

PRELIMINARY NOTE ON LIAMBA HILL STONE-AGE DEPOSITS

The information which led to the discovery by Mr. R. Beare, (of the staff of Mbala Secondary School) of what appear to be important stone-age deposits provisionally described below was given in 1957 to Mr. J.L. Carlin, of Abercorn (now Mbala) and was reported to Livingstone under the heading "Some Geological Indications" in a note sent at the time. It came from Mr. Barry Page, a ~~REE~~ research student of Leeds University, who worked for two seasons in the area on the study of Rift Valley formation theories and of the 2,200,000,000 years old beaches exposed along the Lumi River valley. The report was that occurrences of chalcedony and of ~~the~~ fine green indurated shale (common in the M.S.A. Kalambo artifacts) were outcropping in the Liamba Hill and Chipande areas. It was kept in mind as a lead to possible quarry sites.

Following Mr. Beare's initial visits to the site in November, he and I went to the area on December 2, 1967, and spent some 2½ hours on Liamba Hill.

The hill is an outlying height of the Nachilanga Ridge which rises half-a-mile east of Kawimbe Mission - about 14 miles east of Mbala - and curves south to the Kanji Ridge and Maniola Hills, westward to the Chipande Hills and then south again to Itimbwe and Sunzu Mountain where it is then crossed by the main Tunduma Road. The range runs in an "S" curve extending over 25/30 miles, Liamba Hill being within the upper curve of the "S". It is also crossed by the Old Stevenson Road just south of Kanji Ridge, and it is pierced at the (east/west) mid-curve of the "S" by the gorge known as the Saisi Gap, west of the Maniola Hills, through which the Mwandwisi River runs southward to join the Saisi River about five miles from the Gap. The site of Old Fwambo Mission is 2 miles south of Liamba.

The general altitude of the range is between 6,000 and 6,200 feet to the Gap and then just under 6,000 onwards until, after intersection by several gorges running down from the plateau to the Saisi Valley, it rises to 6,742 at Mount Sunzu, which is reported to be the eroded remains of a volcanic "pipe".

The summit of the isolated Liamba Hill is just higher than the range, being put at 6,225 ft., and is some 1,200 yards (on the map) from the range summit which is shown at 6,198 ft. at that point. The valley between is on the 5,700 ft. contour, being about 500 ft. deep.

The drainage of the upper curve of the "S" on the western (inner) side is by the Mwandwisi River which rises in the Kawimbe area and runs southward about 1½ miles west of Liamba Hill where its bed is at 5,300 ft. On the west side of the Mwandwisi Valley the ground rises more gently to 5,800 ft. in a distance of about 2,000 yards - the whole valley being between 2½ and 3 miles wide.

The eastern side of the range is drained by the Lumi River which flows south from an altitude of 5,365 ft. at the Lumi Customs Post and runs down the eastern side of the ridge for about 17 miles, joining the Saisi at a point near Old Jericho Farm just below the 5,000 ft. contour.

The Saisi River is a slow-running major river flowing east and north-eastward on the 5,000 ft. contour through a flooded, marshy valley often over a mile wide at the 5,050 ft. contour. It drains into the Rukwa system to the north.

It is suggested that these rivers have been in former times the agents in the erosion of a 6,200 ft. peneplane now represented by the summits of the hills

and, especially, of Liamba Hill with its 25 ft. additional height. The character of the Saisi Valley would appear to indicate the reception of massive erosion deposits through a lengthy period and from an extensive area.

Apart from the general topography and drainage of the area, this suggestion is made on two further grounds :

1. The whole surface of the western slope of Liamba Hill formation, from the road along the eastern margin of the Mwandwisi Valley up to and including the rounded summit, is almost completely covered with stone fragments so thickly laid that there is hardly any grass cover and only thin, open bush cover. There is virtually no undergrowth at all. The surface is often entirely loose stone, like a beach, almost irrespective of the angle of slope which is, in places, very steep. Over large areas the stones are covered by dead leaves with no growth coming through. On the lower slopes earth and humus are more evident and on the lowest, gentle slope to the road the stones overlies and are dispersed in a light sandy soil.

