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Contributions to understanding the Neanderthals symbolism. Examples from the Middle Paleolithic in Romania

Marin Cârciumaru, Elena-Cristina Nițu**, Adrian Nicolae*, Florin Ionuț Lupu**, Remus Dincă**

* Valahia University of Târgoviște, Doctoral School, 32-34 Lt. Stancu Ion Street, Târgoviște 130105, Dâmbovița County, Romania; email: mcarciumaru@yahoo.com , nicoladrian@gmail.com, remusdinca@gmail.com
**"Princely Court" National Museum Târgoviște, Museum of Human Evolution and Technology in Palaeolithic, 4 Stelea Street, Târgoviște 130018, Dâmbovița County, Romania, email: elenacristinanitu@yahoo.com; florinionut_lupu@yahoo.com

Abstract: *Contributions to understanding the Neanderthals symbolism*. In order to explain the behavior and cognitive capacity of the Neanderthal man researchers reported, through time, to several discoveries categories, mainly related to the technical evolution in the Mousterian. A distinct category is represented by the discoveries interpreted as proofs of symbolism, from among which the most frequently mentioned, are: ocher, fossils, mineral-rocks and the cave bear cult. There were numerous debates regarding these aspects, especially since the presence of ocher or of fossil remains in Mousterian sites does not necessarily prove their symbolistic aspect, as they could have had various utilitarian functions. In this study we will present a few discoveries regarding symbolism in the Mousterian in Romania which have already entered the international scientific circuit. The focus will be on the modern analysis performed, which included optical fiber digital microscopy (20X/200X magnification) and computerized tomography which allows 3D reconstructions. The new discoveries brought significant contributions and direct evidence especially to the use of ocher with symbolic purposes by the Neanderthal man.

Keywords: symbolism, Neanderthal, ocher, ocher recipients, geode, unusual objects, cave bear cult

Introduction

The debates over the Neanderthals symbolism have not lacked controversy, especially since many of the discoveries were the result of very old research, frequently with briefly mentioned contexts. Research carried out over the past few years, based on close observation and on an increasing number of interdisciplinary studies, created stronger grounds for accepting the hypothesis according to which the Neanderthal man had the capacity of diverse symbolic manifestations. In this respect, through relatively recent archaeological research in Romania, new evidence of the Neanderthals symbolism was found.

Using ocher

Ocher was early discovered in a series of Mousterian settlements, especially in France. The first ocher and manganese fragments from Mousterian layers were recovered by L. Capitan and D. Peyrony when digging in 1912 in the rock shelter at La Ferrasie and by H. Martin (1923) at the La Quina deposit. While restudying the pigment collections discovered during the

archaeological digging in a series of caves, rock shelters and open sir sites by Fr. Bordes and D. Sonneville-Bordes from Perigord (France), such as the Combe Grenal, Pech de l'Azé caves, the settlement in Micoque, Vézere Valley, the Caminade rock shelter, the classic Mousterian layer in Le Moustier and the Mousterian settlement in Chapelle-aux-Saint, P.Y. Demars (1992) reaches very interesting conclusions, classifying the samples by the specific Mousterian facies which they were found. The author considers that ocher appeared in the Ferrassie Mousterian, developed in Quina Mousterian and knew a significant spread in Acheulean Mousterian.

A. Leroi-Gourhan (1964) considered ocher, among other fossils, to be one of the first symbolic evidence older than those discovered in the Upper Paleolithic. Still, in the absence of cave paintings attributed to the Neanderthal man, he could not find a satisfactory explanation for the use of ocher in the Middle Paleolithic. F. Bordes (1952) believes it is difficult to interpret the pigments from Mousterian layers as not having been used for painting bodies, hides, clothes or even tents. This would mean we are facing the earliest known artistic acts. P. Y. Demars (1992) stated that at some 70,000 years in the Mousterian industries from south-western France we can talk about using pigments as certain evidence of spiritual practices.

Recently, starting from the premises that the oldest proof of symbolism, similar to the ones discovered in the European Upper Paleolithic, appear much earlier, in the Middle Stone Age (MSA) (S. McBrearty, A. S. Brooks, 2000; C. Henshilwood, C. Marean, 2003; C. Henshilwood et al., 2001; C. Henshilwood et al., 2002; C. Henshilwood et al., 2004, F. d'Errico et al., 2003; 2005), several researchers considered that, if ocher did have a proven symbolic function in MSA, it is only normal for this function to have spread to the ocher used in the European Middle Paleolithic (F. d'Errico, 2003; F. d'Errico et al, 2003, J. Zilhão et al. 2010). In reality, yet, we are talking about two different species, the creator in MSA being *Homo sapiens*, while that in European Mousterian being *Homo neanderthalensis.* Furthermore, even if we are talking about pigments, the presence of ocher in various Mousterian sites, which can also be natural, does not necessarily prove its symbolic character, as it could have had various utilitarian functions (Ph. Chasse and H. Dibble, 1987). In this regard, several recent studies proved the utilitarian character of pigments, which were used for various activities, such as tools hafting (Lombard 2007; Wadley 2005; Wadley et al., 2004; 2009), tool carving (S. Soriano et al., 2009), hide preservation and processing (R. F. Rifkin, 2011). Moreover, using pigments for painting does not necessarily imply their symbolic character and, in this regard, several studies proved the use of ocher for solar protection, by body painting, a phenomenon that can be observed in many populations even of the

Fig. 1 – A few samples of natural ocher discovered in Cioarei cave (after M. Cârciumaru, E. - C. Nițu, M. Țuțuianu-Cârciumaru, 2012)

present day (R. F. Rifkin at al., 2015 a, b). Another controversial issue is related to the identifying the use of ocher in Mousterian settlements, regardless of the purpose in which it was used. Only a few studies focused on this important aspect. Analysis carried out on the pigments discovered in the Pech de l'Azé cave proved their use to mark soft materials such as animal or human skin (F. d'Errico et al., 2009). Furthermore, perforated and pigment-stained marine shells were discovered in two Mousterian sites from Spain (J. Zilhãoa et al., 2010). Some were used as containers, others are included in the body ornamentation category by comparing them with the discoveries made in Africa, which might be evidence of Neanderthal symbolism.

