

*NEWSLETTER*

# New Concepts In Global Tectonics

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## FROM THE EDITORS

### BELOUSSOV VERSUS SENGOR AND BURKE

V. V. Belousov, 1979, *Why do I not accept Plate Tectonics?* and A.M.C Sengor and Kevin Burke, *Comments on: Why do I not accept Plate Tectonics?* *EOS*, v.60, p. 207-211. A revisit provides some very interesting information

**I**nitially Belousov sets out what he regards as some major difficulties with Plate Tectonics. These include reconciling the different and apparently mutually contradictory movements of the plates when the movements are examined on a total world scale and not piece meal e.g. how to make space for the opening of the Atlantic when at the Bering Straits a single continental shelf joins Asia and America without a subduction zone across northern Asia and Alaska. He also considers the non-historical character of plate tectonics in that it neither explains nor purports to explain the evolution of the earth as for example in the different structure of the Archaean and the post-Archaean. He also refers to reports of old rocks associated with the mid-Atlantic ridge which have often been ignored but have received no satisfactory explanation in plate tectonic terms.

In outlining his ideas on the development of the earth, Belousov emphasizes that he does not fear to

confess that he does not have a final and complete theory but that it is better not have any dogma rather than to follow a false one.

Some of his main points are as follows:

1. The direction of strike of tectonic zones of the continents make up a regular net composed of longitudinal, latitudinal and two "diagonal" directions and this net is to be found from the Archaean up to the present. It is now known these structures are also found across the oceans (e.g. Smoot, 1997) and correspond to the currently recognized polygonal (orthogonal) structures and lineaments (e.g. Anfiloff, 1992; O'Driscoll, 1980 and many others - there is a very large published literature on these structures, references to some given in previous Newsletters.).

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