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Middle Palaeolithic stone-tool technology from the Central Balkans: The site of Uzun Mera (eastern Republic of Macedonia)

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ABSTRACT

Whether a refugium, a transit area, or both, the Balkan Peninsula played a crucial role in the population dynamics of Europe during prehistory. However, the Balkans Peninsula is poorly represented in the European archaeological record. This article presents the newly discovered Middle Palaeolithic stone tool assemblage from the Uzun Mera site in the eastern Republic of Macedonia. Following fieldwork that included diverse methods in survey and excavation, as well as techno-economical and taphonomic assessment of the recovered stone tools, Uzun Mera is reported here as a typical Middle Palaeolithic assemblage that follows the pattern of a highly variable Balkan complex. The quality of the raw material reflects a highly selective approach, resulting in relatively low lithological variability where small blocks of raw material used for knapping are still present on site. These results contribute to better understanding the Palaeolithic of the Balkans and inform the population process in a region where little investigation has been previously conducted.

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1. Introduction

The first information of the Palaeolithic in the Republic of Macedonia dates from the beginning of the 20th century, but the overall record is still extremely sparse due to the almost complete lack of research. The only systematic excavations were conducted by Ljiljana Šalamanov-Korobar at Golema Pesht cave in the western part of the country in several campaigns since 1999 (Šalamanov-Korobar, 2010, 2013). Through typological assessment and radio-carbon dating, the lower part of the excavated sequence at Golema Pesht was dated to the later phases of the Middle Palaeolithic (Šalamanov-Korobar, 2013). Additional knowledge on the Palaeolithic of Macedonia is sporadic data from surface finds or stone tools reported without stratigraphy reference recovered from paleontological excavations (Kuzman, 1995; Šalamanov-Korobar, 2013).

Between 1998 and 2001, Šalamanov-Korobar also conducted a survey project “in search of Palaeolithic cultures” in Macedonia (Šalamanov-Korobar and Djuričić, 2005), during which two potential Palaeolithic “hot-spots” were identified: one in the Treska

gorge (Western Macedonia), and the other in the Babuna gorge (Central Macedonia). The continuation of the project resulted in excavations in the former at Golema Pesht cave (for all mentioned locations, consult map in Fig. 1). Despite the fact that the eastern half of the country is rich in siliceous and volcanic rocks providing suitable raw material for the technology of Palaeolithic populations, this region has not been regarded with high potential for Palaeolithic studies.

Recent national infrastructure development projects in Eastern Macedonia included the construction of a cargo airport 15 km northwest from the town of Shtip. In April 2017, the Institute of Archaeology and History at the Goce Delchev University in Shtip made an archaeological survey on the area earmarked for construction. In the region between the villages Mustafino and Erdzelija, in an area locally known as Uzun Mera, numerous chipped varieties of rocks were spotted scattered on the surface of an agricultural field. Some of them were identified as human-made stone tools, of which several were immediately attributed to the Middle Palaeolithic. Having in mind the importance of the findings, two of the authors (D.S. and T.N.) initiated a more extensive survey and surface collection of artefacts, as well as test-trench excavations.

Most of the new information about the Palaeolithic in the Balkans so far is coming from the coastal areas of the Peninsula

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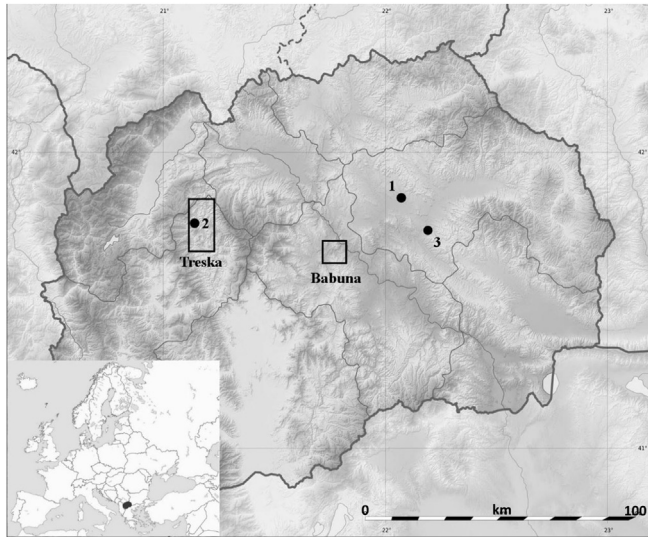


Fig. 1. Map of Macedonia with locations mentioned in the text; 1) Uzun Mera; 2) Golema Pesht; 3) Shtip.



