

HOLOCENE SEDIMENTATION AND FORMATION THE MODERN SEA BOTTOM RELIEF OF THE GOLDEN HORN BAY (PETER THE GREAT BAY. SEA OF JAPAN)

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As a result of the high-resolution seismoacoustic investigation performed, the structure of sedimentary deposits and the surface of the acoustic basement of the Golden Horn Bay and the adjacent water area were studied. It has been established that the thickness of sediments in the depression of the bay is 10–18 m. In the sedimentary section of the Golden Horn Bay depression, two sequences of sediments are distinguished, differing in acoustic appearance, thickness, and occurrence conditions. It is concluded that there are two stages of sediment accumulation. During the first stage, in the period 10200-9300 years ago, sediments of the lower strata accumulated under conditions of glacioeustatic fluctuations in the level of the World Ocean and high activity of contour currents. The second stage began 9,300 years ago following sea level rise and continues to the present. In the upper part of the sedimentary deposits of the Golden Horn Bay, a thin layer of acoustically transparent sediments up to 1.5 m thick was identified. This layer is presumably composed of sediments that arose as a result of anthropogenic impact on the bottom of the water area and coastal slopes during economic activities during the development of the city and the port of Vladivostok.

Keywords: high-resolution seismoacoustic investigation, Golden Horn Bay, sediments, bathymetry, Sea of Japan.

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