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BUKOVAC CAVE REVISITED: RECENT EXCAVATIONS OF AN EARLY UPPER PALEOLITHIC SITE IN THE GORSKI KOTAR REGION OF CROATIA

Data on the early Upper Paleolithic settlement of Croatia are very scarce. Except for the well-known sites from the Hrvatsko zagorje, namely Vindija and Velika pećina (both in žup. Varaždinska/HR; Malez 1979; Karavanić 2016), and Šandalja II (žup. Istarska/HR; Karavanić 2003) in Istria, no other secure data about the early Upper Paleolithic human presence are known. A few surface lithic scatters from Dalmatia and Istria could possibly also belong to this period based on the typology of the lithic artifacts (Balbo/Komšo/Miracle 2004; Komšo/Balbo/Miracle 2007; Karavanić/Čondić 2016; Karavanić/Komšo/Vukosavljević 2013). However, the context of these finds is not clear, and they are often discovered with lithics from later periods. For this reason, any new data from this period offer valuable new information that could contribute to the knowledge about the appearance of early modern humans in this part of Europe. Here we present new results from the recent excavations at Bukovac cave in the Gorski kotar region (žup. Primorsko-goranska/HR). This location has been known as a potential Aurignacian site since the early 20th century (Kormos 1912).

Bukovac cave is situated on the north-western slopes of the Sleme hill, near the village of Lokve in the Gorski kotar region, located in north-west Croatia (**fig. 1**). Together with its neighboring region of Lika, it represents the highest mountainous part of Croatia, forming a 700-800 m high plateau with its highest peaks reaching just above 1500 m a. s. l. It is positioned at the narrowest part of the Dinarides (Dinaric Alps) making it an area where the Pannonian Basin is the closest to the Adriatic Sea (Pavić 1975; Šegota 1975) and a likely passageway for prehistoric humans. Gorski kotar is a meeting point of very different geographic features: Alpine, Dinaric, Pannonian and Mediterranean. Currently, it is an area of high precipitation (more than 2000 mm per year) and thick forests. In hydrographic terms, Gorski kotar belongs to both Black Sea and Adriatic Sea drainage basins (Pavić 1975; Riđanović 1975).

Fig. 1 Location of the sites discussed in the text. – (Illustration J. C. M. Ahern; background map: Minestrone, https://commons.wikimedia.org/wiki/File:Croatia_map_blank.svg [CC BY-SA 4.0-3.0-2.5-2.0-1.0; 1. 8. 2018]).

The bedrock in Gorski kotar mainly comprises Jurassic carbonates (limestones, dolomites and especially dolomitized limestones), while Cretaceous limestones are more frequently found in the south-western part of the region. This karstic region has some unusual features, such as heavy forests (Pavić 1975). Bukovac cave is located at 864 m a. s. l. It is formed in Triassic limestones. The cave consists of an approx. 50 m long entrance channel (**fig. 2**) that widens into a small chamber, while two smaller channels extend

Fig. 2 Plan of Bukovac cave (žup. Primorsko-goranska/HR). The known locations of previous excavations and disturbances are marked. Malez' trench 1 (not marked) was near the entrance of the cave, and one of Kormos' trenches was approx. 7 m from the entrance. The exact positions of these two trenches are not known today, although the disturbed area closest to the entrance is likely what remains of Kormos' first trench. – (Illustration R. Šošić Klindžić / J. C. M. Ahern).

to south-west and south-east. In July 1911, Tivadar Kormos excavated the site together with Ladislaus Szilágy and unearthed numerous faunal remains (mostly cave bear) and traces of human activity during prehistory (Kormos 1912; Malez 1979). In 1956, Mirko Malez excavated the location and dug three trenches in the cave.

