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ALEXANDRU VULPE

IN MEMORIAM

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THE 'INVISIBLE' PITS: HOW INFORMATIVE ARE OLD EXCAVATIONS IN DISCUSSING MIDDLE PALAEO LITHIC BURIALS?

Adrian DOBOȘ

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Keywords: burials, hominin fossils, Middle Palaeolithic, Upper Palaeolithic, taphonomy, Vogelherd, Velika Pečina, Balla

Abstract: In this paper I focus on the potential of Palaeolithic sites excavated before the establishment of modern methods, aiming to provide reliable information on current debates. Specifically, I will address the reliability of the information coming from such hominin fossil sites to provide data on the first appearance of hominin burials. In three cases (Vogelherd, Balla, and Velika Pečina), hominin fossils previously regarded as Palaeolithic in age, were proven to be much younger after being directly dated. Regardless of the nature of post-depositional processes which might have affected the integrity and position of the fossils, these cases highlight that sites excavated prior to 1960s–1970s have limited potential in contributing data to the debate on Palaeolithic burials. Subsequently, I present a brief overview of the Middle Palaeolithic sites involved in the debate on the Middle Palaeolithic burials; many of them provide equivocal data on the presence of pits, and very few have hominin fossils directly dated. Therefore, I conclude that the evidence available from earlier excavated sites provides insufficient data to support the existence of Middle Palaeolithic burials.

Cuvinte-cheie: înmormântări, fosile umane, Paleolitic Mijlociu, Paleolitic Superior, tafonomie, Vogelherd, Velika Pečina, Balla

Rezumat: În acest articol, discut potențialul unor situri paleolitice, cercetate înaintea apariției metodelor moderne, de a furniza informații viabile pentru dezbaterile actuale asupra Paleoliticului. Mai precis, este vorba despre posibilitatea de a folosi informația din siturile cu fosile umane în disputa privind apariția înmormântărilor în Paleolitic. În trei cazuri (Vogelherd, Balla și Velika Pečina), fosile umane presupuse a aparține Paleoliticului s-au dovedit a fi mult mai recente după ce au fost datate direct. Indiferent de natura proceselor post-depoziționale care au afectat conservarea respectivelor resturi scheletice, această situație arată că multe informații din săpăturile efectuate înainte de anii 1960–1970 nu pot avea o contribuție viabilă în disputa privind înmormântările paleolitice. În continuare, am făcut o scurtă trecere în revistă a siturilor din Paleoliticul Mijlociu din care se presupune că ar proveni fosile umane de la indivizi înmormântați; în multe dintre acestea, informațiile privitoare la existența gropilor sunt echivoce, iar fosilele nu au fost datate direct. Concluzia mea este că informațiile disponibile până acum sunt insuficiente pentru a putea susține existența înmormântărilor în Paleoliticul Mijlociu.

INTRODUCTION

Neandertals are a hotly debated subject in the research of human origins, given that they represent the species that interacted with our direct ancestors, *Homo sapiens*. The comparative study of the two hominin types has generated controversies regarding the differences between the two species, and the Neandertals' capability for symbolic behavior (religious belief, burials, art) represents a central topic of the dispute. While the symbolic behavior of *Homo sapiens* is a sure fact, things are different for the Neandertals. Some scholars argue that evidence for symbolic behavior is equivocal (Chase, Dibble 1987; 1992), some argue that they featured symbolic behavior which was 'learned' during the interaction of the two species (Mellars 1999), while others support the idea that they have independently developed these abilities during their evolution (d'Errico *et alii* 1998).

One major topic in the debate on the level of the complexity of Neandertal behavior is represented by burials. Many scholars argue that the first inhumations date to the Middle Palaeolithic (hereafter MP), and they are connected both to Neandertals and Anatomically

Modern Humans; arguments in favor of this theory are supported by the existence of pits, fairly well preserved skeletons, funerary inventory, etc. (Bar-Yosef 1988; Harrold 1980; Pettitt 2011; Rendu *et alii* 2014; Riel-Salvatore, Clark 2001; Smirnov 1989; Vandermeersch *et alii* 1988). A competing theory argues that the MP evidence cannot be unequivocally associated with intentional behavior of hominins, and the context of the fossils can be alternatively explained through the action of mere natural factors (Chase, Dibble 1987; Gargett 1989; 1999; Goldberg *et alii* 2013; Sandgathe *et alii* 2011).

