



## **The preliminary study on the alluvial stratigraphy of Peinan archaeological site, Taiwan**

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Many of the activities of prehistoric people who lived in Taiwan were concentrated around river terrace environments and seldom in alluvial environments which are resulting from the rapid tectonic uplift and high erosion rate of the late Cenozoic mountain belt. However, the Peinan archaeological site, one of the most important Neolithic sites in Taiwan because of the great amount of slate slab coffins and nephrite artifacts unearthed, is located at the bottom of Peinan Hill which is formed by the activity of Lichi and Luyeh Faults. According to the radioactive carbon dating results, the Peinan alluvial fan used as cemetery was lasted over 3,700 years (5700-2000 yr BP) but the related cultural formation was only lasted 400 years (3500-3100 yr BP). What have happened to the prehistoric people? As the stratigraphic record allows archaeologists to ascertain the effects of geological processes on the preservation of the archaeological record, determining which parts of the archaeological records are absent, which have potentially been preserved, and how fragmentary are the preserved portions of the records. The limitations that geologic processes impose on the archaeological record must be recognized and understood before meaningful interpretations of prehistory can be made. Therefore, the reconstruction of the landscape and stratigraphic records in archaeological site not only provides the paleo-environmental context but also helps to explain changes that occurred to human cultures over time.