

EVENTS-BASED SCALE FOR THE CRYPTOZOIC

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While refining the stratigraphic scale for the Lower Precambrian of North Eurasia, the authors used a basin principle of event-chronometric subdivision and correlation of scattered sections. In this approach, the layered stratisphere structure is described as a reflection of cyclic, irreversible, resonant-connected development of outer and inner geospheres and of the Earth and Space with a regular periodicity of 1056, 528, 352, 176, 88, 44, 22, 11 and fewer million years. The prognosticated time boundaries of the World's chronostratigraphic scale comply with the results of empirical geochronometry of the boundaries of its subdivisions. They correspond to reconstruction stages in the continental crust evolution, changes of the World Ocean level and the related endogenic processes. The division of the Earth's history into periods becomes a natural consequence of the chronometry of pulsations of the Earth as a system of multi-rank coordinated systems undergoing open-type development by bifurcation. The synergetic point of view on the stratisphere structure and the chrono-eventien approach to the Earth's history deepens the prognostic potential of geology: (1) it becomes possible to compare the Precambrian and Phanerozoic on a strict quantitative basis, allowing for a new level of understanding the biogenesis evolution and the relationships between abiotic and biotic substance in the Universe; (2) real opportunities emerge to divide the Precambrian into periods as thoroughly and confidently as it was done for the Phanerozoic, and this will ensure novel quality of geological mapping and prospecting of mineral deposits. Supported financially by Russian Foundation for Basic Research, grant 97-05-64871.