T. Kormos (1912) notes that he dug two excavation trenches in the cave, a smaller one (3 m × 1.8 m) in the channel, about 7 m from the entrance, and a larger one (5 m in length) that covers most of the south-eastern part of the chamber (**fig. 2**). The most important archaeological find from his excavations is a massive-based bone point made of deer antler discovered in the main cave chamber. According to T. Kormos, it derives from his brown, damp cave loam level (**tab. 1**). This artifact measures 12.6 cm in length, 2.8 cm in width at its widest point, and 1.6 cm in width at its broken proximal end (**fig. 3**). The base is missing. However, based on the sudden thinning of the widest part it resembles bone points that are found in Europe during the early Upper Paleolithic, especially those from the site of Mladeč (okr. Olmouc/CZ) in Moravia (Oliva 2006). Furthermore, T. Kormos also discovered numerous faunal remains and traces of burning. At least three perforated animal long bones were found (Horusitzky 2004). Two of them exhibit one perforation each, while three perforations can be seen on the third. All perforations have different shapes and are most likely the result of carnivore gnawing.

M. Malez (1959) dug three trenches at the site, one at the cave entrance, the second 56 m from the cave mouth, and the third in the main cave chamber (**fig. 2**). The first trench did not prove to be of interest. The second and the third trenches gave some insights into the stratigraphy of the site and yielded numerous faunal remains. Faunal remains from both T. Kormos' and M. Malez' excavations consist mostly of cave bear (*Ursus spelaeus*), but also include brown bear (*Ursus arctos*), snow leopard (*Felis uncia*), red deer (*Cervus elaphus*), mountain hare (*Lepus timidus*), rock ptarmigan (*Lagopus mutus*), and panther (*Panthera pardus*) (Malez 1959; 1973; 1979;

Tab. 1 Correlation of stratigraphic sequences from the exavations by T. Kormos (1912), M. Malez (1979), Malez/Sliepčević/Srdoč 1979) and the recent excavations (this paper). Notes are given in their original language. – [a] T. Kormos reported that the massive-based bone point derived from this layer.

T. Kormos	M. Malez	this paper
–	–	top layer (0)
1. Alluvium	stratum »a«	layer 1
2. Sinterdecke	stratum »b«	layer 2
3. brauner, nasser Höhlenlehm[a]	stratum »c«	layer 3
4. rotbrauner, trockener Sand	stratum »c« or possibly strata »d« and »e«	layer 4 layer 4A
5. aufgeschlossener, gelber Quartzsand	strata »f« and »g«	layer 5

Kormos 1912). This assemblage is in agreement with the geographical setting and clearly reflects the proximity of the alpine environment.

Today the first trench from the excavations by T. Kormos (located close to the cave entrance) and the first Malez' trench (the one at the cave mouth) are completely filled with sediment. Only the remains of Malez' trenches 2 and 3, and the uppermost remnants (depression) from Kormos' second trench in the main cave chamber can be observed (**fig. 2**). In addition, we have documented another trench located in a small niche by the western wall in the cave channel, about 15 m from the cave mouth (**fig. 2**). We have been unable to find any documentation regarding who was responsible for excavating this trench.

There has been much debate over the years on the cultural assignment of the bone point. While all authors agree that the artifact should be associated with the Upper Paleolithic, there is a disagreement about its cultural attribution. T. Kormos, Karel Maška, and Dragutin Gorjanović-Kramberger (Kormos 1912) assign it to the Magdalenian, while Josef Bayer (1929), Srečko Brodar (1938) and Mitja Brodar (1971) note similarities with the so-called Olschewa material from Slovenia. M. Malez (1973; 1979) attributes it to the later phases of the Aurignacian culture. Today the prevailing view is that it belongs to the Aurignacian or Olschewian (Malez 1979; Montet-White 1996; Horusitzky 2004), or in general to the early Upper Paleolithic (Karavanić 2016). Based on recent excavations, we attempt to correlate our stratigraphic data with those of T. Kormos and M. Malez and give a more precise dating of the bone point. We also assess the point's cultural attribution.