The debate is complicated further by the equivocal nature of the contexts the hominin fossils were discovered. Many sites were extensively excavated before the establishment of modern excavation techniques, and, therefore, with variable levels of accuracy. Consequently, the debate on MP burials is fueled by the continuous reinterpretation of unclear data on the fossil sites. On the other hand, evidence coming from UP sites (both earlier and recent excavations) indicates a definite existence of burials: Barma Grande (Onoradini *et alii* 2012), Arene Candide (Pettitt *et alii* 2003), Krems (Einvögerer *et alii* 2009; Zöllner *et alii* 2014), Sungir (Bader 1978; Trinkaus *et*

alii 2014), Dolní Věstonice (Formicola *et alii* 2001) – to mention just a few.

The present paper is intended as a short cautionary note on the potential of some of the earlier excavations to reveal accurate information on the Palaeolithic funerary practice. In the first part, I present the criteria considered relevant for identifying a burial. Subsequently, I will present three cases of hominin fossils from the Upper Palaeolithic (hereafter UP) levels of Vogelherd, Balla and Velika Pečina, where hominin fossils interpreted as Palaeolithic turned out to be much more recent when directly dated. The presence of post-Palaeolithic human remains in Palaeolithic layers was explained through the existence of burials cutting through Pleistocene layers, a situation which shows that sometimes burial features may not be detectable.

Then, a brief overview on MP finds credited as burials is presented, followed by a discussion on their potential to shed light on the existence of funerary practice.

CRITERIA FOR BURIAL IDENTIFICATION

Virtually, there are countless ways of treating the body of the deceased, ranging from body abandonment and funerary caching to cemeteries, areas dedicated to the dead (Pettitt 2011). In this paper, I solely address the issue of formal burials. Two major components are involved in preparing a burial: a spiritual one (songs, incantations, etc.) and a material side – which should be archaeologically discernible related to the interment of the body or body parts (Belfer-Cohen, Hovers 1992; Binford 1971). Depending on the handling of the body, two types of burials were defined: primary and secondary.

Primary burials imply the deposition of the body soon after death in a pit and the covering of the body with sediment, thus assuring a good preservation of the corpse. The pit may be anthropic in origin, i.e. excavated, or a mere natural depression (Pettitt 2011). Consequently, the main primary burial markers are the identification of the pit and the anatomical connection of the bones (especially the hand and foot bones, whose articulations are most fragile) (Duday *et alii* 1990).

In the case of secondary burials, the corpse or parts of the corpse are defleshed prior to the burial. Defleshing can be active (i.e. carried out with tools for removing the soft tissue) or passive (body is laid to decompose and the body parts are subsequently interred) (Duday *et alii* 1990).

Archaeologically, the distinction between primary and secondary burials is not always very straightforward. Anatomical connection of bones is not necessarily a marker for primary burials, as bodies can be moved when decomposition is not complete (Roksandic 2002); on the other hand, bones in disarray are not necessarily indicative for secondary burials, as taphonomic processes subsequent to decomposition may have affected them (Duday *et alii* 1990).

'INVISIBLE' PITS

A critical re-assessment of the finds from old excavations has in many cases revealed inaccuracies in the data upon which the archaeological context was reconstructed, and hominin fossils make a good example. One straightforward method for verifying the quasi-contemporaneity between the hominin remains and the layer they were found in was achieved through the direct dating of the fossils; thus, a great deal of such finds were proven to be not Palaeolithic in age, but rather intrusions from more recent occupational levels (Ahern *et alii* 2013; Franciscus, Holliday 2013; Marks *et alii* 1997; Semal *et alii* 2009; Street *et alii* 2006).

Below I will present three relevant cases of human fossils, erroneously assigned to the Palaeolithic.

