



Contents lists available at ScienceDirect

Quaternary International

journal homepage: [www.elsevier.com/locate/quaint](http://www.elsevier.com/locate/quaint)

## New evidence for Paleolithic human behavior in Mongolia: The Kharganyyn Gol 5 site

Arina M. Khatsenovich <sup>a,\*</sup>, Evgeny P. Rybin <sup>a,b</sup>, Byambaa Gunchinsuren <sup>c</sup>, John W. Olsen <sup>d</sup>, Roman A. Shelepaev <sup>e</sup>, Lidia V. Zotkina <sup>a</sup>, Tsedendorj Bolorbat <sup>c</sup>, Alexei Y. Popov <sup>f</sup>, Davakhuu Odsuren <sup>c</sup>

<sup>a</sup> Institute of Archaeology and Ethnography, SB RAS, Novosibirsk, Russia

<sup>b</sup> Altai State University, Barnaul, Russia

<sup>c</sup> Institute of History and Archaeology, MAS, Ulaanbaatar, Mongolia

<sup>d</sup> School of Anthropology, University of Arizona, Tucson, USA

<sup>e</sup> V. S. Sobolev Institute of Geology and Mineralogy, SB RAS, Novosibirsk, Russia

<sup>f</sup> A. A. Trofimuk Institute of Petroleum Geology and Geophysics, SB RAS, Novosibirsk, Russia

### ARTICLE INFO

#### Article history:

Received 10 March 2016

Accepted 11 October 2016

Available online xxx

#### Keywords:

Central Asia

Mongolia

Late Pleistocene

Terminal Middle Paleolithic

Upper Paleolithic

Human behavior

Lithic technology

Lithic raw material

Non-utilitarian object

### ABSTRACT

Situated between the Altai Mountains and the Chinese Loess Plateau, the current territory of Mongolia played a pivotal role in Pleistocene human population dynamics in Northeast Asia with archaeological evidence suggesting the existence of cultural links with southern Siberia beginning in the Late Pleistocene. Here, we present preliminary results from the newly discovered site of Kharganyyn Gol 5 in northern Mongolia. The results obtained from the Kharganyyn Gol 5 site allow new reconstructions of chrono-cultural sequences and human behavior in eastern Central Asia. The site has yielded evidence of human occupation corresponding to several phases of the regional Upper Paleolithic. In addition, we present the first evidence of human occupation of the region prior to Greenland Interstadial 12 (GI12; 40,000–43,000 BP) and discuss the implications of such data. The Kharganyyn Gol River basin contains sedimentary rock formations including numerous raw material outcrops, containing various types of chert. Prehistoric people used all these chert varieties for tool production, but the modes of raw material exploitation changed through time. This paper reports the presence, unique in Central and North Asia, of a non-utilitarian object made of muscovite mica in an Initial Upper Paleolithic assemblage in Archaeological Horizon 5 of the Kharganyyn Gol 5 site.

© 2016 Elsevier Ltd and INQUA. All rights reserved.

### 1. Introduction

Situated on the eastern periphery of Central Asia, Mongolia has yielded among the easternmost evidence for Middle Paleolithic (MP) technology in Eurasia. The region establishes a geographic link between the distribution of blade assemblages from South Siberia and northern China (Pei et al., 2012; Li et al., 2014). In that sense, Mongolia may be seen as a potential contact zone between populations from East Asia and South Siberia. From this perspective, the study of the Paleolithic assemblages of Mongolia can make

a significant contribution to the debate over two models of the transition from the Middle to the Upper Paleolithic in northern and eastern Asia: rapid changes in technology, marking a gap between the Middle and the Upper Paleolithic; or gradual transformation of local Middle Paleolithic traditions leading to the emergence of a distinctive Upper Paleolithic (Derevianko et al., 2010; Li et al., 2014).

Over the last decade, this attractive setting has motivated multiple research projects that have focused mainly on the beginning of the Upper Paleolithic (Derevianko et al., 2007, 2013; Rybin et al., 2007; Gladyshev et al., 2010, 2012; Zwyns et al., 2014). These efforts have highlighted an Asian variant of the so-called Initial Upper Paleolithic (IUP) broadly comparable in age and material culture to techno-complexes much further to the west, but also showing distinct derived features (e.g., from the Altai, Levant and Central Europe) (Kuhn and Zwyns, 2014). Most assemblages assigned to the IUP in Mongolia have been discovered during the

\* Corresponding author. Institute of Archaeology and Ethnography, Siberian Branch, Russian Academy of Sciences, Lavrentieva Ave., 17, Novosibirsk, 630090, Russia.