Archaeological research carried out in the Mousterian settlements from Romania proved that Cioarei cave from Boroșteni (Peștișani town, Gorj County) holds not just the only evidence of the existence of ocher in the Middle Paleolithic from our country (Fig. 1), but also evidence of it being prepared by the Neanderthals (M. Cârciumaru, 2000; M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009; M. Cârciumaru, E.-C. Nițu, M. Țuțuianu-Cârciumaru, 2012). These are the oldest Paleolithic ochre preparation containers, being made of the upper part of stalagmites (Fig. 2) by scraping their internal concentric layers, in order to obtain excavations of various sizes and depth, but generally similar, in which ocher was prepared. They were rarely obtained from stalagmite crust. Their sizes are generally similar and the traces of ocher are visible on the excavated inner side in all of the eight containers found in Cioarei cave (Fig. 3-8), which represents an argument to support their use for preparing pigments.

Ocher and the stalagmite containers for its preparation are concentrated in the E layer from Cioarei Cave, contemporary to the Boroșteni heating complex (probably Riss-Würm). C-14 dating showed ages situated between 51,900 +5,300/-3,200 B.P. (GrN 15,048) and >45,000 B.P.

Fig. 2 - Stalagmites severed for creating containers, discovered in Cioarei cave (after M. Cârciumaru, E. - C. Nițu, M. Țuțuianu-Cârciumaru, 2012)

(GrN 13,004). The age set by the C-14 dating seems smaller to the one estimated by the palynologic studies and the mammal fauna remains, which stand at approximately 80,000 years old; probably it is due to the limitations of the radiocarbon method. But regardless of which of the two dates is considered, it is certain that the ocher in Cioarei cave, Boroșteni, is the earliest discovery in Romania and that the stone containers discovered here are very old.

Generally, the ocher samples in Cioarei cave are disseminated and we cannot speak of high amounts (tab. 1-2), which would have affected the colour of the layers (Carciumaru et al., 2014). If the highest amounts of ocher were discover in layer E (48.62%), a little less were recovered from layer F (16.26%), contemporary to the first glacial stage of the Upper Pleistocene, and the lowest came from layer J (11.06%), deposited in the Nandru 3 phase of the Nandru interstade complex (M. Cârciumaru et al., 2000, 2015) (Fig. 9). The distribution of ocher containers is somewhat similar to the amount of ochre, meaning that six of them were found in layer E and one in each of the F and J layers (M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009). Except for layer F, which contained less Mousterian lithic material, layers E and J are contemporary to periods when the cave was relatively well inhabited.

Geological layers	Number of samples	%
E	30	51.71
F	6	10.34
G	2	3.44
H	1	1.72
J	5	8.62
L	5	8.62
M	3	5.17
N	2	3.44
O	2	3.44
P	1	1.72

Tab. 1 – Frequency of samples and percentages in different geological layers of sections X-XIII (after M. Cârciumaru, 2000 a)

Geological layers	Total weight of ochre in grams	Percentages calculated in relation to the total amount
E	182.5	**48.62 %**
F	61.14	**16.28 %**
G	12.39	**3.30 %**
H	3.33	**0.88 %**
J	41.53	**11.06 %**
L	22.28	**5.93 %**
M	14.26	**3,80 %**
N	25.60	**6.82 %**
O	10.40	**2.77 %**
P	**5.95**	**1.58 %**

Tab. 2 – The weight of ochre in each layer and percentages calculated in relation to the total amount in sections X-XIII (after M. Cârciumaru, 2000 a)

