

Prehistoric Archæology in Ceylon

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It was in 1908 that the Sarasins discovered the existence of a stone age in Ceylon. Other workers such as the Seligmans (1911), Hartley (1913) and Wayland (1919) followed, but it was not possible to formulate a chronological sequence with any semblance of accuracy since the bulk of the material collected was picked up from the surface and vertebrate fossils from the Island were unknown.

In 1935 an extension of the extinct Shivalik [Shiwalik] fauna of India was discovered in Ceylon, and termed the extinct Ratnapura fauna (Deraniyagala 1936; pl. 1). This opened up possibilities for a great advance on the existing methods of age determination of the Island's prehistoric industries, but the subsequent discovery that the fossils were mostly redeposited ones (Deraniyagala 1955a) has proved an impediment.

Before discussing the stone age of Ceylon further, it is necessary to realize that this Island harbours several relics of both beasts and humans which had originally ranged widely over the Indian subcontinent. For example, the southern limit of the extinct hippopotamus in India is the Godavari river; thereafter it recurs in Ceylon (Deraniyagala 1936). Similarly a subphase of the Suwan (= Sohan) stone industry which at the time was only known from Northwest India was found to possess a closely allied, if not, identical subphase in Ceylon (Deraniyagala 1940a).

Nothing was known about the makers of these artifacts for many years and it is interesting to note that although India contains such extensive fossil deposits, authentic hominid fossils were unknown not only from there but from Burma as well (Sahni 1956).

In 1957 however the completely mineralized thick, left, supra orbital ridge of a hominid was recovered from the gem sand of a gem pit at Karangoda at a depth of 12½ feet. With it were fossils of Ceylon's extinct hippopotamus and elephant. This extinct human has been named *Homo sinhaleyus* Deraniyagala 1957.

Two years later the crown of a large, left upper incisor tooth, 16 mm. long and 15 mm. wide, of a pithecanthropid was obtained from a gem pit at Balahapuva near Ratnapura. With it were fossils of hippopotamus, rhinoceros, elephant and bovines and also a scraper of rock crystal. The name *Homopithecus sinhaleyus* has been assigned to this being (Deraniyagala 1963a). Both holotypes are in the Ratnapura Museum.

The oldest stone implements of Ceylon might be the handiwork of either one or both of these hominoids but until more material is discovered *in situ*, no further view is possible. A tentative chronology can be erected by correlating the most archaic types of stone implements which belong to the Ratnapura industry with the earliest species of mammals of the extinct Ratnapura fauna (Pl. II).

The artifacts of the first subphase of the Ratnapura industry are difficult to distinguish from naturally fractured stones, but the second possesses artifacts akin to the early Suwan [or Sohan] of India, while in the third subphase choppers and cleavers are common, Abbevilléo-Acheulian type hand-axes are rare, and Levalloisian type artifacts also occur (Pl. II).

Of younger age is the meso-neolithic Balangoda industry in which the associated animal remains belong to recent species. Among its stone implements are pygmy semilunates, hammer pebbles both unpitted and pitted, tranchets, adzes, an occasional hand-axe, burins and mace heads or spindle whorls with bifacial drilling.

Some of these reveal that the art of grinding and polishing stone implements was known but had not progressed very far (Deraniyagala 1942*a*). The type collections are in the Colombo and Ratnapura Museums of Ceylon (Deraniyagala 1953). As these humans had used simultaneously stone implements of palæolithic, mesolithic and neolithic types which at times occurred with potsherds (Deraniyagala 1958 *a, b*), it is not improbable that this group had been in Ceylon since palæolithic times and gradually evolved the more modern types of implements without completely discarding their original palæolithic ones. It might also be the case that a palæolithic people had originally inhabited Ceylon. Subsequently, humans in a meso-neolithic culture phase using crescentic microliths had entered the Island from India, and the two groups had hybridized. The ancient references to the existence of several barbaric groups termed Yakkas, Nagas, different tribes of Vāddas and the naked Nittayo, when correlated to the evidence supplied by the different types of stone implements, supports such a view.

