

Identity and Tectonic Development of the Anatolian Suture Zones (Precambrian–Late Eocene)

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Knowledge of the Anatolian suture zones has progressed mainly since the advent of plate tectonics theory and was formalised by Şengör and Yılmaz (1981). Recently it has become increasingly clear that the location, boundaries, nature and geological development of the inferred suture zones need to be re-assessed. Up to four main suture zones are currently recognised, as follows. The İzmir-Ankara-Erzincan suture zone is commonly believed to be the main suture zone separating Gondwana from Eurasia. For some, it records a long-lived oceanic basin that persisted in some form or other from Early Palaeozoic to Middle Eocene, whereas for others it represents a Triassic suture that re-opened to form successor oceanic basins (marginal basins). The Mesozoic ocean closed during latest Cretaceous or Early Cenozoic in different interpretations. The southern Neotethyan suture is treated as a Permian, or Triassic rifted oceanic basin that alternatively closed in latest Cretaceous, Eocene or Early Miocene time, but for some does not exist at all, being only an artefact of the presence of far-transported units from a single Tethyan ocean basin further north. According to some, the Inner Tauride (i.e. Intra-Tauride) suture zone formed by rifting of a Kırşehir continental block from a Tauride continent, but in some interpretations is again an artefact of the presence of long-distance thrust transport, or strike-slip. Lastly, the Intra-Pontide suture is a major suture that correlates with the Vardar suture zone of the Balkans, comprises only reworked Precambrian units, or is a part of the Ankara-İzmir suture zone displaced by strike-slip in different interpretations.

In this session, we invite contributions that consider any aspect of the four inferred Anatolian suture zones, using evidence from any geological discipline (e.g. tectonics/structural geology; igneous/metamorphic petrology; geophysics; sedimentation; palaeontology), and for any or time periods. Contributions that critically examine recent tectonic hypotheses for the existence of one or more of the inferred Anatolian suture zones are especially welcome. Hopefully, the session will lead to a better understanding of the Anatolian suture zones as a whole.