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New OSL-dating results for MIS-5 trasgression of the Black Sea

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The paleogeography of the Azov-Black Sea region has attracted researchers for a long time. The most interesting problem is the fluctuation history of Late Pleistocene basins sea level. Today there is no consensus on the number of transgressions and regression, their duration and highstands. At the same time, the main problem is the absence of an absolute chronology of sea level changes. There is still a discussion about the development time of the largest karangat transgression of the Azov-Black Sea region.
An attempt to solve this problem was the implementation of OSL-dating of marine sediments from the Eltigen section - containing the most complete series of marine sediments of the karangat transgression. In the second half of the last century was made an attempt to obtain a series of 230Th/234U dates, which showed that the age of the deposits of the Eltigen section is in the time range from 70 to 140 thousand years, and the maximum of the Karangat transgression falls to the interval of 119-124 thousand years.
The Eltigen section is located in the coastal cliff between the Cape Karangat and the Uzunlar Lake on the western coast of the Kerch Strait. Eltigen is a stratotype of the Karangat strata deposits that correspond to the development of the Karangan transgression of the Azov-Black Sea basin during the last interglacial (MIS 5e).
During the summer of 2017, we studied the Eltigen section and sampled sediment OSL-dating and paleontological research.
The obtained OSL chronology confirms the time of the formation of beach sediments containing mollusks of numerous Karangat fauna as MIS-5. At the same time, the data obtained by us indicate that a high position of the sea level took a longer time than expected. Thus, the coastline of the Karangat age in the Eltigen section was formed over 50 thousand years. As a result of a decrease in sea level and the beginning of the subaerial stage of sedimentation, a layer of loesslike loam accumulated, the age of which is estimated at 50 to 10 thousand years.

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