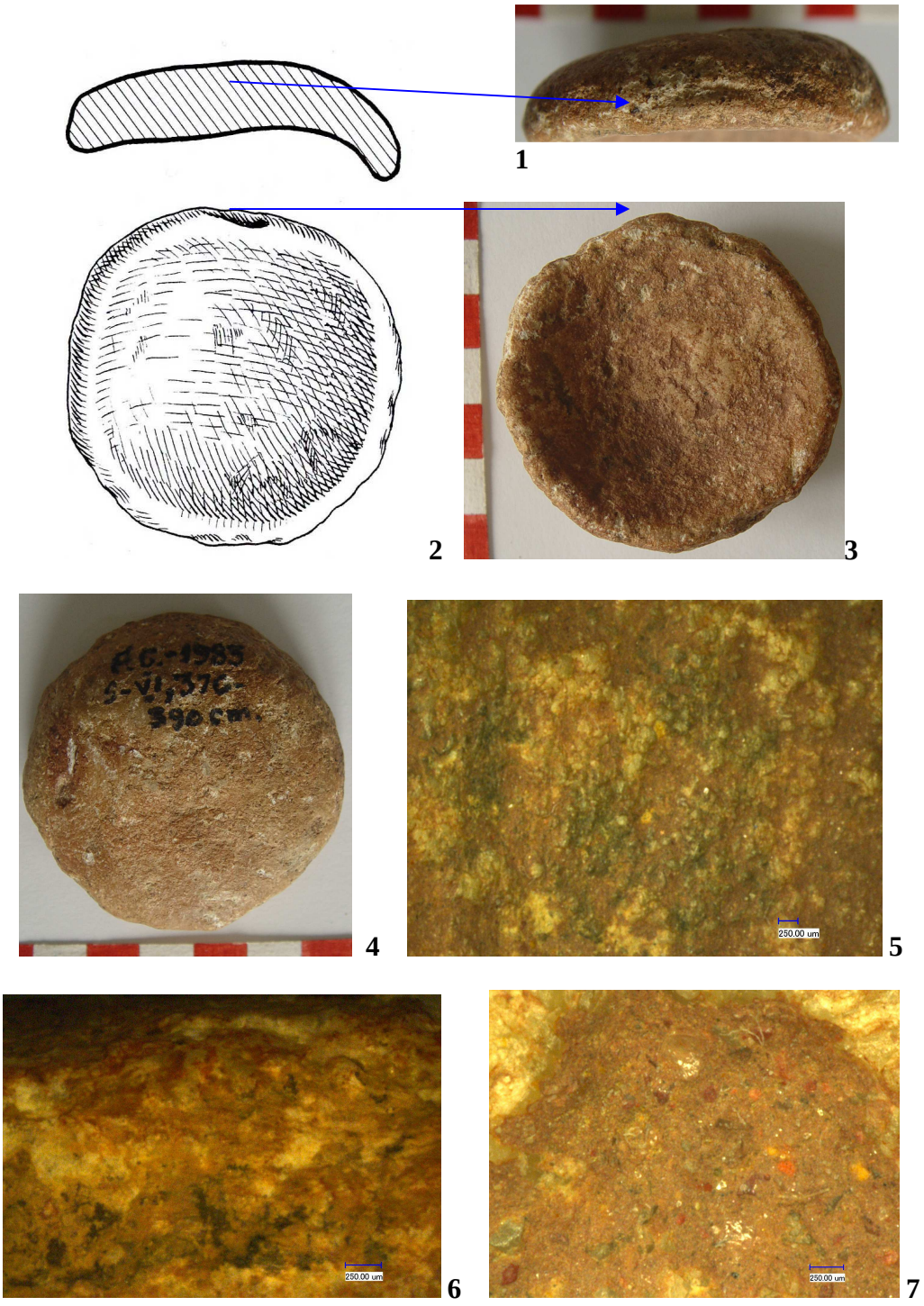


Fig. 3 – Container discovered in 1983, S. VI, 370-390 cm, layer E. 1 container profile; 2-3 drawing and photo of container with ocher on the interior; 4 container obverse; 5 overlapped colour layers; 6 combination of black, red and other colour shades; 7 various colour pigments (after M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009)

Fig. 4 – Container found in 1983, S. VI, 425-440 cm, Layer E. 1 container profile; 2-3 drawing and photo of container with ocher inside; 4 container obverse; 5 container profile (after M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009)

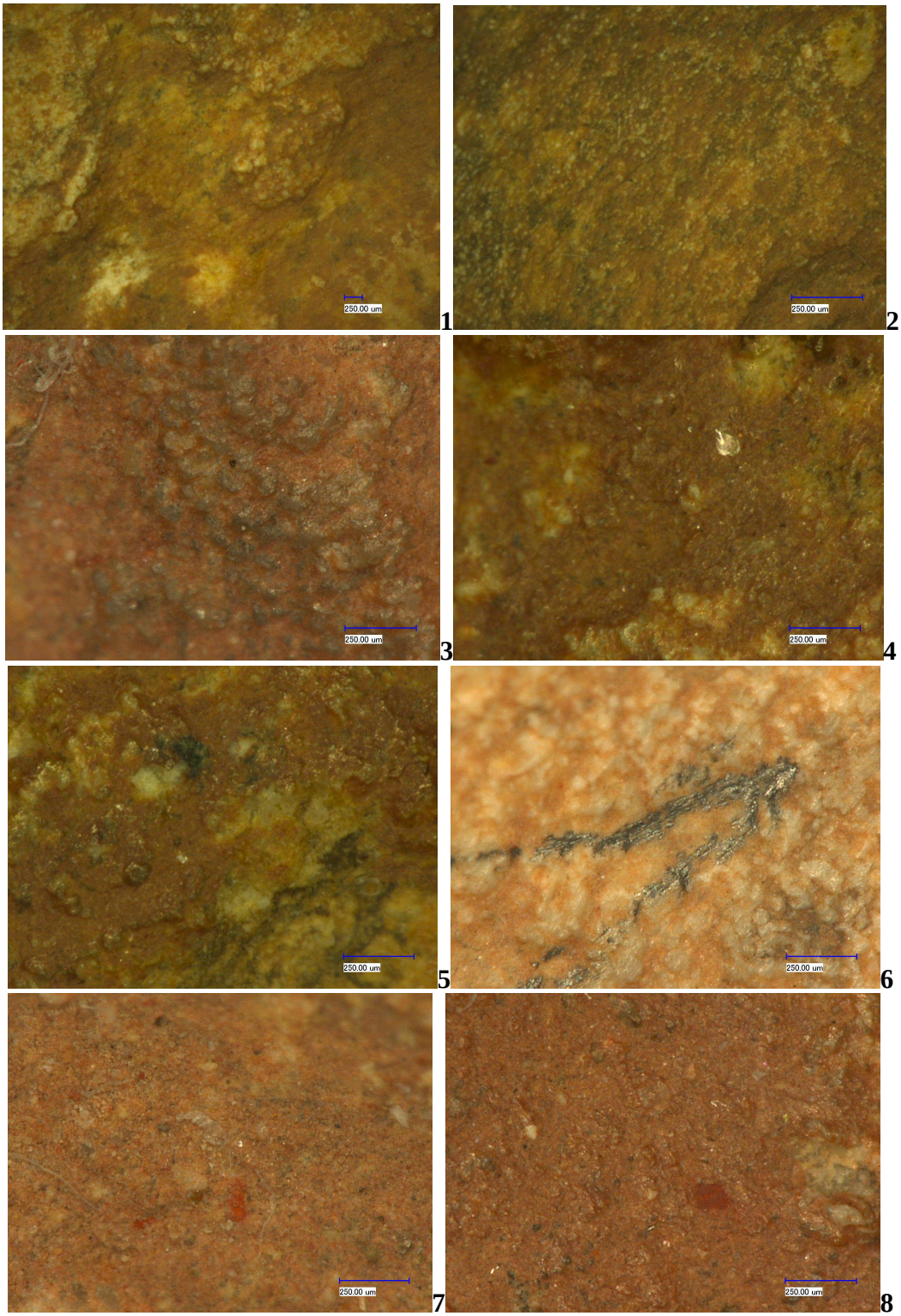
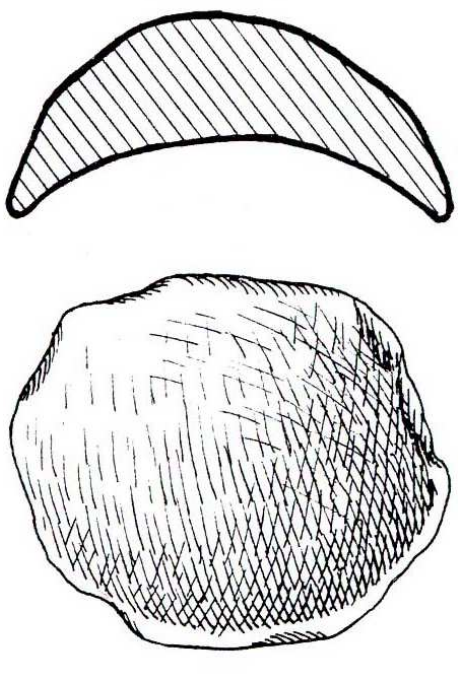


