

through the dorsal fin, allowing the bait to swim alive for nearly an hour.

They can be caught with a piece of squid by trolling, and on taking the bait they rush straight away at a great speed, but apparently do not make a good fight.

They are never seen leaping at sea, and during May they are very plentiful and can be caught inside the reef. When the north-east monsoon blows they are always found out in the ocean.

Considering that indications of the presence of big Game fishes are to be found off Mombasa, I can only hope that someone with sufficient leisure may soon undertake to give the capture of them by means of rod and line a fair and exhaustive trial. To do this successfully the use of a motor-boat is, in my opinion, essential. The local craft of all shapes and sizes are quite unsuited for the attempt, except in the inshore waters. The tides are comparatively strong, and during the best fishing months, December to March, the wind is very fitful and moderate, and causes hours of delay in reaching the outside fishing grounds where the big fish may be found.

As regards the question of the preservative I employed, and the results in my hands, I refer the reader to page 89 of this JOURNAL, where a short article I have written on the subject will be found.

In a later issue I hope to chronicle a list of the fish in my collection, coupled with a few individual notes.

THE THOWA RIVER

BY ARTHUR M. CHAMPION

The course of this river had for some years been a subject of much dispute, at any rate among those who have had any connection with the Kitui district. Opinions varied so widely that by some it was held to be in the Tana basin, whilst others maintained that it joined the Tiva and eventually flowed into the Sabaki.

Some years ago Captain Aylmer led an expedition down the Tiva, and, though he was unable to get as far as he intended, obtained quite conclusive evidence that the river was absorbed in the sands of the Nyka. He also ascertained from the natives that the Thowa pursued an easterly course and was terminated by a lake of some size.

During a residence of more than two years in Kitui the natives had given me such conflicting information with regard to this river, that I naturally became more and more anxious to find out for myself, and so make an end to these disputes and conjectures. My work had frequently taken me to regions traversed by this river in its upper course, where it flows through a well-populated and not unfertile valley. During the rains I had found it to contain a great volume of water which not infrequently overflowed the channel. The muddy waters swept past me with no uncertain current, bearing along huge logs of dead wood and other débris. It seemed hardly credible that such a quantity of water could be absorbed before reaching the sea.

Some years ago Mr. Lane, when District Commissioner at Kitui, followed the river some thirty miles east of Mutha, and quite recently Mr. Scholefield has done the same. Both reported a well-defined broad channel running due east.

Judging from reports some difficulty with the water-supply might be expected, and so it was considered best to set out as soon after the cessation of rains as possible. The November-December rain in the Kitui district had not been good, so that arrangements were made for carrying two days' water if necessary. In spite, however, of a rather late start, this provision was found unnecessary.

Mutha was reached by January 14 and here I found that the Chief Ngovi had already picked me out thirty of his strongest men, besides eight reserve men who, in addition to their bows and arrows, were armed with large knives for cutting the bush, which report said was very dense. Two old elephant hunters were also enlisted : Solo, an intrepid pursuer of all game, with a reputation of two hundred elephants to his poisoned shafts ; and Munubi, who had retired from the profession years past, and who was a man of extreme caution. After leaving Mutha

we could hope for no supplies, as the country was reported to be quite uninhabited as far as the banks of the Tana, except for hunting parties of Galla and Ariungula. We did not, however, meet a human being from the day we left Mutha to the day we got back.

At sunrise on the following day we set out, a *safari* of fifty men in all, and reached Tulima, where a small pool of surface water was found. Tulima, as its name infers, is a little hill composed of granite-gneiss and is the most easterly of the great north and south dykes that constitute the hills of the Kitui district. Eastward the country was quite flat, with a straight and uninterrupted horizon of brown scrub.

