

Periglacial involutions, large folded recumbent folds and tectonic overprints at Putrajaya

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The development of Putrajaya and Cyberjaya brought to light many new outcrops of black pelite, buff to reddish brown psammite and subordinate bands of light-coloured tuffaceous or loessic material. Most of the outcrops are in advanced weathered states. The nature of the fresh rock was identified in drill cores acquired for foundation designs. These rocks are geochemically similar to the Upper Palaeozoic Kenny Hill Formation, although the dominant dark colour is rarely found among the Kenny Hill strata in the type area of Kuala Lumpur. At Salak Tinggi, Kenny Hill-like strata is marked by an *Agathiceras* sp. fossil (Early Permian) and also contains a pebbly horizon of interpreted glacial origin. The Putrajaya-Cyberjaya rock assemblage is therefore interpreted as being of Gondwanan origin. At "Cyberjaya Hill", bands of light-coloured tuff(?) or loess(?) were irregularly deformed into crinkles of varied wave lengths and shapes that contrast with the more systematically folded larger structures. The disharmonic character of the crinkles suggests these to represent periglacial involute structures. The larger folds are tectonic and developed as recumbent structures that became refolded into open warps. These two tectonic fold sets are coaxial about a north-southerly trend. Indications of tectonic transport of the recumbent folds include to the west, southeast and east.