Vogelherd (Germany)

The cave site of Vogelherd, situated in southwestern Germany on the Lone River, near Stetten, is very important in understanding the dynamics of the UP in Central Europe. The site was excavated by G. Riek in 1931, during a single season which lasted ca. 10 weeks. Riek excavated the cave, which is fairly long and narrow, in segments that were a few meters long; in twelve places along the excavation, stratigraphic profiles were drawn. At the end of the excavation, there was no sediment left in the cave (Conard *et alii* 2003). The stratigraphic sequence comprises eight Palaeolithic layers, four assigned to the MP and four to the UP. Of great interest are the archaeological levels IV and V, assigned to the Aurignacian, where a rich lithic industry and figurative art pieces were found (Conard *et alii* 2003). In the Aurignacian levels were also reported several hominin fossils: from the base of Level V were recovered a cranium and a mandible (Stetten 1), a humerus (Stetten 3), two vertebrae (Stetten 4), a metacarpal (Stetten 5); in level IV a cranium was found (Stetten 2) (Conard *et alii* 2004). It is interesting to note that the hominin fossils were recovered from various sectors of the cave: for example, Stetten 1, Stetten 2 and Stetten 3 were separated by distances well over 10 m, according to the published plan (Churchill, Smith 2000a, p. 254). The dating of various faunal remains in Levels IV and V indicated ages ranging from ca. 31500 BP to ca. 36000 BP (Conard *et alii* 2003). For over 70 years, they were regarded as found *in situ*, and were described as ancient Anatomically Modern Humans (Churchill, Smith 2000a; 2000b). Recently, direct dating of the hominin fossils Stetten 1–4 has revealed that, in fact, they were Neolithic, with ages ranging from ca. 5200 BP to ca. 3500 BP. The most likely explanation for their presence in the Aurignacian levels was that they were burials that went unobserved by G. Riek during the excavations (Conard *et alii* 2004).

According to the published profiles (Conard *et alii* 2003, p. 77–78), the distance between Level I (Neolithic occupation) and the upper part of Level IV is a bit over 1 m, whereas the distance between Level I and the lower part of

Level V is ca. 1.7 m. Thus, it appears that several fairly deep Neolithic pits, cutting through at least two Pleistocene layers went undetected. What possible explanations could one speculate? Perhaps the lack of training of the workers of Riek's team has its contribution, as well as the possible discontinuous presence of Riek at the excavation site. However, it is reasonable to assume that he may have been present at least once when an unobserved Neolithic pit was excavated, which may suggest that such pits, cutting through Pleistocene sediment are hard to detect during a rather rapid excavation.

Balla Barlang (Hungary)

The cave of Balla is an Upper Palaeolithic site situated in the Bükk Mountains, near the village of Répáshuta. The site was excavated between 1909 and 1913 by E. Hillebrand, and reinterpreted by L. Vértes in the second half of the 20th century. Two occupations were reported: one towards the entrance of the cave, assigned to the Gravettian (but previously identified as Magdalenian) and a second one, basically at the same depth but to the back of the cave, assigned to the Szeletian (Tillier *et alii* 2008; Vogel, Waterbolk 1972). A child's skeleton was discovered by Hillebrand and was associated with the Gravettian layer dated to ca. 22000 BP–20000 BP. However, a very recent direct dating of the child skeleton has revealed that it represented a Neolithic intrusion, as its age turned out to be 6660 BP (Tillier *et alii* 2008). It thus appears that during the excavations carried out at the beginning of the last century, a pit cutting Pleistocene sediments was missed and, consequently, the child's skeleton was incorrectly ascribed to the Late UP.

Velika Pećina (Croatia)

The cave, situated in Hrvatsko zagorje (northwestern Croatia), was excavated by M. Malez, first in 1948 and then for several seasons between 1957 and 1979. The stratigraphic sequence comprises 16 layers, spanning from MIS 6 to the Holocene (Karvanić 2004; 2007), with layers I and J assigned to the beginning of the UP. In layer J were found a human frontal bone and a retouched blade; in overlying layer I were found seven lithics and three fragmentary bone tools which were assigned to the Aurignacian. Level I was dated to ca. 33900 BP, hence the age of the subjacent Level J was estimated at ca. 34000 BP (Karvanić, Smith 1998). For several decades, the frontal bone was considered among the oldest modern human fossils in Europe (Smith, Raynard 1980; Smith *et alii* 1989; Straus 1995), until the fossil has been directly dated at ca. 5000 BP (Smith *et alii* 1999).

There is no explanation provided for the intrusion, but it is obvious that the culprit must be a post-depositional process, either anthropic or natural in origin, which again was not observed during the excavation.