At Lane's Camp we first struck the Thowa, which was found to be about eighty yards broad, with a dry and sandy bed. Water of an excellent quality was, however, found at a depth of one foot. Up to this point the bush had been very thick, and, though we had followed an old track, considerable cutting was necessary before porters with loads could pass. The river banks were low and fringed with gigantic acacias known to the Akamba as 'Mimina.' In places a few rocks were exposed, and these consisted of banded gneisses and other Archæan rocks, all very hard and compact. Owing to the existence of so much bush and the entire flatness of the country, exposures of rock were quite insufficient for anything like a geological survey of the country. Judging from the sand and soil I think one may safely say that all the rocks belong to the Archæan Age, and that they lie for the most part in a practically horizontal position. Nowhere did we come across sedimentary rocks of any kind, except a few very recent river and lake deposits. A few loose fragments of phonolite were found lying about, but not seen *in situ*. These rocks I have also found north-east of Endau.

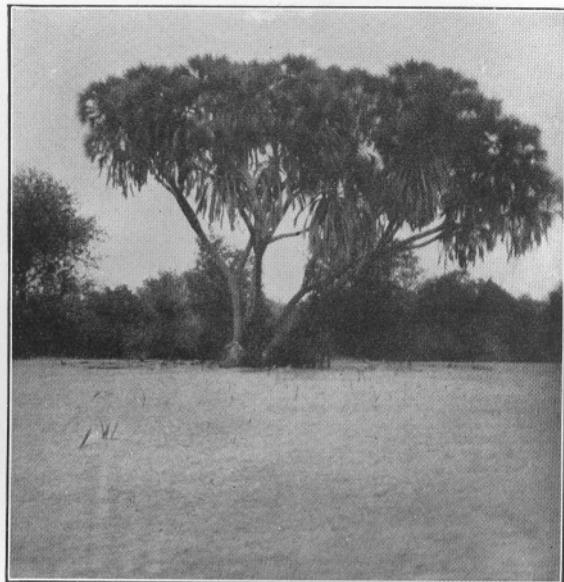
The third day after the Thowa had been crossed and left on our right, we encountered more open country and had no difficulty in following a track which had been kept more or less open by the passage of elephants. This led us into quite a hospitable-looking country, well provided with pools of water. It was by the side of one of these, known to the hunters as Eyaní Mutumbi, that the camp was pitched. This pool was

about eighty yards across and about two or three feet deep, and should provide water for, certainly, two months after the cessation of rains.

Up to this point we had seen no game, though spoor of elephant, giraffe, oryx, and buffalo had been plentiful. A herd of five giraffes, delightfully unconscious of the camp, came down in the evening to drink at this pool. From this day onwards we were continually amongst game, though the fact was not so obvious in the bush country as on the open plain. On leaving this camp we soon emerged from the well-watered region and struck into a scrub—thick, thorny, and fearfully dry. Twelve miles of this were traversed before we could reach the river Thowa. We crossed it immediately, the breadth here being fifty yards, and encamped. This camp I have called the Thowa River Camp, as I could find no name for the locality. To the south lay an open alluvial plain, on which were to be seen eland, oryx, zebra, and Peter's gazelle.

Beyond this point the general aspect of the country underwent a considerable change. The bush became more open, except for the forest fringe on either side of the river. These gigantic acacias and dom palms (*Hyphaene thebaica*) still held sway, protecting an entangled undergrowth, the home of countless elephants. These beasts, it appears, shelter here in the heat of the day, browsing off the green vegetation, and only at night come out to wander afield. On one occasion only did I see an elephant in the open scrub country, but all day long they were to be heard within the fringe of forest. From the sounds themselves and the devastated condition of these same forests, I should say there must have been hundreds. Grass became very scanty giving place to large open spaces (*vide* photo) or mud-pans. In some places this mud was smooth and firm with a surface like asphalt, in others sun-cracked. Oryx, eland, lesser kudu, and gerenuk became quite numerous, and in the early morning were to be seen standing about on these open places.

