
Eastern European Mesolithic in the forest-steppe of the Volga basin: new results

Andreev Konstantin*¹

¹Samara State University of Social Sciences and Education (SSUSSE) – 65/67, Maxim Gorky St., Samara, 443099, Russia, Russia

Abstract

The Middle Volga Basin is part of the Eastern European Forest Steppe Zone. For a long time, the Mesolithic period in this region remained poorly studied. Only a few places were known, neither absolute dates nor paleo-ecological data were obtained. The situation has changed only in the last five years, when new sites were discovered and natural science analysis was applied.

Mesolithic assemblage of Staro-Tokskaya site was attributed to early Mesolithic based on stratigraphic observations (Mesolithic finds were deposited on the depth of 2 m in the clay loam layer) and technological features of flint complex. Fragment of bone knife was dated to 9243 ± 33 (Hela-4487). Results of pollen analysis allowed reconstructing arid conditions and poor forest cover during Mesolithic period coinciding with Boreal time. Only about 5% of the pollen in the spectrum is represented by wood species, wormwood dominated, which corresponds to the semi-desert zone.

Flint assemblage includes 3000 objects, blades (more than 50%) dominated. They were used for manufacture of more than 90% of all tools. Cores were pencil-shaped, prismatic and conical. Different types of tools were identified: end-scrapers, borers, burins, blades with marginal retouch. A high number of medial parts of blades testify to a significant role of inset technique. The closest analogies for these materials can be found within the Southern Ural assemblages.

Krasny Yar I and Kochkari I sites are attributed to the Late Mesolithic. Kochkari I site can be dated to the beginning – middle of the 7th mill BC based on a number of radiocarbon dates. Significant climatic changes can be reconstructed for this time in the forest-steppe Volga area based on pollen analysis. Amount of wood species increased (30-40%), herbaceous species decreased, large areas were occupied by meadows (50-60%). Thus, climatic conditions became more humid and favorable in the beginning of Atlantic in this area. The number of blades decreased in the Late Mesolithic (30-35%). Medial parts, served as insets, still dominated. Conical and edge-faceted cores dominated. More than 50% of tools were produced on blades, also several tools were noted made on flakes, rarer – on generalized flakes. Wood-working stone tools became widespread.

The first Neolithic societies (Elshan Culture) appeared here in the first half of the 7th mill BC on a series of radiocarbon dates. It is assumed that their origin is related to the Central Asian region and the culture of the Celteminars. Thus, Late Mesolithic and Early Neolithic

*Speaker

societies coexisted in this region in the first half of the 7th mill. BC. However, significant differences can be noted for the Neolithic Elshan and Mesolithic flint assemblies.

A small number of blades (about 7%) and blade instruments (about 10%) were recorded in the ensembles of the earliest monuments of the Elshan culture. Informs cores dominated. The greatest number of scrapers, pickles and drills were made on flakes. The arrows, not known in Mesolithic ensembles, were found in early Neolithic places. All this indicates a lack of significant contacts between Neolithic novices and local Mesolithic inhabitants in the first half of the 7th mill. BC. It is possible to assume that Mesolithic communities were gradually replaced by the Early Neolithic communities that arrived in the forest-steppe zone of the Volga region.

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