Fig. 3 Bone point from Bukovac cave (žup. Primorsko-goranska/HR) stored in the Magyar Nemzeti Múzeum in Budapest. – (Photo I. Karavanić; image processing M. Vuković).

Fig. 4 Bukovac cave (žup. Primorsko-goranska/HR). Stratigraphic profile of Trench 1: **Top layer**: represents commingled sediment that came from the excavation trenches of previous researchers, in this case most likely from the excavations of M. Malez. This sediment is more loose and can be easily distinguished from Layer 1, which represents the first natural and undisturbed layer. – **Layer 1**: the first natural layer. Munsell color 10YR 4/4 dark yellowish brown to 2.5YR 4/8 red. The layer contains some, but not numerous, faunal remains. – **Layer 2**: undisturbed calcium carbonate layer. It covers the whole excavation trench. – **Layer 3**: clayish layer that lies directly underneath Layer 2. Munsell color 10YR 4/6 dark yellowish brown. Contains about 1% of gravel and several stones up to 10 cm in diameter. Numerous faunal remains are present in this layer. – **Layer 4**: clayish layer similar in morphology to Layer 3. Munsell color 10YR 3/6 dark yellowish brown to 5YR 4/6 yellowish red. Contains numerous faunal remains, same as in the previous layer. – **Layer 4A**: morphologically very similar to Layer 4 but somewhat lighter in color. Munsell 5YR 4/6 yellowish red. Numerous animal remains, same as in Layer 4. – **Layer 5**: sand like sediment that varies in color from Munsell 7.5YR 4/6 strong brown to 10YR 6/6 brownish yellow to 2.5YR 4/8 red. Sterile layer that was deposited due to water activity. This is a thick layer that is present in the whole trench below Layer 4A, previously noted by both T. Kormos and M. Malez. It should be considered as a separate stratigraphic unit. – (Photo J. C. M. Ahern).

RECENT EXCAVATIONS AT BUKOVAC

Based on the results of previous research, and given the importance of a better understanding of various issues in this crucial period in European prehistory, we decided to re-excavate the site with three main goals. First, to try to find intact sediments at the site and to correlate the stratigraphy with that described by T. Kormos and M. Malez. Second, to date the layer from which the bone point came, and third, to try to get a better understanding of the site's use during prehistory. With these goals, we started excavating the site in 2010 and continued until 2014 in two to three-week campaigns each year (Janković et al. 2010; 2011; 2012; 2014). First, we cleaned the surface and removed backfill from previous excavations in the north-west-

ern part of the main cave chamber (**fig. 2**) and dug a new trench (Trench 1 dimensions: 1.5 m × 2 m; expanded in 2011 to 1.5 m × 3 m in south-west direction). After cleaning, we began the excavation of Layer 1. As we reached Layer 2 (calcium carbonate formation) it was clear that the layers below were undisturbed and thus provided a good basis for the later correlation with the trenches of previous researchers. The most important goal of our excavations was to try to determine and date the layer(s) from which the bone point, discovered by T. Kormos, comes. Overall, the stratigraphy in the main cave chamber is rather simple, consisting of only several distinct layers. A calcium carbonate layer was found by all three excavators. T. Kormos (1912) refers to it as »Sinterdecke«, and it corresponds to M. Malez' stratum b and Layer 2 from our excavations. M. Malez (1979) reports a date of 9040 ± 90 years BP based on radiocarbon measurements for the formation of this layer. Although the publications by M. Malez deal with the stratigraphic sequences of the sediments (e. g. Malez 1959; 1967; 1973; 1979), he concentrated on the finds from stratum »c« which he correlates with the layer in which T. Kormos discovered the aforementioned bone point. Only in two publications he is more detailed and refers to the presence of lower layers (strata »d« to »g«; see Malez 1969-1970; Malez/Sliepčević/Srdoč 1979). However, he does not go into detail regarding these deeper layers except for a general attribution of their formation to the Late Pleistocene, or the Würm. A drawing of the stratigraphic profile in Malez et al. (1979, 251) assigns these strata as follows: a – Holocene, b – Dryas, c – Würm 3, d – Würm 2/3, e – Würm 2, f and g – Würm 1/2 to Würm 1. However, like in his other publications, no details on the finds are given except for stratum »c« which makes a reliable correlation of stratigraphic sequences of the various researchers difficult. Whether M. Malez' stratum »c« corresponds in full to our Layer 3, and his strata »d« and »e« to our Layers 4 and 4A is of no major importance for the correlation and dating of the bone point and other finds discovered by T. Kormos. All researchers note that the layer(s) that contained animal remains, including human-modified objects, are situated below the calcium carbonate formation, and above the sterile sandish layer(s). Based on this, and the new radiocarbon dating results, our attempt to correlate the layers is given in **table 1**.

