed on without stopping. The journey to the mouth of the river was accomplished in

five days, during which time they never left the boat. Sleep was out of question, and they had difficulty in eating their food which had to be taken raw. On arrival at the mouth of the river they sank their boat, and after a long rest started to walk in a southerly direction. Fortunately, when they reached Kismayu a dhow arrived, and they were given passages to Lamu, which town they reached on the 16th of October. Here they found a vessel which had been chartered in Zanzibar to convey stores to the expedition, and which was on its way to the Juba River. They returned to Zanzibar in this vessel, arriving on the 24th of October.

Five days later, armed with a letter from the Sultan to the Liwali of Lamu directing the latter to place his Baluchi askaris at von Schickh's disposal, they left again for Lamu. But the Liwali would only let them have four men, and these he ordered not to proceed beyond Tula.

On the 15th of November Mabruki Speke arrived at Lamu from Barawa, and reported that von der Decken and Link had been murdered at Bardera on or about the 1st of October, and that he and some of the crew who had accompanied von der Decken to that place had escaped to Barawa. Since it was not possible to go to Bardera without an armed force, von Schickh returned again to Zanzibar. Shortly after he landed there, H.M.S. *Vigilant*, which had been sent from Zanzibar to Barawa to endeavour to obtain news of von der Decken, arrived with the other natives who had escaped from Bardera. As all corroborated Mabruki Speke's story, von Schickh and his four companions decided to sail for Germany. They left Zanzibar on the 12th of January, 1866.

Princess Adelheid of Pless (von der Decken's mother) was not satisfied with the reports of her son's death, and thought that he and Dr. Link were possibly being detained as prisoners at Bardera. She accordingly arranged with the African explorer Theodor Kinzelbach and with Richard Brenner to proceed to East Africa to obtain definite information regarding their fate. They reached Aden in October, 1866, and were fortunate enough to find there H.M.S. *Highflyer*, which had recently arrived from Zanzibar with a sister of the Sultan's, by name Seyyida Salme, who was engaged to be married to a German, and who was staying at Aden until her fiancé could join her. The two explorers were given passages in the *Highflyer*, Brenner to Barawa and Kinzelbach to Zanzibar.

During the next eighteen months Brenner travelled through the country inhabited by the Gallas and Somalis between Malindi and Mogadishu, and succeeded in penetrating as far as Sorori, 100 miles up the Juba River, but he was unable to reach Bardera.

Kinzelbach, although himself satisfied of the truth of the reports regarding von der Decken's death made an effort at the end of 1867 to go from Mogadishu overland to Bardera. He died, however, at Geledi in January, 1868, and his remains were brought back to Mogadishu for burial.

The task of writing von der Decken's memoirs was entrusted by Princess Adelheid of Pless, and, after her death, by Baron Julius von der Decken, to Dr. Otto Kersten; and it is safe to say that few books of greater value and interest have been published concerning East Africa. The first two volumes, entitled *Baron von der Decken's Reisen in Ostafrika*, appeared in 1871: the remaining four volumes, which contain descriptions of the collections made on the various expeditions, were published at a later date.

It is now necessary to say a few words, in conclusion, regarding von der Decken as an explorer. He was a man of commanding stature and great physical strength; he had a scientific mind; and he was possessed of three of the greatest gifts with which Nature has endowed human beings, viz., faith, curiosity and common sense. He invariably tried to win through by tact, by argument and by kindness, and when he found that these failed, he was brave enough to admit himself beaten, and to turn back, rather than to endeavour to obtain by force of arms what he could not gain by negotiation. He never forgot that others would pass along the path that he had trod, and that those who followed after him would reap what he had sown.

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MKOMAZI GAME RESERVE

By David Anstey

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During the past decade the slow retreat of wild life from its former wide range in northern Tanganyika has quickened. In many areas its disappearance is an accomplished fact; in others, such as the north Tanga country, the game population has been reduced to a figure that is probably below the minimum density for continued existence.

In these unhappy circumstances, the Game Department asked for a new reserve in a stretch of country as yet uninhabited and, in October, 1951, the Mkomazi Game Reserve was gazetted.

The reserve lies along the Kenya-Tanganyika boundary from about 30 miles inland from the coastal village of Vanga to a few miles south of Lake Jipe. The western boundary follows the foothills of the Pare Mountains and the Uмба River. The area is approximately 1,100 square miles, and lies between 600 and 2,600 feet above sea-level, with mountain ranges rising up to 5,500 feet in the centre and north.

The flora over the plains is that well-known East African *Acacia-Commiphora* thorn tree community with grass plains, which was so completely described and studied by B. D. Burt in the 1930's.

Scenically the northern part of the reserve is the most attractive. From one valley, green or golden brown according to season, Kilimanjaro's white cap may be seen, quite filling the valley's northern end. The *Mbugas* (areas of open grassland) which are liable to flooding in the wet season, are surrounded by *Acacia spirocarpa*, *A. usambarensis* and *Commiphora* spp. with odd *Adonsonia digitata* (the giant Baobab) on the fan slopes of the neighbouring hills. This vegetation thickens in places until it merges into the "dry ravine thicket" of *Acacia* spp., *Grewia bicolor*, *Capparis* spp., *Acalypha fruticosa* (a rhinoceros dainty), *Euphorbia* spp. and *Sansevieria* spp. Towards the Pare hills the thicket communities become dominant in places, while farther south on the light rainfall red laterite eluvial soil, *Commiphora* is almost the only tree that can exist. The hills of over 4,000 feet are capped with rainforest remnants; but they are only of importance as specialized game habitats in the central Pare and Maji Kununuwa ranges in the north.

The northern grasslands are populated with eland, oryx, zebra, impala, Grant's gazelle, gerenuk, Coke's hartebeest the commonest animal, and giraffe. The carnivora are represented by lion, cheetah and leopard. The animals are still very shy and there are too many wild dogs.

These grasslands are the home of many rhinoceros and at least three good sized herds of buffalo. The rhino have shown how much they like the open spaces now that it is safe to be there and the buffalo have been seen more frequently in the open valleys instead of only on the denser hillside. The elephant fluctuate in numbers but, except during the long rains, there are rarely less than 1,000 in the reserve.

In the centre of the reserve there is a mountain range loosely described as "The Tussas", whose main valley is another centre of game. Until very recently the large number of caves found here were used by African hunters, who sold the game meat in the nearest villages. Water is very scarce, and the few watering places well hidden from the casual seeker. Those used by patrolling game scouts include a hollow baobab tree which holds up to sixty gallons of water and never dries up, crevices in rocky hills into which the water drains from above and must be baled out with a long ladle, natural rock tanks high up the side of cliffs, and small springs that may have just been visited by elephants and churned into a muddy soup.

The woodland game so far recorded includes :—Greater and lesser kudu, water-buck, steinbuck, duiker and on the hills, klipspringer. Farther eastwards the river bank of the Umba provides tall trees in which are Colobus and Sykes' monkeys.

The first Europeans to cross this country were Baron von der Decken and his companion Thornton in July, 1861. The account of their journey to Kilimanjaro, written in German, is full of detailed daily observations. They travelled from Mombasa across the semi-desert on the Kenya side and then from the huge mountain mass of Kasigau, steered for the South Pare mountains. The Baron's guides obviously did not know the country, and the whole caravan very nearly perished of thirst in the Tussa hills, a precedent nearly followed by myself when re-exploring this country in 1952; but I was more fortunate than von der Decken, for baboons disclosed to me their water supply in a rocky hillside crevice. Thornton made a very interesting and quite accurate map of their journey, and on his way back discovered the falls that bear his name at Gonja in the South Pares.

Count Teleki on the journey in which he discovered Lakes Rudolph and Stephani passed through Same, and along the Kaili valley behind the central Pares. The large waterhole where he camped and saw so much game just before Lake Jipe is still the same fine game area as when he passed about 1886, except that there is now a game scout's house some miles off, to warn away the local people who are no longer too frightened of the Masai to leave their mountain homes. Another interesting descriptive book is one called *Au Kilimanjaro* by Monseigneur Le Roi, a Roman Catholic missionary who passed through this country when on his way to start the first Roman Catholic mission in Chaggaland. He gives a graphic description of a meeting with a lion just by what is now the northern boundary of the reserve.

The war of 1914–1918 brought humanity for a time to this quite empty country. The Germans established an outpost beyond the Tussa hills from which they laid bombs on the Mombasa–Nairobi railway, and even laid a telephone line to the border. Von Lettow-Vorbeck, the German commander, describes in his book how he bicycled along an elephant road when visiting the outpost, and the old men of Pare describe with feeling how they had to carry supplies to the *askari*.

It seems probable that in earlier times this area was permanently inhabited, and not a country known to foot travellers only. With the motor car, a rapid decrease in foot caravans has left the reserve country unknown for the last twenty years, except to Arab and African poachers.

Since 1952, whenever funds and time have allowed, the reserve has been explored and mapped until at last most of it is known. Game scouts' stations from which it is hoped to control the poaching of game meat and ivory have been sited and constructed by the scouts themselves.

The need for dry season water is very great for over hundreds of square miles there is none. Although many animals seem not to be worried by this water shortage a sixteen million gallon capacity earth dam has been constructed and is already full. A great variety of birdlife has been attracted to this dam, which is intended to keep the game inside the Reserve instead of having to go to Lake Jipe. A rocky gorge has been sealed with a reinforced concrete wall to provide a small reservoir of half a million gallons of water. The provision of dry season water and the consequent concentration of game will bring in its train possible ecological problems of overgrazing. This will be studied. A bush camp for visitors has been constructed.

Much of the value of this sanctuary lies in its being uninhabited except at one corner, for game and men cannot live together when the game is as large as elephant. There is also no other reserve in Tanganyika with the same series of vegetational and faunal communities, except where an increasing human population has to be reckoned with.

ALBRECHT ROSCHER

By Sir John Gray

Albrecht Roscher was born at Hamburg. In 1857, when barely twenty-one years of age, he published a thesis entitled *Ptolomaeus und die Handelstrassen in Central-Afrika*, which may be anglicized as *Ptolemy and the Trade Routes in Central Africa*. The work obtained the imprimatur of the long established geographical publishing firm of Justus Perthes of Gotha and also earned him a doctorate of philosophy.

As I have never been able to discover a copy of the thesis, I am unable to express an opinion as to its merits. In *Sources of the Nile* (published in 1860) the English geographer, Charles Tilstone Beke, (1800-1874), stated (at p. 69) that "in attempting to fix in the map of Africa the true position of Ptolemy's lakes and sources of the Nile, we must discard all notions of their having been determined absolutely by means of astronomical observations, special maps of particular localities, or otherwise, and regard them simply as derived from oral information, and as laid down relatively to some well known point or points on the coast". As he said in a footnote, this dictum struck at the roots of Roscher's thesis, but he none the less described it as an "otherwise clever little book" and expressed a most cordial wish for the success of the journey of exploration which Roscher had by that date set out to undertake in East Africa.

Roscher's book had attracted the attention of Maximilian II of Bavaria, who was a great patron of learning and devoted much of his own time to historical and scientific study. It was due to his patronage that Roscher was able to proceed to East Africa for purposes of exploration. He arrived in Zanzibar in September, 1858, and on the 16th of that month presented a letter of introduction from the British Foreign Secretary, to Lieutenant-Colonel C. P. Rigby, who was then British Consul at Zanzibar.

Though nine months later a treaty of amity and commerce was to be concluded between Seyyid Majid and the Hanseatic Republics of Lubeck, Bremen, and Hamburg, at the time of Roscher's arrival in Zanzibar no German state had any consular representative in Zanzibar. It was for that reason that the British Government was approached with a request for British protection to be accorded to the King of Bavaria's protégé. Rigby kept a diary during his residence in Zanzibar and also indulged in much correspondence with both Foreign Office and the Bombay Government regarding the affairs of Zanzibar, but he does not appear to have recorded anywhere his personal opinion of the young German explorer. Reading, however, between the lines of his letters, one gathers that he found him quite a likeable personality, though he must have realised some of those defects of character, which obviously prevented Roscher from ever being likely to be an entirely successful explorer.

Rigby evidently did his best for Roscher by obtaining letters of assistance from Seyyid Majid, Sultan of Zanzibar, but when it came to questions of details in the preparation and equipment of expeditions into the interior of Africa, it was very natural that Roscher should turn to his compatriots in Zanzibar. As Burton tells us in *Zanzibar: City, Island and Coast* i. 320-321 there were at this date many fellow-citizens of his from Hamburg, "that Carthage of the Northern Seas" established in business on the island. These included Wilhelm

and Albrecht O'Swald, members of a well-established firm in that city, who were "assisted by M. Witt, an intelligent young man, who having graduated in California gold-fields, proposes to prospect the coast". It was to the firm of O'Swald & Co. that Roscher turned for assistance in devising ways and means for his projected explorations on the mainland.

According to Burton (*Zanzibar* ii. 332) Roscher spent some time during the four months immediately following his arrival at Zanzibar in a sail down the coast to Mozambique, evidently with the object of obtaining such information as might be available from Portuguese sources regarding trade routes to the Central African lakes. From Mozambique he returned to Zanzibar shortly before Captains Burton and Speke arrived at the coast after their explorations leading to the discovery of Lakes Tanganyika and Victoria.

On 3rd February, 1859, Burton and Speke reached Konduchi, a few miles to the north of Dar es Salaam. The former tells that the same evening he "sent a few lines to H.M. Consul, Zanzibar, enclosing a list of necessities, and requesting that a *battela*, or coasting craft, might be hired, provisioned and dispatched without delay, as I purposed to explore the delta and the unknown course of the Rufiji". (*Lake Regions of Central Africa* ii. 276).

Immediately on receipt of this letter Rigby took steps to comply with this request. Roscher decided that the moment had come for him to set out on his travels and took passage in the *battela*, accompanied only by a single African servant. (Russell—Rigby p. 270).

Burton gives the following account of Roscher's arrival at Konduchi on 10th February, 1854:

"We were surprised by the abrupt entrance of a youth of eminently North German aspect, with sandy hair, smooth face, and protruding eyes, flat occiput and projecting ears. He announced himself as Dr. Albrecht Roscher of Hamburg, and he made himself doubly welcome by bringing from Zanzibar the wished for supplies, letters and newspapers. For eighteen months we had not looked upon a white face save the albino, or a new print in any form but that of a Low Church tract.

"The traveller who appeared at most twenty-two, applied himself forthwith to the magnetic survey, for which he had been engaged by the Prussian (sic) Government. A visit to Mozambique and a run up the coast had taught him everything learnable about East Africa. He despised the dangers of climate, against which he was cautioned. Having hitherto escaped fever, he held himself malaria-proof, and he especially derided our advice about not wandering about the country unarmed. He lauded to the skies his fellow townsman, Mr. (Heinrich) Barth (the explorer). He severely criticized Dr. Livingstone; he patronized in a comical way Herr (August) Petermann (the founder of the geographical journal *Mitteilungen*); he highly extolled his own book; and he wrote to Zanzibar—so we afterwards heard—a far from flattering estimate of our qualifications as travellers."

It would appear to me easy to realise at first glance that this description of Roscher's personal appearance is a somewhat uncharitable caricature. As his embittered quarrel with, and jealousy of, Speke shows, Burton was in his relations with his fellowmen and in particular with other explorers, a person with few sympathies and an abundance of strong antipathies. His criticisms of those for whom he conceived a dislike were extremely personal and savage and sometimes

made with what can only be described as a reckless disregard for the truth, which in these days would have involved him in a whole series of costly actions for libel. As will be seen, he was inaccurate regarding some of his statements as to Roscher's movements. How far he was inaccurate as to various statements attributed by him to Roscher I am prepared to leave to others to judge. But it is not out of place to note that shortly after Burton and Roscher parted company at Konduchi, Rigby wrote from Zanzibar to General Joseph Miles to inform him that Burton "was very jealous" of Roscher (Russell—*Rigby* p. 243 footnote), a piece of contemporary evidence which cannot be entirely discounted.

At the same time it is easy to understand why Burton should have taken such a dislike to this young man some fifteen years his junior. By 1859 Burton had managed to crowd into his life, in Lord Derby's words, "more of study, more of hardship, and more of successful enterprise and adventure, than would have sufficed to fill up the existence of half a dozen ordinary men". Roscher, on the other hand, was on the threshold of his possible career with nothing more to his credit than a purely academic thesis, which had earned him a doctorate of philosophy. I know of no real evidence indicating that he ever spoke disparagingly of the discoveries of Burton and Speke, but I can imagine that in his conversations with Burton he spoke with all the self-assurance of a young man, who having obtained an honours degree after barely reaching his majority, forgets that, like Chaucer's clerk of Oxford, he should speak not one word more than was the need and should gladly learn as well as gladly teach. One can therefore understand why this young doctor of philosophy grated upon the nerves of a man, who had more than once fallen seriously ill on his recent journey into the heart of Africa.

Burton tells us that Roscher "stayed with us two days, and then departed northwards, intending to make Mbweni, the Booamy or Bovamee of Dr. Krapf, the village at the mouth of the Pangani River. Thence he crossed over to Zanzibar Island and, after scant preparations, he landed at Kilwa". (*Zanzibar* ii. 333). As will be shown later, this statement contains more than one inaccuracy. These mistakes may be attributed to the fact that Burton was writing twelve years after the event which he recorded. If one charitably assumes this to be the case, it none the less casts doubt on the reliability of certain other of Burton's statements regarding Roscher.

Reverting, however, to Burton's own movements after he and Roscher parted company, the *battela* which brought Roscher to Konduchi, had been dispatched, as already mentioned, by Rigby so as to enable Burton to explore the delta and course of the Rufiji River. The *battela* set sail southwards from Konduchi on 10th February, 1859. After calling at Kisimani Mafia, for water the vessel crossed over to Sumanga, about four miles south of one of the mouths of the Rufiji delta. Burton, however, made no attempt to explore the river, because "we had no sweeps to make head against the river, even for a few miles, and all dissuaded us from attempting exploration at this season". A Banyan, named Jetha, who claimed to have lived twenty years thereabouts, asserted that the local inhabitants were dangerous and that it would be impossible to undertake any exploration without a letter of introduction from the governor of Kilwa to the local chiefs. So Burton sailed farther south to Kilwa Kivinji and Kilwa Kisiwani, from which latter place he returned to Zanzibar, arriving there on 5th March, 1859.

To return to Roscher, Burton's statements regarding his movements after he left Konduchi are only very partially accurate. Roscher set out northwards from that place on 9th February, but he travelled only a very few miles in that direction. It is possible that he may have been making for Mbweni, a village about ten miles to the north of Konduchi, but he was certainly not making for the place which Krapf incidentally spells as "Buyeni", a few miles to the south of the mouth of the Pangani River, some sixty miles to the north of Konduchi. In the few records of his which survive Roscher makes no mention of Mbweni, but names three other villages lying a few miles to the north of Konduchi, which he calls Papani, Ulani and Ununine* respectively.