The data coming from the above mentioned sites suggests that not only one, but sometimes two types of

processes went undetected. In the case of Balla, a pit was dug from the Neolithic level but was never observed during the excavation. On the other hand, at Vogelherd and Velika Pećina two types of processes were involved: first, the excavation of the pits, and subsequently other unknown processes which have disturbed the pits and the integrity of the skeletons; none of them were observed either.

Another difficult question regards the types of burial they should be associated with. None of the bones bear cut marks, so they were not subjected to active defleshing; the Balla skeleton is in anatomic connection, whereas at Vogelherd and Velika Pećina only a handful of bones were found. While the Balla child seems consistent with a primary burial, the position of the human remains from the other two sites could be explained by secondary burials, but at least two alternative explanations are possible: they were coming from disturbed primary burials or were found in an undetected krotovina.

FOSSILS INVOLVED IN MP BURIAL DISCUSSION

The most encountered fossils in the debate on the MP burials are included in Table 1, and were selected by compiling the data from various syntheses covering this topic (Binford 1968; Harrold 1980; Pettitt 2002; 2011; Riel-Salvatore, Clark 2001; Patou-Mathis 2006; Smirnov 1989; Vandermeersch *et alii* 1988). Given the nature of this paper, aimed at drawing attention on potentially unidentified taphonomic processes affecting the interpretation of fossils originating from old excavations, some elements such as age at death, sex, position, orientation, pathology, and potential funerary inventory were not included.

The table comprises 56 MP hominin fossils, from 20 sites. Anatomically Modern Humans come from only two sites, Skhul and Qafzeh, and they amount to 25% of the total of the fossils, whereas the rest are Neandertals.

Many of these fossils were discovered and excavated before a general settlement of modern excavation methodology. As there is no 'moment zero' for the birth of such a methodology, nor objective uniformity among the archaeologists conducting the excavations, it is hard to identify the 'before' and 'after' categories. However, many of the sites relevant to the matter were investigated a fairly long time ago, when excavation techniques were far from standardized, excavations were sometimes carried out by amateurs, and the recording of the archaeological contexts (depth measurements, drawings, photographs, etc.) was rather subjective.

The presence of pits is one of the main topics at issue in this debate. In 65% cases, their presence was assumed by the excavators, but was denied by other scholars; consequently, they were labeled as disputed.

