The Main Range batholith's role in fault development

Syed Sheikh Almashoor, Jabatan Geologi, Universiti Kebangsaan Malaysia.

Of the major faults in Peninsular Malaysia three are found to traverse, either wholly or partly, the approximately N-S trending Main Range batholith. All three are left-lateral faults. Two of the faults, namely the Bok Bak fault (striking 325°-330°) and the Kuala Lumpur fault (striking 290°) possess features that indicate that they are pre-granite in age. These two faults were initiated during the folding phase of the geocline, probably in Early Permian.

The granite intrusion and emplacement in the mesozone obliterated the faults. However, fault movements could still continue without fracturing the granite as the latter had not consolidated much. When the granites were uplifted and solidified during the Late Triassic-Early Jurassic time the whole terrain, including the enveloping country rocks, became rigid. Structural accommodation to the post-uplift compression was only possible by faulting along the inherent fault zones if not for the presence of a ready-made weak linear zone, represented by pluton/

pluton interfaces, the interpluton meta-sedimentary screens, and the batholith's interface with the meta-sedimentary terrain. This led to the initiation of the Bukit Tinggi Fault zone (striking 320°-330°), which posesses post-uplift features.

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