E-mail address: [archeomongolia@gmail.com](mailto:archeomongolia@gmail.com) (A.M. Khatsenovich).

last decade along tributaries of the Selenga River in the country's north-central region. A total of 38 such surface and stratified Paleolithic sites have been found thus far, including a concentration clustered within a 10 km radius of the confluence of the Ikh Tulberin Gol (Tolbor) and the Selenga (Fig. 1) (Gillam et al., 2012). The five main stratified sites identified in the area are Tolbor 4, Tolbor 15, Tolbor 16, Tolbor 21 and the recently investigated Kharganyan Gol 5 locality described here. Although direct chronometric dates are few, aggregated archaeological and chronometric data from the Tolbor Valley (Gladyshev et al., 2010, 2013) suggest that the IUP of northern Mongolia is at least partly contemporaneous with the IUP of the Transbaikalian region of southern Siberia, falling within the range of Greenland Interstadial 12 (GI12) (e.g., 47,000–44,000 BP) or within the short episodes that immediately followed GI12 (Tashak, 2014). The Transbaikalian region and the Tolbor Valley have yielded the highest density of IUP sites in the greater Selenga drainage system. The following uncalibrated dates have been obtained for IUP assemblages in the Tolbor Valley: Tolbor 4, Horizon 6–37,400 ± 2600 BP (AA-79314), 35,230 ± 680 BP (AA-93141) (Gladyshev et al., 2013.); Tolbor 16, Unit 7 (Pit 1) – 33,320 ± 180 BP (MAMS-14932), (Test Pit 1) – > 45,400 BP (AA-93143); Tolbor 21, Horizon 3 (Pit 2) – 39,240 ± 360 BP (MAMS-14936), and Horizon 4 (?) (Pit 1) – 44,640 ± 690 BP (MAMS-14933) (Zwyns et al., 2014). The exact stratigraphic origin of the sample yielding the earliest date for Tolbor 21 is uncertain, thus its association with Upper Paleolithic Horizon 4 is tentative (Rybin et al., 2014).

In contrast with the IUP, little evidence of Middle Paleolithic (MP) occupation has been found in the region (Derevianko, 2005). Only a handful of sites located in the Russian Altai, the Transbaikalian region, central Mongolia and the Gobi Desert document a stratigraphic succession between a local MP and the IUP (Derevianko et al., 2000; 2010, 2015). Due to typological overlaps, these industries are not always easily differentiated, especially on the basis of small assemblages. In the Russian Altai, blade and point

reduction technology is well represented in Middle Paleolithic assemblages at Ust-Karakol and Kara-Bom sites (Derevianko et al., 2000a, 2003). On the one hand, whether or not we should expect blade production in MP contexts in Mongolia is not yet fully understood. Blade production is represented in the Terminal Middle Paleolithic/MP–UP transitional layer at Orkhon 1 site in central Mongolia (Kandyba, 2009; Derevianko et al., 2010), although on a much smaller scale and in a different form than in the Middle Paleolithic of the Russian Altai. On the other hand, the IUP still retains some typological features reminiscent of the MP in addition to the specific blade reduction system employed. These factors may explain why the record is so sparse. Hence, there is growing need for regional reference sequences, without which the multitude of surface MP-like finds will remain difficult to interpret. Whether the southern Selenga basin was occupied by human groups before the first occurrence of a blade-based IUP is still unclear. In addition to studies of the development of the IUP, finding MP assemblages in stratigraphic context is, more than ever, essential to place this behavioral shift in a framework of potential paleodemographic scenarios.

Here, we discuss the site of Kharganyan Gol 5 based on the results of excavations carried out by S. A. Gladyshev in 2012 and 2014, and by A. M. Khatsenovich in 2015. Our preliminary observations suggest that the Selenga River watershed was occupied prior to GI12; possibly by groups employing a technology similar to the Eurasian definition of the Middle Paleolithic. We briefly discuss possible implications of these finds and suggest future directions for research.

