
The MEBE Tectonic maps: Evolution of the Middle East Since Mesozoic

Eric Barrier, *Laboratoire de Tectonique, UMR 7072 CNRS-University P. & M. Curie, 4 place Jussieu, case 129, Paris, 75252, France, phone: 00 33 1 44 27 39 41, fax: 00 33 44 27 50 85, barrier@lgs.jussieu.fr, Bruno Vrielynck, Laboratoire de Tectonique, UMR 7072 CNRS - Université P; & M. Curie, 4 place Jussieu, case 129, Paris, 75252, France, Marie-Francoise Brunet, UMR 7072 - Université P. & M. Curie, Paris, France, Jean-Francois Brouillet, UMR 7072 CNRS - Université P. & M. Curie, Paris, France, and Maurizio Gaetani, University of Milano, Milano, Italy.*

A set of 14 palinspastic tectonic maps is developed for the Middle East, including the South Caspian, Caucasian and Black Sea domains. These reconstructions are produced by the Middle East Basins Evolution Programme (MEBE). Our objective is establishing a model of tectonic evolution of the Middle East since Triassic. The palinspastic maps are based on an up-to-date kinematics of the tethyan domain. These maps integrate the original results of the MEBE scientific teams working on tectonics, sedimentology, stratigraphy, and basin modeling. In our reconstruction we precise the age and the main characteristics of the major tectonic events (rifting, marginal basin opening, basin subsidence, basin inversion, major collisions and orogenies, main transcurrent faults, ...) that happened in the Middle East since the Triassic Cimmerian orogeny. We distinguish two major periods: before and during the collision of Africa-Arabia with the Eurasian margin. During the first period that kept on from Middle Triassic to Paleogene an active and a passive margin respectively developed North and South of the Tethyan Ocean. Mesozoic extensional tectonics mainly developed in the active Eurasian margin and in the Arabian platform, only interrupted by minor inversion and the Late Cretaceous obduction. The early stage of the Arabia - Eurasia collision appeared in Eocene from Bulgaria to the West, to Zagros and Caspian-Caucasus domain to the East. After the complete closure of the remnant Tethyan oceanic domain, the orogenies related to the continent-continent collision mainly developed during Neogene. They constitute the almost continuous orogenic belt that extends from Central Mediterranean to Iran through Turkey and Caucasus.
