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Multi-proxy archaeological investigations of a Middle Palaeolithic occupation context in Eastern Transylvania, Romania

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ABSTRACT

Until recently, the cave-based Middle Palaeolithic in Romania offered almost exclusively archaeological collections without chronological control, the limited number of radiocarbon samples reported usually lacking a precise archaeological context. In an effort to improve such limitations, we initiated an interdisciplinary research of the archaeological profile Abri 122 – Varghis (Vărghiș) Gorges (Romania), a site that so far produced the most important Middle Palaeolithic lithic assemblage in the Carpathian region.

Initial archaeological research in the karst system of Varghis Gorges dates back to the beginning of the 20th century. For the most part, the archaeological collections recovered, although consistent, remained unpublished. The lithic analysis presented here discusses one of the richest such collections, hosted in the Székely National Museum and recovered from Abri 122 site during previous excavations, complemented by our own survey during last years. It appears that the main raw material used for tool making was quartzite, followed by lydite, opal, and volcanic rocks. Blank production seems to have favored medium to large size flakes, irrespectively of the chosen raw material. Alongside partially retouched flakes and blades, the formal tools category includes sidescrapers, endscrapers, unifacial and bifacial points. Unlike the majority of the unmodified quartzite blanks, formal tools are mainly made of lydite/opal and basalt/andesite. Albeit the archaeological material appears scattered throughout the entire vertical span, two main clusters of lithics are apparent in the newly surveyed profile. The recovered faunal remains belong to herbivores such as Bos/Bison and Capra, canids (*Canis lupus*) and cave bears (*Ursus spelaeus*). Several bone items show traces of defleshing and intentional use.

Establishing a reliable chronological framing for the archaeological sequence at Abri 122 proved rather challenging. While radiocarbon dating was complicated by scarcity of collagen in bone remains and age of samples at or beyond the upper limit of the method, the upper span of the Middle Palaeolithic assemblages at Abri 122 likely reaches into Marine Isotope Stage (MIS) 3. Optically (OSL) and infrared stimulated luminescence (IRSL) dating of silt-sized grains indicate ages of >100 ka for the lowermost

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cluster of lithics/bones. These ages must be regarded as maximum ages for the Middle Palaeolithic assemblage at Abri 122.

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1. Introduction

Investigations of Middle Palaeolithic assemblages within Carpathian caves coincided with the beginning of professional archaeological endeavors in the wider region. During the second half of the past century, excavations and limited radiocarbon dating were attempted (Honea, 1984; Păunescu, 1984), resulting in a relatively cohesive cultural and chronological Middle Palaeolithic framework that interestingly, remained mostly undisputed to this day. The whereabouts of the main Middle Palaeolithic sites (Gura Cheii, Lilieciilor, Coacăzei, Bordul Mare, Curată, Spurcată, Muierilor, Cioarei and Hoților caves, in the Southern Carpathians area; Fig. 1A), neighboring hunting-friendly hollow grounds, and good supplies of local raw materials reinforced the hypothesis of an opportunistic behavior of mainly seasonal occupations, which left behind unsophisticated lithic collections with rare or absent Levallois components and only several cases of bifacially modified lithic implements (Cosac, 2008). The overall chronological span of these seasonal occupations was thought to range roughly between 49,950 and 30,530 cal years BP (OxCal v4.3.2), while their cultural assignment varied from Late Mousterian to transitional Middle-Upper Palaeolithic technocomplexes (Cărciumaru, 1999; Păunescu, 2000). More or less contemporary neighboring Palaeolithic assemblages sketched intricate and extremely various cultural frameworks, further complicated by apparent Mousterian-Micoquian interstratifications and contemporaneity (Kozłowski, 2014), or by radiocarbon dates linked to insecure archaeological contexts (e.g., the Hungarian Szeletian; Lengyel and Mester (2008)).

Thus, the need for properly surveyed new sites and new levels of accuracy in retrieving archaeological and chronological data appeared as imperative in understanding the complex chronological and cultural factors at play in the Carpathian area, particularly

in Romania. Already subjected to a previous, rather extensive and meticulous excavation, site Abri 122 (Figs. 1A–B and 2A), from Varghis (local spelling Vărghiș) Gorges – Persani Mountains (Eastern Carpathians) represented such an opportunity of reevaluating the Middle Palaeolithic in the Eastern Carpathian area.