In 2012, we excavated a second test trench (Trench 2: 1.5 m × 1 m in north-south direction; in 2014, the trench was expanded by another meter towards west) in front of the cave mouth (**figs 2. 4**). Although similar clayish layers are present in this part of the site, a reliable correlation with the stratigraphic sequences observed in the main cave chamber (excavations by T. Kormos, M. Malez, and us) cannot be made at this time. In order to avoid confusion about a layer labeling system before it can be correlated with the layers from Trench 1 inside the main cave chamber, we used an alphabet labeling, starting with the top Layer A:

– Layer A: topmost layer full of recent trash, stone fragments that fell off the cave roof and walls, recent organic material (leaves, etc.); very dark in color (Munsell 7.5YR 2.5/1 black to 2.5Y 4/2 weak red). It was noted that parts of the trench closer to the cave mouth are lighter in color. This is most likely a result of the drip line which falls at about half of the trench.
– Layer B: more compact, clayish layer. Munsell 7.5YR brown. Consists of small stones of about 1-2 cm in diameter, several animal bone fragments and teeth, most of *Ursus sp.*
– Layer C: similar in texture (clayish) to Layer B but somewhat different color (Munsell 7.5R 4/6-5/6 red to 7.5YR 4/4 to 4/6 brown to strong brown). Consists of fewer stones that Layer B and of fewer bone fragments. At the top of this layer, a stone core was discovered in 2013.

Overall, very little material was found in this trench. Layers B and C contained some faunal remains similar to those from Layers 3 and 4 from Trench 1 in the main cave chamber (e. g. *Ursus sp.*, etc.). The most important find comes from the upper part of Layer C. A core for the production of flakes, made of dark grey chert of unknown origin, was unearthed here in 2013 (**fig. 5**). This core exhibits a clearly defined striking platform from which several flakes were produced. All but one flake are detached from the same direction and same flaking surface, while one flake is detached from the opposite direction from the same flaking surface. The

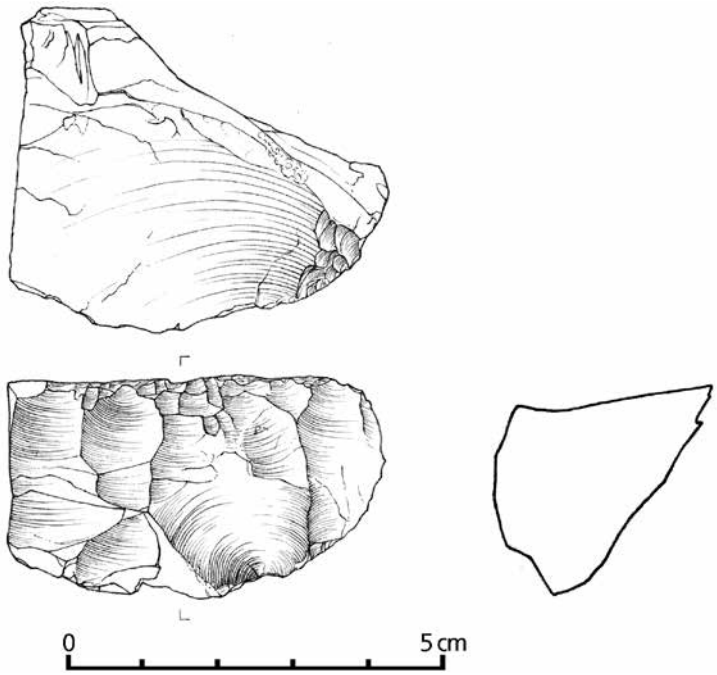

Fig. 5 Bukovac cave (žup. Primorsko-goranska/HR). The stone core. – (Drawing M. Rončević).

