The rational resource management as the key to successful livelihood strategy of the population of the Dnieper Rapids Region during the Late Mesolithic

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Abstract

The Dnieper Rapids Region is situated between the lower and middle reaches of the Dnieper river between Dnipro and Zaporizhya cities (Ukraine). This stretch of river is a section of the break through the Ukrainian crystalline shield, which had resulted in the formation of a unique ecological niche with natural borders, a large number of islands and huge rocks in the riverbed and a landscape similar to canyon.

Archeological evidence points to long-term inhabitation of several sedentary ancient groups within the territory. This is confirmed by numerous settlements and burial grounds. Though, some mobility of population was characteristic inside the region, but entire displaces were cyclical, stable, systematic and repetitive from year to year. The settlements during the warm season were generally located on islands and large rocks. Each of those settlements was populated with a group of people (family, clan) that has provided itself and was engaged in supplying. During the cold season, a commune of several "island groups" was located in coastal settlements uniting their work and accumulated resources. Each commune has had a fixed system of seasonal movements on the controlled territory by movement back to already habitable places from past seasons depending on the season.

The livelihood strategy of the Dnieper Rapids Region inhabitants was qualitatively different from the societies that occupied the neighboring territories (referring to technology and raw materials for tools, economy, settlement strategy etc.). Certainly, these differences were related to the peculiar landscape and resource base of the region. The rational integrated use of resources, as well as deliberate livelihood strategy guaranteed stability while minimizing the risk and without the need for long-way resettlements. Advantages of the selected strategy can be confirmed by transition to producing type of economy in region later than in the surrounding areas. Key components of the local economy (fishing, hunting, catching river game, gathering) have remained for a rather long time even after ceramics appearance.

Paleogeographic characteristics were causing the availability and accessibility of raw materials, which were unevenly represented in the region. For example, the lack of local deposits of high quality flint caused the widespread use of local rock materials (steatite, granite, amphibolite, migmatite, quartz, etc.) and bones for the manufacture of tools (one of the highest indices for Mesolithic and Neolithic cultures in Ukraine). The availability of large quantities of wood (according to palynological data) and type of economy have led to the development of woodworking tools.

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Based on archeological data, annual climatic fluctuations, ethology of animals and fish, archeological and ethnographic parallels, we offer detailed models of annual cycle of settlement and economy and strategy of resource management in the Dnieper Rapids region during the 8th-7th millennium BC.

Keywords: Late Mesolithic, Dnieper Rapids Region, ecological niche, resource management, livelihood strategy, annual cycle of economy