



## **Geodynamic evolution of the Greater Caucasus during Alpine tectonomagmatic cycle (within Azerbaijan borders)**

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Characterization of the region's geodynamic evolution draws upon the mobilistic concept of the continental crust development, according to which Meso-Cenozoic history of the Mediterranean fold belt had passed through oceanic, transitory and continental stages.

Stretching and looting of Caucasus and North Caucasus plates prevailed during the oceanic stage (Liasian - Late Aalenian), due to which wide sedimentation basin of a marginal sea type emerged in Greater Caucasus, characterized by thin continental crust and manifestations of tholeiitic-basalt and calc-alkali magmatism in a axial rift strip with suboceanic crust

Transition stage (end of Aalenian - Miocene) was marked by a change in the sign of tectonic movements and turning-on of the intercontinental accretion mechanism. During Bajocian-Bathonian stages, the accretion was accompanied by convergence of Southern and Northern Caucasus plates with underthrusting and absorption of a suboceanic crust under the northern continental margin. Transpression efforts continued to prevail during Upper Jurassic - Neocomian periods, accompanied by the uplifting and drying of the Shahdagh strip of barrier reefs as well as uncompensated deflection of a marginal sea substrate. During the Austrian phase of tectonic activity (boundary between Lower and Upper Cretaceous periods), massive shear stresses have led to shariage of the Malmian-Neocomian carbonate plates, which became displaced southwards from a brow of the northern continental shelf and overlapped "wild flysch" of the continental slope of a marginal sea. Confined to a boundary between Early and Middle Senonian periods, next tectonic activation promoted an allochthonous overlapping of the northern flange of Northern Caucasian plate by the Upper Jurassic - Cretaceous flysch complex of the Greater Caucasus depression.

Continental stage (Late Miocene - Quaternary) was followed by a spate of transpression and led to a recurrent southward shariage of the residual marginal sea deposits during Styrian and Attic stage of tectogenesis, emergence of multi-storey complex of the allochthonous scales superimposed over the Oligocene-Miocene section of the northern flange of the South Caucasus plate. Consequent north-to-south migration of the deformation impulses has promoted a tectonic stratification of the same flange's Cenozoic deposits occurred during Rodanian and Wallachian phase of tectogenesis.

Developed as a result of side contraction process, clustering of the region's earth crust has ended up with orogeny and advancement of a prism of the central Greater Caucasus uplift along young subvertical faults occurred against the background of compensational deflection of its' northern and southern peripheries.