

## **Some Particular Questions of the Continents Movement (on Kazakhstan Area Example)**

SKRINNIK L.I. KazIMS, Almaty, Kazakhstan

Geodynamic history of the Kazakhstan territory was bound closely with the island arcs progradation - to the south-east (hereinafter in the modern positioning). These island arcs were oriented frontally to the Paleo-Asian ocean, and they were curved a little in comparison with their recent contours.

Periods of volcanism alternated with periods of compression, so the thick tuff-terrigenous sequences of the fore-arc slope were fused into the arc front.

Compression and shearing resulted in the Earth crust thickening and dislocation of the volcanic arc to the newly created brink (edge) of the plate at the distance of 50-150 km took place.. At the same time there was a migration of the island arc volcanism within the Uralian paleocean to the East, so the Western part of the Kazakhstan plate was being stretched consecutively. During Devonian and Carboniferous periods the powerful intrusions of alkaline-earth and subalkaline dacite-rhyolitic magmas at the eastern border were contemporaneous with tholeiite-basalt eruptions at the western boundary, and, on the contrary, rhyolites and terrigenous sediments at the West correspond to basalts at the East.

Such a picture is an evidence of the Kazakhstan plate displacements of the alternating sign, with the eastern vector prevalence in amplitude. The plate was not a passive burden on the ocean bed as it moved itself and crumpled its own edges

Were there any convective cells or was it the single surface of the sloping shear (fault) at the plate base?