These extinct humans are named *Homo sapiens balangodensis* and were first known from a frontal bone and a well worn last molar from Ravan Ella cave, later from other caves at Kuruvita and Telulla (Deraniyagala 1955*b*) and finally from a kitchen midden cum burial mound at Bellan Bāndi Pālāssa which yielded skeletal remains of ten individuals some of which were fragmentary. All were in flexed postures and in association with a wealth of stone, bone and antler artifacts (Deraniyagala 1957, 1958*a*, 1963).

The skeletal remains of this group were always discovered in association with hammer pebbles (Pl. III *a*) which were frequently pitted at the short axis, pitted anvil cum grindstones (Pl. III *b*), other stone and bone artifacts and the remains of the various animals they had utilized as food (Deraniyagala 1957).

The first major discovery at the open air site at Bellan Bāndi Pālāssa revealed that at times potsherds also occurred with the other artifacts (Deraniyagala 1960, 1963). This site has yielded a greater and more varied assortment of bone implements than any corresponding one in India. Some were hand-axes manufactured from slabs extracted from the leg bones of elephants (Pl. III *c*), others were daggers or celts made by removing the brow tine from a sambhur antler, then splitting the beam and trimming it into a triangular blade, leaving the burr of the antler at the posterior of the handle (Pl. III *c*).

These humans were dolichocephalic, with diffuse thick brow-ridges in the males and with the third molars well worn through usage (Pl. I *c*). Some males revealed a strikingly great distance from the nariale to the prosthion (Pl. I *b*) and a considerable portion of the occipital bone is visible in norma verticalis.

Since the publication of these descriptions, Dr Kenneth Oakley of the British Museum wrote to the Government of Ceylon requesting the loan of the skeletal material for intensive study by Dr K. Kennedy of the University of California and by the officers of the British Museum. The request was granted and the results of this study are being published by the British Museum.

Meanwhile, another skeleton of a 17-year old individual was secured and this, together with the skeleton of an adult male, were worked out by the present writer and the results are in *Spolia Zeylanica*, 30(1), 1963.

Other work in prehistory consisted of sending out Museum field parties to excavate trial trenches. Those which yielded animal remains and stone artifacts and appear to be worth detailed excavation are as follows:

Year: 1961—Mālena at Gavaragiriya.

1962—*a*. A rock shelter in Kongala forest near Deniyaya.

b. Belilena rock shelter near Kitulgala.

c. Dahiya lena rock shelter at Batatota, Kuruvita.

