BOOK REVIEW

ROBERTSON, A. H. F., PARLAK, O. & ÜNLÜGENÇ, U. C. (eds) 2013. *Geological Development of Anatolia and the Easternmost Mediterranean Region*. Geological Society of London, Special Publication no. 372. Price £140.00. ISBN 978 1 862 39353 0.
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Following their initiation in 1992, seven International Symposia on the Geology of the Eastern Mediterranean have been held in five different countries, and this volume comprises a set of 22 papers from the latest conference held in Adana in Turkey 2010. The focus is primarily on Turkish geology with particular regional emphasis on the region southeast of the East Anatolian Fault Zone between the Inner Tauride Suture and the Bitlis–Zagros Suture bordering the Arabian Shield. In addition, there are three papers concerned with Cyprus and eight from other parts of Turkey.

The key field of interest of the editors is the closure of the Tethys Ocean. In an impressive introductory paper they provide a detailed analysis of the complex tectonics of ophiolite and mélange emplacement as this ocean closed in Late Mesozoic and Cenozoic times. They include a comprehensive modern bibliography of knowledge covering the demise of the intervening marine basins and the emplacement of the terranes accreted to the Anatolian collage during subduction and collision. The paper includes a useful sequence of six palaeogeographic maps integrating present geological knowledge of the destruction of Palaeotethys and Neotethys between Late Permian and mid-Miocene times (~ 260–15 Ma). The following papers are area-specific. Studies from the ancient margin of Eurasia include a report of U–Pb and geochemical analyses of magmatism and metamorphism in the Eastern Pontides Orogen in NE Turkey, and of ophiolites within the İzmir–Ankara–Erzincan Suture Zone. A very widely distributed feature of Turkish Cenozoic geology is a Middle Eocene (~ 49–38 Ma) predominantly basaltic magmatic province of controversial origin. A study focused on this province in northwestern Turkey favours a post-collisional origin linked to slab break-off.

The remaining papers are broadly chronological commencing with a study of the Jurassic – Early Cretaceous passive margin to Palaeotethys and proceeding to the Late Cretaceous northwards subduction and emplacement of the Taurides. Ensuing basin development is described together with the complex interplay of extensional and compressive tectonics, and latterly the imposition of tectonic escape and strike-slip tectonics. Geomorphic facets of the latest stage of tectonic development are embraced by papers covering the history of the Pliocene Zanclean flooding event in southern Turkey, and the sedimentary response and slope development resulting from ongoing deformation; these latter studies focus on the Cyprean margin, the Karasu Rift and the Euphrates Valley.

The complex geological evolution in this part of the Alpine–Himalayan orogeny has resulted from a very protracted history of ocean closure and continental collision. It is continuing to unravel at the present day primarily owing to differential slippage along the Dead Sea Fault Zone, westward escape of the Anatolian collage and suction into the Hellenic Arc to the west. Interpreting this history has required an input from diverse areas of structural, geochemical, geochronological and palaeontological study (although not including significant geophysical input in this volume). The breadth of the included subject matter highlights the multidisciplinary nature of current research and will be of value to workers in all of these fields with a specific interest in the Eastern Mediterranean region. The editors have performed an impressive task of compiling and editing the volume and have succeeded in putting together a collection of substantial papers significantly advancing our understanding of Eastern Mediterranean geology.

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