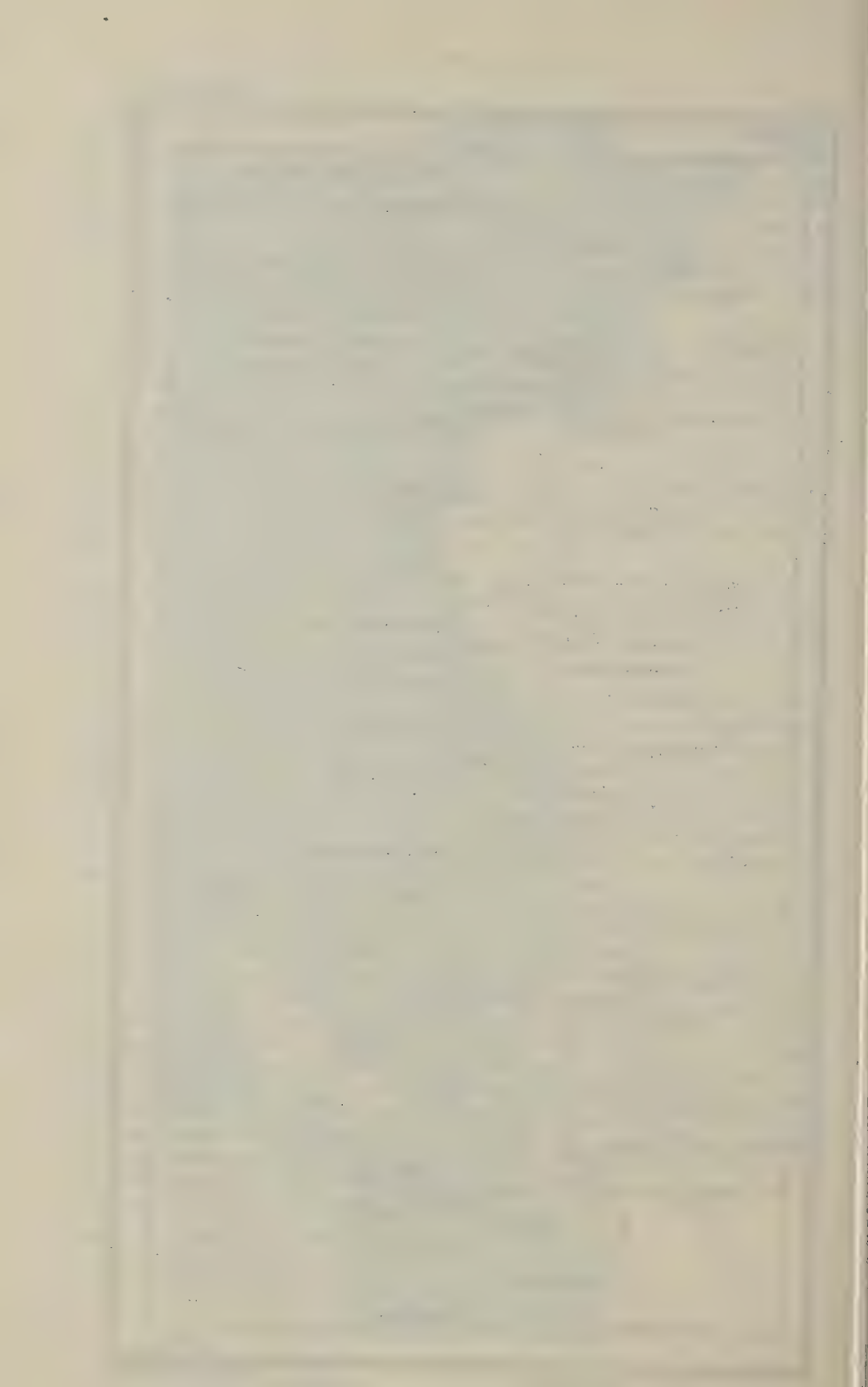
Papani was his farthest north. Thence he turned back southwards and, passing by Konduchi, reached Msasani on 10th February, the day on which Burton and Speke left Konduchi by boat. One can only guess at his reason for this march to the north followed by this surprising doubling back on his tracks. It may be suggested that the journey north was designed to put Burton on a wrong scent. It would appear very evident that during his stay at Konduchi he had reached the conclusion that he and Burton would never be able to hit it off and, realising that Burton was bound in the same direction as he was and not wishing to have the man dogging his footsteps, he deliberately misled Burton regarding his plans and at the same time took evasive action.

Another explanation may be that, writing thirteen years after the events, Burton's memory has played him false. According to Rigby, "Dr. Roscher took passage in the *battela* to join Captain Burton; but after being one day with Captain Burton, Dr. Roscher left on foot, accompanied only by one boy and without saying where he was going". (Russell—Rigby p. 270).

Whatever the explanation of Roscher's early movements after parting company with Burton, Roscher's final intention was to make for the Rufiji River. As already said, he reached Msasani on 10th February. He appears to have tarried there for two days. On 12th February he reached Mzizima, a village which then stood on the north shore of the entrance to the harbour of what is now Dar es Salaam. As was only to be expected, he realised the existence of this magnificent harbour, but he made no long tarrying there. He crossed the harbour's mouth and reached Magogoni the same day. Next day he reached Mbwamaji where he stayed until 14th February.

Roscher struck inland more or less due south from Mbwamaji. Hitherto he had followed the coastline fairly closely. In all probability his reason for deciding to penetrate inland was the same as that which prompted James Frederic Elton, who more or less followed in Roscher's footsteps in December, 1873. Elton was given to understand that the coast route was "impracticable in places, in consequence of the many estuaries inland, and deep mud renders the mangrove swamps impassable, except at high tide in boats" (Elton p. 77). In the early stages of his journey Roscher passed through a flat country with scattered clusters of trees. The soil was sandy, but was studded with excavations made by diggers for copal. Roscher came across a few rivulets and wells on the way. Eventually after what according to Elton was a six hours' march Roscher reached the village of Kikonge, near to which was a *shamba* belonging to one Mohammed bin Challaph (? Muhammad bin Kheluf), who appears either to have been an Arab or else to have had Arab blood in his veins.

*Editor's Note—probably UNUNIO.



About half an hour's march from Kikonge Elton reached the stream which both he and Roscher call the Mbesi River, which debouches into the Indian Ocean at Boza. Roscher described the country to the south of this river as hilly and marshy. After that Roscher's line of march lay through a fairly well populated and cultivated country until he reached what he called Kwale, but was in reality called Kisiju, abreast of Kwale Island.

Just to the south of Kisiju Roscher had to cross what he called the Mto Malolani, but which Elton calls the Myasi*. A few miles to the south of this stream he saw a fort† on the seashore consisting of two towers and the ruins of a house. Elton thought the ruins were Portuguese. He describes it as being on the sea beach, "the walls of which still held together against the inroads of climate and the attacks of parasitical trees. Blocks of masonry strewed the sands, and a large stone water trough, thickly encrusted with sea shells, appeared to excite even our Arab guards, who indulged in long stories of the many remains in the district, none of which appears, however, to be of the very late date which tradition ascribes to them". (Elton p. 88). So far no record would appear to have been discovered suggesting that the Portuguese ever established settlement—and still less a fort—in this region. It may conceivably have been of Arab or Persian origin, but this can only be determined by archaeological investigation of such remains of the structure as still exist.

From Kisiju onwards Roscher once more began skirting the coast. What Elton subsequently described as a three hours' journey brought him to Mgao.‡ Elton calls the place Kitamangao and describes it as "the principal copal trading station in Kwale". The tree grows up to the border of the creek, and digging operations from the outskirts of the village itself". A number of Khojas and Battias were settled at that date in the village. (Elton p. 88).

Still keeping close to the coast and passing some rice fields Roscher on 19th February, 1859, reached Kivinji, about seven miles north of the northernmost estuary of the Rufiji. Next day he turned inland and arrived at Kikunya,§ which lay about twelve miles inland from the sea at the head of a valley leading down to the Simba Uranga mouth of the Rufiji. In Elton's day there was a settlement of Banyans and Battias here. He described the climate as unhealthy, "but trade interests are paramount; copal is brought in abundantly, grain is raised extensively, a trade is done in wood and wax, and ivory finds its way down the Rufiji". (Elton p. 91).

Elton and other members of his party were delayed several days at Kikunya by fever. This may also explain Roscher's tarrying there until 22nd February, 1859. On this last mentioned day, proceeding southwards and crossing several branches of the Rufiji, he reached a village which he called Niamamba. He erroneously describes it as being on the Simba Uranga estuary, but it was evidently on the banks of an estuary much farther to the south. He stayed at Niamamba until 22nd February and then turned northwards on his previous tracks, arriving at Kikunya on 25th February. He stayed at Kikunya until 28th February, probably because of illness. Thence he made his way back to Zanzibar, where he arrived early in March.

*Later German map shows LUHUTE or MGONGWER.

†Not marked on German map (1: 300,000).

‡Now known as "Kifmangao". German map shows "Kiwmangao".

§About two miles north of modern village of KIKALE.

The records of this journey were subsequently sent to Dr. August Petermann at Gotha but Petermann described them as being so indistinct and so full of omissions as to be quite worthless. Nevertheless certain of his astronomical observations and pencil sketches were decipherable and Petermann's colleague, Bruno Hassenstein, was able to construct therefrom a map of Roscher's route, which, all things considered, was remarkably accurate, and which was subsequently reproduced in Otto Kersten's account of Baron von der Decken's Travels. (Kersten i. 332).

This venture on to the mainland was not productive of any very remarkable results and was certainly far from well planned, but it is evident that it was only intended as what may be termed a trial run to enable the young explorer to gather experience for the furtherance of his projected journey to the Central African lakes. Even allowing considerable discount for Burton's criticism, Roscher appears to us to have been almost ludicrously deficient in all the equipment and aptitudes which appear necessary for making journeys into wild and unknown countries. But what he lacked in other respects was to a large extent made up for by that same dogged pertinacity of purpose which had enabled his compatriots in the service of the Church Missionary Society at Mombasa to face hardships and dangers which would have tried the endurance of, and might well have deterred, more experienced and better equipped explorers from undertaking a similar journey into a hitherto unknown strip of the East African coast. In his own words Burton had set out "to explore the delta and unknown course of the Rufiji." It may have been owing to circumstances over which he had no control that he was unable to do more than anchor a few hours at one of its many mouths. On the other hand, Roscher, accompanied only by a single servant and carrying only such scientific instruments as the two between them could carry, had succeeded in examining the inland reaches of a number of the delta streams and to take soundings and survey their banks. He had also been the first European to explore the coastal strip between Konduchi and the Rufiji. Furthermore he was the first European to set eyes on the magnificent natural harbour of Dar es Salaam, the existence of which Burton had failed to realise on his voyage from Konduchi to Kilwa.

Burton gave as one of his reasons for not exploring the Rufiji that "the Hindu Banyans who directed the copal trade of the river aroused against us the chiefs of the interior". Roscher's experience in those regions directly contradicts this statement. Rigby tells us that "on his return to Zanzibar he spoke in the highest terms of the great hospitality and kindness he everywhere met with from the Banyan settlers, and on some of them visiting Zanzibar he brought them to my house, and begged me to thank them in his name". (Russel—*op. cit.* p. 270).

Roscher remained in Zanzibar for about three months after his return from his Rufiji expedition. The explanation could be that he probably was suffering from fever as the result of that expedition. A further explanation is the difficulties which he encountered in making satisfactory preparations for his next and more formidable journey to the Central African lakes. Rigby tells us, one of his principal difficulties was that of obtaining porters. As a lengthy correspondence which appears in the Zanzibar Archives and an Appendix to the *Lake Regions of Central Africa* shows, Burton had declined to pay the wages of certain porters who had worked for him during the expedition to Lake Tanganyika. As was only to be expected, this seriously militated against any other European obtaining porters for a similar journey into the interior of the

continent. When he finally took leave of Rigby to set out on this journey, Roscher informed him that owing to the manner in which Burton had treated his men, he had failed in obtaining a single person to accompany him. He accordingly set out for Kilwa without a single porter. Fortunately, the Hamburg firm of O'Swald & Co. had supplied him with stores and equipment. These may not have been on a very lavish scale—probably owing to the limitations of Roscher's purse—but they would appear to have been reasonably adequate for the journey which he had projected. (Russell—p. 268; Kersten—p. 178).

Roscher left Zanzibar by ship on 23rd June, 1859, and reached Kilwa Kivinji a few days later. He was accompanied as servants by two brothers named Rashid and Omar, one of whom (apparently Rashid) seems to have accompanied him to the Rufiji. Burton and Speke having between them discovered the existence of Lakes Tanganyika and Victoria, the only new goal left for Roscher was the most southerly of the three great lakes. As was the case with Burton and Speke, the best way of attaining that great goal was to follow one of the recognized trade routes of the Arab and African caravans under the guidance of some caravan leader who had already traversed one or more of such routes. For a European, who had been unable to recruit porters in Zanzibar, the only means of reaching Lake Nyasa was by attaching himself to one of the slave caravans proceeding from Kilwa to that lake. He accordingly came to an arrangement with a caravan leader, named Salim bin Abdullah, to convey himself, his two servants and his nineteen loads from Kilwa to the lake (Kersten—i. 178).

Roscher set out from Kilwa on 24th August, 1859 in company with Salim bin Abdullah. His journals and records of this journey never reached Zanzibar. In the course of his journey he sent letters to Rigby, the British Consul at Zanzibar, and to the firm of O'Swald & Co., which had fitted him out for this expedition, but none of these letters appear to have survived. Rigby, however, gives some indication of the letters which he received in his official dispatches to the Foreign Office and the Bombay Government and the later German explorer Von der Decken appears to have had access to the correspondence with O'Swald & Co., and adds some rather scrappy information.

The consequence of all these *lacunae* is that we have very little information regarding the route actually taken by Roscher from Kilwa or of the precise spot which he eventually reached on the shores of Lake Nyasa. The distance between Kilwa and the point which Livingstone believed to be that at which Roscher reached the lake, was approximately four hundred miles in a straight line. The caravan which Roscher joined in all probability used one of the recognized slave routes between the lake and Kilwa, which of course at times deviated considerably from this straight line. According to information supplied to James Erhardt and published by him in 1856, caravan leaders estimated that they could make this journey in thirty days. Roscher actually accomplished it in eighty-seven days but, as will be seen, he must have been delayed considerably on the way through illness. The general trend of his route must have been south-westerly and at one stage in the journey he had to cross the Rovuma in its upper reaches. According to Rigby Roscher's crossing point was twelve days' march from the lake. As in this last lap of his journey Roscher appeared to have speeded things up, one may perhaps estimate that this particular point was 120–150 miles NE. of his journey's end.

Following the examples of Burton and Burckhardt, Roscher adopted Arab dress for the purpose of his journey. Livingstone tells us that "he travelled as an Arab and no one suspected him to be anything else" and that he was to be congratulated for "preserving his incognito at a distance from Kilwa; his is almost the only case known of successfully assuming the Arab guise" (*Last Journals* i. 101-102). The complete success of this experiment has added to the many other difficulties in attempting to trace Roscher's route.

After having set out from Mikindani in 1866 Livingstone arrived in September of that year in what must have been very close proximity to the spot at which Roscher must have reached the lake, but he was unable to glean any information from anybody, Arab or local inhabitants, regarding his movements.

On the journey up from the coast Roscher was accompanied by his two servants, the brothers Rashid and Omar. He was also able to hire, or else obtained from Salim bin Abdullah the loan of, nineteen porters to carry his loads. Rigby tells us that "he was in very bad health when he left Zanzibar and he was so weak on the journey that he was in a cot all the latter part of it". According to Decken "for the mishandling of the situation he had to complain of Salim bin Abdullah because he never supplied him with victuals and refreshments". In a letter which he wrote to Rigby on 1st January, 1860, Roscher reported that "he was then in a deplorable state of weakness from starvation and sickness owing to the infamous treatment he had received from Keelwa slave dealer, by name Salim Abdullah . . . who robbed him on the road of all he possessed, and left him utterly destitute on the shores of the lake".

Without in any way seeking to hold a special brief for Salim bin Abdullah, one feels that there was something to be urged in his defence against these allegations. We do not know whether or not it was "so nominated" in the agreement between the parties that Salim should supply Roscher with food during the journey. One is disposed to doubt whether it was so but, assuming that one is wrong in thus doubting, Salim never bargained to convey a sick man from the coast to the lake. For a caravan leader time was of the essence of the contract. He had to make his journey up and down from the lake so as to fit in between the rainy seasons, when travelling became well nigh impossible. When Roscher became so ill as to need to be carried, relays of at least four porters at a time, working in shifts, had to be detailed for the purpose. Furthermore, Salim did not rob Roscher of all he possessed. As we learn from Decken, who had his own personal reasons for mistrusting him, somewhere in the vicinity of the Rovuma Salim insisted on Roscher leaving behind either all or else the majority of his loads. The reason for his so doing would appear to be obvious. He lacked the man power necessary to carry the sick man and the sick man's nineteen loads. So half the loads were left behind somewhere in the neighbourhood of the Rovuma River. As the experience of other explorers shows, the usual practice of a caravan leader was to leave a sick man behind either with a small quantity of provisions or else in some village at the tender mercy of the villagers. Salim bin Abdullah would therefore appear to have gone out of his way to assist Roscher in his illness. The slowing down of the caravan thanks to Roscher's illness had probably made the food problem exceedingly difficult and may account for the sick man's accusations of starvation. Decken tells us that "during the last marches he (sc. Roscher) speeded up the caravan". In other

words, having got rid of Roscher's loads, the caravan was able by longer marches to make up part of the time lost owing to Roscher's illness.

Three and a half days from the lake the caravan reached a place which Roscher called Mamemba. In Kingomanga, the chief of this place, the sick man found a real friend in need, who accompanied him to the shores of the lake. Roscher called his final destination "Nusseewa" and the chief of the place Makawa. He reached this spot on 19th November, 1859. "A little before the noon of the 16th September, 1859", David Livingstone had reached the southern end of the lake, and had subsequently sailed some distance up its western shore. According to Livingstone he subsequently received a letter from Captain Oldfield of H.M.S. *Lyra* "in which he stated that . . . he remembers distinctly that on Dr. Roscher reaching the lake he was told that party of white men had arrived before him at the southern extremity". One thinks this statement must be true. So unusual an event as the arrival of the first Europeans ever to have reached the lake must have been noised abroad up and down both shores of Lake Nyasa and Roscher must undoubtedly have heard of it soon after his arrival at the lake. Be that as it may be, when he received Roscher's letter of 1st January, 1860, reporting the latter's arrival at the lake, Rigby reached the conclusion that Roscher was "the first European who has ever penetrated so far" and accordingly so informed the Governor of Bombay. He also repeated this statement in his next annual report on the Sultan of Zanzibar's dominions. If Roscher omitted to inform Rigby about these earlier arrivals, it does not necessarily follow that he deliberately suppressed the fact in order to obtain undue credit for himself. If Livingstone had in fact anticipated him, he must have been well aware that it would be useless for him to have denied the fact. Naturally, Rigby's erroneous belief was very soon corrected when Livingstone's exploit became known to the world.

