

## YANGTZE MICROMOLLUSCAN FAUNA AND ITS SIGNIFICANCE

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The Yangtze micromolluscan fauna occurred early in the Cambrian explosion. As such it represents the first biomineralisation event in the evolutionary history of invertebrates and also reflects the first stage of the diversification of the Phylum Mollusca. The fauna occurs in the Lower Cambrian Meishucun Stage of the Yangtze Region of China and includes the Classes Polyplacophora, Merismoconchia, Bivalvia, Monoplacophora, Rostroconchia, Stenothecoida and Gastropoda.

Comparative remarks are presented concerning the genera *Yunnanopleura* Yu, 1987, *Tchangtsichiton* Yu, 1987, *Sinuconus* Yu, 1979, *Postestephaconus* Jiang, 1980, *Stoliconus* Jiang, 1980, *Meishucunchiton* Yu, 1987, *Runnegarochiton* Yu, 1987, *Yangtzechiton* Yu, 1984, *Luyanhaochiton* Yu, 1984, *Gotlandochiton* Bergenhayn, 1955 and *Paracarinachites* Qian and Jiang, 1982. These are all considered to be Polyplacophora except for *Paracarinachites*, where affinities are unknown. In *Yangtzemerisma rarum* Yu an Unusual microstructure has been observed on a phosphatic internal mould. *Yangtzedonta primitiva* Yu should be unquestionably assigned to the Class Bivalvia. Monoplacophora are common in the Yangtze micromolluscan fauna. There are six genera preserved with six types of muscle scars on their internal moulds. The genera *Archaeospira* Yu, 1979 and *Yangtzespira* Yu, 1979 are similar to each other in general morphology, but this is considered to be due to convergence, likewise the somewhat similar *Yangtzechiton* and *Paracarinachites*. In *Archaeospira*, the aperture is of the holostomatous type, but in *Yangtzespira*, the aperture is of siphonostomatous type.

It is concluded that the evolutionary tendency of the Phylum Mollusca may be divided into three stages: 1) from shell-less to shell-bearing, 2) from multivalved to univalved and 3) from external to internal shell.