



Role of rift/passive margin reactivation in the early Mesozoic tectonic development of Tethys in the E Mediterranean region

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Several rifts/passive margins are known to deviate from their expected subsidence history owing to regional-scale orogenic processes. A case in point is the late Triassic-early Mesozoic development of Tethyan rifts/passive margins in S Greece and central Turkey. In S Greece (Crete) the Late Palaeozoic-Triassic Phyllite-Quartzite unit, interpreted as a continental rift, back-arc rift, or passive margin by different workers shows a Mid-Late Triassic shallowing-upward trend culminating in the accumulation of alluvial fan-type quartzose conglomerates, apparently derived from the north (Mana unit). Similar quartzose conglomerates occur in the SW Peloponnese (Arna unit). In central Anatolia, a Triassic shallow-water carbonate platform, variously interpreted as a rift, or passive margin is unconformably overlain by latest Triassic-earliest Jurassic coarse alluvial, to shallow-marine facies (Çayır Formation), in turn overlain by a subsiding carbonate platform (passive margin). The clastics were derived from the Tauride platform and from "basement" to the north (e.g. U. Palaeozoic black chert). In both regions clastic deposition has been explained by collision of an exotic ("Palaeotethyan") terrane but associated compressional deformation is lacking in both areas. One alternative is that erosion resulted from late-stage rift-related uplift immediately prior to, during, or soon after onset of seafloor spreading to form a Mesozoic ocean basin; another is that uplift and erosion were caused by far-field stress related to regional-scale "Cimmerian" collision along part of the Eurasian active continental margin (e.g. in NW Turkey). Implications for alternative palaeogeographic/palaeotectonic reconstructions will be considered.