Henceforward we followed the river for three days, at times pushing our way through the forest belt, at others making good pace over the mud-pans. At Watolo, where there is a large pool, the river divides, one arm running northwards and



DOM PALM IN THE KATHUA RIVER BED AT KASILUNI KWA MAHUNDU



ON THE MUD PANS NEAR KILUMBI.

losing itself in an extensive swamp known as the Kamaka forest, a spot beloved by the old elephant-hunters. The southern arm, which is the main river, is very difficult to follow; but on being joined by the Ngutu river reasserts itself in a remarkable manner, and runs in a broad and well-defined channel as far as Mutila. Beyond this point I am told it again divides, but at Kauti I found only one channel and that comparatively narrow. From Kilumbi to Mutila the forest belt is much wider and abounds with elephants, but I did not see any very big tuskers. The largest that I saw might have scaled 70 lb., but the owner had but one.

From Kauti onwards the river became steadily narrower, but the heavy quartz sand, met with above, had for the most part given place to a fine mud, which set fairly hard and made walking much less arduous.

On January 25 we reached Muthungui, where the river loses itself in sand and mud. This spot is covered with trees of some size, thick undergrowth and rank grass, and during the rains must be very swampy. This was the farthest point reached, and, according to my fixing, measures eighteen miles from the Tana at a point called Marumbini; there I climbed a tree, one of the highest, but could see no signs of the Tana River. Eastwards the Thowa was no more, and the country presented an unbroken horizon of brown scrub. Turning west I could see the course of the Thowa, well-defined by the green belt of trees fringing either bank. The aneroid recorded an elevation of 360 feet above sea-level.

The guides said that there was no water between Muthungui and the Tana, but that there existed a waterhole dug by the Galla people. It was doubtful if we should find water there. Moreover it appeared to be out of the direct line, so that two days would be required to reach the river. Shortage of supplies compelled us to relinquish the attempt to reach the Tana.

From Kauti, by way of varying the return route, we struck north-west till we met with the Kathua.¹ This river we intended to follow up to its source, which the guides said was in the Endau range. A five-hour march brought us to a very small and dry

¹ *Ka* is a Kikumba diminutive, Kathua therefore means small Thua. Thowa should, I think, be spelt Thua, but I have adhered to the old spelling.

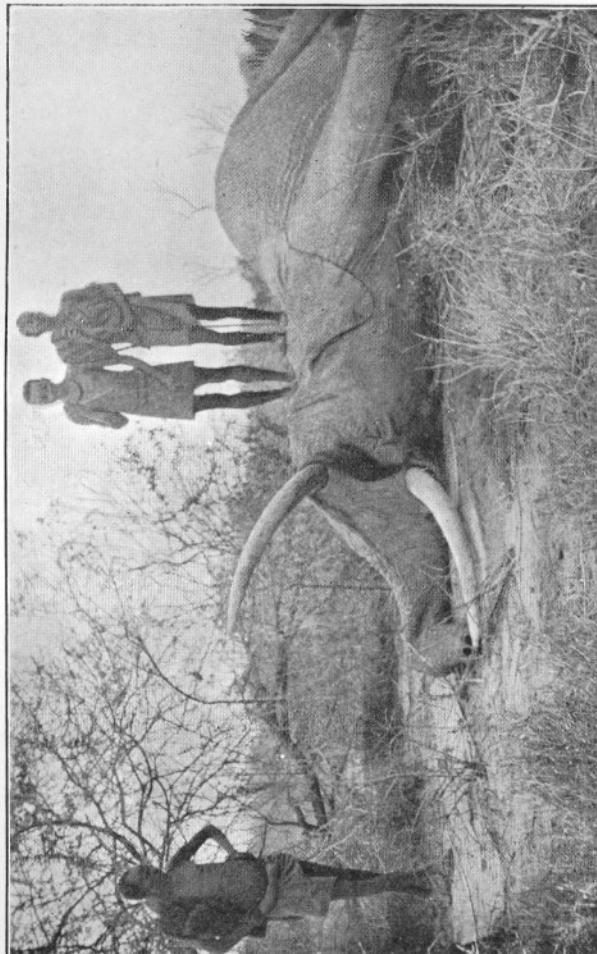
watercourse, up which we worked our way. The width gradually increased, and we were soon astonished to find ourselves in a bed as broad as that of the Thowa, and fringed with large trees and dom palms. Water was found at a depth of about four or five feet in the sand.