Fossil	Year of discovery	Anat. Conn.	Species	Pit	Directly dated	Refs
Roc de Marsal 1	1961	Y	Ne	D	No	Sandgathe <i>et alii</i> 2011; Turq 1989
Le Moustier 1	1908	Y	Ne	N	No	Maureille 2002
Le Moustier 2	1914/2000	Y	Ne	D	No	Maureille 2002
Chapelle aux Saints	1908	Y	Ne	D	No	Rendu <i>et alii</i> 2014
La Ferrassie 1	1909	Y	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 2	1910	Y	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 3	1912	P	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 4	1912	N	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 5	1920	N	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 6	1921	P	Ne	D	No	Mercier <i>et alii</i> 2015
La Ferrassie 8	1970	N	Ne	D	No	Gómez-Olivencia <i>et alii</i> 2015
Saint-Césaire	1979	P	Ne	N	≈ 36.2 ka	Hublin <i>et alii</i> 2012
La Quina H5	1911	D	Ne	D	No	Verna, d'Errico 2011
Regourdou 1	1957	P	Ne	D	No	Cavanhié 2009-2010
Spy 1	1885	N	Ne	N	33–36 ka	Rougier <i>et alii</i> 2004; Semal <i>et alii</i> 2009
Spy 2	1885	Y	Ne	D	33–36 ka	Rougier <i>et alii</i> 2004; Semal <i>et alii</i> 2009
Kiik-Koba 1	1925	P	Ne	D	No	Trinkaus <i>et alii</i> 2008
Kiik-Koba 2	1925	Y	Ne	D	No	Vlček 1973; Trinkaus 2008
Teshik Tash	1938	N	Ne	D	No	Glantz <i>et alii</i> 2008
Neandertal 1	1856	?	Ne	?	≈ 40 ka	Schmitz <i>et alii</i> 2002
Zaskalnaya VI a	1973	N	Ne	D	No	Smirnov 1989
Zaskalnaya VI b	1973	N	Ne	D	No	Smirnov 1989
Zaskalnaya VI c	1973	N	Ne	D	No	Smirnov 1989
Mezmaiskaya 1	Post 1987	P	Ne	N	≈ 29.2 ka	Golovanova <i>et alii</i> 1999; Skinner <i>et alii</i> 2005
Mezmaiskaya 2	Post 1987	N/A	Ne	Y	No	Golovanova <i>et alii</i> 1999
Tabun 1	1932	Y	Ne	D	No	McCown, Keith 1939
Skhul 1	1931	Y	AMH	D	No	McCown, Keith 1939
Skhul 2	1931	N	AMH	N	No	McCown, Keith 1939
Skhul 3	1931	N	AMH	N	No	McCown, Keith 1939
Skhul 4	1932	Y	AMH	D	No	McCown, Keith 1939
Skhul 5	1932	Y	AMH	D	No	McCown, Keith 1939
Skhul 6	1932	P	AMH	N	No	McCown, Keith 1939
Skhul 7	1932	P	AMH	N	No	McCown, Keith 1939
Skhul 8	1932	P	AMH	N	No	McCown, Keith 1939
Skhul 9	1932	P	AMH	D	No	McCown, Keith 1939
Qafzeh 3	1934	P	AMH	N	No	Pettitt 2011; Trinkaus, Pinilla 2009
Qafzeh 8	1965-1979	P	AMH	D	No	Pettitt 2011
Qafzeh 9	1965-1979	Y	AMH	D	No	Pettitt 2011
Qafzeh 10	1965-1979	P	AMH	D	No	Pettitt 2011
Qafzeh 11	1965-1979	P	AMH	D	No	Pettitt 2011
Shanidar 1	1957	Y	Ne	D	No	Trinkaus 1983
Shanidar 2	1957	P	Ne	D	No	Trinkaus 1983
Shanidar 3	1957	P	Ne	D	No	Trinkaus 1983
Shanidar 4	1960	Y	Ne	D	No	Trinkaus 1983
Shanidar 5	1960	P	Ne	N	No	Trinkaus 1983
Shanidar 6	1960	P	Ne	N	No	Trinkaus 1983
Shanidar 7/Shanidar child	1953	P	Ne	D	No	Trinkaus 1983
Shanidar 8	1960	N	Ne	N	No	Trinkaus 1983
Shanidar 9	1960	P	Ne	N	No	Trinkaus 1983
Amud 1	1961	Y	Ne	N	No	Pettitt 2011
Amud 7	1992	Y	Ne	D	No	Hovers <i>et alii</i> 2000; Gargett 2000
Amud 9	?	P	Ne	N	No	Pettitt 2011
Kebara 1	1965	N	Ne	D	No	Bar-Yosef <i>et alii</i> 1992
Kebara 2	1983	P	Ne	N	No	Bar-Yosef <i>et alii</i> 1992
Dederiyeh 1	1993	P	Ne	N	No	Akazawa <i>et alii</i> 1995; 1999
Dederiyeh 2	1997	P	Ne	D	No	Akazawa <i>et alii</i> 1999

Table 1. Most important fossils mentioned in the MP burial debate.

Anatomic connection: Y – Yes; N – No; P – Partial.

Species: Ne – Neandertal; AMH – Anatomically Modern Human.

Pit: Y – Yes; N – No; D – Disputed.

Several issues concern the interpretation of the record coming from the sites listed in the table.

Firstly, even among the supporters of MP burials, there is no consensus regarding the criteria employed in defining a burial. At Shanidar, the number of Neandertal fossils allegedly buried varies significantly: a minimal count includes Shanidar 1 and 4 (Vandermeersch *et alii* 1988), whereas a comprehensive count includes Shanidar 1–9, of which, sometimes, Shanidar 2 and 6–9 are regarded as probable (Pettitt 2011; Riel-Salvatore, Clark 2001); in other published sources, Shanidar 4, 6, 8 and 9 were regarded as a multiple burial (Solecki 1977). At Amud, some authors count three Neandertal burials, i.e. Amud 1, 7, 9 (Pettitt 2011), while others include only Amud 1 in this category (Vandermeersch *et alii* 1988). The Kebara 2 Neandertal fossil is interpreted as a secondary burial (due to the missing cranium, allegedly removed sometime after the decomposition of the body), whereas Kebara 1 is mentioned as probable by some archaeologists (Riel-Salvatore, Clark 2001) or dismissed by others (Vandermeersch *et alii* 1988). When discussing Anatomically Modern Human fossils from Skhul, the minimal number of burials varies from four (Shea 2003), to 10 (Smirnov 1989); there, individuals whose bones were in disarray were interpreted as potentially coming from disturbed burials (Pettitt 2011).