lab. no.	layer	sample	uncal BP	cal BP (1σ)	cal BP (2σ)
Beta 291915	3[a]	tooth	30360±190	34560-34160	34730-33980
Beta 291915	4[a]	tooth	31360±260	35530-34950	35850-34710
Beta 287819	4A[a]	tooth	31030±250	35180-34670	35530-34470
UBA 24514	C[b]	tooth	39871±835	44300-42910	45150-42430

Tab. 2 Radiocarbon dates for various layers at Bukovac cave (žup. Primorsko-goranska/HR). Dates calibrated using OxCal 4.3 (Bronk Ramsey 2009) and calibration curve IntCal 13 (Reimer et al. 2013). – [a] inside trench (Trench 1). – [b] trench in front of the cave mouth (Trench 2).

general impression is that the core's form could suggest the Upper Paleolithic attribution, although this is uncertain.

A radiocarbon date obtained from an animal tooth found close to the core is given in table 2. The age of this dated sample from Layer C puts this layer in the chronological frame of the Middle-Upper Paleolithic transition. Table 3 published dates for the bone industry of the sites discussed in this paper.

BRIEF DISCUSSION: BUKOVAC FINDS IN THE CONTEXT OF EARLY UPPER PALEOLITHIC OSSEOUS POINTS IN ADJACENT AREAS

So far, only two artifacts (an osseous point and a lithic core) have been found in Bukovac cave. The most likely reason for this is that the cave was seldom used or visited by humans and that it primarily served as a cave bear den. Another possibility could be that the area in front of the cave was used more often but that the sediment and the front plateau are now gone. This may be due to a collapse of the front part of the cave and/or washing off of the sediments during road construction, although this possibility is very specu-

site	layer	lab. no.	osseous point type	direct date	radiocarbon age	reference	artifact label
Potočka zijalka	5/rear	VERA-2521	distal fragment	yes	31 080 +370/–360	Hofreiter/Pacher 2004	PZ-54
Potočka zijalka	5/rear	OxA-28038	distal fragment	yes	31 950 ± 450	Moreau et al. 2015	PZ-54
Potočka zijalka	5/rear	OxA-28061	distal fragment	yes	32 550 ± 500	Moreau et al. 2015	PZ-54
Potočka zijalka	5/rear	VERA-2522	massive-based	yes	30 140 +340/–330	Hofreiter/Pacher 2004	PZ-59
Potočka zijåalka	5/front	OxA-27854	massive-based	yes	30 800 ± 370	Moreau et al. 2015	PZ-49
Potočka zijalka	7/front	VERA-2523	massive-based	yes	31 490 +350/–340	Hofreiter/Pacher 2004	PZ-112
Potočka zijalka	7/front	OxA-27849	massive-based	yes	31 220 ± 400	Moreau et al. 2015	PZ-112
Potočka zijalka	7/front	VERA-2524	massive-based	yes	29 760 +330/–310	Hofreiter/Pacher 2004	PZ-121
Potočka zijalka	7/front	OxA-27852	massive-based	yes	31 360 ± 400	Moreau et al. 2015	PZ-121
Potočka zijalka	7/front	VERA-2525	massive-based	yes	29 740 + 330/–310	Hofreiter/Pacher 2004	PZ-126
Potočka zijalka	5/front	OxA-27853	massive-based	yes	31 500 ± 400	Moreau et al. 2015	PZ-126
Potočka zijalka	7/front	VERA-2526	massive-based	yes	29 560 ± 270	Hofreiter/Pacher 2004	PZ-128
Potočka zijalka	7/front	OxA-27851	massive-based	yes	30 910 ± 380	Moreau et al. 2015	PZ-128
Potočka zijalka	5/front	OxA-27850	distal fragment	yes	30 380 ± 370	Moreau et al. 2015	PZ-104
Divje babe I	2	OxA-28219	split-based	yes	29 760 ± 340	Moreau et al. 2015	DB-407a
Mokriška jama	7	OxA-X-2517-52	flat	yes	34 750 ± 600	Moreau et al. 2015	MJ-2
Mokriška jama	7	OxA-27855	distal fragment	yes	32 600 ± 450	Moreau et al. 2015	MJ-1
Vindija	Fd/d+G1	OxA-34458	massive-based	yes	29 500 ± 400	Devièse et al. 2017	Vi-3446
Velika pećina	i	GrN-4979	massive-based	no	33 850 ± 520	Malez/Vogel 1970	–