These stone fragments are largely - in fact mainly - artifacts. In some places there is hardly a natural stone to be seen. They appear to be debris and implements representing more than one culture. There are multitudes of small flakes, blades and cores of late M.S.A. (Magosian ?) type; rather crude, small hand-axes, perhaps Sangoan; many notched implements; large burin type implements; numerous large crescent or disc type tools with well worked convex edges; some large cores and, on the lower slopes, very large cores, such as boulders with obvious flake scars. One perfect small "rostro-carinate" was recovered.

In a 2½ hours examination, the surface for over half-a-mile and nearly 1,000 ft. vertically and the rounded summit plain itself were found to be consistently covered with this material with the variation that the gentler slopes and level patches or terraces in general bore much smaller fragments than steeper slopes, and larger and very large cores etc. seemed concentrated lower down ending with the flake scarred boulders mentioned. This appears to be the sorting effect of hill-wash and, of course, varies with its speed and volume. Thus many large fragments remain at the higher levels and there are also plenty of small fragments lower down. This is a hill-wash and (in the gullies) torrent-bed type of distribution actually in operation at the present time.

The material is predominantly chalcedony of the white and grey colourings, but brown chalcedony, "blood-stone", "agate" (one very fine specimen) and "heliotrope" (pale amethyst colour) were also found as was some obviously imported material such as two types of granite and a dense volcanic stone (mylonite or a porphyry ?).

2. The second reason for the suggestion that this is a denuded pene-plane debris is that, dispersed profusely over the whole western hillside and the summit, there are large boulders of a conglomerate containing chalcedony (but not as ~~they~~^{yet} proved to contain implements). These nodules and fragments are in a sandy matrix, very hard where not weathered but visibly crumbling on bottom, downhill, side of some boulders (where exposed to damp but protected from any sun). These are at many different angles after rolling down the hill, some with bedding planes vertical.

It is (so far) my opinion that these represent the collapsed remains of a consolidated strata of gravels probably containing an important archaeological series, unusually extensive in area and, perhaps, in time:

I am of opinion that the whole mixed assemblage on the summit and slopes (possibly excepting some late contributions associated with iron-age traces

mentioned later) has eroded out of this conglomerate and, in view of the fact that the conglomerate occurs profusely at the extreme summit of the hill (6,225 ft.) I suggest that it must represent the peneplane of a period before "recent" ^a massive erosion associated either with a "pluvial" or with the rapid discharge of a lake once contained within the upper bend of the "S" through the Saisi Gap.

It would seem that these are the remains of a very extensive settlement site existing through a lengthy (perhaps "interpluvial") period; that the period was long enough to include more than one culture and for the implements and debris of many thousands of years to consolidate under climatic influence and with a sand contribution either from high level river flooding or, possibly, windblown ^b as elsewhere; and that, as the associated valley floor deepened, the edges of these consolidated gravels, capping this part of the peneplane, have progressively collapsed (and are still collapsing), the matrix has disintegrated into the sands found at the bottom of the hill, and the contents have been distributed over the hillside. ~~The~~

I also suggest that the reason why the hill (an "outlier") resisted erosion has been this conglomerate capping, with its content of chalcedony and that the presence of this abundance of material was equally the reason for there having been so extensive and (apparently) prolonged stone-age occupation.

The provisional examination recalled very strongly to me my reading of Dr. J.D.Clark's account of the Zambesi Valley chalcedonic deposits in his ~~1931~~ "The Stone Age Cultures of Northern Rhodesia" (South African Archaeological Society, 1950). ^{On} reference to this I find that he gives altitudes varying from 3,200 to 4,100ft., and mentions a linkage with Angolan and Congo Basin occurrences. This example 1,000 miles north of the Zambesi and at 6,225 ft. seems to be of special interest in this context.

The Iron Age traces so far seen are of two kinds. At the foot of the hill, close to the road, there is a high (about 8 ft.) kiln in good preservation - obviously very recent and of the type found frequently in the neighbourhood of (and even within) Mbala Township and in areas to the east of it. These are probably ^b no more than one or two hundred years old, immediately pre-dating European occupation.

On the higher slopes, however, there are remains of a much smaller type of kiln in the shape of pits (two or three were seen) like ant-bear holes and possibly used by them, but with indications of baked clay and fire staining of the margins. One of them is completely filled with fragments of baked clay bright red in colour. It is unlikely that the fire staining results from bush fires as the bush and grass cover is very scanty. These are probably much earlier, although, of course, long subsequent to any major erosion as the pits are dug in eroded material.

The whole occurrence richly deserves expert survey.