Other explorers, who followed more or less in Roscher's footsteps, were quite unable to trace chiefs and places under the names, which were ascribed to them by Roscher and his servant Rashid. Probably, however, Livingstone's conjecture on the subject comes nearest to the mark. Writing on 14th September, 1866, in the journal of his last journey when he was somewhere in the vicinity of Roscher's "Nusseewa" Livingstone said:

"After nearly giving up the search for Dr. Roscher's point of reaching the lake—because no one, either Arab or native, had the least idea of either Nusseewa or Makawa, the name given to the place—I discovered it in Lessefa, the accentuated *e* being sounded as our *e* in sect. This word would puzzle a German philologist, as being the origin of Nusseewa, but the Waiyau (Yao) pronounce it Losewa, the Arabs Lussewa, and Roscher's servant transformed the *l* and *e* into *n* and *ee*, hence Nusseewa. In confirmation of this rivulet Lessefa, which is opposite Kotakota, or, as the Arabs pronounce it, Nkotakota, the chief is Mangkaka (Makawa), or as there is a confusion on names as to chief it may be Nataka, whose town and district is called Moembe, the town Pamoembe—Mamemba."

"I rest content with Kingomanga so far verifying the place at which he arrived two months after we had discovered Lake Nyasa". (Last Journals i. 101, 102).

Elton reached Livingstone's Lessefa, which he calls Lasewa, on 25th September, 1877 which he placed in latitude 12° 36' South, that is to say, in what

is now Portuguese East Africa about sixty miles to the south of the present U.M.C.A. station on the island of Likoma. This is his description of the place as follows:—

“We stopped engines off Losewa, and sounded the passage into the river. It was 2 and $2\frac{1}{2}$ fathoms, except on a bar on the right of the snag over which there is one fathom. . . . The village is a respectable one, on a sand-pit ending to north-east in a point with high trees, amongst which there are two remarkably conspicuous baobabs. The river winds behind the sand-spit, forming a good shelter. The village is on the right bank; on the left bank is a group of houses inside a rocky point delightfully wooded. As you make Losewa from the west there is a sandy bay, rushes marking the river; the point on the starboard rocky; on port the point with baobabs; over the sand-spit, above the first low range, a long backed haycock hill; in the distance a high mountain range, Kinyasangombe.” (*Lake and Mountains* pp. 298, 299).

This harbour proved a real haven of rest to Roscher, who was utterly pulled down by his illness and semi-starvation. Like Kingomanga, Makawa—to avoid confusion I stick to Roscher's nomenclature for place and proper names—proved a true Samaritan. In Von der Decken's account he “nursed him in the best manner possible. He did not let him want anything. The people brought him rice, meat, poultry and fish; and as the wandering Mafiti (or Angoni, an offshoot of the Zulu race) made the land insecure and threatened to attack Nuseewa itself, he was received and sheltered in the Sultan's house.” (Kersten p. 178).

It would appear that Roscher had reached Nuseewa in a state of more or less absolute collapse. When Salim bin Abdullah was ready to set out on his return journey to the coast, it seems evident that Roscher was not yet in a fit state to accompany him. At his request Salim bin Abdullah promised to arrange to send to Nuseewa the loads which had been left behind in the neighbourhood of the Rovuma River. He also undertook to convey, and actually did convey, a letter from Roscher to O'Swald & Co. at Zanzibar requesting them to send up fresh goods. Salim bin Abdullah in all probability also brought to Zanzibar the letter which Roscher addressed to Rigby on 1st January, 1860, complaining of Salim's conduct. At a later date Livingstone was to complain that, thanks to the machinations of slave dealers, letters of his which indicted the slave dealers of many crimes failed to reach the British Consul at Zanzibar. If Salim bin Abdullah was in fact the carrier of Roscher's letter to Rigby, his conduct was in marked contrast to that of later slave dealers and suggests that he carried it with a clear conscience.

If Salim bin Abdullah set out on or soon after the day on which this letter was written and made a quick journey down to the coast, that letter and the one addressed to O'Swald & Co., must have reached there early in February, 1860.

Writing to the Governor of Bombay on 20th March, Rigby expressed the hope that the supplies sent to Roscher from Kilwa “will have reached him by this time”—a hope, which one cannot help feeling was somewhat optimistic. It would have meant very hard going indeed to accomplish that journey inside rather less than fifty days. In any event, according to Decken, O'Swald & Co. did not dispatch the goods until 13th March—seven days only before Rigby wrote his letter. They then recruited twenty-four porters to carry as many loads up to Lake Nyasa. (Kersten p. 178).

In the meantime, for reasons which can only be a matter of conjecture, Salim bin Abdullah failed to send up Roscher's loads from the Rovuma to Nusseewa. Roscher waited for a time in vain and then decided to go in search of them himself.

The rest of the story was told at a later date by Roscher's servant Rashid to Rigby at Zanzibar.

On 16th March Roscher set out from Nusseewa for the Rovuma. He evidently intended to return to that place, as he left most of his baggage in the care of Makawa. He was accompanied on his journey by his two faithful servants, the brothers Rashid and Omar, and one other man and a woman, whom he had engaged as porters to carry his loads. According to Decken's information, Makawa provided him with an escort as far as the limits of his territory. (Kersten p. 174). After that Roscher and his four companions were left to their own devices. About noon on the third day the party reached the village of Kisunguni, where the headman, by name Makokota, invited Roscher to take up his residence in his own house. After having partaken of a hastily prepared meal, Roscher lay down to rest, whilst his two servants sat in the doorway to keep watch. After a little time Rashid noticed four men stealthily crawling on all fours towards the house. He went into the house, woke his master up, and told him what he had seen. Possibly because he was only half awake, Roscher pooh-pooched the idea of treachery and a little later told Rashid to go and fetch some water from a stream a little distance outside the village. As he was returning, Rashid heard his brother Omar calling to him to come quickly as the villagers were about to attack them. Just as he reached the village Rashid saw a mob of armed men in front of the hut, headed by the chief Makokota. At that very moment Omar fell to the ground, having been struck by an arrow. Immediately after this Roscher appeared in the door of the hut and was instantly shot with two arrows fired by the chief Makokota himself, one piercing his throat and the other his breast. He collapsed and appeared to have expired almost immediately. The mob then entered the hut in search of plunder. Rashid went up to where his master and brother were lying. Realizing that they were beyond human aid, he took to his heels. He was pursued and shot in the hand with an arrow during his flight but, fortunately for him, his pursuers were more intent on loot than having his blood. He was therefore able to escape and hide in a field of cassava.

After dark Rashid made his way back to the village. The two lifeless bodies were lying where they had fallen and Roscher had been stripped of his clothing. About midnight the villagers approached and removed the bodies. On their approach Rashid went once more into hiding. Next day he returned to Nusseewa and told Sultan Makawa what had happened.

Makawa at once gave him an escort to accompany him to Sultan Kingomanga in whose territory the murders had been committed. Kingomanga at once sent five men with Rashid to point out the village and the offenders. Rashid pointed out Makokota, who was found to be in possession of Roscher's revolver. He also pointed out the chief's brother-in-law, who had been one of these most prominent in the attack, who was found in possession of a table knife and a measuring tape. Fearing that their small party might be attacked by the villagers, if they tried to arrest these two men, Rashid and his companions went back to Kingomanga, who promptly went personally to the spot with fifty men to seize the offenders.

After a slight resistance the villagers submitted and handed over Makokota and his brother-in-law as well as two other persons, who according to them had taken a prominent part in the attack on Roscher.

On receiving news of the murder, Seyyid Majid instructed Salim bin Abdullah, who was apparently then at Lindi, and one Rashid bin Kipapa of Lindi, who claimed to have considerable influence over the tribes of the hinterland, to obtain information as to the circumstances in which Roscher had been killed.

Sultan Kingomanga had in the meantime sent the four suspects under escort down to the coast, where they arrived on 12th July, 1860. They were later tried in Zanzibar. Makokota and his brother-in-law were found guilty and beheaded on 23rd August, 1860. As Rashid was unable to identify the other two men as having participated in the offence, they were set free.

Sultan Makawa also sent down all the loads which Roscher had left in his custody, as did Kingomanga the few things which had been left with him and as he had been able to recover from the villagers of Kisunguni. Unfortunately, Roscher's journals and records had been looted by the villagers and were never seen again.

The motive for Roscher's murder was undoubtedly robbery and one cannot but feel that, like so many of the other ills which befell him, the victim brought it on himself. By travelling with what was obviously attractive loot and without a proper escort he was clearly tempting a primitive and unsophisticated people to attack and rob him. East African history records more than one similar instance of the young would be explorer, lacking previous experience and yet full of misplaced self confidence, which prevents him from listening to the counsels of others wiser and more experienced than himself, and in consequence coming to a disastrous end. Whilst one cannot but admire his readiness to endure hardship and to face danger, it is at the same time clear that it was courage born of a foolhardiness, from which an equally brave, but wiser, man would have steered clear. He obviously had a certain amount of talent and with a little more readiness to learn from others might have become a successful explorer. That was the pity of it. His was a case of a life which was needlessly sacrificed solely owing to his own misplaced self-assurance.

In reporting Roscher's death to the Bombay Government, Rigby called attention to the services rendered by Makawa and Kingomanga to Roscher during his illness, in bringing his murderers to justice and forwarding the dead man's effects to the coast. As he pointed out, "these people had never before seen a white man and Dr. Roscher was alone and without the means of making them any return". He therefore suggested that, as the dead man had been travelling under British protection, it was a proper case for the Government to show its appreciation of their conduct by making them a suitable present in broadcloth or arms. The Bombay Government sanctioned the proposal and accordingly Rigby had a scarlet embroidered coat and six yards of scarlet broadcloth made as a present to each chief. These presents were subsequently handed over to Baron von der Decken, who proceeded in September, 1860, to Kilwa in order to organize an expedition to Lake Nyasa in order to recover Roscher's notes and journals. The expedition, however, never reached its destination and Decken returned to Zanzibar without delivering the presents to the intended recipients. According to him, however, the presents reached the two chiefs "at a later opportunity". (Kersten i. 180).

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Note—As an annexure to his letter to the Bombay Government of 15th July, 1860, Lt.-Col. Rigby sent a deposition by Roscher's surviving servant Rashid. Unfortunately there is no copy of this in the Zanzibar Archives.

THE CHRONOLOGY OF THE SULTĀNS OF KILWA

By G. S. P. Freeman-Grenville, D.Phil., F.R.N.S.

The chronology of the Sultāns of Kilwa is fundamental to any study of the medieval history of East Africa: the subject does not seem so far to have received the meticulous attention it deserves. Our knowledge of the dates of the Sultāns who ruled Kilwa from c. 957 to the beginning of the 16th century depends on two documents. The first is an Arabic manuscript, B.M.Or. 2666, dated 1877, of which the only known example is in the British Museum. The other is the 'Chronica dos Reyes de Quiloa', which is set out in an abbreviated form by João de Barros in his *Asia*, published in Lisbon in 1552. While the information they give does not always agree, both depend on a common Arabic source, the *Sunna al-Kilāwīa*, 'The Tradition of Kilwa', which appears to have been written c. 1520. It has long been lost⁽¹⁾.

In 1936 J. Walker assigned dates to certain of the Sultāns whose coins he had under consideration. He was the first writer to use the Arabic version of the Kilwa history; and, for that reason, writers previous to him cannot be relied upon for their chronology⁽²⁾. Since he wrote no fresh evidence has come to light. Neither the Swahili history of Kilwa Kisiwani nor that of Kilwa Kivinje give the dates or the lengths of the reigns of the rulers they mention: they may thus be left out of account⁽³⁾.

(1) A photostat copy of this manuscript may be seen in the King George V Memorial Museum, Dar es Salaam, where it has been deposited by the present writer. The text was printed by S. A. Strong, *The History of Kilwa*, *Journal of the Royal Asiatic Society*, 1895; the Portuguese version is easiest accessible in the edition of A. Baiao, Coimbra, Vol. I, 1932, pp. 308-311, 380-381.

(2) J. Walker, *History and Coinage of the Sultāns of Kilwa*, *Numismatic Chronicle*, 1936, p.62; no real attempt is made by G. Ferrand, *Les Sultāns de Kilwa*, *Mémoires Henri Basset*, Publications de l'Institut des Hautes-Études Marocaines, Tome XVII, Paris, 1928, to reconcile the two texts: he follows de Barros in dating the foundation of Mogadishu in A.H. 330, and regards the father of the founder of Kilwa as Sultān of Shīrāz c.A.H. 400, or A.D. 1009: he ignores all the internal data.

(3) C. Velten, *Prosa und Poesie der Suaheli*, Berlin, 1907, pp. 243-264.

A recent attempt has been made by Reusch⁽⁴⁾. It is unfortunately erroneous: the more detailed problems are passed over, and some of his calculations are insufficiently argued⁽⁵⁾. This leads him to say: "All historical indications of our sources bring the foundation of this Empire (*sic*) somehow in connection with the dynasty of the Buyides"⁽⁶⁾. The latter word refers to what is more usually called the Buwayhid dynasty of Persia. His argument turns largely upon the occurrence of the names 'Alī and Ḥasan, which appear frequently in both dynasties: these names are so common among Muslims that the argument does not bear serious examination. Moreover, if the Sultāns of Kilwa had been connected with such an illustrious dynasty, we should have expected the claim to have been made in one or other of the versions of the Kilwa history: all it states is that the founder was the son of a prince who himself had run away from his kingdom, and of this there is no record among the Buwayhids at all⁽⁷⁾.

A different, and independent, view was taken by Hichens, that the foundation of Kilwa took place c.1055⁽⁸⁾. Hichens does not give the reasons for his view in full, and it is therefore impossible to discuss it. Likewise Walker, in dating the reigns of the rulers he discusses, does not explain all of his premisses. We must therefore start *de novo*, and, by explaining each step of the argument, try to fit the many baffling links into place.

Superficially the Arabic and Portuguese versions appear greatly at variance. The Arabic version contains serious *lacunae*: there are small ones in the Portuguese version. They do not always use the same names, and, in some cases, give different lengths for the same reign. None of the reigns are dated; only the regnal years are given. Thus we cannot hope for precision from either version: while it is possible to reconcile their statements, it must be emphasized that a reconstruction cannot be more than conjectural.

The Portuguese version says that the father of the founder of Kilwa was reigning in Shirāz nearly (*quasi*) four hundred years after the era of Mahamed. This would be "nearly" A.H. 400 or A.D. 1009. 'Alī ibn al-Ḥusain's arrival at Kilwa was at a later, unspecified, date. The word *quasi*, nearly, means that this date is not intended to be precise: it is only approximate.

(4)R. Reusch, *History of East Africa*, Stuttgart, 1954, pp. 208 ff. The work has been severely criticized in reviews by Sir John Gray, *Tanganyika Notes and Records*, No. 38, 1955, and Dr. Roland Oliver, *Africa*, Vol. XXV, No. 3, July, 1955. An example of the absurdity of which Dr. Reusch is capable is to be found on p. 96, where de Barros, Devic, Defréméry, de Goeje and T. E. Lawrence are treated as European travellers in East Africa. None of them visited East Africa at all.

(5)Op. cit., pp. 208-214.

(6)Op. cit., p. 96. It may be noted that the alleged quotation on p. 97, stated to be from "Strong's edition of the chronicle", cannot be identified in Strong, op. cit. *Inter alia*, Kilwa is never once called Kilwa Kisiwani in the Arabic version of the Kilwa History. On the Buwayhid dynasty, see P. K. Hitti, *History of the Arabs*, 6th edition, 1956, pp. 471-3.

(7)The writer hopes shortly to publish an annotated translation of the Arabic version. Detailed examination of the first chapter of it shows that the founder of Kilwa was in fact no prince, but a successful merchant adventurer.

(8)W. Hichens, *Islam in East Africa*, article in *Islam Today*, ed. A. J. Arberry and R. Landau, 1943.

The Arabic version states that the forty-fourth Sultān, al-Fuḍail, ascended the throne in A.H. 901, or A.D. 1495. The total of all the reigns mentioned by the Portuguese version is 527½ years. Counting back we reach A.H. 373, or A.D. 983, for the arrival of ‘Alī ibn al-Ḥusain in Kilwa. It will be seen that this date is not far out: it is certainly covered by the vague “nearly four hundred years”.

The author of the Arabic version gives one indication which may be treated for practical purposes as certain. He states that he was born on the 2nd Shawwāl, A.H. 904 (12th May, 1499), and that al-Fuḍail ascended the throne in A.H. 901 or 1495. The first fact is one about which the writer was hardly likely to be in error: the second he mentions in the same section.

There are three other indications of dates. The first chapter of the Arabic version says that the foundation of Kilwa took place in the third century after the Hijra. Provided that this means that the event took place in the century following A.H. 300, this agrees with what has already been computed by counting back from al-Fuḍail’s accession.

In the fourteenth century Ibn Baṭṭūṭa, the most celebrated Arab traveller of the Middle Ages, visited Kilwa. His visit is generally considered to have taken place in A.H. 732 or A.D. 1331⁽⁹⁾. He gives the full names of the Sultān he visited as Abū al-Mudhaffar Ḥasan surnamed Abū al-Mawāhib (“the father of gifts”), and mentions that on his death he was succeeded by his brother Dāūd. The Arabic and Portuguese versions equally show these two Sultāns as brothers, and speak of them as al-Ḥasan ibn Sulaimān ibn al-Ḥasan ibn Ṭālūt surnamed Abū al-Mawāhib and as Dāūd ibn Sulaimān respectively. The existence of the latter is further confirmed by coins bearing his name.

In 1333 Ibn Baṭṭūṭa was installed as Qadi of Delhi. His remarks about Sultān Dāūd, whom he says was a mean fellow by contrast with the open-handed generosity of al-Ḥasan ibn Sulaimān, is apparently added on hearsay after al-Ḥasan’s death. We are entitled, therefore, to assume that A.H. 732 fell in his reign, perhaps towards the end of it, but no more than that.

The final indication is little more helpful. The fifth chapter of the Arabic version records two visits of King Mas‘ūd ibn al-Malik al-Muayyad al-Ghassāny, who had been deposed from the throne of Aden by a usurper, ‘Alī ibn Ṭāhīr. The Portuguese version omits these events, but that the deposition of Mas‘ūd took place in 1454 can be confirmed from other sources⁽¹⁰⁾. According to the Arabic version the first visit took place early in the reign of Sa‘īd ibn al-Ḥasan, but only after Mas‘ūd had changed his place of exile twice. This suggests that a period, albeit indefinite, had elapsed before he sought aid in Kilwa. His second visit took place in the reign of Sa‘īd’s successor, the Amīr Sulaimān ibn Muhammad. From this we cannot conclude more than that the first of these reigns began after 1454: Mas‘ūd is categorically stated to have awaited Sa‘īd’s accession before making his visit.

⁽⁹⁾ Walker, *op. cit.*, p. 48, gives 1332.

⁽¹⁰⁾ R. L. Playfair, *History of the Yemen*, Bombay, 1859, p. 94. His source for the latter part of the history is not named: see Sir J. W. Redhouse, *A History of the Resuliyy Dynasty of the Yemen*, 4 vols., 1906, Vol. III, p. 229. The date is given by Walker, *op. cit.*, p. 54, A.H. 858=A.D. 1454, allows for twelve years to elapse before Sa‘īd’s accession.

In sum, these indications are of the most imprecise kind, and are no more than *termini ante quos non*.

At the end of this article a list of the Sultāns of Kilwa Kisiwani is given: for convenience of reference each reign has been numbered with an Arabic numeral before the name of the ruler. This makes the discussion of the gaps in the two versions more easy.

