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The Central Makran in SE-Iran; stratigraphic and structural appraisal

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The Tertiary Makran accretionary complex shows a two-fold sedimentary and structural evolution. North of an E-W trending out-of-sequence thrust system, the complex is dominated by a clastic sequence shallowing upward from basinal turbidites to slope and shelf deposits; to the south, late Miocene and younger clastic sediments dominate. During the Tortonian, a large portion of the margin, which was the on the northern side of the complex, collapsed and was redeposited as a giant olistostrome. The emplacement of this olistostrome occurred during thrusting and folding in the clastic wedge, taking place for the most part in Miocene-Pliocene times throughout the inland accretionary complex. Normal faults are localised in time and space on the coastal region in mid-Pliocene times. Analogue modelling shows that sudden loading of the evolving wedge by the olistostrome forced forward shift of the deformation zone, so triggering the modern accretionary wedge. Such a deformation pattern and the homogeneous subsequent uplift do not fit the classical picture of seaward migration produced by progressive accretion at the base of the wedge.