Varghis Gorges karst system was originally mentioned in 18th century speleological surveys, followed by a first detailed map of the Mare cave in Merești, by I. Fekete, in 1836, and an ample description of the karst system, by B. Orbán, in 1868 (Dénes, 2003; Orghidan and Dumitrescu, 1963). The first archaeological results were published in 1911, by F. Podek, after conducting excavations in 15 caves (Orghidan and Dumitrescu, 1963) which cannot be precisely identified. Later on, Mottl (1950) resumed archaeological researches in (nowadays) easily identifiable spots; unfortunately, the results do not include field and stratigraphy drawings, or detailed descriptions of the archaeological and faunal materials. In 1969, archaeological excavations by L. Roșu took place in Calului and Tătarilor caves (Simionescu, 1969), but the results remained unpublished; nevertheless, in a synthesis on the Palaeolithic and Mesolithic in Transylvania, Păunescu (2001) included a note about a presumably Mousterian and Aurignacian labeling of the lithic material found in Calului cave.

Between 1971 and 2005, research by I. Dénes in the Varghis area almost doubled the number of known and mapped caves (from 65 to 124). He also initiated archaeological research in several spots, including the excavation of most of the infill at rock-shelter Abri 122 (Fig. 2A), but failed to publish the results. Since 2013, our ongoing investigations in Abri 122 covered the area left intact in the back of the rock shelter (Fig. 2) and allowed for a better understanding of the previously recovered lithic and animal bone collection from the same site.

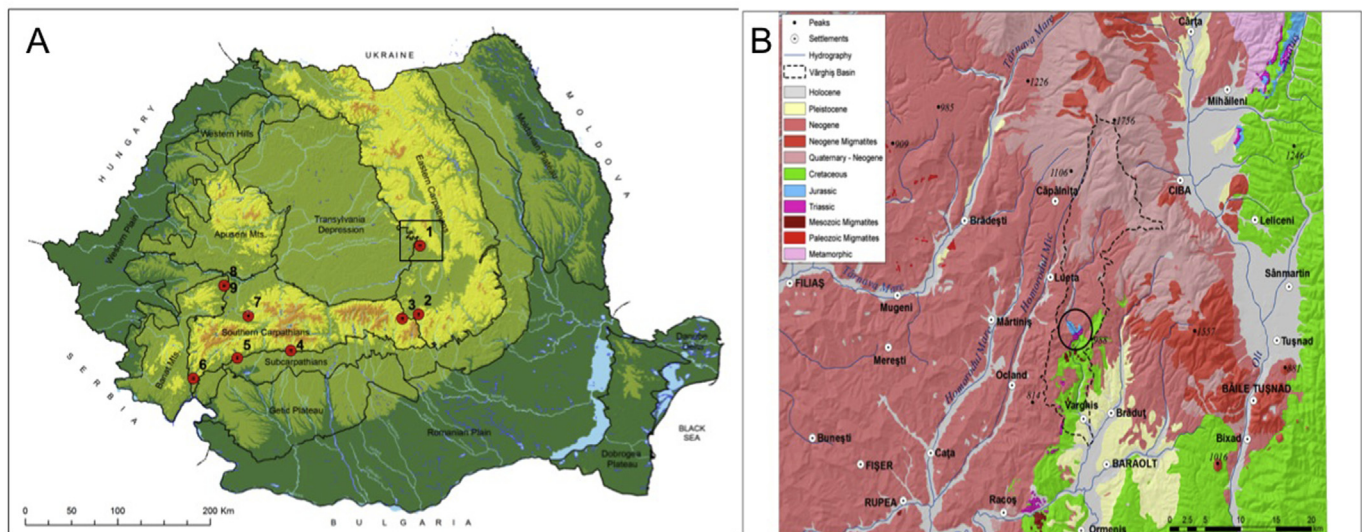


Fig. 1. A: Middle Palaeolithic sites in the Carpathian area: 1. Abri 122; 2. Gura Cheii – Râșnov; 3. Lilieciilor cave; 4. Muierii cave; 5. Cioarei – Boroșteni cave; 6. Hoților – Herculane cave; 7. Bordul Mare – Ohaba Ponor cave; 8. Spurcată – Nandru cave; 9. Curată – Nandru cave; B: The Varghis Gorges geological and geomorphological setting.

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