

## **Distribution of Authigenic Minerals in the Late-Quaternary Sediments of Glacial Shelf (North-West Russia).**

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The mineralogical analysis of the Late Pleistocene-Holocene sediments sampled in the Barents, White and Baltic seas showed presence of different authigenic index-minerals. For example in the eastern Gulf of Finland (the Baltic Sea), the glacial till is characterized by presence of pelitomorphic carbonates. In the overlaying limno-glacial varved clays the authigenic barite dominates. The next stage of the gulf development (Ancilus Lake) is marked in sediment section by layers of amorphous Fe-sulphides. The end of this stage is fixed by horizon of "blue clays" enriched in authigenic biomorphic pyrite. The recent silty-clayey marine sediments (containing authigenic phosphatic minerals, carbonate micro-concretions, Mn-sulphides, etc.) are also characterized by dominance of pyrite, but its content and morphology changed. Within the areas of low rates of terrigenous sedimentation the recent biogenic-chemogenic oxidized Fe-Mn concretions are widespread. The very similar features of authigenic mineralization are characteristic not only for the Late-Quaternary sediments of another inland sea of the glacial shelf: the Onega Bay of the White Sea, but even for sediments of the Barents Sea (near the Novaya Zemlya). So, the distribution of authigenic minerals in the Late-Quaternary sediments of the glacial shelf is controlled by the common history of development of whole this area: originating and degradation of glacial cover, formation of enclosed glacial lakes, then development of fresh-water lakes and sea basins. Thus, authigenic minerals can be used as one of the indirect parameters for correlation of sediment sections within the glacial shelf.