Fig. 5 – Images of the previous container obtained with the Keyence VHX 600 microscope: 1-2 scraping; 3-4 overlapping colour layers; 5-6 combinations of black and other colours; 7-8 isolated pigments (after M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009)



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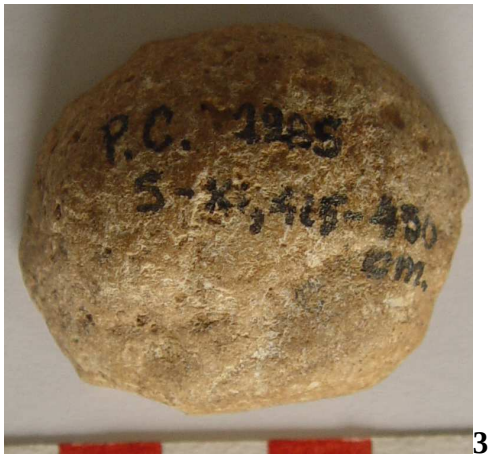

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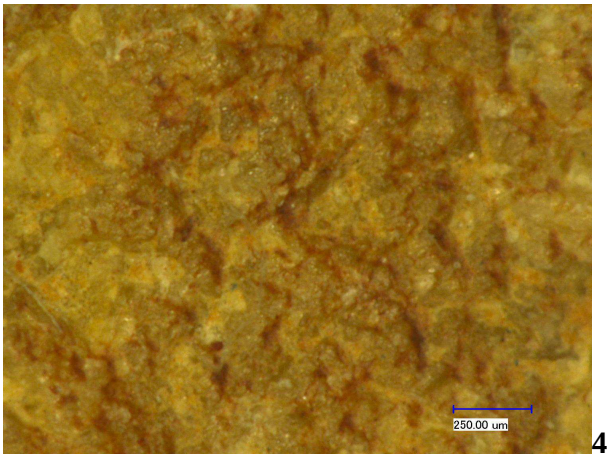

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Fig. 6 – Container discovered in 1985, S. XI, 415-430 cm, layer E. 1-3 drawing and photo of container with ocher inside; 4 colour nuances from inside the container seen under the Keyence VHX 600 microscope (after M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009)

