

## NOTES

### “KODA KALLU” - MEGALITHIC MONUMENT IN LATERITE, KERALA

It was on the west coast in Kerala, Francis Hamilton Buchanan, initiated scientific studies on laterites, nearly two centuries ago. “*Koda Kallu*”, meaning “umbrella-stone”, a megalithic monument built with dressed blocks of laterite, is suggestive of the recognition of the dressability of laterite when wet, long before Buchanan’s time. In this article, the structure of *Koda Kallu* is described and its significance suggested.

The name ‘laterite’, meaning ‘brick-rock’ was given to residual rocks in Kerala by Francis Hamilton Buchanan (1807), based on a specific property of the rocks, Buchanan observed that the rock was soft when wet and so could be cut into blocks with a sharp instrument and on drying, the blocks turned hard and brick-like. This observation and recording of this specific property of the residual rocks laid the foundation for scientific studies on laterites. It is interesting to note that long before Buchanan, this characteristic property of laterites had been known in the megalithic time to the ancients, who made use of dressed blocks of laterite for constructing monuments. According to Nilakanta Sastri (1984), megalithic culture commenced in south India at some time between 700 and 400 B.C., but could be still older.

*Koda Kallu* resembles a giant mushroom from a distance (Fig.1). Closer examination shows that it is about two metres high and slightly less in its maximum width. The structure



Fig.1. ‘*Koda Kallu*,’ Malappuram District, Kerala.

consists of two parts, of which the lower is made up of three curvilinear blocks, fitted together to form a hollow space in between and the upper part is an umbrella - shaped block, resting on the upright curvilinear blocks. The *Koda Kallu* is described as a special class of ‘sepulchral monument’ (District Gazetteer, Trichur, 1952).

The Hindu temples in Angkor Vat in Cambodia and the Buddhist *stupa* at Borobodur in Java, built in the tenth and eleventh centuries are quoted as some of the oldest structures, built with laterite blocks. The megalithic age of *Koda Kallu* shows that it is far more ancient.

Though small in size and bereft of embellishment with sculpture, the *Koda Kallu* has proved to be a sturdy structure. The ancients had not only recognised the dressability of laterite in the wet state, but also possessed the engineering skill to build simple structures that have withstood the revages of the elements of nature for over two thousand years. Perhaps even in megalithic times, umbrellas made up of twigs and leaves were in use as a measure of protection against monsoonal rains. If this assumption be true, it is tempting to think that the umbrella shape of the monument is symbolic of the protection of the dead from nature's fury.

Schellman (1981) has remarked that in the present day, many kinds of residual rocks, not conforming to the property recorded by Buchanan, are included under laterites. So, he has suggested that laterites with the distinct characteristic of being soft when wet and hard on drying, be named "Buchanan's laterite". This is a reasonable nomenclature, based on the physical property, the recognition of which even in megalithic time, led to the use of the rock in constructions. Apart from possessing the honour of being the terrain in which scientific studies on laterites were initiated, Kerala is perhaps the home of the oldest structures built with Buchanan's laterite.

283, 17th East Street  
Thiruvanniyur, Madras - 600 041.

K.S. SUBRAMANIAN

### References

- BUCHANAN, F. (1807). A Journey from Madras through the countries of Mysore, Canara and Malabar, East India Co., London, pp.490-491.
- NILAKANTA SASTRI, K.A. (1984). A History of South India, Oxford university press, Madras, p.56.
- SHELLMAN, W. (1981). Consideration of definition and Classification of Laterites, Lateritisation Processes. Proceedings of the International Seminar on Lateritisation Processes, Oxford and IBH Publishing Co., New Delhi, p.9.

### ANNUAL GENERAL MEETING 1995 : A REPORT

The Annual Convention of the Geological Society of India was held at Tirupati from 9th to 12th September 1995, hosted by the Department of Geology, Sri Venkateswara University, on the focal theme- "Cuddapah Basin". A very tight and stimulating programme was planned and executed in an excellent and praiseworthy manner. The planning of the seminar had been initiated during a preparatory meeting at NGRI, Hyderabad, in February '95, where eleven major themes and the principal contributors were identified. These contribution were compiled into a volume - "Tirupati '95" which also included notes on the field excursions that followed.

Two memoirs of the Society (Memoir 34: "India and Antarctica during the Precambrian" edited by M. Yoshida and M. Santosh; and Memoir 32: Rajaguru felicitation volume - "Quaternary Environments and Geoarchaeology of India" edited by S. Wadia, R. Korisettar and Vishwas S. Kale) were released by the Vice Chancellor of S.V. University at the inaugural session on the 9th September. Prof. C.V.R.K. Prasad (Convener of the symposium) welcomed the participants and Prof. E.A.V. Prasad (Head of the Department of Geology, S.V. University) proposed the vote of thanks.

Dr. Radhakrishna set the tone of the scientific deliberations in his opening address. He pointed out the uniqueness of the Cuddapah Basin from several angles and emphasised the fact that it could provide significant information encompassing 1000 million years of the Earth's history for this segment of the crust. Yet, he opined that the available knowledge is scanty and full of contradictions. He lamented that although the Cuddapah Basin contains an estimated stratigraphic thickness of over 10,000m of unmetamorphosed sediments, modern sedimentological studies have not been even attempted.