

These rocks are described to be made up of 90% or more (by definition) of diopsidic augite. Diopside is Ca-Mg pyroxene while augite can be considered an intermediate member in the diopside-hedenbergite series. Considering (a) the average chemical composition of these pyroxenes² and (b) the nature of rock (pyroxenite), the total iron content (and even FeO vs. MgO wt.%, which is > 1) in comparison to the MgO content does not tally with the described mineralogy. In this context it may be useful to note that Cameroon and Papike³ suggested the usage of pyroxene names such as Mg-augite or Fe-augite and these adjectival modifiers found favour with the recommendation of subcommittee of IMA on nomenclature of pyroxene⁴.

2. In a similar manner high iron content (FeO-0.40%; Fe₂O₃-4.87%) and relatively low MgO content (8.77%; Table 1) is

reported for olivine gabbro, which has plagioclase and augite as major minerals (para 3 of the text). Olivine, in this rock, though constituting a minor mineral, depicts a very wide compositional range (Fo₁₅-Fo₈₅; method of determination not described). It may have petrogenetic significance as this preserved range of composition will necessitate a quickly reacting solidification sequence. It will be interesting to find out if zoning is present in plagioclase and other associated mineral phases and what its nature is.

3. Besides lacking in these details, some of the petrographic description is rather paradoxical. I quote; 'The alkali pegmatite is a coarse-grained, leucocratic rock composed mainly of titanomagnetite, clinopyroxene and nepheline' (para 4 of the text; lines 10-12). It is strange that in a leucocratic rock two of the three main minerals are dark-coloured.

The paper on the whole is a welcome addition to the growing awareness of alkaline mafic-ultramafic associations in the rather difficult terrain of Shillong Plateau, Mikir hills region.

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A note on the Megalithic cultural remains from the cist burials at Arippa in Kollam District of Kerala, South India

Two cists burial excavations during May-June 1993 at Arippa in Kollam District of South Kerala (Figure 1) resulted in the discoveries of a large number of potteries, iron implements, ornaments of

gold and copper, skeletal remains of humans and animals, a stone tool, and food materials (Figure 2). Ceramic types included various types of pots, bowls, cups, lotas, lids, wheel, etc. Iron imple-

ments included swords, daggers, sickles, hoes, rods and knives. Ornaments included three-slotted gold ear-rings and a copper bangle (Figures 3 and 4).

The biological remains obtained during the excavation were found to be unique and included several pieces of adult human bones, cranium of a child, a few animal bones, and food grains. All the organic remains were found in various pots and bowls, which were filled either with fine soil or sandy soil, or both. The organic remains were highly decayed and calcretized due to the water logging at the depth of 2 m, where the materials were found. The wetness of the soil at the site is felt even during the summer season. Above all, the acidic medium of the soil in the trench is indicated by the high level (5-6%) of acidity which probably might have caused the poor preservation or absence of bones in most of the Megalithic sites in Kerala. However, a good number of organic remains could be retrieved from the wet clay in the pots.



Figure 1. Site map.



Figure 2. Megalithic antiquities excavated from Aripa Cist Burial.