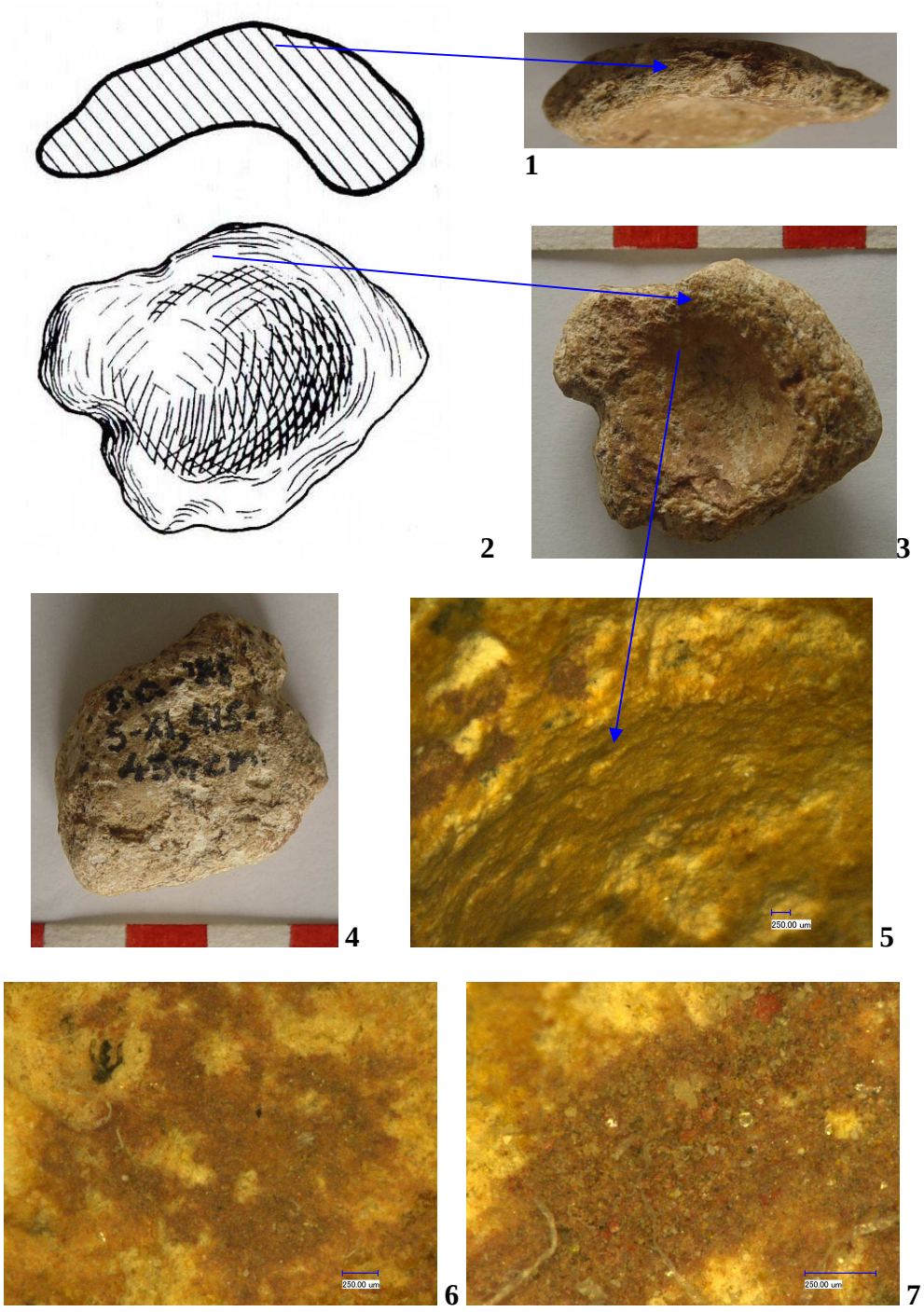

Fig. 7 – Container found in 1985, S. XI, 415-430 cm, layer E. 1 container profile; 2-3 drawing and photo of container with ocher inside; 4 container obverse; 5 scraping marks inside the container; 6 colour layer; 7 concentration of pigments of different nuances, used in preparing dyes (4-6 images obtained with the Keyence VHX 600 microscope) (after M. Cârciumaru, M. Ţuţuianu-Cârciumaru, 2009)

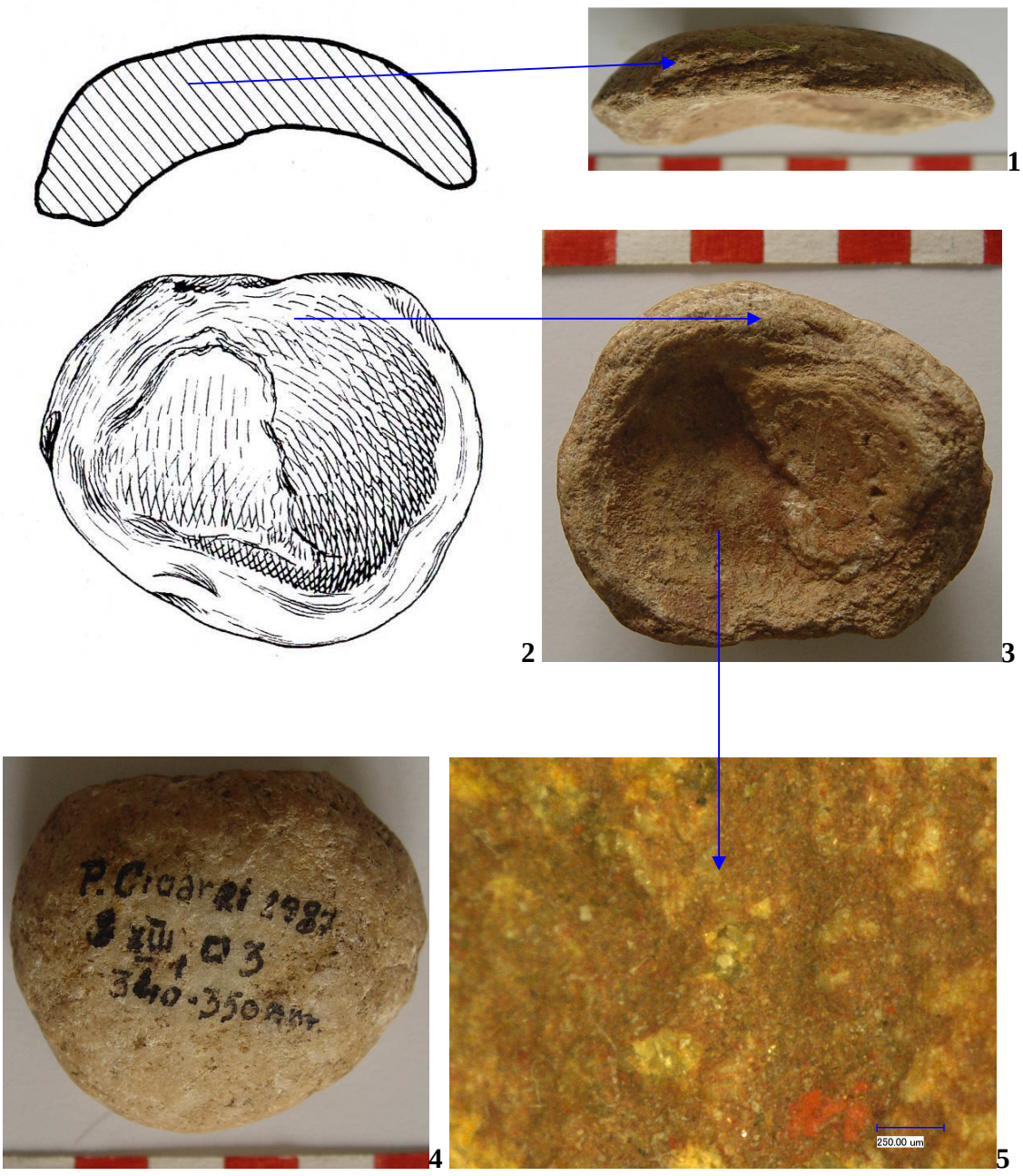

Fig. 8 – Container found in 1987, S. XIII, Caroul 3, 340-350 cm, layer F. 1 container profile; 2-3 drawing and photo of container; 4 container obverse; 5 pigments and overlapping colour layers (images obtained with the Keyence VHX 600 microscope) (after M. Cârciumaru, M. Țuțuianu-Cârciumaru, 2009)

The ocher samples were probably used, most often, in their natural state. Many of them look like clays with rich iron oxides content, others have a fibriform structure similar to goethite.

