

One of the oldest Neolithic sites in Europe are situated on the Smolensk Upland. The beginning of the Neolithic in this region is linked to the climate cooling that occurred ca. 8200 years before present. During the second such cooling ca. 4200 years before present, pile-dwelling settlements were developed on the local palaeolake shores, as Serteya II site. At archaeological sites of that period, relicts connected with the development of a number of advanced for 4000 years before present, technologies such as pottery making, as well as production of bast textiles, nets and traps for fishing, bone tools from beaver jaws and raven amulets were discovered. The evidence of initiation of animal breeding and crop agriculture are also recorded for that period. The expeditions of the State Hermitage Museum in Saint Petersburg have conducted extensive archaeological research in the Serteya Region for 30 years, using, among others, underwater archaeology methods. Although the pile-dwelling settlement at Serteya II site is one of the best recognised in Europe in archaeological terms, the information on the living environment of human communities in that period is still quite scarce. The aim of the project is to reconstruct environmental conditions (climatic, hydrological, plant cover and ecological conditions of the lake) influencing the existence of human communities in the Neolithic. Thus, a multidisciplinary palaeoecological study of the cores of lacustrine deposits from the site is planned. Using microfossils of various organisms, geochemical and geological proxies, and wood remains, it will be possible to reconstruct the environmental conditions that were present before, during the pile-dwelling period, and after the existence of the Neolithic settlement. The primary aim of this project is to reconstruct a network of interactions between regional (climate), local abiotic (hydrology), biotic and cultural components of the ecosystem.