## The end of the "Epi-Mesolithic" and Mid-Holocene environmental changes in the Eastern Gulf of Finland

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## Abstract

Early and Middle Holocene environmental changes well-correlate with social and cultural transformations in the eastern part of the Gulf of Finland (Gerasimov, Kriiska 2017). Pottery appeared in the region after the Littorina transgression maximum (about 5500 BC), several centuries later than in the surrounding territories. But beside this innovation (although rather sufficient) all the main cultural characteristics remained unchanged, including lithic (and probably bone) industry(es), settlement pattern (and structure?), subsistence strategy and intro- and interregional communication networks. These characteristics of the "Early Pottery Time" were considered by some (mainly Western European) archaeologists better fitting to Mesolithic then to Neolithic units of periodization (e.g. Kriiska et al. 2018). In the Early Pottery Time two different pottery traditions were presented in the Eastern Gulf of Finland – Narva and Sperrings cultures. In the beginning of the 4th ka BC the so-called Typical Combed Ware spread in the region. Rather high level of standardization in pottery-making technology, vessels' shapes and ornamentation within the whole region can be considered as an evidence of a kind of social integration of this territory by certain social processes which took place in the end of Atlantic period. Interregional exchange activity increased at that time. A large number of items made of Baltic amber appeared in the Gulf of Finland region, as well as far outside of its boundaries. Also amount of flint artifacts increase in collections from Typical Combed Ware contexts. Those and other obvious changes in archaeological records allowed considering the time of Typical Combed Ware as the beginning of the "real" Neolithic (e.g. Nordqvist 2018). Social and cultural transformations that accompanied spreading of Typical Combed Ware not only intensified and enlarged interregional exchange, but also somehow suppressed certain previously well-pronounced cultural peculiarities – decreasing of using of asbestos temper in pottery making is a good example.

Results of multi-proxy studies of more than ten multilayer archaeological sites in the Karelian Isthmus and in the Ladoga Lake area, also reference sites from the neighboring territories allow discussing the role of climatic events in the "undoubted end" of Mesolithic of the Eastern Gulf of Finland. The abrupt climatic changes cab be dated around 3500-2300 . It was a

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crucial period in the life of societies in this area.

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