

## **Geological Ideas: Dynamic of Development.**

RYABYKHIN A.G., M.Lomonosov Moscow State University,  
Moscow, Russia.

Analysing the history of geology we can see that the crucial moments (change of paradigm) is of specific interest. As a rule the appearance of the new paradigm is related with attempts of the most talented adepts to consolidate position of the active paradigm. At the beginning of the 19<sup>th</sup> century the neptunistic theory of A.Werner was rejected by his most talented students L.Buch and A.Gumboldt who proposed the first tectonics hypothesis of the mountains' origin - "craters of elevation".

L. Elie de Beaumont's investigations were based on the hypothesis of "craters of elevation". He tried to show its the global significance. He proposed his own conception of the mountains' origin. It was the theory of the contraction that radically changed the he ideas of his precursors. First of all it regarded the mechanism of the mountains' origin and the principal role of horizontal motions. The american geologist, J.Dana, who was one of the authors of the geosynclinal theory, demonstrated the garmony of the theory contraction in geology of American continent. As a result the theory of geosynclines overturned previous models of the origin of mountains and returned geology to recognition of predominant role of vertical motions.

The ideas the plate tectonic were legalized within framework of international project "Upper mantle" initiated by V.Belousov who had proposed the most popular theoretical model of energetic processes in the origin of mountains according to the geosynclinal theory. Today the most talented adepts of the plate tectonic theory have declared the new global geodynamic model of the Earth, that narrowed frames of application of the plate tectonic model.