Tab. 3 Dates for the bone industry of the sites discussed in this paper.

lative. However, the osseous point found in Bukovac cave deserves special attention because it connects this site to other early Upper Paleolithic sites in south-central Europe.

Looking at the regional context, massive-based osseous points and their fragments are found in Vindija cave (layers G1, Fd/d+G1, Fs and E/F) and Velika pećina (level i) (Karavanić 2016) and their direct (for Vindija; Devièse et al. 2017) and indirect (for Velika pećina; Malez/Vogel 1970) dates are similar to the age we proposed for the bone point from Bukovac cave (~34 ky cal BP). For the osseous points, both massive-based and split-based, from three Slovenian sites (Potočka zijalka, Mokriška jama and Divje Babe I), a new set of radiocarbon dates were obtained placing them approximately between 37 000 and 33 000 cal BP. New direct dates from Potočka zijalka do not differ significantly from the old set of dates, while direct dating of a split-base point from Divje Babe I (layer 2) yielded a much younger age for the point than previously thought based on dating of the paleontological material from the same level (Moreau et al. 2015). Although we proposed an age for the bone point by correlating stratigraphy from our excavation with those of previous researchers and by the dating of faunal remains without human modification, which could be problematic as shown for Divje Babe I, we consider the proposed age as reliable, especially when looking at obtained ages for bone points on the regional level. According to Moreau et al. (2015) bone points from all three Slovenian sites should be ascribed to the Early Aurignacian. The same can be claimed for the bone point from Bukovac cave despite the fact that a diagnostic lithic industry, which could give us more convincing arguments for the attribution, is completely absent here. While there is evidence that Neandertals also made similar points (Montet-White 1996; Soressi et al. 2013), the likely age of the Bukovac point would seem too young to consider it as a Neandertal production.

Bukovac cave is located at a higher altitude (864 m a. s. l.) when compared to Vindija (275 m a. s. l.), Velika pećina (460 m a. s. l.), and especially Šandalja II (72 m a. s. l.). Although it is situated at a lower elevation than

the Slovenian sites Potočka zijalka and Mokriška jama, it could be seen as an alpine site, possibly a hunting station like the Slovenian cave sites just mentioned. The Aurignacian is present in the mountains of Central and Eastern Europe, and the Aurignacian from Potočka zijalka suggests caching and retooling activities, confirming the regular use of these environments during the early Upper Paleolithic (Verpoorte 2012). The archaeological record from Bukovac cave, although very sparse, also contributes to the issue of alpine exploitation during the Aurignacian. If we use osseous points as a fossil director for the Aurignacian and assume that they are connected with early modern humans, we can place the presence of early modern humans in south-central Europe to around 34 000 cal BP or even earlier.