The next day we continued up the river to a spot called Kasiluni Kwa Mahundu. In times past the guides told me Mahundu had been a mighty hunter and this was his favourite haunt. In fact, I was shown a gnarled old tree much disfigured by Mahundu in his efforts to make a suitable platform from which to shoot down at the elephants as they came to drink. Solo also seemed well up in the geography of the neighbourhood, and volunteered to go on up to another waterhole and see if water was obtainable. He returned early next morning, but his news was not encouraging, so we struck back on to the Thowa again and pursued our old track back to Mutha.

Though we failed to reach the Tana, the main object of the trip had been performed, namely, the determination of the course of the Thowa. Furthermore, I am convinced that Captain Aylmer's information was, in the main, correct. From the general appearance of the country between the Thowa River Camp and Kauti, and especially from the existence of these mud-pans, I am of the opinion that during the rains that region is for the most part under water: in this I am also supported by the evidence of the natives I had with me. From the appearance of the higher ground it would seem that the rainfall in these parts is very small. The flood must be entirely derived from the rains that fall on the hills which compose the centre and inhabited parts of the Kitui district.

At Muthungui there was a marked tree which, I was informed, stood at the termination of the river, but owing to exceptionally heavy rains, which occurred some years ago, this seems to have been extended so that the waters have now been pushed on several hundred yards.

The whole country, with the exception perhaps of a few hundred yards on either side of the river, is, I should say, entirely worthless. If the flood could be controlled, a limited cultivation might be possible, but at present I understand that the entire lack of water, even in the river bed during



THE TWO AKAMBA HUNTERS SOLO AND MUNUBI.

Note.—According to Kikamba custom the end of the trunk was cut off before life was entirely extinct.

the drought, precludes the possibility of European or even native occupation.

The Akamba consider the Thowa River Camp as the extreme eastern limit of their territory, and the guides became quite anxious beyond this point, lest we should be attacked at night by hunting parties of the Galla. From what they said it would seem that the locality had been the scene of many fights between rival hunting parties of Galla and Akamba for possession of each other's ivory.

As far as the Thowa River Camp we had followed along an old track which at times became quite lost, but the guides, never losing their bearings, took direction from one marked tree to another. These seemed to be well-known landmarks to a number of the men. Beyond, no path existed ; but so skilfully did these men march from one landmark to another that the absence of the path caused no anxiety or delay.

In the inhabited parts of Kitui the Baobab trees frequently serve as convenient landmarks, but here they were entirely absent. The scrub presents an infinite variety of bushes, some dry and thorny, others with a soft green foliage, and a few bearing eatable berries. Three kinds of fibre were met with, but in small quantities only.

No tsetse flies were seen, though some other species of biting flies were secured. Butterflies were conspicuous by their absence.

The game encountered were such as have been mentioned above, with the addition of rhinoceros and a gazelle, which I took at first sight to be an immature gerenuk owing to absence of horns, but which, on closer inspection, I believe to be of another species. Greater kudu was reported, but I was only shown the spoor, with which I was not familiar. The horns of a waterbuck were picked up near Mutila.

Judging from spoor, the game must be very plentiful. But in a bush of this sort, one's field of vision is so limited that one might be led to suppose that game were very scarce. A pair of lions were heard one morning, but that was all we heard or saw of lions or leopards.

Game birds are not plentiful and become scarcer as one goes east. They include guinea-fowl (vulturine with blue

20 EARLY MAN IN BRITISH EAST AFRICA

breast), francolin, sand-grouse, snipe, and lesser bustard. Other birds are comparatively scarce.

Throughout the trip, which extended over twenty-eight days, I enjoyed the companionship of Mr. Lindblom, to whom I am indebted for one of the photographs here reproduced. Attached also is a sketch map, on much reduced scale, of the route taken and the course of the river.