The Portuguese version omits the forty-sixth to fifty-first reigns mentioned in the Arabic version: the existence of these rulers need not, however, be doubted since they are all mentioned by Portuguese writers. Before the crucial accession of al-Fuḍail there is only one complete gap in the Portuguese version, where, in the fortieth reign, the Sultān's name is given, but not how long he occupied the throne. This, however, can be supplied from the Arabic version.

The Arabic version omits the ninth to the seventeenth reigns, as well as nos. 6, 7, 19, 23, 26 and 27. But of no. 19, Dāūd ibn Sulaimān, and no. 26, Sulaimān ibn al-Ḥusain, we have coins, which are tangible proof of the accuracy of the Portuguese version.

If we did not accept the ninth to seventeenth reigns as given by the Portuguese version, the statement of the Arabic version that Kilwa was founded after A.H. 300 would be nonsense. Their omission would reduce the total by 152 years. It has already been seen that the general statements of both versions agree: such an omission would contradict this agreement. Moreover the text of second chapter of the Arabic version is clearly disturbed: there are serious *lacunae*, particularly at the end of the chapter. It thus seems correct to accept the Portuguese version where the Arabic version is deficient.

The Islamic year has 354 days and no leap years, and is thus at variance with the Gregorian year. If de Barros, who preserved the Portuguese version, would have observed the Julian calendar, he may be assumed unconsciously to have confused Islamic years with Julian years. This is evident since more often than not the Portuguese version agrees in the lengths of reign given by the Arabic version. There is no apparent attempt at conversion, and possibly his action was not deliberate.

Some comment is necessary on the peculiar manner in which the years are mentioned in the seventh chapter of the Arabic version. Both the number of the Islamic year and the day of the week on which the year began are mentioned. There is no doubt that these numbers do refer to Islamic years, since those which refer to the arrival of Vasco da Gama and other Portuguese captains accord perfectly with what is known independently from Portuguese sources.

The naming of a year by the day of the week on which it has begun is a Persian custom. Among the Swahili of Zanzibar and of the coast the use of the Persian calendar survived until very recent times⁽¹⁾. Here the writer has

⁽¹⁾The subject has been carefully studied, although without reference to this passage, by Sir John Gray, Nairuzi or Siku ya Mwaka, *Tanganyika Notes and Records*, No. 38, March, 1955; cp. Bishop E. Steere, *A Handbook of the Swahili Language*, 1950 edn., pp. 181-2.

given a double reference, the Islamic year by its number and the Persian year by its name; and it may be supposed that his intention was to provide both for his Arab readers, who would use the Islamic calendar, and for the local Swahili, who preferred their own.

Both the Arabic and the Portuguese versions give the lengths of reigns in almost all cases to the nearest year. In the case of nos. 2, 3, 24, 37, 38, 39 and 40 an additional half year is given: no. 25 is credited with 2 years, 4 months and 14 days; while no. 26 is shown as having 24 years, 4 months and 20 days⁽¹²⁾. When it is remembered that all the other reigns are computed simply to the nearest year, presumably some more, some less, it is clear that it is more accurate to ignore the more detailed indications. These would tend merely to inflate the total provided by the less precise. Here, then, all indications of parts of years have been ignored, and all reigns shown to start in the year in which the reign of the previous Sultān ended.

The individual disagreements between the Portuguese and Arabic versions may now be considered. The system of transliterating Arabic words used in Portugal in the sixteenth century was extremely inexact; but it requires no great ingenuity to restore the correct Arabic names, and these alone have been shown in the list of Sultāns. We therefore turn to the disagreements as to the lengths of fifteen reigns, which, for easy reference, are mentioned by the number of the reign as well as the name of the ruler. While no. 33 has been argued to be a case of dittography arising from confusion in the original text, it retains its number so as not to cause confusion in referring to other writers.

No. 3. Dāūd ibn 'Alī. The Portuguese version gives $4\frac{1}{2}$ years, the Arabic 2. The former appears the more precise indication, and is therefore accepted.

No. 4. Khālīd ibn Bakr. Similarly the Arabic version is more precise in giving $2\frac{1}{2}$ years rather than the 2 years of the Portuguese version.

No. 5. al-Ḥasan ibn Sulaimān ibn 'Alī. The Portuguese version gives 16 years only. It omits the 12 years of the usurping viceroy Muḥammad ibn al-Husain al-Mundhir, which the Arabic version states lasted 12 years. This version states that al-Ḥasan ruled 12 years before the usurpation and 14 years after his restoration. Thus, if his exile be counted, he would have ruled for a total of 38 years. The more detailed information of the Arabic version has been accepted: it is possible that de Barros fell into error through hasty abbreviation, for all reference to the usurpation is omitted in the Portuguese version, as indeed all the other events the Arabic version records.

No. 6. 'Alī ibn Dāūd. While the Arabic version does not mention his reign, it states the fact of his appointment by his father, no. 3. Walker and Reusch regard the assertion of the Portuguese version that he ruled for 60 years as improbable and impossible respectively⁽¹³⁾. Yet George III of England had 60 years on the throne, and Queen Victoria 64. The present Sultān of Zanzibar succeeded 46 years ago, in 1911. The grounds of improbability or impossibility do not seem very strong, and the figure has therefore been accepted.

⁽¹²⁾It is perhaps necessary to stress that these are Islamic, not Julian or Gregorian, months and years.

⁽¹³⁾Walker, *op. cit.*, p. 50; Reusch, *op. cit.*, pp. 137-8.

Among wealthy and well-to-do Arabs there are men who marry numerous wives throughout their lives: the late King Ibn Sa'ūd left several sons who were younger than his grandsons by sons born to him earlier in life. In such families, where the father has been especially long-lived, a period of 60 or 70 years may elapse between his first and last children, particularly where his first marriage has taken place in earliest youth. There is a contemporary case in Tanganyika of an aged chief whose more recent children attend the same school as his great-grand-children.

No. 8. *al-Hasan ibn Dāūd*. The Portuguese version gives 24 years; the Arabic version states: "He was 70 years old when he ascended the throne and he reigned 70 years." This appears to be a *lapsus calami*, and Walker's view that it is a dittography has been accepted. The Portuguese version thus prevails.

No. 21. *al-Hasan ibn Sulaimān ibn Ṭālūt*. The Portuguese version gives 24 years, the Arabic 14. Both figures allow for Ibn Baṭṭūta's visit in A.H. 732, giving A.H. 710-34 and 720-34 respectively. There is little evidence to enable a choice, but the depletion of the Treasury, which Ibn Baṭṭūta says his successor no. 22 inherited, might suggest a longer rather than a shorter reign. Thus the Portuguese version has been preferred.

No. 22. *Dāūd ibn Sulaimān*. The Portuguese version gives 24 years, the Arabic version 24 days only. Walker suggests that this is by confusion with his son's reign, which was only 20 days. The Arabic version also says: "He was a devout King: he was master of the princes of his time." If 24 days were true, this further statement would be ridiculous. For this reason, and Walker's, the Portuguese version has been accepted⁽¹⁴⁾.

No. 25. *Ṭālūt ibn al-Ḥusain*. The Portuguese version gives 1 year, the Arabic version 2 years, 4 months and 14 days. It would seem right to prefer the more precise statement.

No. 28. *al-Ḥusain ibn Sulaimān*. The Portuguese version gives 24 years, the Arabic 23 only. Is the former statement a reckoning taking into account a number of months nearer to 24 years than 23? It is impossible to say. Each statement is as strong as the other, but, on the principle of omitting odd months, since this might be the case, the shorter period has been preferred.

No. 29. *Muḥammad ibn Sulaimān*. The Portuguese version gives 9 years, the Arabic 22. Walker points out that the latter period is the length of reign ascribed to his successor by the Portuguese version, a matter on which the Arabic version is silent. This suggestion has been accepted, and the Portuguese version preferred⁽¹⁵⁾.

No. 31. *Ismā'il ibn al-Ḥusain*. The Portuguese version gives 14 years, the Arabic 13. In preferring the latter, the argument used above for no. 28 is employed.

No. 33. *The Governor*. The thirty-second reign was that of the Amīr Muḥammad ibn Sulaimān. Both versions agree that he usurped the throne, and the Arabic version recounts his death a year after his succession. It states that he was followed by no. 34, Aḥmad ibn Sulaimān, whom the

⁽¹⁴⁾op. cit., p. 52; cp. p. 68.

⁽¹⁵⁾op. cit., p. 53.

Portuguese version records as Mamude. But it does not make him the immediate successor. Instead it continues in a manner extremely difficult to follow: “. . . per morte do qual (sc. no. 31, *Ismā'il ibn al-Husain*) se levantou por Rey o Governador do Reyno (sc. no. 32, *Amir Muḥammad ibn Sulaimān*), que nao esteve no Estado mais que hum anno, porque o povo levantou por Rey o Governador do Reyno; o qual nao esteve no estado mais que hum anno por tornarem por Rey a Mamude homem pobre. . . .”

Guillain seems to have been perplexed, and gives a very free translation: “À sa mort le gouverneur se fit déclarer roi, mais ne régna qu'un an, et fut remplacé par celui qui avait rempli sous lui la place qu'il occupait avant son usurpation. Ce dernier ne régna non plus qu'un an. Le peuple choisit alors pour nouveau roi Mahmoud, homme pauvre” Walker includes the second reign in his list, but shows his doubt by a mark of interrogation: he considers it a dittography. Theal accepts that two “governors” followed each other as Sultān without comment ⁽¹⁶⁾.

The text of the Arabic version is also confused, and it seems reasonable to assume that the source of the trouble would have been in the lost Sunna al-Kilāwīa itself. It says that the governor, or Wazīr, of the usurper Amīr Muḥammad ibn Sulaimān was named Sulaimān, and that he died a few days before his master: his successor was Sa'id ibn al-Ḥasan, who became Sultān as no. 36. Yet later the text speaks of the Wazīr Sulaimān as if he had not died at all.

It is also confused about the identity of Sa'id. In the fourth chapter, in agreement with the Portuguese version, he is spoken of as Sa'id ibn al-Ḥasan ibn Ismā'il, no. 35; in the fifth chapter he is Sa'id ibn al-Ḥasan ibn Sulaimān, a palpable mistake since al-Ḥasan ibn Sulaimān, no. 21, died in 1333, and could not have been the father of a man who ruled from 1466–1476. This fortifies the view that the text from which the Portuguese version was made was already corrupt. Its story of one Amīr, or Governor, succeeding another as Sultān may have been due to the corruption of the source as well as to hasty abbreviation, which would lead to a misunderstanding of the event. It would be strange if the Arabic version were at fault, for, from the fourth chapter onwards, the author was able to rely on the personal recollections of the Sultān who ordered him to write the history ⁽¹⁷⁾. Finally, careful regard to the Portuguese text shows that it reads remarkably like a dittography: almost the same words are used in both mentions of the governor. The only difference is that the first mention has the reflexive “*se levantou*”—raised himself (to the throne), while in the second “*o povo levantou*”—the people raised him to be king.

For these reasons, although this reign is shown in the list of the Sultāns which follows, it has been ignored in reckoning their chronology. If it is not possible to dispose of it completely, it is certainly open to the most serious doubt.

No. 37. *Amīr Sulaimān ibn Muḥammad*. The Portuguese version gives 1 year, the Arabic 1½. The latter is accepted for the reason given in no. 3 above.

⁽¹⁶⁾M. Guillain, Documents sur l'histoire, la géographie et le commerce de l'Afrique Orientale, 3 vols., Paris, 1856, Vol. I, pp. 180–181; Walker, op. cit., pp. 54, 61; G. M. Theal, Records of South-East Africa, 9 vols., Cape Town, 1898–1902, Vol. VI, p. 243.

⁽¹⁷⁾Arabic version, Preface and chapter four.

No. 42. *al-Ḥasan ibn Sulaimān*. The Arabic version gives the length of his first reign as 6 years: the reign is mentioned by the Portuguese version, but its length is not mentioned. The Arabic version is accepted since it gives the full story of his accession, deposition, restoration and second deposition. Both versions agree on 5 years for the second reign.

No. 43. *Ibrāhīm ibn al-Malik al-'Ādil*. The Portuguese version gives 2 years, the Arabic 5. He was the immediate predecessor of al-Fuḍail, in whose reign the Arabic writer was born. He was closest to the event, and it seems reasonable to accept his testimony.

The lengths of the reigns of the last eight Sultāns are not precisely known. Their names appear only in the index of the Arabic version, for its last three chapters are lost. They are, however, mentioned by Portuguese authors, and their existence is thus confirmed.

The letter "C" has been placed against the name of all rulers who are known to have issued coins. It is a particularity of the coins of the Sultāns of Kilwa, which they share with many other medieval Muslim rulers, that their coins bear no dates. It is therefore important to establish the chronology of the Sultāns with precision, for this is the only way in which their coins can be dated.

In the list which follows the dates of the Sultāns are given both A.H. and A.D. It is commonly the case that a year A.H. covers parts of two years A.D., commencing in one, and finishing in the second. The first only of these years A.D. is shown. The list shows the results of all the calculations which have been made in this article, and leads to the conclusion that the settlement of Kilwa took place in approximately A.H. 346, or A.D. 957.

SULTĀNS OF KILWA KISIWANI

	A.H.	A.D.
1. 'Alī ibn al-Ḥusain ibn 'Alī	346-386	957-996
2. 'Alī ibn Bashāt	386-390	996-999
3. Dāūd ibn 'Alī	390-394	999-1003
4. Khālīd ibn Bakr (usurper)	394-396	1003-1005
5. al-Ḥasan ibn Sulaimān ibn 'Alī	396-408	1005-1017
(Muḥammad ibn al-Ḥusain al-Mundhir— usurper, viceroy for the King of Shāgh) ...		
al-Ḥasan ibn Sulaimān ibn 'Alī (restored) ...	408-420	1017-1029
6. 'Alī ibn Dāūd ibn al-Ḥusain	420-434	1029-1042
7. 'Alī ibn Dāūd (grandson of no. 6)	434-494	1042-1100
8. al-Ḥasan ibn Dāūd ibn 'Alī	494-500	1100-1106
9. Sulaimān ibn (?)	500-524	1106-1129
10. Dāūd ibn Sulaimān	524-526	1129-1131
11. Sulaimān al-Ḥasan ibn Dāūd	526-566	1131-1170
12. Dāūd ibn Sulaimān	566-584	1170-1188
13. Ṭālūt ibn Sulaimān	584-586	1188-1190
14. al-Ḥasan ibn Sulaimān	586-587	1190-1191
	587-612	1191-1215

	<i>A.H.</i>	<i>A.D.</i>
15. Khālīd ibn Sulaimān	612-622	1215-1225
16. (?) ibn Sulaimān	622-662	1225-1263
17. 'Alī ibn Dāūd	662-676	1263-1277
18. al-Ḥasan ibn Tālūt (C)	676-694	1277-1294
19. Sulaimān ibn al-Ḥasan ibn Tālūt (C) ...	694-708	1294-1308
20. Dāūd ibn Sulaimān (regent for no. 21) (C) ...	708-710	1308-1310
21. al-Ḥasan ibn Sulaimān	710-734	1310-1333
22. Dāūd ibn Sulaimān (no. 20) (C)	734-758	1333-1356
23. Sulaimān ibn Dāūd (reign of 20 days) ...	758	1356
24. al-Ḥusain ibn Sulaimān	758-764	1356-1362
25. Tālūt ibn al-Ḥusain	764-766	1362-1364
26. Sulaimān ibn al-Ḥusain (C)	766-768	1364-1366
27. Sulaimān ibn Sulaimān	768-792	1366-1389
28. al-Ḥusain ibn Sulaimān	792-815	1389-1412
29. Muḥammad ibn Sulaimān al-Malik al-'Ādil (C)	815-824	1412-1421
30. Sulaimān ibn Muḥammad	824-846	1421-1442
31. Ismā'il ibn al-Ḥusain (?C) ⁽¹⁸⁾	846-859	1442-1454
32. Amīr Muḥammad ibn Sulaimān (usurper) ...	859-860	1454-1455
33. "The Governor."		
34. Aḥmad ibn Sulaimān	860-861	1455-1456
35. al-Ḥasan ibn Ismā'il	861-871	1456-1466
36. Saī'd ibn al-Ḥusan	871-881	1466-1476
37. Amīr Sulaimān ibn Muḥammad (usurper) ...	881-882	1476-1477
38. Abdullah ibn al-Khāṭib al-Ḥasan	882-883	1477-1478
39. 'Alī ibn al-Khāṭib al-Ḥasan (C)	883-884	1478-1479
40. al-Ḥasan ibn Sulaimān (C)	884-890	1479-1485
41. Sabḥat ibn Muḥammad	890-891	1485-1486
42. al-Ḥasan ibn Sulaimān (restored) (C) ...	891-896	1486-1490
43. Ibrāhīm ibn Muḥammad (?C)	896-901	1490-1495
44. al-Fuḍail ibn Sulaimān	901-c. 905	1495-c. 1499
45. Amīr Ibrāhīm ibn Sulaimān	c. 905-c. 912	c. 1499-c. 1506
46. Muḥammad Rukn al-Dīn al-Dabūli	912	1506
47. Ḥājji Ḥasan ibn Muḥammad Rukn al-Dīn ...	912 913	1506-1507
48. Muḥammad Mikātu ibn al-Amīr Muḥammad Kiwābi	913	1507
49. Amīr Ibrāhīm ibn Sulaimān (no. 45 restored)	913-?	1507-?
50. Amīr Saī'd ibn Sulaimān	?	?
51. al-Malik al-'Ādil Muḥammad ibn al-Ḥusain ibn Sulaimān ibn Muḥammad		? alive in 1520

⁽¹⁸⁾Coins of this ruler and of no. 43 have been reported to me verbally, but no record of them has been published.

KILWA

THE CUTTING BEHIND THE DEFENSIVE WALL

By James Kirkman, F.S.A.

In the course of the reconnaissance of Kilwa, carried out by Sir Mortimer Wheeler and Dr. Gervase Mathew in August 1955, a trial trench was dug at the back of a six foot defensive wall which had extended along the shore of the old harbour of Kilwa (Pl. I). The section chosen (see Fig. 1) was a well-preserved stretch, 230 yards east of the castle. The wall stands thirteen feet above the present level of the shore, and the ground behind it slopes upwards. The excavation showed that this slope was natural, and that in cutting B there had been little rise in level from the time of the first buildings, probably in the mid fourteenth century, until the present day. The wall of this building A/B was unfaced on the side of the slope, B, as the later defensive wall was unfaced on the side of the earlier room, A. It is possible that the erosion by sea, which is eating away the defensive wall today, was already in operation in the middle ages. The original building on the site may have been destroyed by the sea, and the great thickness of the wall (six feet) may have been due as much to consideration of protection against the water as defence against hostile attack.

The development of the site was clear. Originally there had been a house of fine plastered walls and red earth floors (Period I). Subsequently walls A/C and B/C were built, and the level was raised two feet by the stone chips from the new walls and a new red earth floor (Period II). Finally, the house collapsed or was pulled down, and a strong defensive wall was built parallel to the original wall and nine feet to the north of it (Period III).

