LATE PERMIAN RADIOLARIA FROM CENTRAL PAHANG, MALAYSIA

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Sedimentary rocks in central Pahang were mapped as the Triassic Semantan Formation, except at Jengka Pass where an isolated Late Permian limestone is exposed. Recently, an isolated bedded chert was exposed near Genting Serampang, Jengka, Pahang. The total thickness of the chert is approximately 0.5 m. The chert is interbedded with highly weathered mudstone.

Chert is a sedimentary rock consisting dominantly of microcrystalline or cryptocrystalline quartz crystals. The primary silica source in the chert is generally considered to be the biogenic silica produced by radiolarian tests.

Several chert samples were collected from the outcrop. The samples were treated with hydrofluoric acid to retrieve the radiolaria. Only one sample yielded very well preserved radiolaria. Several species of radiolaria were identified. The most common species are *Pseudoalbaellella* cf. I Ishiga and Imoto, *Follicucullus monacanthus* Ishiga and Imoto, *Follicucullus scholasricus* Ormiston and Babcock, *Copicyntra akikawaensis* Shashida and Tonishi, and *Enfactinia itsukaichiensis* Shashida and Tonishi. The rare species are *Hagleria mamilla* (Sheng and Wang), *Helioenracrinia nazarovi* Shashida and Tonishi, and *Copiellintra* sp. The occurrence of index form and zonal marker Follicucullus monacanthus indicates that the assemblage belongs to the *Follicucullus monacanthus* Zone, Guadalupian (Lower Capitanian) Late Permian.

The discovery of the Late Permian radiolaria in the chert differentiates the rock from the Triassic Semantan Formation. Radiolaria is very important group of microfossils which can be used to date the siliceous sedimentary rocks. A detailed study should be carried out to define the boundary between the Semantan Formation and the chert. It is also possible that the age of the Semantan Formation extends downwards to the Late Permian.

The chert was deposited in a deep marine environment very far away from the sources of terrigenous material. Since there is no trace of calcite in the chert, it is considered that the depositional environment of the radiolarian chert was near or below the calcite compensation depth. In the vicinity of the area at Jengka Pass, there is an outcrop of Late Permian shallow marine limestone. This limestone was probably deposited on a topographic high (horst) which was surrounded by deep marine. The interbedded chert and mudstone indicates that the depositional environment was near or within range of the continental margin.

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