

Early Mesolithic archaeological evidence in the light of Northwestern Black Sea Dynamics

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Introduction

The present article investigates basic features of the Early Mesolithic phase of prehistory in the Northwestern Pontic region with regard to its connection with the Black Sea basin and history of adjacent landscapes. The main task here is to examine whether changes in the natural habitat (especially taken in the light of rival scenarios of Black Sea level change at the Pleistocene-Holocene boundary) were synchronous with changes of livelihood and tool production strategy in the local human populations. Such a geoarchaeological approach is based on widely known patterns of hunter-gatherer ecology and mobility (Binford, 1978) applied to the specific environmental characteristics of a Northwestern Pontic steppe ecotone in the Younger Dryas-Preboreal interval.

Paleogeographic situation

Our study area is located in the steppe ecotone between the Danube and Dnieper basins. Pollen evidence deriving from geologic cores representing Late Pleistocene Prichernomorian time (pč₃) and from Early Holocene soils, explored in the Prichernomorian lowland, reveal very little difference. Both contain single pollen grains of herbaceous vegetation (species of the family Gramineae [now = Poaceae], and *Artemisia* sp., etc.) and pollen of *Ephedra*, pine, and birch, with sporadic elm, oak, and maple grains (Pashkevich, 1981). On slopes and riverbanks, mixed forest plots with grassland patches predominated. So, according to pollen data, Southern Ukrainian landscapes developed from a humid mesophyte cenosis (the end of the Allerød-beginning of the Younger Dryas) to an arid xerophyte cenosis (Preboreal cold spell at 9.6–9.0 ky). Such an environmental dynamic could not co-exist with the effects of a significant Black Sea level rise.

Early Mesolithic archaeological database

The archaeological data are indeed fraught with difficulties; most of the dates we have to work with originated from cross-analysis of flint-knapping technology and tool morphology. Specific traits of flint-knapping technology and subsistence strategy allow us to mark three ethnic regions in different sectors of the steppe territory of the Northwestern Black Sea: the Lower Danube basin, the Dniester-Bug interfluvium, and the Lower Dnieper basin.

Dispersion of aurochs in the Lower Danube at the end of the Pleistocene led to the appearance here of small groups of people from the Middle Danube region (Stanko, 1985). They left behind the informative site of Bilolissya, situated on the first terrace above the Danube floodplain, about 8 m in elevation. It was a seasonal base-camp with numerous little sites surrounding it. Analysis of the Bilolissya faunal remains (bones of Paleolithic horse and Mesolithic aurochs) confirms the Pleistocene-Holocene transitional character of this site (Bibikova, 1985). At the end of the Preboreal, the inhabitants of Bilolissya disappeared. During their life here, there were no other groups of hunter-gatherers, and after them, the Lower Danube region remained empty until the Late Mesolithic.

In the Early Holocene, the Dniester-Bug interfluvium was characterized by a cold and arid continental climate. Due to insignificant vegetation changes, the typical Pleistocene faunal complex still existed in the Holocene. Here, local Paleolithic traditions persisted in the multi-layer Volodymyrivka site.

Conventionally, layers I and II at Volodymyrivka (with bones of horse, reindeer, and bison) were attributed to the Final Paleolithic, which continued into the Younger Dryas (Chernysh, 1953). These archaeological complexes are important for the reconstruction of tool-kit development, as former steppe territories became reforested. Because of the similarity in flint assemblages between Anetivka and Volodymyrivka, their inhabitants are considered to be related indigenous groups (Smoljaninova, 1990).

Steppe inhabitants of the Bug basin ecotone were representatives of the Anetivka and Tsarynka Cultures. Roots of both traditions can be traced back to the local Upper Paleolithic. The geometric tool production strategy of Tsarynka-Rogalyk is one of the earliest steppe geometric industries to emerge from the Paleolithic period. The Tsarynka-Rogalyk Early Holocene cultural community spread from the Lower Dnieper region to the Bug basin and the Azov Sea coast (Olenkovskii, 1991; Stanko, 1991). In the Bug basin, two sites—Gavryliv Iar and Tsarynka—demonstrate traditions of the Late Paleolithic Leontiivka type of Tsarynka-Rogalyk community. Whereas two Early Mesolithic sites—found on the Bakshala (Anetivka) and Syniukha (Novoarchangelskoe) banks—of the Anetivka culture belong to the local Bug basin population, which began to produce an industry referred mostly to the Mesolithic (Stanko, 1980a). There were no faunal remains at any of these sites. Also we have no evidence of any connections between these two groups of ancient hunter-gatherers. They settled in one econiche but existed separately (Stanko, 1980b).

Only one site on the right bank of the Dnieper could reliably be interpreted as Early Mesolithic. This is Anastasiivka, represented exclusively by surface finds (Olenkovskii, 1991). But one should not forget that the Lower Dnieper region was the area where the Tsarynka-Rogalyk culture was generated.

Discussion

Based on pollen evidence, climatic data from the Northwestern Black Sea indicate a dominant cold and arid climatic situation, which could develop only when the Black Sea is rather far from its present level.

All archaeological data of the Early Mesolithic period demonstrate the persistence of Late Paleolithic groups, and almost a full absence of significant ethno-demographic fluctuations in the Northwestern Black Sea region. So, archaeological data do not imply any sharp changes in either climate or Black Sea history.

Under conditions of minimal paleoclimatic change and modification in population dispersion (a new group appears only in Bilolissya in the Lower Dniester region), we can conclude that the mode of life, subsistence strategy, and flint-knapping technology show no abrupt transformations. So, we have no fundamental background indicating that we should search for any “catastrophes” in the Northwestern Black Sea region during the period under study.

Data comparison makes it possible to conclude that, among all existing rival scenarios of Black Sea history, only those which imply very slow rise without breakdowns can be supported archaeologically. So, the archaeological database confirms a “low level” non-catastrophic hypothesis of Pontic basin history at the Pleistocene-Holocene boundary.

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