The discovery of various shades of pigments in Cioarei cave, especially in layer E, is closely related to the discovery of containers used to prepare ocher, which are concentrated in the same layers. Moreover, one of the elements which confer unicity to the containers used to prepare ocher from Cioarei cave is their concentration in layer E, contemporary to a unique climatic stage – the Boroșteni (Riss-Würm) warming complex.

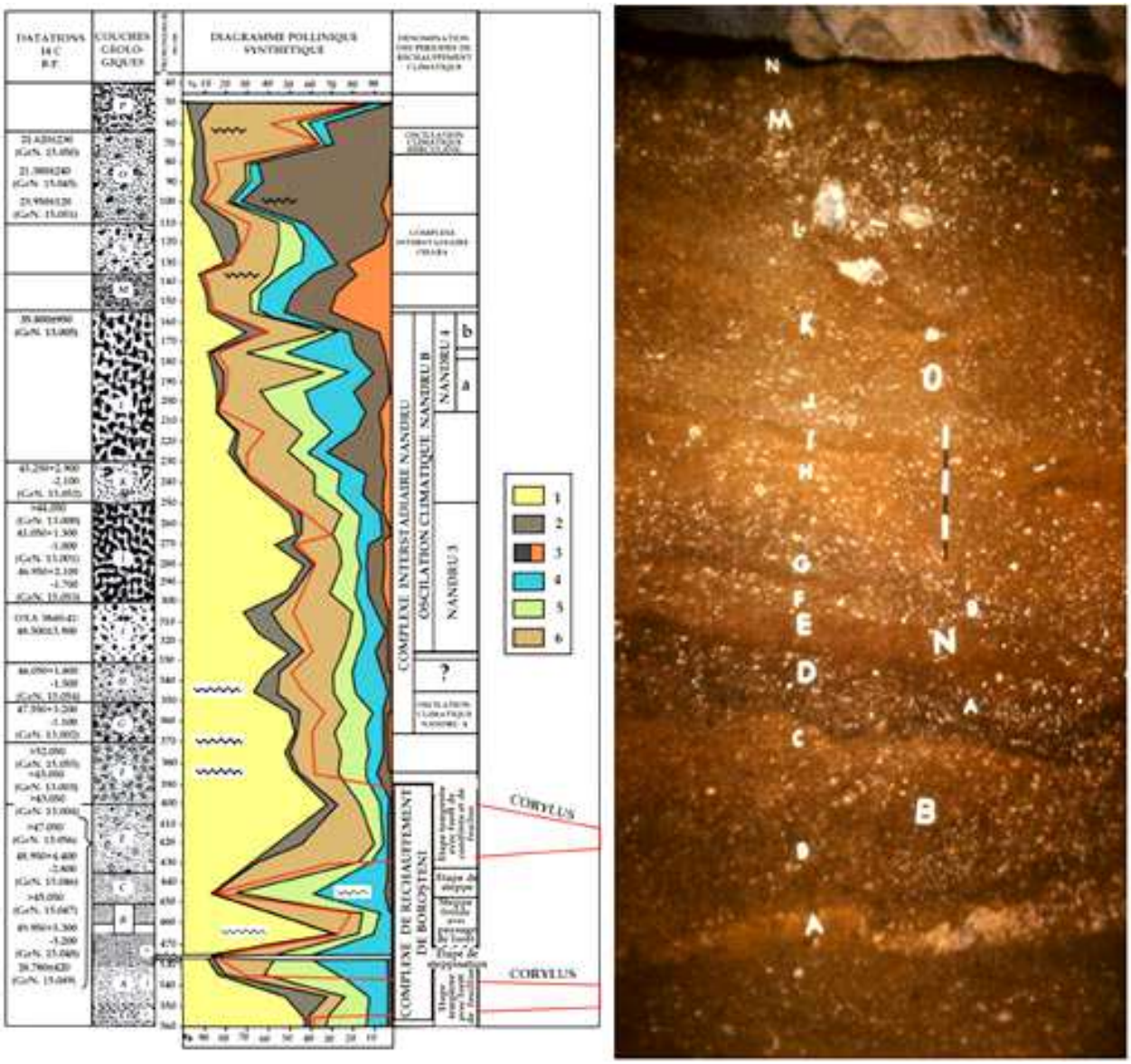

Fig. 9 – Chronostratigraphy of the deposit in Cioarei cave (after M. Cârciumaru, E. - C. Nițu, M. Țuțuianu-Cârciumaru, 2012)

The modest size of the containers pleads rather for the use of ochre for facial/body painting, painting of small objects and maybe less of clothing. The Neanderthal man's technical ability to create these stone containers, even if from a relatively easy to process rock, is undisputable. At the same time, the possible ritual of painting the face and some body parts allow us to imagine, in the respective populations, the existence of profound spiritual traits, as far as the ability to assign various meaning to each of the used colours (M. Cârciumaru, E. - C. Nițu, M. Țuțuianu-Cârciumaru, 2012). And this is, in fact, why the containers for preparing ocher discovered in Cioarei cave, Boroşteni, are of such great importance. As previously mentioned, there are countless pieces of evidence to support the use of ocher in various Neanderthalian settlements, but we cannot say the same about the material proof of its use in painting, be it facial/body painting or otherwise.

A. Leroi-Gourhan (1964) saw ocher to be one of the first pieces of evidence of symbolism with traditions older than the Upper Paleolithic. Except for this, he was unable to find a satisfactory explanation to the use of ocher in the Middle Paleolithic. This means that the containers for preparing ocher discovered in Cioarei cave are direct material proof of the use of ocher for various purposes by Mousterian communities. They are testimony to the preparation and use of ocher for a well-defined purpose, wittingly and with a probably already known meaning. We also do not rule out the possibility that the Mousterian inhabitants of Cioarei cave were driven, at least partly, by feelings and abilities to symbolically express themselves defined well enough as to justify and define the significance of using ocher during this so remote age. This is an aspect of great importance and a reason to ruminate upon the spiritual life of the man who lived in this cave during the Mousterian age. Consequently, the ocher containers from Cioarei cave must be interpreted with the required prudence, but also with aplomb, in order to actually complete the picture of the life and material culture from a very distant period, whose main actor was the Neanderthal man, and to which we are trying, this way, to get closer and closer (M. Cârciumaru, E. - C. Nițu, M. Țuțuianu-Cârciumaru, 2012). They are unique for the Romanian Paleolithic and can be considered one of the major discoveries of the Middle Paleolithic. They have later analogies, in the Upper Paleolithic from the Villars cave, France (B. et G. Deluc, 1974).

