
Diagenesis and chertification of the Carboniferous Pancing Limestone, Pahang Darul Makmur

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The Pancing Limestone in Bt. Charas is dominantly of well-sorted algal and foraminiferal biosparites with lesser amount of mollusc-coral biosparudites. Minor algal biolithites are limited to the southern portion this hill. The deposit was probably deposited in a high energy shelf environment. Micritisation of the bioclasts and cloudy, isopachous, stubby circumgranular calcite cementations represent the earliest diagenetic events experienced by these limestones and are interpreted to represent syndimentary marine phreatic diagenesis. Subsequent dissolution, followed by clear, coarse granular calcite cementation and neomorphism affected both the clasts and cements but the lack of features suggesting vadose diagenesis implied that these diagenetic events occurred in freshwater phreatic realms. Burial diagenesis resulted in the formation of these stylolites that affected the whole limestone sequence in this hill.

In Bt. Pancing, the Pancing Limestone is composed predominantly of grey poorly bedded sparse crinoidal biomicrites with lenses of packed encrinites with derived shallow water fauna. The environment of deposition for these limestone types are

the deeper shelf or slope below the wave base. Diagenetic changes in these limestones are less obvious, mainly the growth of neospar in the micrites and poorly developed stylolites.

Two thin horizons of reddish biomicrites with several red chert nodules are found in the new quarry face at Bt. Pancing. These cherts totally replaced micrites within them, but only partially replaced the crinoid stems. Some nodules are deformed in a plastic manner. Their limited occurrence, incomplete replacement of the carbonate clasts and plastic deformation suggest that chertification occurred penecontemporaneously with sedimentation, probably under oxidizing condition.