



The Environment Changes in the Southwestern Taiwan Since the Last Glacial Maximum Epoch

Yung-Jan Yang and Wen-Shan Chen

Department of Geosciences, National Taiwan University, Taipei, Taiwan (r01224117@ntu.edu.tw)

We use 31 boreholes to reconstruct the depositional environments in the southwestern Taiwan. Based on the sedimentary structures, it is divided into eight facies associations that is important to reconstruct depositional environment. Based on the depositional environment, sequence stratigraphy and radiocarbon dating data, it can be implied significant environment and shoreline changes.

- (1) The southwestern Taiwan is characterized by a subaerial environment and formed two incised valleys during the sea-level fall in the last glacial maximum epoch.
- (2) The shoreline was migrated to the landward and close to the frontal foothills, and the environment changed deepen into tidal flat and lagoon during 18,000-10,000 years ago.
- (3) The area occurred the deepest environment from shoreface to offshore transition during 8,000-7,000 years ago.
- (4) The shoreline was retreated to the seaward. The environment changed shallower into barrier island, lagoon, and coastal plain since 7,000 years ago.

This study confirm the decreasing accommodation space in this area result from huge sediment inputs and decreased eustatic sea-level rise, which cause the maximum flooding epoch appear earlier.