The sherds of local pottery, Islamic glazed earthenware and Chinese porcelain found in the cuttings are listed below, and the more important are shown on Pl. III and Fig. 2. It is on them that the dating of the wall is based. The references are to "The Arab City of Gedi, the Great Mosque, Architecture and Finds" (J. S. Kirkman, Oxford 1953), G.G.M., and "Excavations at Kilepwa" (Antiquaries Journal xxxii, 1952), Kil. The other sites mentioned (*Kinuni and Ungwana) have not yet been published.* The local earthenware, except when otherwise described, has the same red colour as the contemporary earthenware at the Kenya sites. But some of the sherds from the sub-structural level and Period I have a smooth buff surface, probably due to a light slip. This has not been noticed in the Kenya sherds. The Islamic glazed earthenware and the Chinese porcelain are similar to the types found in Kenya.

The principal cutting A (Pl. II) was taken down to natural soil, which was reached nine feet below the present surface. Natural soil was also reached in cutting B. Cutting C was merely a shallow excavation made to determine the thickness of the wall A/C.

The sherds of local earthenware from B.3 are similar to those from A.4 and A.5. This deposit, therefore, must be considered with Period I. The celadon base (Fig. 2 W) is, however, probably earlier than anything else found on the

*Now in press, under title "Kinuni. An Arab manor on the coast of Kenya". Journ. Roy. Asiatic Soc. Parts 3 & 4. 1957.

site and belongs to the time of the building of the original house. The known sherds of local earthenware from C.2, the cutting west of A, were late fifteenth or early sixteenth century, and can be regarded as belonging to Period III, the period following the construction of the defensive wall. The sherd of blue-and-white (Pl. III 2, 4), as the sherd of celadon in B.3, was older than any of the sherds associated with it. The sherds from the lowest levels, structural levels A.6 and A.7, are not at present datable. The local earthenware is similar to that of Period I, [which would appear to have been of no long duration.] Period I is represented by A.4, A.5 and B.3. The burnished bowls with incurved lips (Fig. 2 C, D) are characteristic of fourteenth, possibly late thirteenth century levels in Kenya. They are found in the early levels at Kilepwa, Ungwana and Gedi, and die out in the fifteenth century. An interesting sherd is No. 5, Fig. 2 J. This combination of red ochre and graphite is rare. There are two other examples known to me, one a wide-mouthed bowl with outward sloping rim found at Kinuni. Kinuni is a late fifteenth and sixteenth century "Arab villa" site between Mtwapa and Takaungu. The other is a carinated pot found on the surface in the cemetery area at Ungwana, a town site in existence from the twelfth to the late sixteenth century. The imported wares consisted of the yellow and black glazed earthenware (G.GM 1) (Pl. III, 2), yellow sgraffiato (G.GM 3), and a pale blue crackled celadon. The yellow and black is essentially fourteenth century and disappeared in the early fifteenth; the yellow sgraffiato has been commonest in levels ascribed to the thirteenth century or earlier. The pale blue crackled celadon is rare; the quality of the few pieces that have occurred is good but no better than many other tints which are found in abundance. They have almost always come from the lower levels, and in view of their scarcity I am prepared to regard them with some confidence as Yuan. On the general evidence of the sherds I would date Period I as running from the mid fourteenth to the early fifteenth century.

Period II is represented by levels A.2 and A.3. There was nothing distinctive in the local wares, other than the sherd of a cooking pot with a roulette pattern which is new to me (Fig. 2 O). The presence of red burnished bowls and disk bases found in Period I, suggests that Period II did not last very long. This is confirmed by the Islamic sherds with the thin yellow and the thin pale green glazes of sgraffiato type, which were still found at Ungwana with fifteenth century sherds. The Islamic sherd with the glossy green glaze and the sherd of blue-and-white porcelain are essentially fifteenth century. The blue-and-white sherd (Pl. III, 1) has the black spotting which is considered characteristic of Hsuan Tee, AD.1426-1435, but the pattern is unknown to me. The second quarter of the fifteenth century would be a reasonable date for Period II.

Period III, the period of the defensive wall, is represented by levels A.2, B.2 and C.2. The local earthenware consists of large jars with long necks; red-coated as distinct from red-burnished ware, and bowls with thin red radiating lines. The red-coated wares are identical with wares from the upper levels at Ungwana and have also been found at Gedi. They are considered to run from the middle of the fifteenth century. The bowls with red lines are interesting (Fig. 2 S). A few have come from the upper levels at Gedi, and one sherd was found at Ungwana. In view of their scarcity, I have always regarded them as imported. Here in this small cutting sherds of five bowls were found, and it is likely that Kilwa was one, at least, of the centres of manufacture. The sherd with a sun

pattern (Fig. 2 T) is a new variation. The bowl with flared neck and raised lines in imitation of metal work (Fig. 2 R) is interesting. A similar technique is used on a bowl found in a level at Gedi ascribed to the early sixteenth century (G.GM 5 iv, Fig. 11 g). The sherds of the bowl with incised ornament (Fig. 2 P), and the carinated bowl with the red band and incised ornament (Fig. 2 Q) are new to me. The sherd of porcelain (Pl. III 2, 4) is certainly fifteenth century; the leaves and the form of the trellis pattern on the inside rim suggest the first rather than the second half of the century. A time lag of a generation between manufacture in China and importation, use and breakage in East Africa would not be surprising.

It is probable that this part of the town was not inhabited in the later period. The decline of Kilwa in the early sixteenth century would have caused a shrinkage of population, and the people who remained would have preferred to live around the Jumaa and the Palace, which we know to have continued to be occupied.

LIST OF SHERDS

SUB-STRUCTURAL LEVEL

1. sherd of neckless jar with thickening at rim, from A.7. Fig.2 A
2. sherd of lamp with concave sides and fingernail incised ornament on edge of carination, from A.6. Fig.2 B

PERIOD I

Local Earthenware

1. sherds of wide-mouthed bowls, diameter 13 in. with in-curved or thickened lips, red-burnished coat as Kil.Fig.4^m, from A.4, A.5, B.3. Fig.2 C, D
2. disk base of bowl with dark red-burnished coat from A.5.
3. sherds of shallow bowls, diameter 9 in., with flat, inward sloping or grooved lips, from A.4, B.3 Fig.2 E, F
4. sherds of shouldered bowls, diameter 10 in. with medium or long necks, from A.5, B.3. Fig.2 G, H, I
5. sherd probably of cooking pot with red ochre rim and graphite-coated neck with lightly incised trellis pattern, from A.5 Fig.2 J

Islamic

6. sherd of straight-sided bowl with tapered lip and elliptical pattern in black on yellow ground, as G.GM 1, from B.3. Pl.III 3
7. sherd of yellow sgraffiato ware with design of curling lines, red body, as G.GM 3, from A.4.

Chinese

8. base of dish with pale blue crackle glaze, glaze inside ring, grey body reddening on ring, from B.3 ... Fig.2 W

PERIOD II

Local Earthenware

1. sherds of jars or shouldered bowls, diameters 4 in., $7\frac{1}{2}$ in. and $6\frac{1}{2}$ in., with short or medium necks, M in black earthenware, from A.3. Fig.2 K, L, M
2. sherd of carinated pot with dark red coat on inside, from A.3. Fig.2 N
3. sherd of pot with roulette ornament in black earthenware, from A.3. Fig.2 O

Islamic

4. sherds of bowls with thin yellow and pale green glazes of same type as found on sgraffiato on a red body, from A.3.
5. sherd of bowl with glossy green glaze on a buff body, from A.3.

Chinese

6. sherd of blue-and-white porcelain, design of dark blue "net" with black spots in centres, from A.3 ... Pl.III 1

PERIOD III

Local Earthenware

1. sherds of large shouldered pots, diameter 14 in. with necks $2\frac{1}{2}$ and 3 in. long, slightly turned out, from C.2.
2. sherd of dish similar to Fig.2 E of Period I, but with broader lip, from C.2. Fig.2 V.
3. sherds of bowl with disk base and dark red coat, from C.2.
4. sherd of carinated bowl, probably with base, dark red coat on outside above carination, from C.3.
5. sherd of bowl with dark red coat on inside, pecked and incised pattern on outside, from B.2. Fig.2 P
6. sherd of carinated bowl, diameter $8\frac{1}{2}$ in., red ochre band below and incised chevron ornament on carination, from C.2. Fig.2 Q
7. sherd of bowl, diameter $6\frac{1}{2}$ in. with flaring neck and rounded body with curved lines, imitating gadroons of metal work, in thin buff earthenware, from C.2. Fig.2 R
8. sherds of bowls with thin red radiating lines, one bowl with sun pattern, from C.2 Fig.2 S, T, U

Chinese

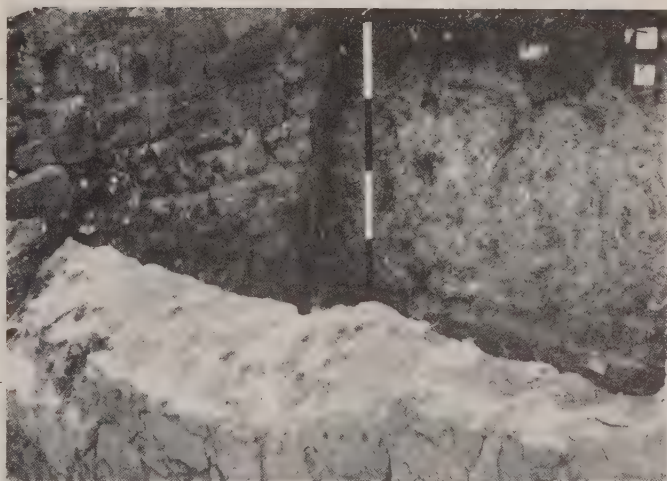
9. base of shallow dish, on outside chrysanthemums and flower tendrils, on inside trellis border with dots, schematised tendrils in cavetto, and spray on bottom, from C.2. Pl. III 2, 4
10. sherd of base of red stoneware jar, from C.2.

PLATE I



The old harbour of Kilwa.

PLATE II



(2) Red Earth

(3) Sand

(4) Red Earth

The cutting behind the Defensive Wall.

PLATE III



Sherds of porcelain (1, 2, 4) and Islamic glazed earthenware (3) from the cutting behind the Defensive Wall at Kilwa.

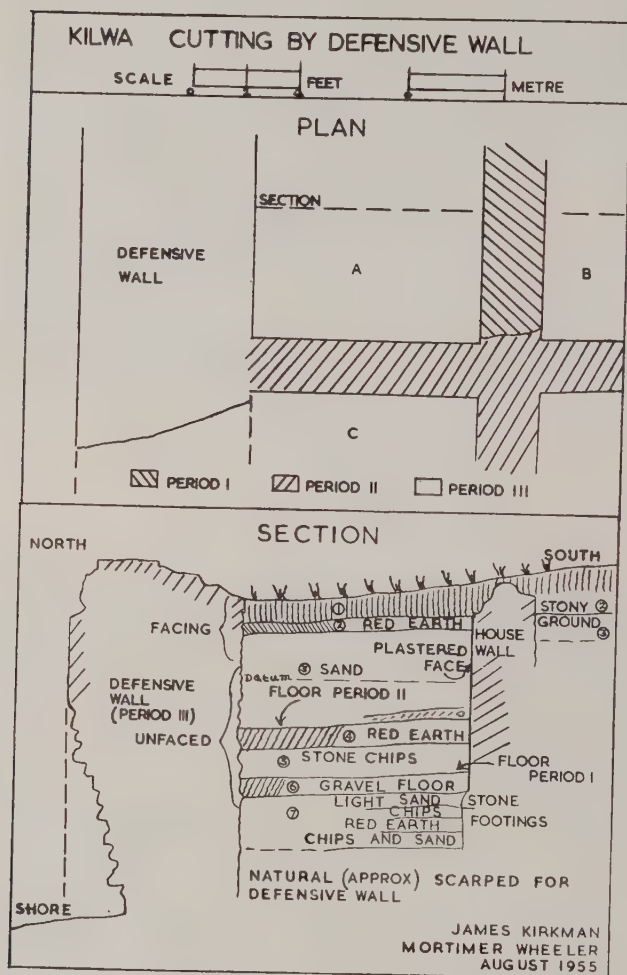


Fig. 1. Plan and section of excavation.

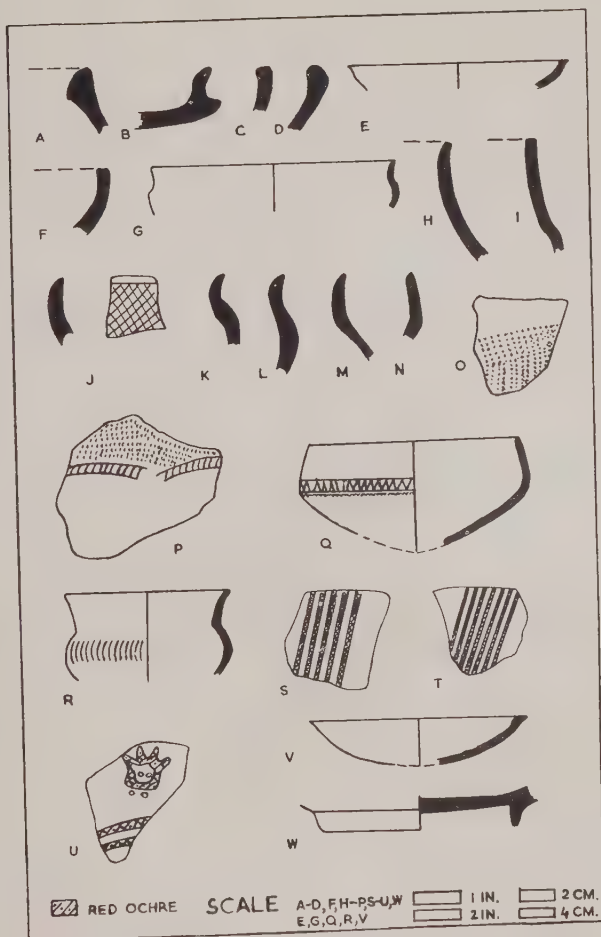


Fig. 2. Local earthenware and Chinese porcelain (W) from Kilwa.

SOME PANGWA CUSTOMS

*By the Rev. Josiah Mtekteka**

BURIAL CUSTOMS

In Upangwa in the olden days, about 200 years ago, if a married man died, when they buried him, they also buried his wife in the same pit, alive. Likewise they did to a husband if his wife died. They did so in all their generations until a man called Makamba, from a neighbouring tribe, the Wakinga, came and stopped them. He told them that the bereaved husband can marry again and have children; even the woman can be married again and bear more children by the new husband. They could not believe him until they gave him a widow to try. They thought that the disease which had killed the man was now in the woman and that she would soon die, and that it would infect any other husband that she had. Eventually they found that this man's words were true. From that time they stopped their bad custom. Then they made that man their Chief.

They have another strange custom which they still practise. If a person is sick and they are sure that he is not going to live, they ask him to choose beforehand one of his cloths which he likes best (if he has any) to be buried with. Or one of his relations may come and ask him: "Would you like me to buy you a white cloth for your burial?" The sick man can say: "Yes, you can buy me one." Or he can say: "No, not you, but I want so-and-so to buy me a cloth for my burial." Or he can say: "I have my own money: take that and buy me a cloth for my burial."

The reason for this custom is that the dying person may see the burial cloth himself and cover himself with it. Always when you go to visit a person who is very ill you see him already covered with the white cloth which is for his burial. Very often people recover and use the cloth after they are well.

If an old person has been ill for many days and does not die quickly, they say that perhaps he wants a goat killed for him before he dies. Two or three goats have been killed for such patients of long standing. There are some people who have recovered entirely after having a goat killed for them.

Sometimes old Christians when they are very ill say: "Why do I not die quickly? I think because I did not give alms at a certain festival." So they tell their relations to give the alms, and sometimes they find that thus they pass away quickly.

What kind of people are these? They do not seem to fear death. Yet they do not like to see a dead body. They hasten to bury the dead body as quickly as possible after the death of the person.

BETROTHAL CUSTOMS

When a girl has reached the age of puberty, her father builds her a small hut. She can live in it by herself or with her sister if she has one. She will cook her own food there. From now onwards there is permission for any

*Fr. Mtekteka, a priest of the U.M.C.A., was born in Nyasaland, but has for some years been working among the Wapangwa at Mlangali in the Njombe District.

lad who wants to marry her to come into the hut and talk to her at night. Her father must look after her when she is in the hut, but often he does not do so, and he does not stop anybody who wants to go into that hut. It is all up to her. The Church opposes this custom.

There is another way which many use of arranging a marriage. The man may ask someone who lives near to the girl to talk to her on his behalf. Very often a woman or another girl is asked to do it. This person is given something to give to the girl; sometimes it is as little as a safety-pin. If she receives the gift it means that she has accepted the lad. If she does not want him, she refuses to accept the gift. If the lad himself has come, and if she refuses to receive what he has offered, but he will not go away, then she walks out, leaving the boy in the hut. If at first she agreed, and received a safety-pin or a handkerchief, but afterwards changes her mind, her father must repay the gift. The cost of paying back a safety-pin can be up to 50/- or more. There is a woman who had to repay a safety-pin with a bull.

When a girl wants to marry somebody, she cannot tell her father or even her mother direct. She is obliged to tell somebody else—very often the wife of her brother—and that person will come and tell her own mother, and she again will tell a certain man to explain it to her husband. They take a long way round to reach the father. Sometimes a girl can agree to be betrothed to a boy whom she likes, and receive clothes and other things from him, and keep quiet without telling her parents for one or two years.

When all has been settled up, the dowry does not belong to her father only, but to all the relations of her father and mother. These people will go one day to the lad's village to ask things for their daughter. The usual thing is to ask for 4 to 7 oxen, 30 goats, 2 or 3 pieces of cloth each 40 yards long, 10 or 20 pairs of cloths, 3 blankets and from 200/- to 600/- or so in cash. These people divide the dowry among themselves, and then everybody goes home. This custom helps a woman to stay with her husband when trouble arises, because if she leaves him her relatives would have to pay back the dowry. The father and relatives would refuse to pay back the dowry, so she cannot leave him.

On the boy's side the father's relatives collect the money and goods. It is not only the father who has to find the whole property.

NATAL CUSTOMS IN BUKOBA

By K. J. Rwiza, Assistant Agricultural Officer

A pregnant woman may not look at a corpse of a woman who has died in childbirth, nor may she enter the deceased's house except after swallowing whole, three fruits of *ntula* (a species of egg plant). The number three is used in many Haya customs, sometimes to curse adversity as in this case.

"OKUCHWA EMITI" (LITERALLY, TO SPIT TREES)

Immediately after delivery, the husband goes blind-folded to his wife and touches her breasts and spits on them certain herbs asking, "Whose great child is this?" His wife answers, "It is yours". The husband then goes back and brings a present, which nowadays is money, to the nurse who allows him to see the child. The present is called *omusheluro* (uncovering) and the whole process is called *okwasha*, i.e. to announce that it is a child.

If the husband is far away, a male member of his clan may spit the herbs on the breasts, but the husband may repeat the ceremony when he returns from his journey if he does not recognize the man who performed the rite in his absence. The ceremony must be gone through otherwise the child cannot be called *omwana*—Kihaya for child. It is believed that if the wife tells the husband the child is his when it is not, the herbs will kill the child.

On coming into the world, the child is held by its legs head downwards into the after-birth and it is beaten twice on the buttocks. This is to cure excitability and introduce the child into the fighting world. The child is then cleaned. The nurse breathes into its ears and nostrils saying, "Hear", she also cleans its mouth saying, "Speak like myself". The child is then fed immediately.