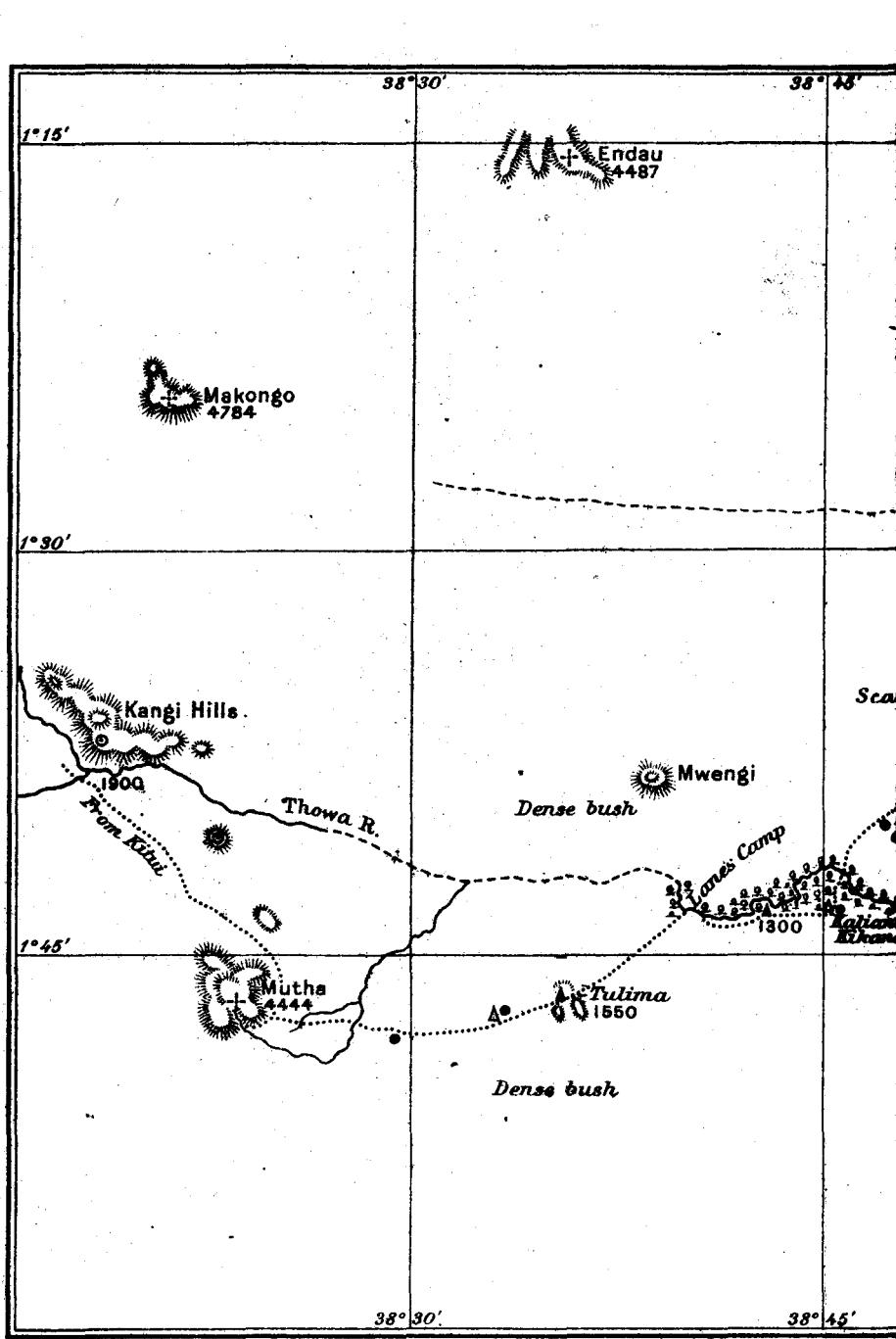
EARLY MAN IN BRITISH EAST AFRICA