In the case of the Neandertal 1 fossil, destroyed by mining workers while emptying the sediment from the Kleine Feldhofer cave, the alleged completeness of the skeleton was regarded as a good enough indicator of a potential burial (Pettitt 2011).

Another issue with many of the mentioned sites is the uncertainty regarding the provenience of the fossils within the site or the erroneous assignment of skeletal parts to certain individuals. La Ferrassie 4a and 4b fossils were among the few fossils credited as belonging to a double burial. A recent reassessment of the collections from French Museums has revealed that the bones assigned to La Ferrassie 4a were, in fact, part of the Le Moustier 2 skeleton (Maureille 2002). The re-assignment of skeletal parts to other individuals and the identification of new individuals are also common for fossils coming from old excavations, as was the case for the sites of La Ferrassie (Gómez-Olivencia *et alii* 2015) and Shanidar (Trinkaus 1983).

New research conducted in MP human fossil sites has brought valuable data on the archaeological context, as was the case with La Chapelle-aux-Saints, a site regarded as yielding a certain Neandertal burial (Rendu *et alii* 2014). However, according to other scholars, the additional evidence is not strong enough to unequivocally support the hypothesis of deliberate burial (Dibble *et alii* 2015; but see Rendu *et alii* 2016). Recent excavations at Roc de Marsal have provided arguments against the funerary context of the Neandertal child found there (Goldberg *et alii* 2013; Sandgathe *et alii* 2011). Currently,

a research project is aimed at getting new information on the context of the Neandertal skeletons (Turq *et alii* 2012). In the case of Shanidar 4, coined as 'the flower burial' due to the discovery of pollen around the skeleton, recent research has demonstrated that the presence of pollen was, in fact, connected with disturbances caused by rodent activity (Sommer 1999).

DISCUSSION AND CONCLUSION

The debate on the MP burial is centered on a couple of dozen sites, many of which are burdened by uncertainties regarding the context of the fossils.

According to the criteria regarding the identification of an inhumation, the pit represents a key element. Either covering a natural depression or a pit deliberately excavated, the filling protecting the body should be archaeologically recognizable. Gargett (1999, p. 33) argued that the stratum which contained the remains should have been distinct from the layer within which it occurred. A sensible counterargument, namely that pits may be excavated in a thick layer of sediment and subsequently be filled with the same sediment (Pettitt 2002, 3), brings actually more support for the idea that pits may be hardly visible; such a situation appears likely in the case of the Dederiyeh 2 fossil, found towards the bottom of a thick geological unit (Akazawa *et alii* 1999). On the other hand, the visual identification of a darker area around the skeleton does not automatically imply that it was a filled pit, as an alternative explanation stands, i.e. the activity of earthworms which may thrive around a dead body (Duday *et alii* 1990, 39).

So far, only the evidence coming from the site of Mezmaiskaya has not been contested: here, a partial Neandertal child skeleton (Mezmaiskaya 1) was recovered from a layer where no pit was observed, and cranial fragments (Mezmaiskaya 2) were recovered from a pit, according to the team which conducted the research, although they could not determine if it had been deliberately dug (Golovanova *et alii* 1999).

Direct dating has revealed that in the three UP sites mentioned in the first part of this paper, the fossils were erroneously assigned to the Palaeolithic. Among the sites included in the MP burial debate, only five fossils were directly dated, but the age of Mezmaiskaya 1 was interpreted as too young, due to contamination with modern carbon (Skinner *et alii* 2005). It is reasonable to assume that getting the absolute age of a Neandertal fossil will not reveal as great a surprise as for Vogelherd, Balla and Velika Pečina, i.e. they could not show a late UP age, given that the latest Neandertals were dated at ca. 35 ka (Pinhasi *et alii* 2011; Semal *et alii* 2009). However, direct dates for the fossils would add valuable information to the general context of the discoveries and reveal chronological association between fossils and the layers they were coming from.