The afterbirth is kept and must be buried at the husband's place. When the afterbirth is to be buried, women usually gather and the nurse who buries it may use it to touch the eyelids of the spectators. This is believed to prevent blindness. The afterbirth is buried by a beer banana if the child is male and by an eating banana if the child is female.

When the navel cord is cut, there is usually a bit left, about four inches long, which is known as *enkwami*, after four days it dries up and is removed. This bit must never be lost, it is thrown in the father's bed together with knives used during delivery. If the woman is convinced the child is not her husband's, she hides the *enkwami* and gives it to the real father. The husband on finding the *enkwami* lost, chases away both wife and child.

"OKWEYA"—TO SWEEP

The ceremony of *Okweya* takes place as soon as the navel cord is sufficiently dried for general handling of the child by women. It is the custom to handle children and anybody who does not is considered to bear illwill against the family or clan.

Before this ceremony, all the child's night soil is kept, only the nurse will throw this. The child also stays indoors in the back room. Property may neither enter nor leave the hut. The ceremony is as follows, the mother carries

the child on her back and goes out of the house. The nurse follows carrying the flowering head of a banana which is called *endilalira*, and if possible should be from the ceremonial banana where the afterbirth was buried the nurse lays both child and the *endilalira* by the banana whose head she removed. After a short while they take the child back into the house, singing, "We have thrown away the child and brought back a bad child". This is to appease the banana, for the *endilalira* is able to cause death. When they near the house, all the women sing going forwards and backwards in front of the house, the nurse asking, "What have we taken?", and the women answering, "We have taken barrenness". The nurse asks again "What have we brought?", and the women answer, "We have brought fertility". After this all the women taking part enter the house and are served with bananas and fish. All the child's subsequent night soil must be thrown at the ceremonial banana whose fruit is the nurse's property until the child is about two years old.

"OKULANGA"

When a child is born, information must be carried to the maternal uncles. Two children, a girl and a boy visit the wife's uncles carrying cowrie shells and a sorghum head. This is a sign announcing safe delivery. The children are given personal presents, in addition they bring back cooked bananas which are enjoyed by the women, preferably members of the household.

NAMING THE CHILD

If the child cries often, it must be named very soon, but if it is quiet, the naming takes place at any convenient time. On naming the child, it is told to know its name and stop crying, and it does. The name is usually given by the male head of the family.

MILK TEETH

When the child gets its first milk teeth, two children, a girl and a boy, take the child round to neighbours collecting presents. The teeth must be announced by the father otherwise they will stop coming through. It is a great offence for any other person to announce them. Before their announcement, the mother must know her husband only, or else the child will never grow its teeth. Rings of beads, and nowadays five-cent and ten-cent pieces are tied around the child's wrists, ankles and loins, together with cowrie shells. The other presents collected are often articles of food which are for women, a man is not allowed to touch them, and sometimes shilling pieces are given to the mother on behalf of the child.

IRON SMELTING IN UFIPA

By R. Wise

(Supplementary notes to those of R. C. H. Greig "Iron Smelting in Fipa"
T.N.R. No. 4, October 1937)

During the months of June, July and September 1956, a kiln for *smelting* iron was built in front of the District Commissioner's house at Sumbawanga. This gave an opportunity to watch the whole process of iron-making, and for a kiln to be preserved. The whole process meant that ironstone was dug, charcoal burnt, a kiln built, ironstone smelted and iron blasted and native hoes forged. Of course the circumstances were not typical since the work was done at the request of a European and not of the parents of a youth who was about to be married. This affected the social background from which the work should have sprung, and also the rituals surrounding the processes, but it did not affect the techniques employed.

1. Raw Materials.

IRONSTONE

The ironstone (*nyimbo*), a crude limonite, is always dug from *mabuga* flats. It was not possible to see how long it took to prepare sufficient ironstone because the material used came from stock dug several years before. I was told that the stock, which was sufficient to charge the kiln twice, had taken three men eleven days to dig. One man dug out the ironstone and passed the pieces to his companion who broke up the large lumps into pieces of a size suitable for burning.

CHARCOAL

An area of about three acres of *misuku* scrub (*Uapaca Kirkiana*) was cut down to provide wood for making charcoal. To prepare sufficient charcoal to charge the kiln twice was the work of four men for seven days. The only other wood used for charcoal-making is *mbula* (*Parinari curatellifolia* and other species of *Parinari*). The cut wood was left to dry in the sun for two weeks when it was trimmed and piled. The firewood ready for burning was built into a cone sixty feet in circumference and about twenty feet high.

The charcoal burning, being hot work, began before the sun was up and as the pile of wood slowly burnt down, three men gradually damped it down by throwing on earth, working upwards from the base of the fire. When all the glowing embers were covered the pile was left to burn out. After two or three days the charcoal was cool enough to be moved to the kiln.

EARTH—"CHILENGA"

The choice of the ant-hill (*kisugu*) from which the material for building the kiln was taken was a matter of some importance. The three craftsmen inspected all the ant-hills in the general area chosen for the building of the kiln. At each heap they broke out a piece of earth, crumbled it in the palm of their hands and kneaded it into a paste with spittle to test whether or not the consistency would be suitable. The more friable were discarded and that giving the most adhesive paste was chosen.

2. The Kiln—Ilungu.

Not only must the ant-hill material be suitable but the position of the ant-hill must conform to certain requirements. The kiln must be on the lee side of the ant heap so that the former is protected from the full force of the prevailing winds, and the opening at the front of the kiln must face the setting sun.

Considerable ritual attends upon the building of the kiln but this is not essential to the efficient building and working of the kiln, and will be described elsewhere. For example, one man told me that his father had been a skilled smith but that when his father was converted to Christianity about forty years ago he was persuaded by the missionaries to build a kiln and to make iron without using the traditional rituals and invocations to the spirits. Apparently the work was successful but the example has not spread.

Three days before building was to begin a group of about twenty people, mostly women, came to the site. They cleaned away all the grass and levelled off the ground on which the kiln was to be built. The men began to dig out ant-heap earth, which was wetted with water brought by the women from a nearby stream. After about five hours' digging sufficient earth with which to begin building was ready. This wetted earth was left for two days, during which time it was kept damp. At this time also the craftsmen prepared the ground for the kiln, digging a narrow circular ditch, six feet in diameter, on which the walls of the kiln will stand and into which the all important magics will be poured.

On the third day work began early because the consecration of the site had to be finished before sunrise, these ceremonies are the work of the smiths alone. Soon after dawn the helpers started to arrive and the work was soon under way accompanied by much singing and shouting. By about 9 o'clock seventy or more people were assembled. At least two-thirds of these people worked throughout the day.

The first task was to knead the mud. The wet mud was thrown into a pile on the ground which had been damped to stop the mud sticking to it, then twenty or thirty people gathered round and rhythmically began kneading the mud with their feet. A sort of African "hokey-cokey" ensues. The left leg is forward and the man swings backwards on his right leg and then as he comes forward thrusts with all his weight into the mud with his left foot, heel in, toe up. After about ten or fifteen minutes the material was ready and the men pulled out large lumps of mud, carried them to the kiln, working them in their hands all the while; at the kiln the lumps of mud were raised high above their heads and hurled into place on the walls of the kiln; the innocent bystander being liberally spattered with mud. Work now proceeded steadily. One group of men brought material to the kiln, another dug out more earth which was kneaded ready, yet another group prepared the vent pipes or tuyères (*chelu*). Four men supervised the building of the kiln, two inside and two out. They gathered up all the fallen pieces of mud, rammed them into the walls of the kiln and then smoothed away all irregularities in the walls with hoes. As the kiln grew higher hoes could not be used, nor could a man stand inside to smooth the inside walls therefore some special wooden scrapers were made. These were thin slivers of wood about nine inches long and one inch wide which were bent round into a horseshoe shape and tied across the ends. Using these a man could scrape the inside of the kiln and the scrapings, instead of falling into the kiln, could be pulled out on the width of the wood.



The kiln taking shape.

On the first day the kiln reached about five feet in height. At this point it was measured to check that it was tapering off correctly. Only three measurements were taken during the building which otherwise was constructed entirely by eye; there was the initial measurement of six feet diameter on the ground; a halfway measurement when two men on opposite sides of the kiln should be able to shake hands while resting their elbows on the edge of the kiln; and the final measurement across the kiln at the top, which should be the distance from elbow to finger-tip. These measurements seem to be used as checks on the accuracy of their eye rather than as guides to building.

On the second day a scaffolding was erected around the kiln with a ledge, about four feet up for the builders to stand on. Since only three people now have room to build the work proceeds much more slowly; nevertheless the kiln was completed before the end of the second day. Although work was slower people were not idle; one group of people prepared the site for and built the little blast furnace; another group led by one of the craftsmen made the draught pipes. These are made from the same material as the kiln. A large piece of mud is shaped until it is roughly a rectangular block eighteen inches long by five inches square. This block is stood on end and a hole is pushed through it. Into this hole ashes are poured to prevent the block from sticking to the mould poles. Two or three of these poles, about fifteen feet long and an inch and a half thick, are used and are each supported upon two forked sticks set upright in the ground. The block of mud is slid onto the pole, wetted, worked with the fingers and gradually extruded until it covers the whole pole to a thickness

of about an inch. Elbow to hand lengths are then measured out along the pole, these lengths are cut with string and each pipe is slid from the pole. The pipes are stacked, on end, around another small stick and left to dry in the sun.

Apart from drying out, which takes from two to four weeks, the kiln needs only the draught pipes to be put in to be complete. After the kiln had been drying for three days, and had had time to settle and slightly set, slits were chopped out of the bottom into which the draught pipes were to be built. Ten slits were cut; one large hole in the front called *mamma ilungu*, one small hole at the rear and four more equally spaced on either side. The draught pipes were put into position just before the kiln was charged. Fourteen were put into *mamma ilungu* and five each into the other holes. They were placed into the holes slanting slightly upwards resting on broken pieces of pipe, so that the ends inside the kiln formed a circle about eighteen inches in diameter. The pipes were held in position with mud so that the slits were filled completely. The man inside the kiln who was positioning the pipes also charged the kiln, and got out by filling the kiln beneath his feet with charcoal and ironstone ready for firing. After every burning these vent pipes or tuyères are broken out and replaced.

Whilst the kiln was drying out it cracked in several places, these cracks were caulked; firstly with wet pulped bark fibres and then on top of this a plaster of mud. When finally the builders were satisfied that the kiln was both whole and dry the outside was plastered smooth and decorated with daubs of millet flour and *nkula*. *Nkula* is a reddish-brown powder prepared from a tree root. It is also used by women, at weddings, and girls, after their first menstruation, to decorate their faces.

When the kiln was dry and all the materials were ready at the site the kiln was filled. One man went inside and the materials were passed to him from the top. Firstly there was sufficient charcoal to provide a solid layer at the bottom, which half covered the mouths of the draught pipes. Then a small nest of two basketsfull of ironstone was placed in the centre of the circle made by the ends of the pipes, this was then covered by charcoal, on top of this another three basketsfull of ironstone were placed and this was surrounded and covered with firewood; this in turn was covered with charcoal. This pattern is repeated until the kiln is full, the amounts only differ. The final picture was that at the bottom of the kiln there was more charcoal than anything else, in the middle there was less charcoal but more wood and ironstone, while at the top charcoal predominated. About six inches from the top of the kiln a burning ember was put in which was covered over with charcoal and piled high on the kiln. The kiln was left to burn through. In all, the kiln held about seventy basketsfull of ore, about fifty basketsfull of charcoal and about three cubic feet of wood. (The volume of one basket is approximately one cubic foot).

On the next day the kiln burnt strongly and looking in through the small inspection hole at the back of the kiln, the inside appeared to be white hot. I was told that a man who was once standing on the scaffolding looking into the burning kiln had accidentally fallen in, and though the kiln was raked out immediately no trace of his remains was found. During the second day the slag (*lombwe*) began to flow freely and on the third day the kiln was burnt

out. The residue in the kiln was a mixture of slag (*ikango*), ashes and crude iron. This crude iron may be either *mwilungu* or *mtale*. The latter needs further purification but the former is regarded as being sufficiently pure to be used for making axes and small hoes for women.

A kiln may be used any number of times and will last well if protected from weathering. One kiln which has been used until fairly recently, and which I believe was the kiln seen working by R. C. H. Greig was built in 1929. This kiln produced a lot of iron during the second world war when the craft revived temporarily.

3. *The Blast Furnace*—Jintengwe.

On the second day whilst work of building the kiln was proceeding slowly, two craftsmen chose a sloping site for the blast furnace. When the site had been cleared of grass a central piece of ground about two feet in diameter was smoothed. Inside this area a circle, with the diameter of a man's hand was drawn. This marked the inside diameter of the furnace, and around it was dug a small ditch about two inches deep and four inches wide for the foundations of the furnace. In front of the furnace, that is following down the slope of the ground, a small funnel-shaped channel was dug. This channel allowed the slag to run away. Water was poured into the ditch to help the foundations to bind to the soil, then mud was slapped into position until the walls reached about eighteen inches in height. They were then wetted, smoothed and shaped by hand until the furnace resembled a large, thick, flower pot. The furnace was left to dry and any cracks were caulked in the same way as those in the kiln. When nearly dry a semi-circular hole was knocked out from the bottom of the furnace over the slag groove, and three draught holes were bored into the walls about two inches above the ground, and pieces of draught pipe fitted into them. Before blasting began the furnace was covered with a canopy of branches, thus making it dark enough for the degree of redness in the furnace to be gauged.

When the furnace was filled a layer of charcoal was placed at the bottom, onto this were put some hot embers level with the draught holes, on top of these was another layer of charcoal. Above this layer were placed pieces of crude iron surrounded by charcoal. This pattern was repeated until the furnace was full so that there was a central core of crude iron up the furnace surrounded by charcoal. Blasting then began. Three men sat round the furnace, their goatskin bellows between their legs, and with stones against the side of their legs nearest to the fire to protect them from the heat. From the bellows go bamboo tubes tipped with baked earth nozzles which direct the air into the draught pipes. The three men sat there for hours pumping regularly and rhythmically, their eyes on the glow of the furnace. A fourth man sat with his baskets of charcoal and crude iron, watching the furnace burn down, and filling up all the while with charcoal, which he pushed in from the edge of the furnace, and crude iron which he dropped into the centre of the furnace from above. From time to time he also threw charcoal into the mouth of the furnace, to prevent cold air from entering the bottom of the furnace, as this would cause the slag to harden before coming out and would block the mouth. The regular pant of the bellows was only broken by an occasional quick "pouf, pouf", as one of the pumpers broke rhythm and the monotony.

After about four hours a complete basketful of crude iron had been put into the furnace. The man in charge stopped refuelling and allowed the furnace to burn right down, as the furnace gradually emptied so the pace of the pumping increased. The pumpers began to sing and to bang into their bellows as though they were drums. When the slag stopped running the iron was ready. The draught pipes were knocked out, the embers pulled from the bottom of the furnace, and then, with a shout, the red-hot lump of iron was lifted out with tongs and thrown to the ground outside. The first lump of iron weighed about twelve pounds and was sufficient for one hoe.

Work did not stop. When the furnace was empty dust was sprinkled into it to help clean and cool the bowl. New draught pipes were put in at once and pushed into position from the outside with mud. The furnace was refilled again as before, with the exception that this time there was no need to put in any hot embers; the heat held in the walls of the furnace was sufficient to restart the fire when the bellows were worked. The iron was now pure, ready to be forged.

4. *The Forge—Pembe.*

The forge is kept in a conical hut, roofed with grass which reaches to the ground. The hut is built around a huge flat-topped rock, four feet square and five feet thick, which is the anvil. This rock had been carried by sixty men from the mountain about a mile away. Also in the hut was a smaller stone anvil used for light work.

Making the hoe began early in the morning. The piece of iron from the blast furnace was put into a shallow hole in the ground and surrounded with charcoal, which was blown up into a white heat with the same three sets of bellows which has been used in the furnace. The iron was watched by the smith, and when he judged it to be hot enough, he took it from the fire and put it on the anvil. At first the aim was to shape the rough lump of iron into a rectangle, then gradually flatten it out into the rough shape of a hoe. To do this the two beaters used large flat-bottomed stones which they lifted above their heads and brought down with all their strength to smite the iron, sparks flying in all directions. When the iron was roughly shaped, they used slightly lighter stones in the centre of the bottom of which there is a raised and rounded ridge which gave greater accuracy to their blows. At this stage the blacksmith who is holding the hoe in his tongs, before each blow points with his poker to the place to be hit. The resulting sound is very reminiscent of the anvil chorus. As soon as the iron lost redness it went back into the fire and the beaters rested. So the work went on all day. To make one large hoe work was continuous from 6 a.m. until 4 p.m. The finished hoe was a great tribute to the skill with which these men wielded their very crude and cumbersome tools.

5. *Conclusions.*

This hoe will last its owner for three or four cultivating seasons, at least twice as long as the factory made article. More than this advantage, there is the social importance of the hoe, not only to the youth for whom the hoe is necessary as a part of his bridewealth, but also to society in general. Without the hoe, the tribe would starve, and this point is clearly made in the rituals attendant upon every stage of the work. An attempt will be made to describe these rituals in a later article.

BAHAYA CUSTOMS AND BELIEFS IN CONNECTION WITH PREGNANCY AND CHILDBIRTH

By Dr. M. S. G. Moller, Ag. S.M.O., Health Education

The Bahaya number about 300,000 and inhabit the beautiful and fertile country between the western shore of Lake Victoria and the Ruanda-Urundi border. Historically and culturally the tribe is closely linked with Uganda. The stock is Bantu, with a strong admixture of hamitic blood. The average Mhaya is a good-looking and intelligent person, the women often very beautiful.

Much coffee, of the Robusta variety, is grown in the district and the Haya tribe enjoys considerable wealth. In the early "fifties" when the coffee boom started, a great proportion of the money accrued from the coffee industry was allocated for the improvements of the rural medical services in the district, one of the most important sectors being the maternity and child welfare services.

Already during the initial stages of the development of this particular kind of health work it became apparent that some research into tribal customs and beliefs would have to be done in order to acquaint the European health workers with the background of tribal traditions and so lessen the risk of misunderstandings between health staff and patients. It was for this entirely practical reason that the author, who was at that time holding the post of District Medical Officer of the West Lake areas, set out to collect some information about the traditional customs and beliefs in connection with pregnancy and childbirth.

THE CLAN

The clan-structure follows what may be called the general Bantu pattern. Every Mhaya is a member of a clan and has to obey certain clan rules or taboos, mostly in the nature of food taboos. There are some 150 clans. Marriages inside the clan are not allowed (the "exogamy principle"). With marriage a woman becomes a half-member of her husband's clan and has to obey not only the rules of her own clan but also the rules of her husband's clan—as long as she lives with him. If she becomes pregnant, she has to observe her husband's clan taboos more strictly than when she is not pregnant. In addition to the clan taboos—her own and her husband's—a woman also has to obey certain other taboos, peculiar to women only. For example, there is a general taboo for all women to eat a certain kind of fish, **kashurubana*. In the southern chiefdoms of Uhaya, the meat of goats and sheep is taboo for women. (The women of Kiziba chiefdom are, however, allowed this kind of food). Contrary to common belief, eggs are not forbidden for women. The reason why eggs are not often eaten appears to be that in the old days birds and everything connected with birds was considered unclean and unsuitable for human food.

