
New data on Upper Paleolithic in Central Asia: Ushbulak and Karasai sites (Kazakhstan)

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Abstract

Ushbulak (ShiliktyValley, Eastern Kazakhstan) is a stratified site (8 layers). According to the recovered artefacts and their features, as well as the stratigraphic position, and associated faunal remains, four major cultural and chronological units have been tentatively established, including the Holocene assemblage (layer 1), the final UP assemblage (layers 2.1-3.3), the developed UP assemblage (layers 4-5.1), and the initial UP assemblage (layers 5.2-7.2).

The assemblage from the lowermost layers 5.2-7.2 contains blade cores with the opposite semi-tourne platforms, numerous core trimming elements, end scrapers on large blades, including those with ventral hewing of the base, truncated-faceted tools, truncated blades, burins and a tanged point. Core trimming elements correspond well to the available cores. The majority of core trimming elements (crested, plunging, and marginal laminar spalls) illustrate laminar volumetric and semi-volumetric reduction. Based on the composition of the lithic industry, layers 5.2-7.2 can be defined as a lithic workshop at the outcrops of raw material. In terms of tool types, the Ushbulak lithic industry is similar to the stratified assemblages attributed to the IUP in Southern Siberia (Kara-Bom site and others) and Northern Mongolia (Tolbor-4 site and others). Detailed luminescence dating was applied for age determination of main archaeological layers and proluvial-colluvial deposits of the site, with comparative dating using OSL and IRSL methods. Detailed age model was created using Bayesian statistics on the basis of IRSL-chronology and additional ¹⁴C ages. The performed research provides the exact time of the main settlement of studied site - about 46,000 years ago, i.e. in the second half of MIS 3.

The second assemblage is connected with the appearance in Eastern Kazakhstan industries with micro- and small-blade percussion which started to use pressure technique. Raw material base and technical-typological characteristics of the industries have changed dramatically. The earliest complexes of this type identified in level 5.1 at Ushbulak site and dated about 23,000 BP.

The latest assemblage are known in levels 3 and 2 at Ushbulak site – about 16,000-14,000 BP. Possibly these industries can be correlated? by the main array of finds at Shulbinka site (MiddleIrtyshValley, Eastern Kazakhstan) which collection, according to new data, includes

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two complexes – of the Final Paleolithic and one of the Pleistocene/Holocene transition.

The Final Paleolithic tradition with the combination of large-blade and micro- percussion is connected with the Holocene boundary. The micro-percussion is aimed at the removals of bladelets and microblades from volumetric prismatic and narrow front cores by pressure. These materials are most fully presented at Karasai site (ShiliktyValley, Eastern Kazakhstan). Stratigraphic situation, characteristics of the archaeological materials, and series of dates – about 10,000-9,000 BP – allow us to assign the main complex of finds to the Mesolithic.

Research was supported by Russian Science Foundation project # 21-78-10146.

Keywords: Central Asia, Kazakhstan, Upper Paleolithic, lithic assemblage, cores, lames, tool assemblage