It appears that the available data on the pits, scarce and questionable, has little potential to provide ground for concluding the debate on the MP burials. While the possibility of intentional burials cannot be ruled out, the data is not convincing enough to dismiss alternative explanations, i.e. natural or anthropic processes which went undetected. Furthermore, a new critical assessment of the pieces interpreted as grave goods, as well as the potential of carnivores to alter the preservation of the bodies should be investigated.

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ABRÉVIATIONS / ABBREVIATIONS / ABREVIERI

- ActaArchHung – Acta Archaeologica Academiae Scientiarum Hungaricae, Budapest
ActaMM – Acta Moldaviae Meridionalis, Vaslui
ActaMN – Acta Musei Napocensis Cluj-Napoca
Acta Siculica – Acta Siculica. Anuarul Muzeului Național Secuiesc, Sfântu Gheorghe
Aluta – Aluta. Revista Muzeului Național Secuiesc Sfântu Gheorghe
Angustia – Angustia. Arheologie, Etnografie, Sfântu Gheorghe
Apulum – Apulum. Arheologie, Istorie, Etnografie, Alba-Iulia
ArchWarszawa – Archeologia. Rocznik IHKM, Varșovia
ArheologijaKiiv – Arheologija. Nacional'na akademija nauk Ukraini, Institut arheologii
ArheologijaSofia – Arheologija. Organ na Archeologičeskija Institut i Muzej, Sofia
ArchÉrt – Archaeológiai Értesítő, Budapest
ArhMed – Arheologia Medievală, Complexul Muzeal Bistrița-Năsăud, Bistrița
AȘUI – Analele Științifice ale Universității Alexandru Ioan Cuza Iași
'Atiqot – Publication of the Israel Antiquities Authority
BA – Biblioteca de Arheologie, București
BARBrSer – British Archaeological Reports. British Series, Oxford
BARIntSer – British Archaeological Reports. International Series, Oxford
BCH – Bulletin de Correspondance Hellénique, Athènes-Paris
BerRGK – Bericht der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts, Frankfurt am Main
BiblThrac – Bibliotheca Thracologica, București
BMA – Bibliotheca Musei Apulensis, Alba Iulia
BMJT – Buletinul Muzeului Județean Teleorman, Alexandria
BMN – Bibliotheca Musei napocensis, Cluj-Napoca
Bucureștii – Revista Muzeului Municipiului București
Bulletin AIESEE – Annuaire de l'Institut des Études Sud-Est Européennes, Bucarest
Bull. et Mém. de la Soc. d'Anthrop. de Paris – Bulletins et Mémoires de la Société d'Anthropologie de Paris
CAJ – Cambridge Archaeological Journal
CA – Cercetări Arheologice, București
CCA – Cronica Cercetărilor Arheologice din România, București
CCDJ – Cultură și Civilizație la Dunărea de Jos, Călărași
CEFR – Collection de l'École Française de Rome, Rome
CsSzMÉ – Csiki Székely Múzeum Évkönyve, Miercurea Ciuc
Dacia – Dacia. Recherches et découvertes archéologiques en Roumanie, București; nouvelle série: Revue d'archéologie et d'histoire ancienne, București
Diss. Pann. – Dissertationes Pannonicae, Budapest
EAIVR – C. Preda (ed.), *Enciclopedia Arheologiei și Istoriei Vechi a României*, vol. I-III (1994, 1996, 2000), București,
EJA – European Journal of Archaeology
EphemNap – Ephemeris Napocensis, Cluj-Napoca
ERAUL – Études et Recherches archéologiques de l'Université de Liège
ÉtThas – Études thasiennes, École Française d'Athènes, Athènes-Paris
eTopoi – Journal for Ancient Science, Berlin
FI – File de Istorie, Bistrița
Germania – Germania. Anzeiger der Römisch-Germanischen Kommission des Deutschen Archäologischen Instituts
Hesperia – Hesperia. Journal of the American School of Classical Studies at Athens, Cambridge
Iatrus-Krivina 2 – *Spätantike Befestigung und frühmittelalterliche Siedlung an der unteren Donau, Band II : Ergebnisse der Ausgrabungen 1966-1973*, Berlin, 1982
Iatrus-Krivina 7 – G. V. Büllow, B. Böttinger, S. Conrad, B. Döhle, G. Gomolka-Fuchs, E. Echönert-Geiss, D. Stančev, K. Sachtel, *Iatrus-Krivina. Spätantike Befestigung und frühmittelalterliche Siedlung an der Unteren Donau, Band VI: Ergebnisse der Ausgrabungen 1992-2000*, Limesforschungen 28, Mainz, 2007
IzvestijaSofia – Izvestija na Arhcologičeskija Institut, Sofia