"OMU-KISIKA"

The Haya woman usually marries when she is seventeen to eighteen years old. The newly married woman is called *omu-gole* and she is traditionally kept in seclusion from the wedding till she has borne her first child. She is to be kept in the *omu-kisika*, a special partition of the Haya hut or house. In case she does

**Kashurubana* or *Kasulubana* refers to the Elephant Snout fish (*Mormyrus Kannume*). It is believed in several different areas that if a pregnant woman eats this fish, it will cause her to miscarry.

not become pregnant, she is kept in seclusion for "nine moons". She is not allowed to leave the house during day-time and is kept closely under the eyes of the mother-in-law. She, the *omu-gole*, is to be well-fed and is pampered like a child. This custom, of *omu-kisika*, is mentioned because it links up with certain traditional beliefs of great practical importance, the *bisisi*, which will be described later.

PREGNANCY

Once a woman discovers that she is pregnant she has to inform, first of all, her mother-in-law. If this person cannot, for some reason or other be informed, the senior female relation on her husband's side has to be told. After this has been done, the woman may inform her own mother and then her husband. It is the duty of the mother-in-law (or the female relative, as the case may be) to inform the expectant mother about what "to do" and "not to do". Usually there are a number of pregnancy taboos imposed. There are general and special pregnancy taboos.

General Taboos:

- (1) A pregnant woman must not walk under a stick, supporting a heavy bunch of bananas, or else the child might "get caught" during the birth;
- (2) She must not move backwards through a door or an entrance. If she does, an obstructed labour will result. (These two examples are obviously simple "symbolical magic");
- (3) She must chew her food very carefully and swallow only small quantities at a time. She must even "chew" water and other fluids and swallow only a little at a time, or else the child might get hurt by lumps of food falling on it. There is also a belief that whenever the mother eats the child eats as well, therefore the mother has to eat slowly so that the child does not choke.

The "special" pregnancy taboos are very variable, and though mostly in the nature of food taboos, there exist others, as for instance the taboo that the expectant mother is not to sit on a bed or is not allowed to cross a stream of flowing water.

The pregnant woman, with the exception of the *omu-gole* is allowed, even encouraged, to work throughout her pregnancy. Sexual intercourse is allowed.

In the old days offerings to tree-spirits (the tree being a fertility symbol) were often made in order to secure an easy delivery. Nowadays this is done only in more backward parts—but alas! the author has seen spirit offerings lying in the root-fork of a spirit tree fifty yards behind a mission church in the middle of Bukoba town!

Throughout the pregnancy the expectant mother is given a great deal of herbal drugs which serve a multitude of purposes—to give her strength, to ensure an easy delivery, to secure a male child, to avert or nullify some dangerous influences and so on.

LABOUR

When the labour starts, a midwife is sent for. There are a great many traditional midwives of the common "tribal midwife" type, elderly experienced women who have learnt their trade from their mothers and who pass on their knowledge to their daughters. As a rule they are very secretive and do not volunteer information.

The author has once, in Bugabo chiefdom, come across a male midwife!

The midwife takes complete charge, with dictatorial powers. Only two or three helpers are allowed to stay, the rest of the household is sent away. Some of these midwives can make an external examination and determine the position of the child. A few of them can do corrections and repositions. The midwife makes sure that there is no knot of any kind in or on the clothing of the woman in labour, including clothes not actually worn but belonging to the woman.

The patient is allowed to walk around till the membranes have ruptured, after that she is made to lie down. She is allowed to drink during labour but is not allowed to eat.

The general attitude of the Bahaya midwife is that once labour has started everything should be done to shorten its duration. The principle of "masterly inactivity" on the part of the midwife is unknown. Hence the patient is given all sorts of drugs—*enshamba*—to speed up the process. *Enshamba* medicine is sometimes quite harmless but often not. One of these drugs—a mixture of dried powdered bark and dried leaves of unknown origin—has the effect of stimulating the uterus and is used to strengthen weak pains. As the tribal midwife has no knowledge of physiology she often uses this contraction stimulating drug when there are absolute contra-indications, with disastrous results. The author has seen many cases of ruptured uterus resulting from the use of this drug. Another drug is used in cases of retained placenta. This drug might contain strophantine, which is a potent heart poison and the author is of the opinion that most cases of unexpected deaths of obstetric patients brought to hospital for a retained placenta (or abortions) are caused by this preparation.

THE PLACENTA

The afterbirth is sometimes regarded as being the "brother" or the "dead brother" of the child born. (This belief varies a great deal, it is common in Kanyangereko chiefdom, but unknown in Ihangiro chiefdom. In Kiziba the placenta is the "brother" only in cases of twin birth or in cases of breach-position. To make it even more confusing, in Kiziba a breach is called a "twin"—*Barongo*). It may thus happen that women when asked how many children they have had will include the placenta's amongst the children, saying for example that they have had four children which might then mean either four children or two children and two placentas. A reply "three children" might mean three children, or twins plus one placenta or one child (a breach-birth) plus one placenta. These peculiarities, if not recognized, naturally tend to make statistics based on maternity histories somewhat unreliable.

The placenta must not be disposed of crudely. In principle it is treated as a corpse; that is it is wrapped up in a piece of brown bark-cloth which is the traditional shroud. (In olden days this bark-cloth was used for clothing but nowadays it has only ceremonial use). In Ihangiro the placenta is wrapped in leaves of a certain shrub, called *omulinzi* (*Erythrina Abyssinica*) which means "the one which protects". The same is done in Karagwe. The "mouth" of the membranes—which is the hole where the membranes ruptured—should be put so that it comes "on top" of the placenta. If this is not done the woman will not have any more children. The mother-in-law carries out all these ceremonies which concern the placenta.

In Kiziba, customs are even more elaborate, especially after twin or breach births. The placenta is wrapped in bark-cloth, a small ant-heap of the round, hard, football-like type is brought to the hut, hollowed out, and the placenta, wrapped in its bark-cloth, is deposited inside the ant-heap, which is then sealed with cow dung or clay. This is then either kept in the hut or buried near the bed-place or deposited somewhere out in the *shamba*.

There is a taboo attached to this ball and it is believed that anyone who touches it will get a certain skin-disease, *empyola*. (The author has seen two cases of reputed *empyola* and it appears to be vitiligo or leucoderma, a simple atrophy of the skin pigment). It is an interesting detail that violation of taboos connected with the placenta (and such taboos are common in practically all tribes) will be punished by a skin disease. The Waluguru believe that breaking a placenta-taboo will cause tropical ulcers; the Wagogo believe that tropical ulcers and/or leprosy will result, and the Wanyakyusa fear unspecified skin disease in the child if a placenta taboo is broken.

Normally the placenta in its bark-cloth is buried, sometimes inside the hut (Kiziba and Bugabo), sometimes outside (Kanyangereko, Ihangiro, Karagwe). If buried inside, it is deposited near the foot-end of the bed-place. If buried outside, it is placed as close to the wall of the sleeping compartment as possible. In Ihangiro it can be buried anywhere in the *shamba*.

VERNIX CASEOSA

There is a peculiar belief attached to the presence of vernix. A mother whose child has plenty of this greasy matter on its body is scorned as one who has not obeyed the rules of hygiene and cleanliness during her pregnancy. It is also believed that constipation in the expectant mother will result in a "dirty" child, that is one with a heavy coat of vernix.

THE CORD

The cord is tied with a thin string made of a kind of tough grass which grows everywhere in the area, and it is cut with a sharpened slice of reed, (elephant grass—*Pennisetum purpureum*). The stem in this grass is silicate encrusted and can be sliced in razor-sharp strips. The reed has to be dry and is usually taken from the roof of the hut, (or a hut, if the delivery takes place in a stone house). There is a widespread belief that the blood, lost during a delivery can be used for purposes of witchcraft, causing barrenness of the woman from whom the blood originated.

THE "VIRGINAL STATUS" OF THE YOUNG MOTHER AND THE "BISISI" CUSTOM

The customs and beliefs attached to the period from the time of the delivery till the cord has dropped are somewhat complicated. It is believed throughout the district (except in Kiziba chiefdom) that the man who has the first intercourse with a woman is always the father of the first child that woman bears. This is so even if the intercourse, from a medical point of view did not result in a pregnancy and the woman did not have her first child until years later. According to tribal belief, the first intercourse *did* produce a pregnancy, but this pregnancy "broke off" (*kuendeka*) and the child is "hiding in the back", to be born perhaps several years later. This is called "the long pregnancy" or *bisisi* and such a child is a *bisisi*-child.

For example: (Kiamtwara, Kihanja, Ihangiro).

A marriage is sterile. Husband and wife separate and the woman marries another man. If she gets a child by her second husband, this child belongs to the first husband, it is a *bisisi*-child. (It does not matter if this child is born ten years after the separation, it is still legally the child of the first husband).

The practical implication is thus that a man who can prove that he has had the first (virginal) intercourse with a woman can justly claim the first child of that woman as his. This is of great legal, social and economic importance in Buhaya. (There are areas where something like twenty per cent of all children are *bisisi*-children!)

During the period of time from the birth of the child till the cord has dropped,* the woman reverts to the "virginal status" that is to say that any man who has intercourse with her during this period can claim the next child of the woman as his. This is the reason why the relatives of the husband, in the interest of the clan, keep a steady watch over the newly delivered woman to prevent any "outsider" from interfering with her. It is basically the same as the guarding of the *omu-gole*, the newly married woman who is kept in seclusion in the inner part of the Haya hut, the *omu-kisika*. To make the whole thing even more complicated, the intercourse need not necessarily be a "real", physical one: a "symbolical" one is all that is required.

When the cord has dropped, the mother has to do a ceremonial cleaning of herself and a small family feast is held. This is also the time for the ceremonial-ritual intercourse.

TWINS

Twins are always given standard names, "Ishengoma" and "Kato" for boys, "Nyengome" and "Nyakato" for girls. Twins were and still are, at least to some extent, considered unlucky incidents. It appears that twin-births in the old days were regarded as an offence against the Chief and that certain fines had to be paid to the Chief by the father of the twins. (The Chief was in a magic way connected with the fertility of the land and the birth of twins was an insult against the fertility powers vested in the Chief.)

BURYING PLACES FOR TWINS

In the past twins were not buried in graves, but the corpses were put into one of the small caves or niches which are so common in the district, or under an overhanging slab of rock. (The author has twice come across such places, in both cases near to the skeletons a small earthenware vessel was found, also feathers, bits of wood and other paraphernalia).

THE NEW-BORN CHILD

The new-born child is subjected to "medications" from the first day of its life. It is given medicines and preparations for everything under the sun. There is medicine to make the cord drop off, medicine to protect against diarrhoea, constipation, hiccoughs and running eyes, medicine to ensure that the

*Not generally recognized —often it is said that there is a time limit of eight days or sometimes no time limit at all, in which case the husband has to establish his right to the next child by having a ceremonial (sometimes only symbolical) intercourse with his wife. After that, the next child is automatically his.

child gets straight legs, and to make certain that the teeth break through. Obviously large numbers of infants are every day slowly being poisoned to death by well-meaning mothers, grandmothers and other relatives.

MIDWIVES' FEES

The midwife collects the first stool which the newborn has produced, wraps it in grass from the floor of the hut and deposits the bundle close to a banana-plant which grows as near to the hut as possible. If the child is a girl, a "sweet" banana is chosen, if the child is a boy, a "bitter", (beer or flour) banana is chosen. All stools from the child are hereafter dealt with in a similar manner, always deposited round the child's banana plant until the time when the child is weaned (two and a half to three years). The heap can become quite sizeable, creating rather a nuisance from the point of view of smell and fly-breeding. The produce from the child's banana plant is regarded as the property of the midwife till the child has reached the weaning age. If the child should die, the midwife loses her right to the produce of the plant. There is a belief that if the grass heap is burnt, the child will get diarrhoea and will probably die.

MUGUMBA

If a woman has had a sister, who died before having had any children, the spirit of the dead sister may cause sterility of the living sister. Should the woman nevertheless become pregnant, the spirit may cause disease, abortion and mental disturbances, (*en-chweke*). This name, *en-chweke*, is also used for the mental depression of a barren woman (*melancholia hysterica*?) and is caused by the spirit of the dead sister.

As can be seen from the beliefs recorded, this collection of information was of vital importance to the success of the health workers; for without an insight into these tribal customs, misunderstandings which could have lead to non-co-operation and hostility, might have occurred to cause a breakdown of the health services.

SWAHILI BORROWINGS FROM ENGLISH

This article is reprinted, with the permission of the Editor, from "Africa," Vol. 22, No. 2, April, 1952—the journal of the International African Institute.

By R. H. Gower

SWAHILI is by origin, a Bantu language which was strongly influenced by Arabic. In the course of time Swahili has borrowed words from a variety of languages. During the last thirty or forty years it is not surprising to find that Swahili has continued to enrich its vocabulary, more particularly from English.

During 1930–1 there was some discussion in *Africa** as to the methods to be employed in adapting new Swahili loan words. Dr. Roehl pleaded that new words should, so far as possible, be adapted from other Bantu languages and not from Arabic, on the grounds that words borrowed from Arabic were often not understood inland. Canon Broomfield pointed out that it was easy to Bantuize Arabic loan words; he suggested also that Swahili should borrow from Latin and Greek for scientific purposes, but opposed borrowing from English because "English words are difficult for Africans to pronounce and if spelt according to Swahili rules of spelling their appearance is grotesque".

The present writer has no desire to revive an old controversy. It seems immaterial whether loan words are borrowed from Arabic or English or any other language, provided that they meet the requirements of those Swahili-speaking Africans who use them. The intention of this article is merely to record some recent loan words adopted into Swahili from English. No attempt has been made to criticize the methods employed or to appraise the results.

Often it will be found that two words are in current use—each adapted from different languages. Examples of this may be seen in the words used for (1) handkerchief—*ankachifi* (from English) or *leso* (from Portuguese); (2) receipt—*stakabadhi* (from Arabic) or *risiti* (from English); (3) pledge or security—*rehani* (from Arabic) or *poni* (from English "pawn"); (4) report—*taarifa* (from Arabic) or *ripoti* (from English); (5) week—*juma* (from Arabic) or *wiki* (from English).

Sometimes a new loan word will be borrowed, when another suitable word is already in existence. But this is often done to express a slightly different meaning. For instance *chuo* is now generally used when referring to a Koranic school, while *skule* or *shule* denotes a school where Roman characters are taught. *Keki* is a European type of cake; *maandazi* are the cakes of the market. *Ngoma* is used for any traditional type of dance, while *dansi* refers to dancing with a partner in European style.

Often it will be found that what would appear to English ears to be the most obvious adaptation is not the word most generally used by Africans. For instance *elektrisiti* (electricity) is included in Madan's dictionary but has never been heard by the writer. *Elektrii* is often heard, but in more general use is *stimu*. This word was coined in the early days when nearly all electricity generating plants were run by steam engines. Similarly *sigareti* seems an obvious adaptation and is also included in the dictionary. In fact, *sigara* is now in almost universal use.

**Africa*, iii, 1930, p. 191: K. Roehl, "Linguistic Situation in E. Africa".

Africa, iii, p. 516: G. W. Broomfield, "Development of the Swahili Language".

Africa, iv, 1931, p. 77: G. W. Broomfield, "Rebanutization of the Swahili Language".

A Swahili-speaking African would not confuse this with a cigar, which is graphically described as a *smoku*.

Anyone seeking to record words that have been introduced into Swahili by borrowing from English, must search in those spheres where contact with European culture impinges most widely and affects large numbers of Africans. For instance, most town-dwellers attend a hospital at one time or another. Modern forms of transport are used by an ever widening circle. The last war inevitably produced new words—originally coined by or for those serving in the forces. Subsequently these words gained much wider circulation by use in the Swahili press. In the field of sport football is the universal game in East Africa and it would be surprising if it had not produced new loan words. These are but a few of the more obvious places where loan words may be expected to have achieved wide circulation.

At hospitals *daktari* (doctor) and *dressa* (dresser) have long since passed into universal currency. More recently the names of common diseases and medicines are being adopted into Swahili. In this category *malaria*, *numoniya* (pneumonia) *aspirini* (aspirin), and *kwinini* (quinine) are obvious examples. Always the pronunciation is adapted to Swahili usage, so that the stress falls on the penultimate syllable. To go the rounds—either in a hospital ward or to inspect police posts—is *kulauni*.

Transport perhaps represents the most fertile field, for the difference between modern and traditional methods of transport is so marked. Words such as *reli* (railway), *baisekele* (bicycle), *stesheni* (station), *motokaa* (motor-car) and *lori* (lorry) are well-known. *Meli* (steamship) presumably derives from the fact that in the early days, when steamers were few and far between, practically all ships carried mail. The dockyards have also produced *kuli* which makes a plural *makuli*. This derives from coolie and now means a dockyard labourer. We may also note *winchi* used for a crane and *slingi* for the wire sling used for raising loads.

Mixsi is used for the goods train which also carries passengers—the mixed train. *Ng'ong'ong'* is used for a goods train but this is not a loan word but an onomatopoeic ideophone comparable to *pikipiki* (motor-cycle) and *ting'ating'a* (tractor).

Motor transport in particular has produced a large crop of loan words. Drivers and their mates—the turn-boy or *tuniboi*—seem to have a most fertile sense of adaptation. Names of the more widely known parts of a car such as *spiringi*, *breki*, *radieta*, and *tanki ya petroli* require no translation. They are now an integral part of the Swahili language. The processes of driving have produced *kupiga stati* (to start an engine), *kupiga resi* (to accelerate or race an engine) and *kutia gia* (to put in gear). More unusual perhaps is *kuweka frii* which means to put the gears in neutral. *Kutia jeki* is used for jacking up; it is often used metaphorically, meaning “to stimulate” or “to assist”.

Nicknames given to the various types of car cannot really be classed as loan words but they are amusing. *Fordi mapua* (*pua*=a nose) refers to the Ford model, which appears to have two nostrils on its bonnet. *Fordi makoroma* (the snoring Ford) picks on the unique engine note of another model. Bedfords are referred to as *Binti fundis*—a name derived from the first and more obvious transliteration of *Bedifordi*. The Chevrolet model, the bonnet of which opens like the yawning jaws of a crocodile, aptly becomes *Midomo ya mamba*.

Campaigns for better road manners would do well to take note of current Swahili usage if they really hope to put over their message. If you drive fast you will be going *wangu wangu* or, alternatively, *arubii*. The last word seems to derive from the tempo of a popular type of dance record. If you drive without consideration for other road users you may be referred to as *rafu sana* (very rough)—a term that originated on the football field. If you are unlucky enough to have an *eksidenti* (all accidents to turn-boys are the result of bad luck), it was probably because the other driver failed to *toa saiti*. It is not clear whether this derives from “side” or “sight”. Did the oncoming driver fail to keep to his side of the road or did he refuse to allow you a proper sight of the road?

On the football field *kuzidi* (to exceed) or *kuiba* (to steal) are used for “offside”. This shows an intelligent adaptation of existing Swahili words to a modern need. Where official books of the rules prefer *adhabu ya eneo* for “penalty kick”, most players are content with *penaltii*. *Kukonesha*—to take a corner kick—makes a useful causative verb.

