

CARBONIFEROUS COAL AND RADIOLARIA -BEARING STRATA OF EAST-EUROPEAN CRATON MARGIN

VISHNEVSKAYA V.S. Institute Lithosphere of Marginal Seas of Russian Academy of Sciences, Moscow, Russia.

The findings of coal and radiolarian-bearing sediments in the Carboniferous strata of the Donbass rise up necessity to explain the coexistence of these contrast types of deposits. The appearance of Tournesian coal and coeval domanikoidal radiolarian-bearing facies probably was joined to global evstatic events. The following rapid tectonic subsidence forced coal accumulation. New micro- (foraminiferas, radiolarians, sponge spicules, conodonts) and macrofaunas (ammonites, brachiopods) data, mineral-petrologic compositions, as well as facial relationships of the Lower Carboniferous (Tournesian and Visean) deposits of the Dniepr-Don-Caspian depression indicate the continuation of postrifting subsidence on the southern margin of the East-European Craton. It allows to consider they were accumulated within vast marine basin in contrast to previous point of view about their continental lagoon nature. The high content of organic matter, radiolarians, uranium in these sediments is evidence of low accumulation rates. All above-mentioned peculiarities integrated with pure composition of bituminous siliceous limestone and chert interbedded with thin vitroclastics show non-compensated regime of subsidence which was forced by rifting activation. Widespread sponge spicule deposits trace brow of continental slope. The coeval thick series of terrigenous coal-bearing sediments have been accumulated along active marine margin and as lacustrine alluvium that are confirmed by presence of numerous shells in black coals of Eastern Donbass.