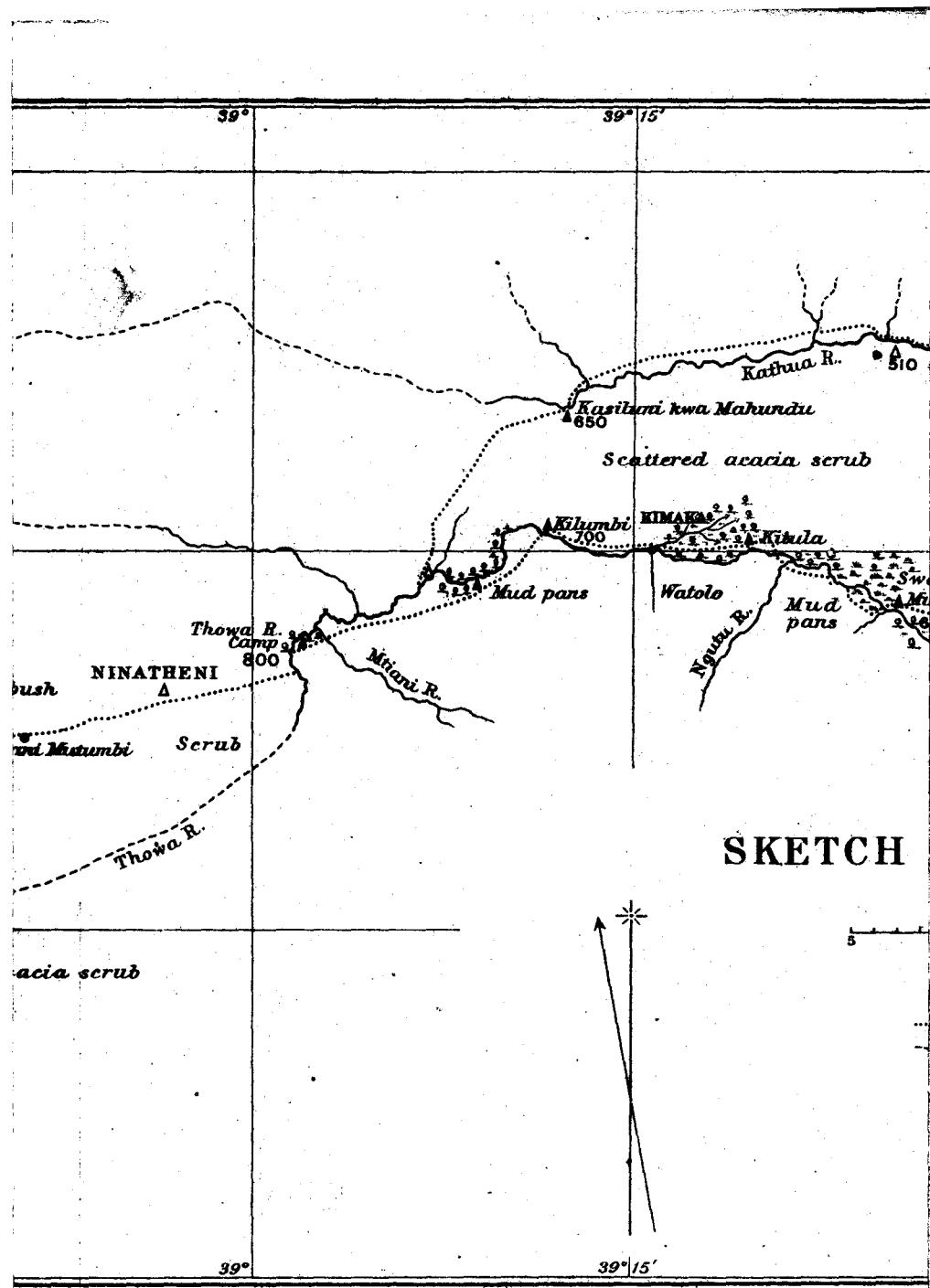
By C. W. HOBLEY.

