

## MICROORGANISMS FROM PRECAMBRIAN ROCKS OF THE HIGHLAND GROUP

W S Wickremaratne and N G Ranatunge  
*National Aquatic Resources Agency, Colombo 15*

Transmission electron and scanning electron microscopic studies of Precambrian rocks from a drill hole at the Kotmale power house, have revealed well preserved filamentous and spheroidal plant microfossils. These microfossils were detected in a highly altered chloritized layer of green rock inter-bedded with a chamosite at a depth of 55m. The microfossil assemblages detected at Kotmale, have been divided into three broad categories - spheroidal, ellipsoidal and filaments. Spheroidal members of the assemblage range from about 2 to 5  $\mu\text{m}$  in diameter and occur singly or in clusters of a few to many cells. They are smooth walled, non-granular, unornamented. Under the electron microscope the ellipsoidal forms have a longer axis of 10  $\mu\text{m}$  and transverse axis of 4  $\mu\text{m}$ . Whether the object is flat and disc shaped or rounded could not be ascertained. They show conspicuous channel-like openings.

The filamentous forms of this assemblage are cylindrical structures with interconnected channels. The filamentous group is dominated by a tabular microflora 1 - 1.5  $\mu\text{m}$  in diameter.

Although the taxonomic affinity of these forms are not established, these microfossils are tentatively interpreted as some forms of blue green algae.

It is anticipated that the organic nature of the objects analysed will help in solving in part the highly debatable subject on the origin of graphite.

## References

1. Timofeev, B.V. (1974) Nauka, Leningrad
2. Dissanayake, C.B. (1951) Organic Geochemistry 3 pp. 1 - 7