Life in the army during war-time must have produced a host of new loan words which deserve to be recorded more fully. The general African public no doubt would fully approve of the tendency to assign animal names to the various engines of war: for instance, *furu* (a rhinoceros) to describe a tank, *papa* (a shark) for a submarine, and *ndege ulayu* (a European bird) for an aeroplane.

Secondary schools are certainly a fertile breeding ground for new loan words, and merit further investigation. *Tuliwini* (we won); *atafeli* (he will fail); *nimepasi* (I have passed); *watapunishiwa* (they will be punished) are obvious examples of loan words fully adapted into the Swahili verb system. In ten years' time, when the present generation has grown up, these words may be widely accepted far beyond their present limited use.

Finally, let us take a look at a well dressed turn-boy off duty. This “spiv” of East Africa makes frequent use of loan words. Naturally, he will wear a *kala* (collar), *tai* (tie), and *soksi* (socks). If he attains true elegance he may be described as *namba wun* (number one), a term frequently used by Ishakias in a general laudatory sense. In his choice of clothes he will eschew anything *Kijapan* (Japanese). Clothes from Japan are cheap, but are regarded as shoddy. His hair will be cut *fashun* (in fashionable style). He will obtain much pleasure—*njoi nyingi*—from attending a *tipati* (tea-party) or from going to the *sinema* (cinema) or listening to the *radiyo* (wireless). He will frequently exclaim to his companions *Aisee!* (I say)—widely believed to be an original Swahili word. If what he says is not understood, his friend may tell him *umenibom*, which means, literally, “you have bombed me” and hence “your slang has defeated me”.

Some readers may object that many of the words used in this article are merely slang (Swahili *mabomu*) and cannot be considered as part of the language. But the dividing line is narrow and who is to judge where the line lies? At least all the words cited are widely used by Africans themselves and have not been imposed by Europeans. Speech is a living organism; if one agrees with Canon Broomfield's* opinion that “the enrichment of Swahili is primarily a work for Africans”, we should try to record and keep abreast of recent developments.

*Africa, iii, 1930, p. 516: “Development of the Swahili Language”.

Book Reviews

THE EMPEROR MOTHS OF EAST AFRICA

By E. C. G. Pinhey

Journal of E.A. Natural History Society, No. 98

Mr. Pinhey may be congratulated on the production of a paper which will be of considerable value to anyone interested in this remarkable family. It does not purport to be an exhaustive monograph of the East African *Saturniidae*, but it does contain a great deal of useful information and it provides excellent figures and workable keys to the identification of the majority of the species likely to turn up in eastern Africa.

Mr. Pinhey's paper is sufficiently accurate and precise to satisfy the specialist. On the other hand his prose is clear and simple and should appeal to the average amateur naturalist without specialized knowledge.

There are no comprehensive works dealing with the African *Saturniidae*, apart from Dr. A. Seitz's monograph, in his monumental work, "*The Macrolepidoptera of the World*". This book has been out of print for many years and can only be obtained at the most prohibitive cost, if at all.

Mr. Pinhey's paper deals with 144 species in considerable detail and illustrates the majority of them with excellent half-tone plates. There is also a good bibliography giving the original references to all the species mentioned in the text.

This paper should do much to stimulate interest in these large and very beautiful moths.

It is obtainable from the E.A. Natural History Society, P.O. Box 658, Nairobi, Kenya. Price Shs. 20/-.

R. H. CARCASSON

PESCATORI DELL'OCEANO INDIANO

By V. L. Grotanelli: Roma, 1955

(409 pages, 1 map and 109 illustrations. Price: Lire 3,500)

Small pockets of people who call themselves *Bajun* or *Bajuni* are to be found all along the Tanganyika coast, and in Pemba, Zanzibar and Mafia. Their main homeland is "the five hundred islands", which stretch along the coast from Kisimayu in Somalia as far as Lamu in Kenya. If they claim Arab origin, it is clear, both from their appearance and from their use of Swahili, that they have long been wholly Africanized.

This work, written by a professional anthropologist, is especially valuable as the first study of an East African coastal people. It is not solely anthropological: there is a detailed study of the geographical conditions under which the

people live and, historically, of the numerous migrations which have brought into being the present ethnological syncretism. Present-day economic activities, dress, house-building, the character, constitution and stratification of the various social groupings, religious beliefs and superstitions, and an analysis of African and Asiatic elements in the Bajun culture, are minutely described with an intensity and enthusiasm of interest which made it difficult, for your reviewer at least, to put the book down before he had read it right through.

There is also a valuable introduction to the Bajun dialect by the eminent Dutch scholar, H. P. Blok, with a select vocabulary, and one felt sorry that such excellent work should have been marred by an Italian translation which is not always accurate of the *Kurratil Ayun fi Nushatil Bajun* (the Satisfaction of the Eyes on the Genealogy of the Bajun) by Fr. V. M. Pick, I.M.C. Without going into detail, it is surely wholly inexcusable to translate (p. 374) *el-Mathkuri* as a title: it is a common Arabic word meaning "the afore-mentioned"! Other such examples can be found. Again, Appendix IV, which deals with finds of Chinese Porcelain, could have given us—had there been illustrations—some clearer idea of the dating and type of the sherds found.

These are but small matters. The minute description of the customs and habits of the Bajun is not less illuminating for the Swahili of the Tanganyika coast. There is far more in common between the Swahili of the extreme north of their area and the southern Swahili of Tanganyika than one would at first sight expect. Thus, apart from its intrinsic excellence, this is a work of genuine importance to those who would understand the history and life of the villages of the Tanganyika coast as well as those of Somalia.

G. S. P. FREEMAN-GRENVILLE

UTENZI WA VITA VYA WADACHI KUTAMALAKI MRIMA

*By Hemedi bin Abdullah bin Said al-Buhriy; translation and notes
by J. W. T. Allen*

*(Supplement to the East African Swahili Committee Journal, No. 25,
June, 1955, 80 pp.)*

UTENZI WA KUTAWAFU NABII

(The Release of the Prophet)

*By Hemedi bin Abdullah bin Said al-Buhriy; translated by Rolan Allen, edited
by J. W. T. Allen*

(Supplement to the East African Swahili Committee Journal, No. 26, 1956, 72 pp.)

UTENZI WA VITA VYA MAJI-MAJI

*By Abdul Karim bin Jamaliddini; historical introduction by M. Bates; translated
by W. H. Whiteley*

*(Supplement to the East African Swahili Committee Journal,
No. 27, June, 1957, 72 pp.)*

Both linguists and historians owe a great deal to Dr. W. H. Whiteley, the active Secretary of the East African Swahili Committee, for the publication of these three volumes. The popularity of the first two has been such that they

are now out of print, and it is welcome news that they are being reprinted by the East African Literature Bureau. It requires, thus, no emphasis that there is a genuine market for serious Swahili literature which is not, like the vast mass so far published, simply at the level of school textbooks.

The first and last of these three works are historical, one describing the Bushiri rebellion, the other the Maji-Maji rebellion. If their manner is traditional, and legendary, this is at least something: it is always hard to know the history of the day before yesterday, and it is an unpleasant fact that at the present time we know more about fifteenth century Kilwa than we do about the beginnings of German rule. The motives of these rebellions have been variously explained: there are still many questions to answer, and the publication of these works will have been even more valuable if it encourages others to come forward with yet more information, or even family papers of the period.

The history of a people is not merely a record of war and of politicians. Indeed the latter are very unimportant in the long run: for every hundred men who can mention Shakespeare, there are probably not more than two or three who can mention a politician of his time. The epic poem of the death of the Prophet Muhammed is intended, as Mr. Allen remarks, "as a sermon more than a piece of history": nonetheless, it is real history in the sense that it is a mirror of the Swahili culture of the late nineteenth century. For the English reader of discernment, who wishes to penetrate below the surface and to know something of the cultural preoccupations of the coastal folk, this work is most illuminating. No less, it displays a sensibility, a subtlety and a refinement which is not always appreciated by outsiders.

G. S. P. FREEMAN-GRENVILLE

SOMALIA

By E. Cerulli

Scritti vari editi e inediti: Volume I, a cura dell'Amministrazione Fiduciaria Italiana della Somalia, Roma, Istituto Poligrafico dello Stato, 1957

(363 pages, with 26 plates and 16 illustrations in the text. Price: Lire 3,000)

No serious student of the history of East Africa, and especially of the Tanganyika coast, can afford to be without this admirable publication with which the Italian Trusteeship Administration of Somalia is honouring Dr. Enrico Cerulli's life work.

Dr. Cerulli joined what was then the Administration of the Italian Colony of Somalia in 1916: subsequently he retired to university life as Somalia's foremost historian.

This volume contains reprints of his articles written in many learned journals between 1916 and 1931 on the history of Somalia and of Islam there, together with the Arabic text and a translation of the hitherto unpublished *Book of the Zanj*. A second volume will bring his published and unpublished works up to date.

Its especial interest to Tanganyika readers (some of whom will have served in Somalia) is three-fold. It contains a collection of inscriptions which afford evidence of Persian settlers in Somalia in medieval times, some of whom called themselves Shirazi.

If Italian Somalia seems far from Tanganyika, its coast is linked by a common use of Swahili. It is thus not surprising to find that the superb illustrations of ancient buildings in Mogadishu, Merca, and Barawa show a close connection with our own. It is the same language of architecture, and important because many of the buildings and tombs bear inscriptions which can assist in the dating of our own monuments.

The *Book of the Zanuj* (a word which means the people of Zanj, the people of the Swahili coast) is an Arabic history of the whole coast from pre-Islamic times: it appears to be composed from various sources, to have taken on its present form in the eighteenth century, and to have reached completion at Malindi shortly before the first world war. It throws new light on the migrations which brought to Tanganyika the Sambia and the Digo (both of whom it mentions), together with other tribes in the Tanga and Northern Provinces. It records traditions, apparently ancient, of Arab settlements along the coast in the pre-Islamic period and before the foundation of the Kilwa sultanate c. 957, which, *inter alia*, explain how it was that the founder of Kilwa was met there by a Muslim settler who had a mosque. It would seem that the author used reliable traditions from the northern areas of the Swahili coast and from South Arabia which have not been known before, and which confirm and elucidate the historical traditions current among the tribes of both Tanga and Northern Provinces*.

G. S. P. FREEMAN-GRENVILLE

FLORA OF TROPICAL EAST AFRICA: OROBANCHACEAE†

By R. A. Graham

A further part of this Flora has now been published, a parasitic family containing the "Broomrapes". It consists of seven pages with one full page plate and two genera are represented *Cistanche* and *Orobanche*.

The first looks like a giant "broomrape" with bright yellow flowers, this is found in dry country, especially on saline soils and is often met with on the margins of the Nairobi-Magadi road below the scarp, just before and after the rains.

The second, *Orobanche*, contains three species, the most common the English broomrape *O. minor* Smith, with a dirty yellow or purplish flower spike up to 2 ft. tall should be known to all gardeners throughout East Africa as it is found from 4,700 ft. upwards appearing most suddenly after heavy showers amongst one's flower beds, especially among annual flowers such as petunias, African marigolds, tobacco, etc. etc. The other two species in this genus are less common, both of them so far only known from Kenya and Tanganyika.

The Flora commences with a full description of the family, then a key to the two genera which should enable one to distinguish one from the other.

In *Cistanche* there is only the one species, *C. tubulosa*, so no key is needed for this, but a full description of the plant is provided along with its distribution in Kenya and Tanganyika in which collectors' specimens are quoted as well as

*The reviewer hopes shortly to make an English translation of this document.

†Published under the Authority of the Secretary of State for the Colonies by the Crown Agents for Oversea Governments and Administrations, 4 Millbank, London, S.W. 1.—pp. 7, tab. 1, price Sh. 1/6.

its geographical distribution in other parts of the world by which we learn that it is found along the southern Mediterranean coastal areas from Morocco to Egypt, eastwards to Socotra and India, and southwards through Ethiopia to Tanganyika. It is also recorded in Senegal.

Orobanche is treated similarly but as there are more than one species in this genus a key is provided for the three that are found in East Africa.

The plate consists of line drawings by Mrs. Milne-Redhead of which there are six, five of them illustrating the full habit of *Orobanche*. Unfortunately there is only one flower drawing for *Cistanche* and that does not show very much.

These plants are parasitic, that is they contain no green colouring matter, chlorophyll, in their stems nor do they have leaves, so they are dependent for their sustenance to carry out their life cycle on what they can obtain from the roots of green plants and we have still to learn more about the host plants of these two genera. It is recorded that *Cistanche* grows on the roots of *Acacia*, *Pemphis*, *Commiphora*, *Suaeda*, *Atriplex*, *Tamarix* and *Salsola*, all trees and shrubs; whilst *Orobanche* does not seem to be very selective, being found on a great number of annual plants such as legumes, *compositae* and *solanaceae*.

The author, R. A. Graham, a Colonial Office Botanist, and Mrs. Milne-Redhead, the artist, both working at the Royal Botanic Gardens, Kew, are to be congratulated on their work in the production of this part of the Flora which can be bought for the sum of Sh. 1/6 from any Government Printer in East Africa, the Uganda Bookshop, Kampala, Uganda, or the Crown Agents in London.

The following parts of this Flora have been published:—

Canellaceae (Sh. 1/-); Caryophyllaceae (Sh. 3/-); Chenopodiaceae (Sh. 2/-); Connaraceae (Sh. 3/-); Hypericaceae (Sh. 1/8); Marantaceae (Sh. 1/3); Menispermaceae (Sh. 3/-); Oleaceae (Sh. 2/9); Onagraceae (Sh. 2/-); Pedaliaceae (Sh. 1/10); Ranunculaceae (Sh. 3/-); Rhizophoraceae (Sh. 2/6); Trapaceae (8d.); Turneraceae (Sh. 1/6); besides a Foreword and Preface as well as a Glossary of Botanical Terms (9d.).

P.J.G.

Correspondence

28th April, 1958

Sir,

The Land Tenure Adviser's interim report, published in Nos. 47 and 48 of *Tanganyika Notes and Records*, mentions the Wateko of Buha District, and says (p. 125) that the function of land allocation has been removed from them "quite recently".

It is over eleven years since I left Buha and it is possible that my memory is at fault, but I think that the Wateko's functions as allocators of land had already diminished, and that the Native Authorities largely exercised those functions when I was there, between 1940 and 1947. They were certainly encouraged to do so, for the Wateko had no official position and land allocation was an easy source of graft in a district where graft was a law of life.

My recollection is that the Wateko's role was generally recognized as more spiritual than temporal, but it would have been rash to have accepted their importance among a people whose lives were . . . and perhaps still are . . . so bound up with superstition. But the Ha were always reluctant to discuss their beliefs with strangers and it was not until friendships with many different members of the tribe brought reliable information that I decided "Land Guardians" was the most apt description of the Wateko, and that their guardianship was primarily concerned with the supernatural.

There is a story—told, I think, by E. H. Allinson for many years Sleeping Sickness Surveyor in Buha—of an old Ha woman he met dragging a trussed but unharmed python along a path. Pythons are sacred in Buha being so far as I remember, reincarnated Chiefs. This one had been making a nuisance of itself on the old woman's land and she was taking it along to the Mteko. "For, she said, he's responsible for guarding my land from things like this which we can't deal with ourselves".

Yours faithfully,

JOHN J. TAWNEY,

Editor, "*Corona*"

Colonial Office,

Sanctuary Buildings,

Great Smith Street,

London, S.W.1.

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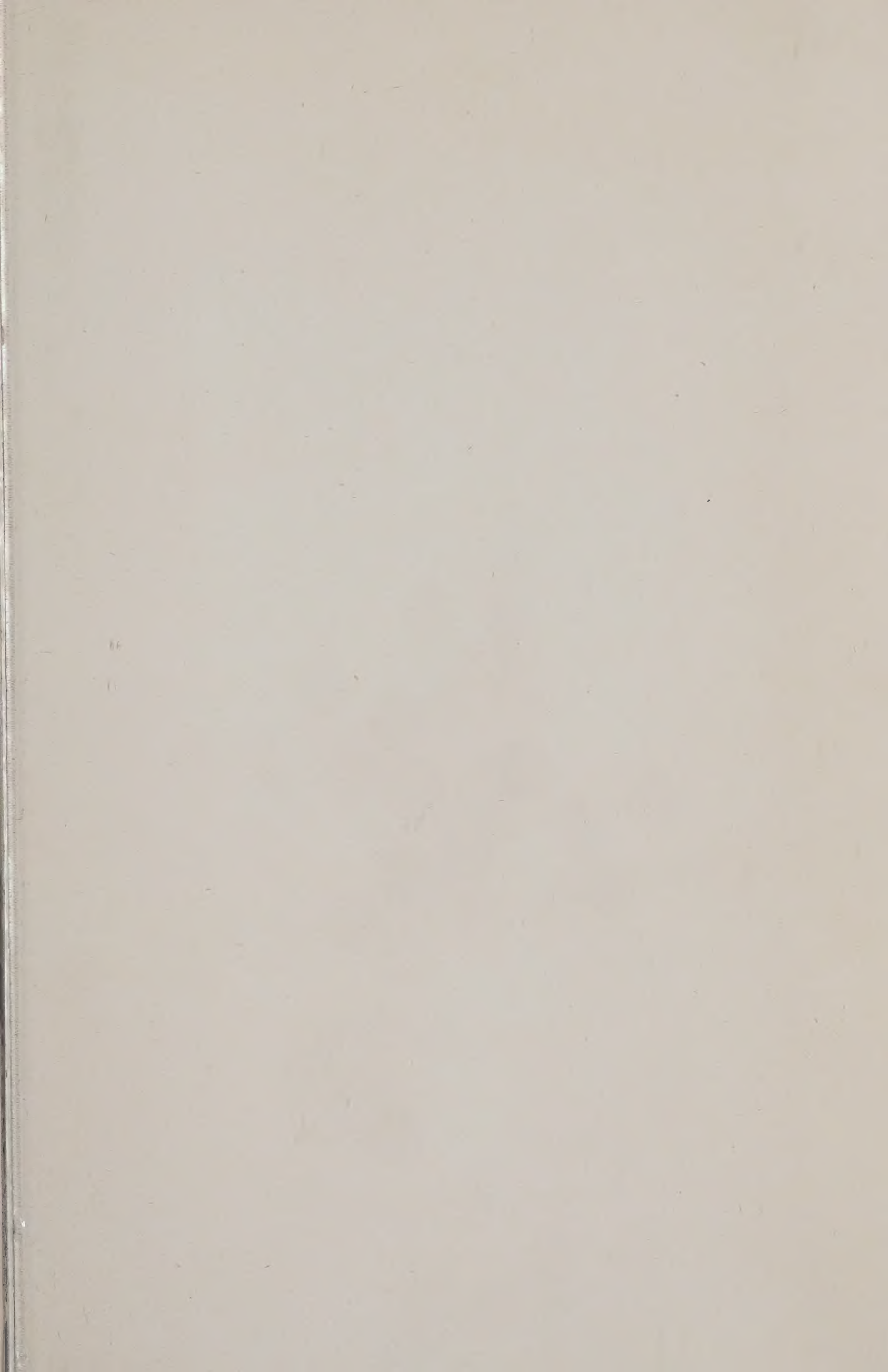
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