The Kharganyan Gol is separated from the Ikh Tulberin Gol (Tolbor) Valley by a low ridge. It is open to the valley of the Orkhon River as a potential corridor connecting the two regions densest in stratified sites – the Tolbor and the Orkhon basins (Fig. 1). The Kharganyan Gol 5 site, located at the crossroads of possible routes between two regions where Mongolian Middle and Upper

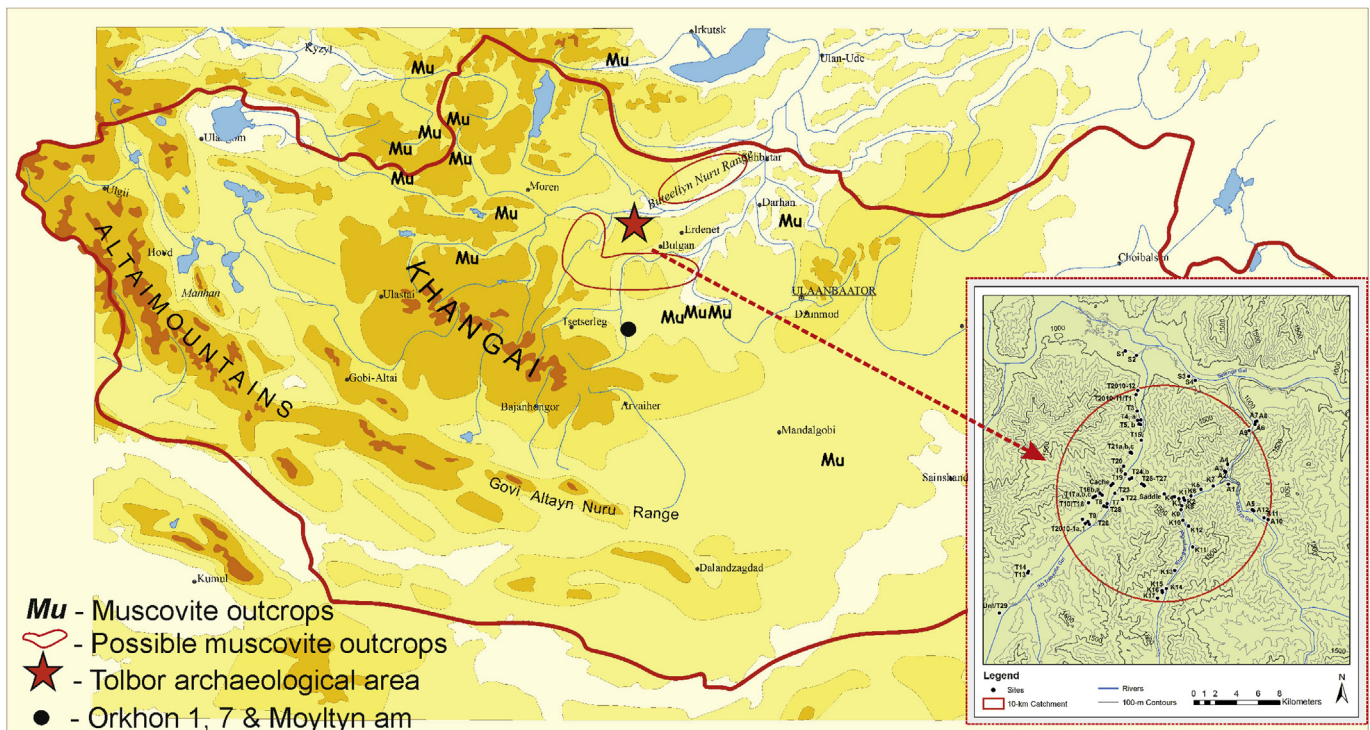


Fig. 1. Location map of sites mentioned in the text and stratified site clusters within a radius of 10 km of the confluence of the Ikh Tulberin Gol (Tolbor) Valley and the Selenga River (map of enlarged area courtesy of J. C. Gillam). MU – location of known sources of muscovite mica.

Download English Version:

<https://daneshyari.com/en/article/5113284>

Download Persian Version:

<https://daneshyari.com/article/5113284>

[Daneshyari.com](https://daneshyari.com)