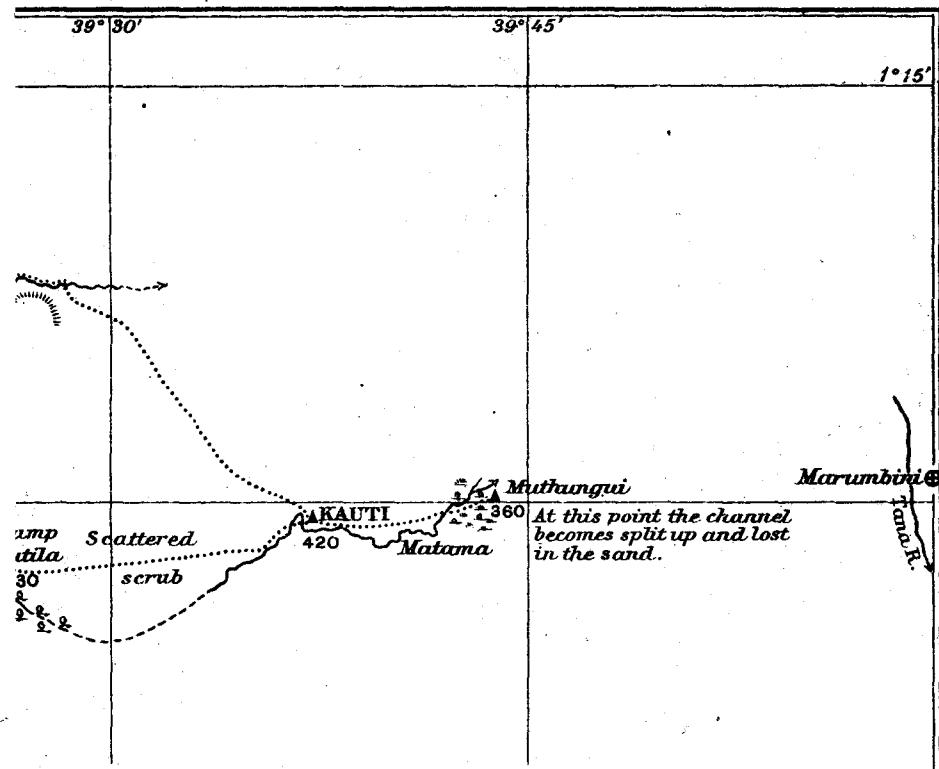
One would expect to find relics of prehistoric man in Africa, perhaps more than anywhere on the globe, because it is the general opinion of geologists that the heart of the Continent has been continuously above the sea for a very long period, geologically speaking.

This hope has not been altogether disappointed, for stone weapons and implements have been discovered in different parts of the Continent, widely apart. The two areas in which most finds have been made are South Africa and the Nile Valley.

Artificial stone implements from Africa were probably first noticed in Egypt, being first accidentally found in the course of excavations for Egyptian antiquities, and owing to the extraordinary preservative qualities of the desert sand many bones, and other more or less perishable things, have come to light. In South Africa the first recorded implements were discovered about 1866, and since then many thousands have been picked up from Cape Colony to Rhodesia; other evidences of culture, such as pottery, have been found, but they are rare. A few human remains have been found, but not to any great extent. Stone implements have also been recorded from Somaliland, Darfur, the Congo, and other places. In Europe and other parts of the world we owe a great deal to the wide occurrence of limestone deposits in preserving relics of early man, for two reasons. Limestone rocks easily weather into caves or large cavities, formed in it by the solvent action of







MAP OF THOWA RIVER

Scale R.F. = $\frac{1}{500,000}$

0 5 10 15 miles

1° 45'

Index

- + Trig. Survey Points
- Route taken
- - - Unsurveyed river courses
- ▲ Outward camps
- △ Return camps
- Water holes, pools, springs etc.
- ♀ Forest trees

Heights in feet above sea level taken from Aneroid readings

39° 30'

39° 45'

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