- IzvestijaVarna – Izvestija na Narodnija Muzej (Izvestija na Varnenskoto Arheologičesko Družestvo), Varna
 JAS – Journal of Archaeological Science
 JAIP – Journal of Académie Internationale de la Pipe, Liverpool
 JEA – Journal of European Archaeology
 JSA - Journal of Social Archaeology
 Klio - Klio. Beiträge zur Alten Geschichte, Berlin
 Ktema – Civilisations de l'Orient, de la Grèce et de Rome antiques, Strasbourg
 Litua – Litua, Studii și cercetări, Târgu Jiu
 Marisia – Marisia. Studii și materiale. Arheologie – Istorie – Etnografie, Târgu Mureș
 MEFRA – Mélanges de l'École Française de Rome. Antiquité, Roma
 MCA – Materiale și Cercetări Arheologice, București
 MFMÉ - A Móra Ferenc Múzeum Évkönyve, Szeged
 Nemere – Nemere. Politikai, társadalmi, szépirodalmi és közgazdászati lap. 1871–1884, Sfântu Gheorghe
 OJA – Oxford Journal of Archaeology, Oxford
 Paléo – Paléo. Revue d'Archéologie Préhistorique, Les Eyzies, France
 Paléorient – Revue interdisciplinaire de préhistoire et de protohistoire du sud-ouest et de l'Asie centrale, Paris
 PAS - Prähistorische Archäologie in Südosteuropa, München-Berlin
 PBF – Prähistorische Bronzefunde, Stuttgart
 Peuce – Peuce, Studii și cercetări de istorie și arheologie, Institutul de Cercetări Eco-Muzeale, Tulcea
 PNAS – Proceedings of the National Academy of Sciences USA
 Pontica – Pontica. Studii și materiale de istorie, arheologie și muzeografie, Muzeul de Istorie Națională și Arheologie Constanța
 PZ – Praehistorische Zeitschrift, Berlin–Mainz
 Quaternary International – Quaternary International. The Journal of the International Union for Quaternary Research
 Radiocarbon – An International Journal of Cosmogenic Isotope Research, Cambridge
 RCRFActa– Rei Cretariae Romanae Fautorum
 RevMedVet – Revue de Médecine Vétérinaire, Toulouse
 RIR – Revista Istorică Română, București
 RPRP – Reports of Prehistoric Research Projects, Salt Lake City, Utah
 SCIV(A) – Studii și Cercetări de Istorie Veche (și Arheologie), București
 SCN – Studii și Cercetări de Numismatică, București
 SMA – Seria Monografii Arheologice, Sfântu Gheorghe
 SP – Studii de Preistorie, București
 StudCom Brukenthal – Studii și comunicări Brukenthal, Sibiu
 SympThrac – Symposia Thracologica
 Terra Sebus – Acta Mvsei Sabesiensis, Anuarul Muzeului Municipal „Ioan Raica”, Sebeș
 Th-D – Thraco-Dacica, București
 TRÉT - Történelmi és Régészeti Értesítő, Temesvár (Timișoara)
 UPA – Universitätsforschungen zur Prähistorischen Archäologie, Bonn
 VAH – Varia Archaeologica Hungarica, Budapest
 Valachica – Valachica. Studii și cercetări de istorie și istoria culturii, Complexul Muzeal Național Curtea Domnească Târgoviște
 VorForsch – Vorgeschichtliche Forschungen, Berlin
 Ziridava – Ziridava. Studia Archaeologica, Arad