



New Paleomagnetic Results from Southeastern Anatolia; A tectonic scenario for the evolution of Anatolia since Mesozoic

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The southern margin of Eurasia, including Anatolia, is characterized by series of micro-continents and suture zones. Each micro-continent was separated from the other by different branches of the Neotethys ocean, which was rifted during Early Mesozoic. The southeast Anatolian orogenic belt, which is a part of the Alpine-Himalayan belt, is formed by the closure of the southern Neotethys to the north and the collision of the African-Arabian and Eurasian plates to the south. It is reported that the tectonic deformation of the southeast Anatolia occurred as two major episodes during Cretaceous to Miocene. The closure of the southern branch of the Neotethys during Late Cretaceous led to the emplacement of ophiolitic rocks on southeast Anatolia and the Arabian platform that resulted from regional extension. During the Middle Eocene-Miocene the final closure of the Neotethys ocean led to the collision of the Arabian platform and southeast Anatolia. An alternative view suggests that there was only a single branch of the Neotethys ocean that existed further north. This branch was completely closed during the Late Cretaceous, and the ophiolites that crop out in southeast Anatolia were the product of a single major Neotethian branch. After the final closure of the Neotethys, a compression and escape regime led to the development of the Bitlis-Zağros Suture Zone.

In the frame of a new paleomagnetic project, sedimentary and volcanic rocks in the age of Cretaceous to Miocene will be sampled in southernmost part of southeastern Anatolia. The results will provide new data about the closure of the Neotethys ocean and the collision phase between Anatolia and Arabia.