

Geodynamics of the Eurasian and Africa–Arabian collision zone as exemplified by the Black Sea–Caspian Sea region

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The lithosphere structure and geological evolution of the Caucasus and adjacent areas is determined by its position in the continental collision zone between the Eurasian and African–Arabian lithosphere plates, where convergence is still on-going at average rate of movement 10–30 mm/per year. The region located in the central part of the collision zone represents the lithosphere fragments collage of the Tethys Ocean and its continental margins. Within this area the system of island arcs, intra- and back arc basins existed during Neoproterozoic–Early Cenozoic. Supra-subduction, mid-ocean ridges and within plate magmatic activity took place during Paleozoic–Early Cenozoic. In Late Cenozoic closure of the oceanic and backarc basins took place followed by the continent-continent collision, topography inversion and formation of modern structures in the region (Adamia *et al.*, 1981, 2017; Dercourt *et al.*, 1986). During the pre-collision

stage there were not two, but three Tethys branches. The third of them is Van-Khoi oceanic branch. Number of palaeo-subduction zones (two or three?) is still debatable within the academic community. One research group (e.g. Sosson *et al.*, 2010; Barrier *et al.*, 2018) admits existence of two subduction zones: Peri-Arabian and Ankara-Erzincan-Sevan-Zangezur zones, whilst another group including the abstract authors refer to the presence of three subduction zones and aside from abovementioned zones consider the presence of the Khoy Ocean and third subduction zone related to one of the Neotethys branches (Adamia *et al.*, 1981, 2017; Dercourt *et al.*, 1986; Stampfli, 2001).

According to Adamia *et al.* (1981, 2017), Dercourt *et al.* (1986), Daralagöz-South Armenian block and Nakhchevan (SAB) in the Late Paleozoic–Mesozoic–Early Cenozoic represent the part of the Iranian but not the Anatolian Microcontinent.

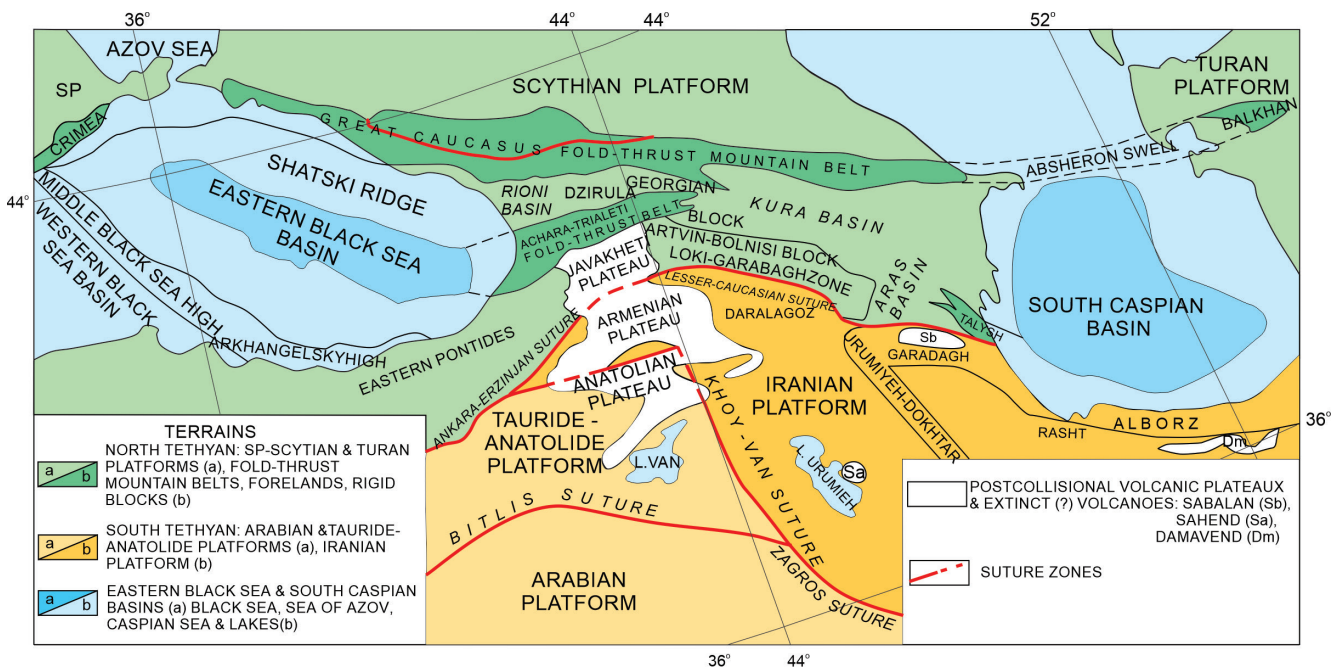


Fig. 1. The correlation map of the main tectonic units of the Caucasus and adjacent areas (Adamia *et al.*, 2017)

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