Fig. 2. Zoning of the surveyed area at Uzun Mera and distribution of artefacts; in colour are the plots which were available for survey (green – area 1, red – area 2, dark blue – area 3, yellow – area 4, light blue – area 5 and black – limits of the site where no artefacts were found); the elevation line shows the terraces where the artefacts are distributed (between A and B); 1) trench 1; 2) trench 2; 3) trench 3; 4) detailed surface collection (10 × 10 m area). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)

(Greece and Croatia), or isolated areas in the northern and Eastern hinterland (Serbia, Romania and Bulgaria). The investigations in the central part are few and far between. With this article, we aim to enrich the knowledge about the Middle Palaeolithic by presenting the newly discovered stone-tool assemblage from Uzun Mera and, at the same time, comparing it against the diverse picture of the Balkan early prehistory.

2. The site

The Uzun Mera site is located close to the village of Mustafino in a context that borders the Paleogene upper flysch zone and Quaternary deposits characterized mainly by sandy clay. The area is highly anthropized and the majority of artefacts have been brought to light following agricultural ploughing.

The sediments containing the lithic industries are characterized by the presence of numerous medium-large blocks. The lithologies of the blocks correspond to the ones used for the production of the lithic instruments: Cretaceous jasper and Palaeozoic quartz.

2.1. Field survey

The first goal of fieldwork was to establish the boundaries of the area on which stone artefacts could be found. For this reason, the land between Mustafino and the small Nemashnica rivulet was divided into 5 conditional areas or zones (defined mainly by roads, this zoning of the land has no archaeological or other objective definition). The visibility of the surface depended on the current stage of farming of the individual patches of land. Some fields were inaccessible, others offered zero or little visibility on the surface, but some provided good visibility. At this stage of survey, the only noted attribute was the presence/absence of artefacts. The survey and surface collection were carried out plot by plot (Fig. 2).

As a result, an area of 1.5 km² was identified, spread mainly on the upper terraces on the left bank of Nemashnica, on an altitude between 265 and 295 masl (Fig. 2). In expectation of more detailed geological analyses, we can assume that the discovered lithic materials are not in primary position, which is also suggested by the taphonomic alterations on their surfaces. All lithics show post-depositional fractures, roundness, crumbling of edges (Burroni et al., 2002; Asryan et al., 2014) and patina (Bellard, 1930;

Glauberman and Thorson, 2012). Most of the lithic elements display alterations clearly connected to the agricultural works: fresh fractures, stripes and iron stripes. The tribological and chemical alterations seems to be the same in all materials, knapped and unknapped.

The distribution of the stone objects is influenced by a long history of farming activities in the area, being one of the biggest agricultural centres in the country. This is also testified by the significant number of geofacts and fire-cracked stones resulting from annual burning of the fields, widely practiced in the region until recently.

The number of archaeological objects collected from the surface in this area is 81 (Table 1, Fig. 3) and the estimated density is about 0,05 artefacts per m². The density is higher in area 1 and 2 along the N-S central axis. The exploited raw materials are mainly jasper and flint, with the exception of two big flakes on volcanic rock (gabbro) and quartz. The most represented raw material is the tiger jasper, but its predominance could be a consequence of sampling bias and the recovery method. All the raw material was collected from a secondary position, probably in proximity to the site given the abundance of not knapped cobbles. The characteristics of the cortex and neo-cortex suggest that pebbles were not collected from streams/rivers but rather from debris deposits.

All phases of the reduction sequence are represented: cortical flakes, non-cortical flakes, cores and technical flakes; however, each phase is represented by very few pieces. The attested knapping methods are typical of a Middle Palaeolithic occupation (Boëda et al., 1990) and are dominated by opportunistic (c.f. SSDA; Forestier, 1993) and Levallois (Boëda, 1994) methods. The discoid

Table 1
Lithic artefacts collected during an initial survey in the Uzun Mera locality.

Locality	Cores			Flakes			Total
	Levallois	Discoid	c.f. SSDA	Levallois	Discoid	Other	
Area1	2	1	1	2		12	18
Area 2	2		5	3	2	16	28
Area 3			3		1	11	15
Area 4	1		1			9	11
Area 5				1		8	9
TOTAL	5	1	10	6	3	56	81

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