Significance of a reverse fault in the Bentong Suture, Ulu Kelantan

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A two-kilometre wide reverse fault zone in phyllite that strikes approximately 340 degrees, outcrops along a newly-constructed dirt-road between Pulai, Ulu Kelantan, and Kampong Raja, Cameron Highlands. The road transects almost perpendicular to the fault's strike. The fault zone actually is an assemblage of several thinner reverse fault zones, each measuring 10-30 m wide, sandwiched between unfaulted slices of phyllite. This phyllite is a tectonic unit of the Bentong Suture.

Strike-slip faults of both left- and right-lateral displacements were also observed. The left-lateral slips strike 330-340 degrees. They are few, and are generally confined in the reversely-faulted sections. The right-lateral slips strike approximately N-S. They are more strongly impressed, and were seen in both the faulted and unfaulted sections.

On a NASA Landsat imagery the Bentong Suture could be identified as a number of strongly-impressed N-S lineaments. One such lineament is noted to pass through the reverse fault zone described above. However, from the lineament and location under discussion, a secondary lineament could be seen branching out in a curved manner towards the northwest. The northwest extension of this secondary lineament is covered by clouds. When it is defined on the 1:500,000 Geosurvey 1985 map and then extrapolated, this secondary lineament first juxtaposes a straight section of Sungai Tuil and then joins the Baubak Fault.

The 330-340 degrees left-lateral slip faults are believed to be related to this secondary lineament. We suggest that owing to structural adjustments of the country rocks to an east-west compression, the Baubak Fault east of the Bentong Suture had been obliterated, whereas the Baubak lineament immediately west of the Suture had been transformed into a curve.