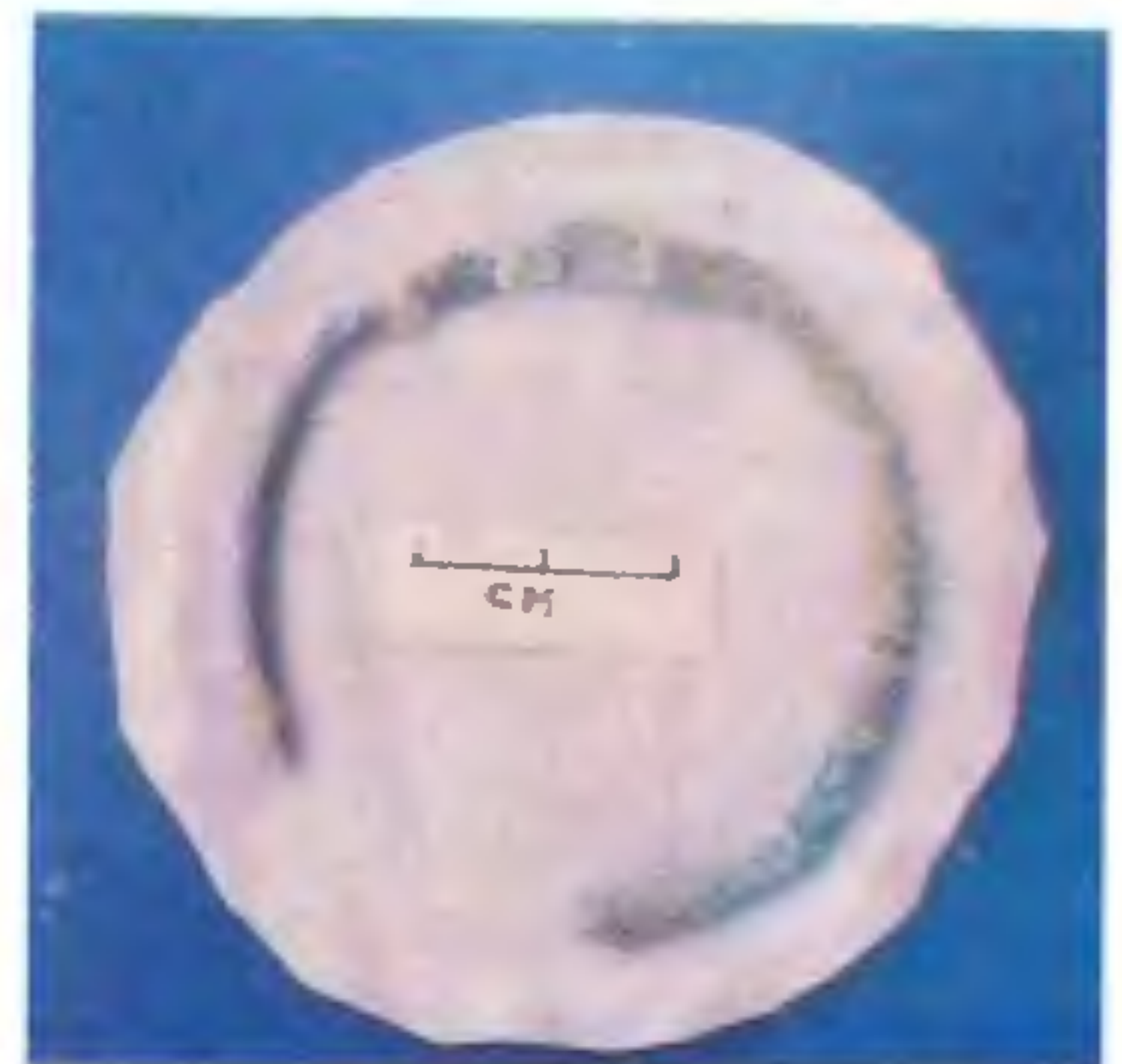


Figure 4. Copper bangle.



Figure 5. Pots which had bones in them.



Figure 3. Slotted gold ear-rings.



Figure 6. Part of child's cranium in the mould form

The bones were found in three pots and in a bowl (Figure 5). The cranium of a child was found in a small pot and it had almost decayed, leaving only the mould form (Figure 6). It has been identified as a human skull of a small child with the front part of the cranium, the left orbit supraorbital ridge, palate and vomer present. The other pots contained various pieces of bones, including acetabulum of the pelvic girdle. One of them

has been identified as an animal bone resembling a temporal bone. Due to the poor preservation, most of the other pieces could not be identified. However, their occurrence especially only in pots definitely shows that they were intentionally placed as a secondary or fractional burial.

The rich material and organic remains from the Aripa cist burial point to the fact that the Megalithic people had strong

belief in 'life after death', and it has evidences even from the Mesolithic burials from other parts of the country¹. One of the important aspects of this site is the occurrence of a human cranium of a child along with adult bones and animal

bones. Above all, the presence of food grains in almost every pot and the occurrence of a large number of iron implements, ceramic utensils and ornaments further confirm their belief that the soul of the dead might be offered most of their belongings. Such a belief in its prototype still exists in most of our societies. In India the Megalithic culture has existed from 1400 BC (ref. 2) down to the present³. The material cultural remains of the Aripa cist burial, particularly of various metal artefacts, show advanced technology in their making and

probably represent a late phase of the Megalithic culture.

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