

## Scaled Analogue Experiments of Inverted Listric Faults with Differential Displacement

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The geometry and kinematic evolution of hangingwall deformation is closely related to the displacement pattern of the underlying detachment. This paper presents the results of analogue experimental models of inversion structures generated by extensional-then-contractual stresses. The master detachment fault has once extended, then contracted with a differential or variable displacement, and the deformation of the fault hangingwall was examined. Dry sand was employed as the hangingwall material to simulate the brittle behaviour of the upper crust. The results suggest that the deformation is significantly affected by the displacement pattern. These results can be useful templates to interpret deep structures and complex structural deformation where the seismic resolution is poor.