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## **The Bentong Suture in Ulu Kelantan**

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A newly constructed dirt road between Pulai, Ulu Kelantan, and Kampung Raja, Cameron Highlands, crosses the Bentong Suture which here is at least 18 km wide. The eastern border zone of the suture consists of bedded chert containing an internal low-angle thrust and is separated from olistostrome to its west along a vertical fault. The western border zone comprises an igneous injection complex – several hundred metres wide – into the schist-phyllite component of the suture. This injection complex is the eastern fringe of the Titiwangsa granitoid masses. Rocks within the suture are thick packets of parallel to subparallel stratified olistostrome (types: with tuffaceous mudstone matrix, with tuffaceous phyllite matrix, and with phyllite matrix), thoroughly weathered massive mudstone, well-bedded chert, phyllite, phyllite-schist and a serpentinite lens. The olistostromal packets contain bedding-parallel mylonite zones. The general strike is NW-SE; dips are moderately steep to vertical; dip inclinations are towards NE. Reverse faults and low-angle thrusts also indicate SW-vergence. Along two stretches of the road traversing the suture, low-angle thrusting towards south represent a younger tectonic activity.

The various rock types of the suture seem to occur as seven or more tectonic units. From west to east (or from a stratigraphically lower to higher levels) a complete tectonic unit is composed of a systematic sequence of schist and phyllite, olistostrome with or without massive mudstone interval, and bedded chert. The recurring rock

sequence in each tectonic unit suggests that the units are stacked rock assemblages or form imbricated structure, presumably as result of collision between the continental lithospheric plate in the east with a continental crustal sliver to the west of the suture. The tectonic units proper were probably crustal and supracrustal rocks occupying a maritime – very likely oceanic – environment between the colliding lithospheric masses. The presence of serpentinite and dominance of volcanic material suggest that the particular maritime environment consisted of an island arc.