Unusual objects

The particular objects collected by Neanderthal man, such as fossils, minerals, etc. stopped being an unusual thing a long time ago. The first testimony in this respect was made by A. Leroi-Gourhan (1964) for Hyena cave in Arcy-sur-Cure, France, where he mentions, in the late Mousterian levels, a fossilized mollusk and sea urchin, as well as a piece of pyrites, which he considers to have been intentionally brought into the cave. In his turn, Fr. Bordes recovers fossil shells from the Quina Mousterian from Combe-Grenal cave in Dordogne (P. Y. Demars, 1992). Somewhat more recently an important discovery in this respect was made in the Acheulean Mousterian from Chez-Pourré-Chez-Comte (Corrèze) in France: a bivalve fossil of *Glyptoactis* sp. (V. Lhomme, S. Frenix, 1993). The matter of recovering lamellibranchiate and gastropods from Mousterian layers of caves must be regarded with utmost attention, as such fossils are very frequently encountered in limestone deposits. Usually, each geological layer is characterized by the existence of certain species. Therefore, for the caves inhabited by the Neanderthal man, we must know all of the bivalve or fossil snail species which might naturally exist in limestone deposits in which the caves were dug. Moreover, we must have a rigorous determination of the possible species recovered from the Mousterian layers and we must know the opinion of the geologists who specialize in these limestone layers and in the specific fossils. Only after we know for certain that the fossils discovered in a culture layer of a cave do not come from the limestone deposits in which the cave develops, can we launch hypothesis regarding the possibly of the fossils being brought into the space inhabited by men by other factors.

In this regard, we will discuss the situations found in Bordul Mare cave, from Ohaba Ponor (Hunedoara County). The cave was considered dug in Jurassic limestone (C. S. Nicolăescu-Plopşor et col., 1955), a postulate perpetuated till the present day. This confusion resulted from the cave being erroneously positioned in the development area of

Jurassic limestone, which is more widespread in the region than the three limestone strips attributed to the Senonian, Turonian and Vraconian-Cenomanian layers, all belonging to the Cretaceous age, which outcropping closer to the area where the Bordul Mare cave is (Fig. 14).

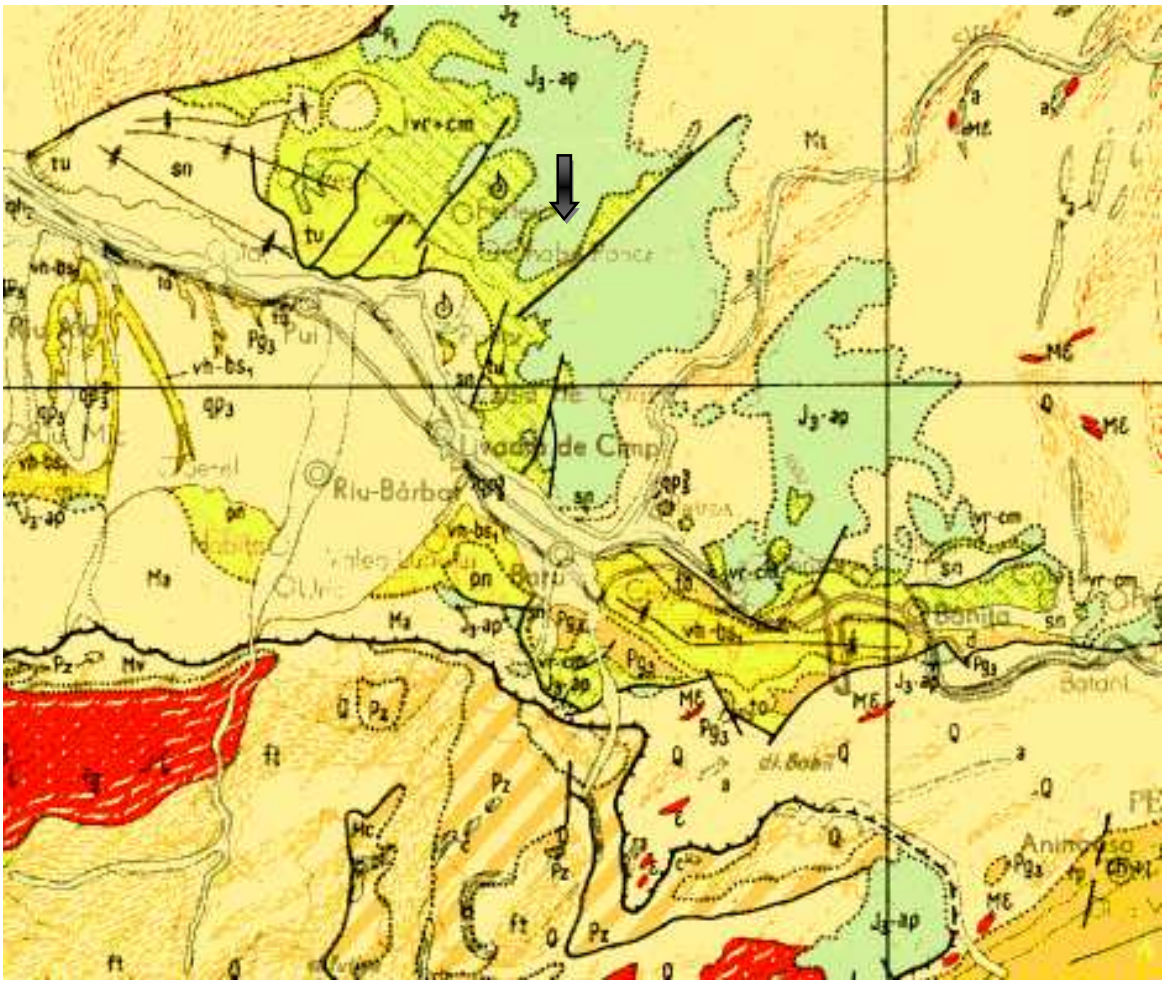

Fig. 14 – Geological map of the region around Bordul Mare cave from Ohaba Ponor (after H. Savu, M. Pavelescu, J. Stancu, D. Lupu, 1968)