CONCLUSION

Old and new excavations at Bukovac cave have yielded very few traces of human presence. Thanks to several radiocarbon dates, we conclude that two discrete chronological and spatial episodes of human presence in the cave are recorded. It is not possible to correlate stratigraphically the inner and outer trenches. Thus, while the core and point might represent the same occupational event, it is prudent to consider them as separate events in the absence of a clear connection. Given the paucity of artifacts from these two events, both episodes probably can be connected with hunter-gatherers' very short stays at the cave, possibly just overnight. Though, traces of human presence in the cave are very rare, they are significant for documenting for the first time in Croatia human exploitation of an alpine environment around 34 000 cal years BP and for the appearance of early modern humans in such environments.

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Zusammenfassung / Summary / Résumé

Noch einmal in der Bukovac-Höhle: aktuelle Ausgrabungen an einem früh-jungpaläolithischen Fundplatz im Gorski Kotar-Gebiet von Kroatien

Die Ergebnisse von Ausgrabungen in der Bukovac-Höhle sprechen dafür, dass die Höhle nur selten von Menschen aufgesucht wurde und in erster Linie ein Schlafplatz für Höhlenbären (*Ursus spelaeus*) war. Menschliche Anwesenheit wird lediglich durch zwei Gegenstände belegt, eine Knochenspitze mit massiver Basis, die im frühen 20. Jahrhundert gefunden wurde, sowie den Kern einer Abschlagproduktion, der 2013 zutage kam. In diesem Beitrag werden die ^{14}C-Daten vorgestellt sowie Versuche, die Schichtenabfolgen aus den drei Ausgrabungsphasen zu einer Stratigraphie zu verbinden. Im Ergebnis datiert die Knochenspitze kalibriert ~34 ky cal BP, während der Kern etwas älter ist. Dadurch bietet die Bukovac-Höhle den ersten Nachweis menschlicher Gegenwart in der alpennahen Zone Kroatiens und trägt zu unserem Verständnis der Geographie und Ökologie des frühen Menschen in Mitteleuropa bei. Übersetzung: M. Struck

Bukovac Cave Revisited: Recent Excavations of an Early Upper Paleolithic Site in the Gorski Kotar Region of Croatia

Excavations of Bukovac cave indicate that humans utilized the cave infrequently and that the site was primarily a den for cave bears (*Ursus spelaeus*). Human presence is indicated by only two artifacts, a massive-based bone point (found in the early 20th century) and a core for flake production (found in 2013). This article presents radiocarbon dates, as well as attempts to correlate stratigraphy between three different phases of excavation. The result indicates that the bone point is ~34 ky cal BP based on calibrated ^{14}C, while the core may be slightly older. Thus the Bukovac cave provides the first evidence of early modern human presence in the near-alpine zone in Croatia and contributes to our understanding of the early modern human geographic and ecological distribution in central Europe.

La grotte de Bukovac revisitée: fouilles récentes d'un site du début du Paléolithique supérieur dans la région de Gorski Kotar en Croatie

Les fouilles de la grotte de Bukovac indiquent que les humains l'utilisaient peu fréquemment et que le site était principalement une tanière pour les ours des cavernes (*Ursus spelaeus*). La présence humaine n'est indiquée que par deux artefacts, un poinçon massif en os (trouvé au début du 20^{e} siècle) et un nucleus pour la production d'éclats (trouvé en 2013). Les dates radiocarbone ainsi que des tentatives de corrélation stratigraphique entre trois différentes phases d'excavation sont présentées. Le résultat indique que le poinçon en os est de ~34 ky cal BP, alors que le nucleus peut être légèrement plus vieux. La grotte de Bukovac fournit les premières preuves d'une présence humaine moderne précoce dans la zone proche des Alpes Croates et contribue à notre compréhension de la distribution géographique et écologique humaine moderne précoce en Europe centrale. Traduction: L. Bernard

Schlüsselwörter / Keywords / Mots clés

Kroatien / Jungpaläolithikum / Aurignacien / Höhle / Jagdstation
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