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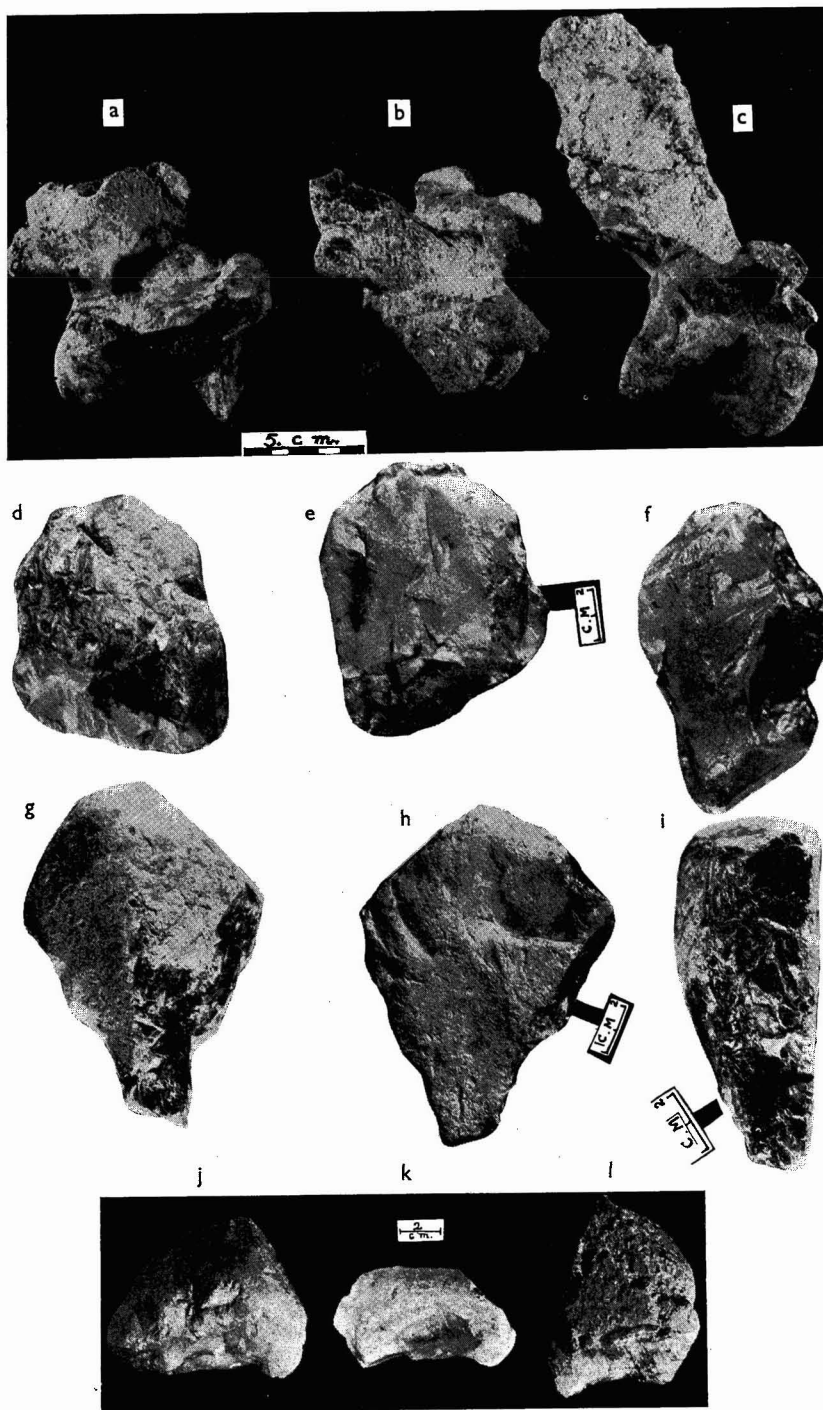
a. The occlusal view of the left mandibular ramus of Ceylon's extinct hippopotamus *Hexaprotodon sinhaleyus* Deraniyagala. The specimen was dug up at Ellavala. Note the reduction of the 2nd and the partial reduction of the 1st incisors.



b. The face of an adult *Homo sapiens balangodensis* dug up at Bellan Bāndi Pālāssa. Note the great distance from nariale to prosthion and subequal incisors.

