



## **Relationships between slope movements and weathering in tropically weathered igneous profiles: concepts and evidence from Hong Kong cases.**

A. W. Malone (1), R. Shaw (2)

(1) Department of Earth Sciences, University of Hong Kong, Pokfulam Road, Hong Kong, PRC (awmalone@netvigator.com/ Fax: +852 2517 6912) (2) Hong Kong Geological Survey, 101 Princess Margaret Road, Homantin, Kowloon, Hong Kong (raynorshaw@cedd.gov.hk)

'The key to understanding the stability of slopes in residual soils lies in recognising the roles of weathering profiles, groundwater and relict structures' (Deere & Patton, 1971). The authors propose to examine this statement in the light of evidence gathered from field observations of landslides associated with cut-slopes in weathered igneous profiles in Hong Kong. The importance of landscape position in the development the weathered profiles will be discussed. Examples will be given of cases where weathering patterns have determined the location, magnitude and morphology of landslides by directly influencing the local hydrogeology and material distribution. Evidence of aquifer compartmentation, perching and confinement will be presented. Cases will be cited where the basal surface, release surface or the internal flexural slip surfaces of landslides appear to have been controlled by weathering.