

STRIKE-SLIP TECTONICS OF THE LONGITUDINAL VALLEY FAULT ZONE AND ITS ROLE IN PLEISTOCENE TERRACES EVOLVEMENT

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Sinistral strike-slip movements on the Longitudinal Valley Fault (LVF) system, eastern Taiwan, together with related uplifts and basins, related faulting, folding, and physiography, suggest if not indicate that this whole orogenic belt is and has been undergoing left-lateral or clockwise distortion and shearing movement. The movement is distributed within the suture zone in three ways: (1) along the LVF plane; (2) along the other generally parallel NNE-trending faults of the LVF system, and (3) as folding or clockwise distortion of the strip between faults of this fault system. Sinistral strike-slip movement along transcurrent faults of the LVF system is accompanied by compressional deformation, especially in the Pleistocene terraces. This is clearly evident from (1) the uplift of the rifts adjacent to or near segments of almost all these faults; (2) thrust faults in or bounding these rifts associated with the transcurrent faults, and (3) compressed folding of Quaternary sediments adjacent to or near these transcurrent faults. This compressive movement indicates impingement of adjacent blocks along the transcurrent faults.