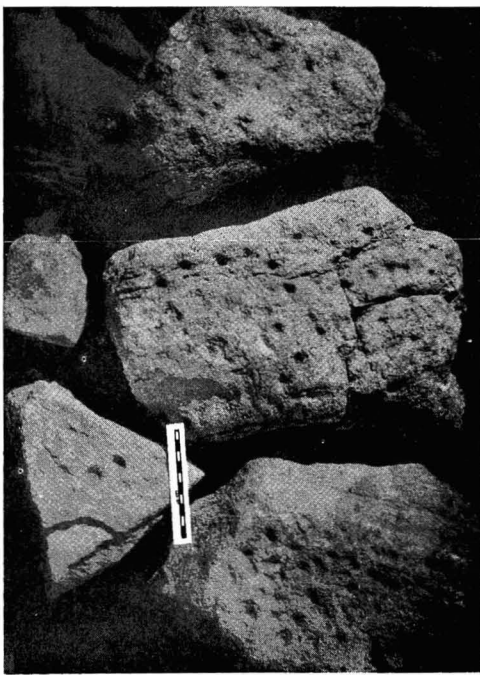
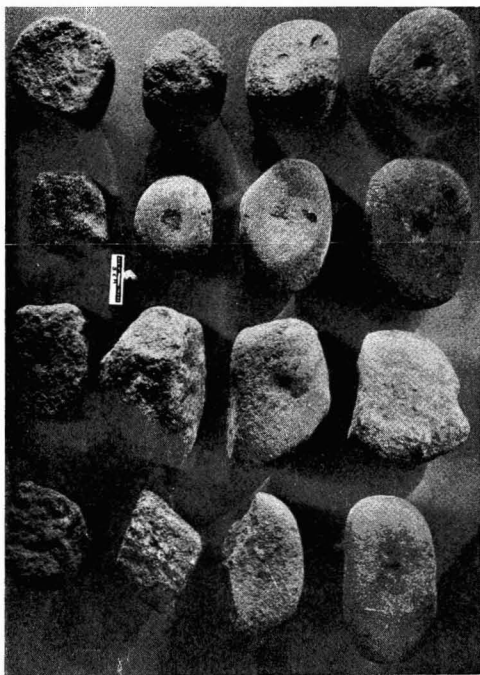


c. An occlusal view of the mandible of fig. b. Note its subrectangular shape and also the well worn third molars.

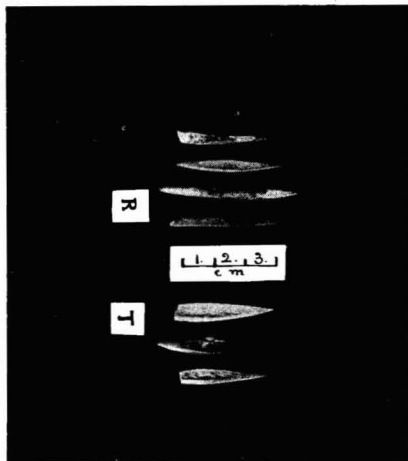
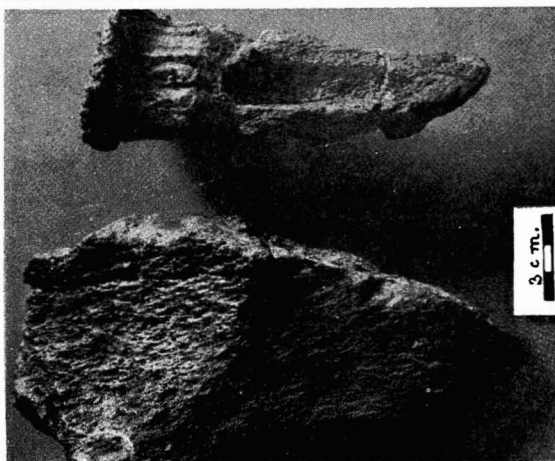


Vertebrae of *Hexaprotodon sinhaleyus* and artifacts of rock crystal dug up from gem pits in Sabaragamuva Province.

- a. b. c. Vertebrae of *Hexaprotodon sinhaleyus* from Koravak vila, Kuruvita.
- d. e. f. Three aspects of a chopper or cleaver from Ähäliyagoda.
- g. h. i. Three aspects of a hand axe from Karapincha.
- j. A concave scraper from Koravak vila.
- k. l. ditto from Ähäliyagoda.



b



d

Artifacts of *Homo sapiens balangodensis* Deraniyagala

- a. Pitted hammer pebbles and bark pounders dug up from Kabara galgé (rock shelter) Kakule, Hangamuva.
- b. Pitted anvil cum grind stones from the same site.
- c. An amygdaloid hand-axe of elephant bone and a celt of sambhur antler from Bellan Bāndi Pālāssa.
- d. Bone(?) blow pipe darts or arrowheads: R = from Ravan ella cave; T = from Tellula cave.