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HPQ-02 Black Sea?Mediterranean Corridor during last 30 ky: Sea level change and human adaptation

Azovian Region in the system of Black Sea - Mediterranean corridor during Quaternary: Stratigraphic and paleoenvironmental aspects

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Azovian Region represents the northern peripheries of Black Sea - Mediterranean corridor. In Quaternary period, this area was subjected to different events as marine transgressions and regressions followed by subaerial conditions. The sediments of Late Pliocene Akchagylian transgression are found only in one location of the Veselovka settlement on the Tamanian Peninsula. The Early Pleistocene shallow marine basin was associated with Apsheronian epoch when the connection with Caspian region obviously through the Manych Depression and the linkage with Black Sea basin have existed. The sections in the Don River mouth and along Azovian Sea shore demonstrate mostly shallow marine or continental deposits represented by lagoon clays, alluvial sands and loess-paleosol formation. Three biostratigraphic levels from Upper Pliocene to Middle Pleistocene characterized by Khaprovian, Tamanian and Tiraspolian faunal complexes are recognized. Khaprovian fauna from Liventsovka section with Archidiskodon meridionalis gromovi, large horses of the stenonis group, and advanced mimomyan voles corresponds to the middle Villafranchian mammal age. The carnivore fauna demonstrates a very characteristic middle Villafranchian association with Homotherium crenatidens, Pliocrocuta perrieri and Nyctereutes megamastoides. The type locality of the Tamanian complex, the Sinyaya Balka section on the Tamanian Peninsula, is not clearly stratified due to mud volcanic deformation. This complex contains A. meridionalis tamanensis and microtine voles with rootless dentitions. New data from this site suggest a possible archaeological evidence of Early Pleistocene settling of ancient man in this region. Tiraspolian complex includes Mammuthus trogontherii, and documents an adaptive radiation of voles of the genus Microtus. The fauna of this complex was studied in the Kagalnik and Port-Katon sites. Its age corresponds to the Cromerian fauna of Western Europe. The loess-paleosol formation consists of five or six paleosols alternated with loess horizons. Their age fits within the Brunhes Chron. During the Late Pleistocene the semi-marine basin occupied the central part of aquatory of the Azov Sea. Characteristic submergence of the Last Interglacial (Mezin) pedocomplex below the sea level occurs in some sites along northern coast of the Taganrog Gulf. The Last Glacial interval is recorded by a relatively thick loess accumulation. This represents a period of a complete drainage of the Azov Sea. The drained area was subjected to deflation and served as a source area of fine silty material for subaerial sedimentation.

13.08.2008 TIME: 00:00