The fact that the cave developed in Cretaceous layers, as well shall see, was proved by the analysis carried out on the microfossil found in the limestone in which Bordul Mare cave developed and from the limestone which accompanied some of the fossils recovered from the cave's deposit.

The mold of a bivalve, preliminary determined by dr. Mirela Popa with the Universitatea Babeș-Bolyai Cluj-Napoca as belonging to the *Pholadonya* species, was found in 2009, during the archaeological digging at Bordul Mare cave from Ohaba Ponor in section II, square A-1, at a depth of 201-220 cm, in a yellow layer (M. Cârciumaru, E.-C. Nițu, C. Roman, R. Ștefănescu, O. Cîrstina, D. Iamandi, 2010) (Fig. 15).

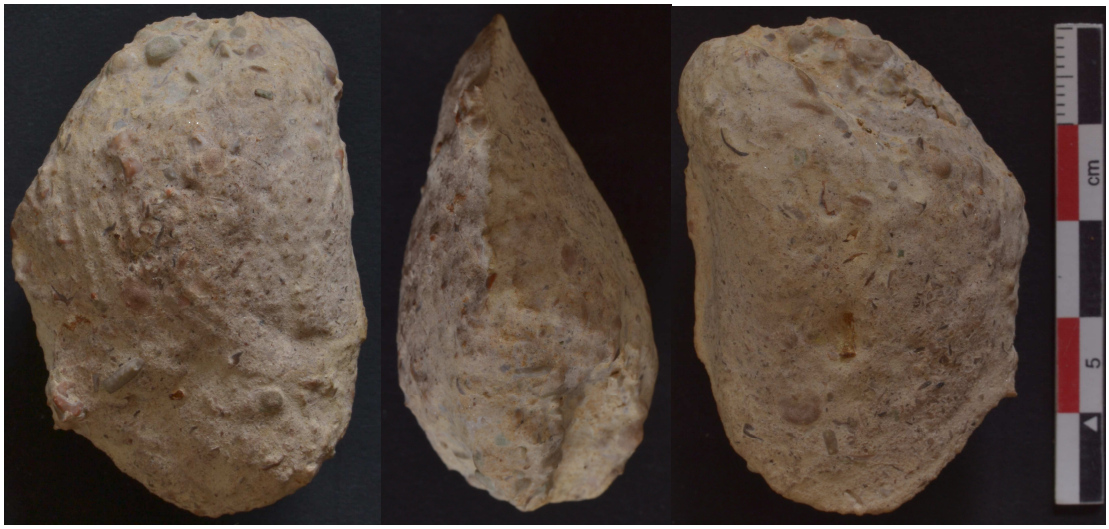

Fig. 15 – Mold of *Pholadonya* bivalve discovered in Bordul Mare cave in S-II, square A-1, 210-220 cm (identification by dr. Mirela Popa)

Surprisingly, the next year 4 more bivalve molds would be found, together with 2 snail molds and the prints of a coral. The fact that the fossils from the Mousterian layers at Bordul Mare cave are only internal molds, with only one specimen of each genus, makes identification even harder. In the current stage, they benefitted only from a generic determination of the species they might belong to, made by Dr. Mirela Popa (Fig. 16-17).

The large number of such fossils discovered in a single campaign raised our suspicions regarding their existence in the Mousterian layer. As result, we tried to find out if we can identify similar fossils in the limestone fragments taken out of the cave's walls.

Even if in the short time we allotted to this activity we did not find the same fossils as in the culture layers, we were surprised to find, by breaking away limestone pieces from the cave, the mold of a bivalve which would later be identified as an individual of the *Pecten sp.* Species (Fig. 17/4).

The *Pecten* discovered in the limestone in which the cave formed, facilitated prof. univ. dr. Ioan Bucur (paleontologist with the Cluj Napoca Babeș-Bolyai University's, Biology-Geology section) micropaleontologic comparative study of the limestone in which the print of this species was found (Fig. 17/4) and the limestone which accompanied the basis of the *Trochacteon* sp. snail (fig. 17/1). The tests performed on the two limestone samples indicated for the rocks in which the identified mollusks were found an age which puts them in the Upper Cretaceous (personal communication). These observations would lead to the conclusion that the Bordul Mare cave was not formed in the Jurassic limestone, as stated in the profile literature, but in the Upper Cretaceous limestone. Such a hypothesis would fall in agreement with the Senonian-Turonian or Cenomanian-Vraconian limestone outcrops which appear on the 1:200,000 geological map on which we identified the location of the Bordul Mare cave from Ohaba-Ponor (M. Pavelescu, J. Stancu, D. Lupu, 1968) (fig. 14).

Future studies should reveal to what extent the fossils mentioned in Borul Mare cave (Bivalves: *Pholadonya* sp., *Crassatella* sp., *Granocardium* sp., *Poronya* sp.; Gastropods: *Globularia* sp., *Trachacteon* sp., *Ceritella* sp.; the coral species) belong to the species mentioned after this preliminary study and of they are specific or not to the Upper Cretaceous. Depending on these results, we can propose hypothesis regarding the involvement of the Neanderthal man in their presence in the cave. For the time being we can state as certainty the fact that the *Trochateon* sp. gastropod comes most likely from the limestone in which Bordul Mare cave was formed and that the Neanderthal man having any involvement in this

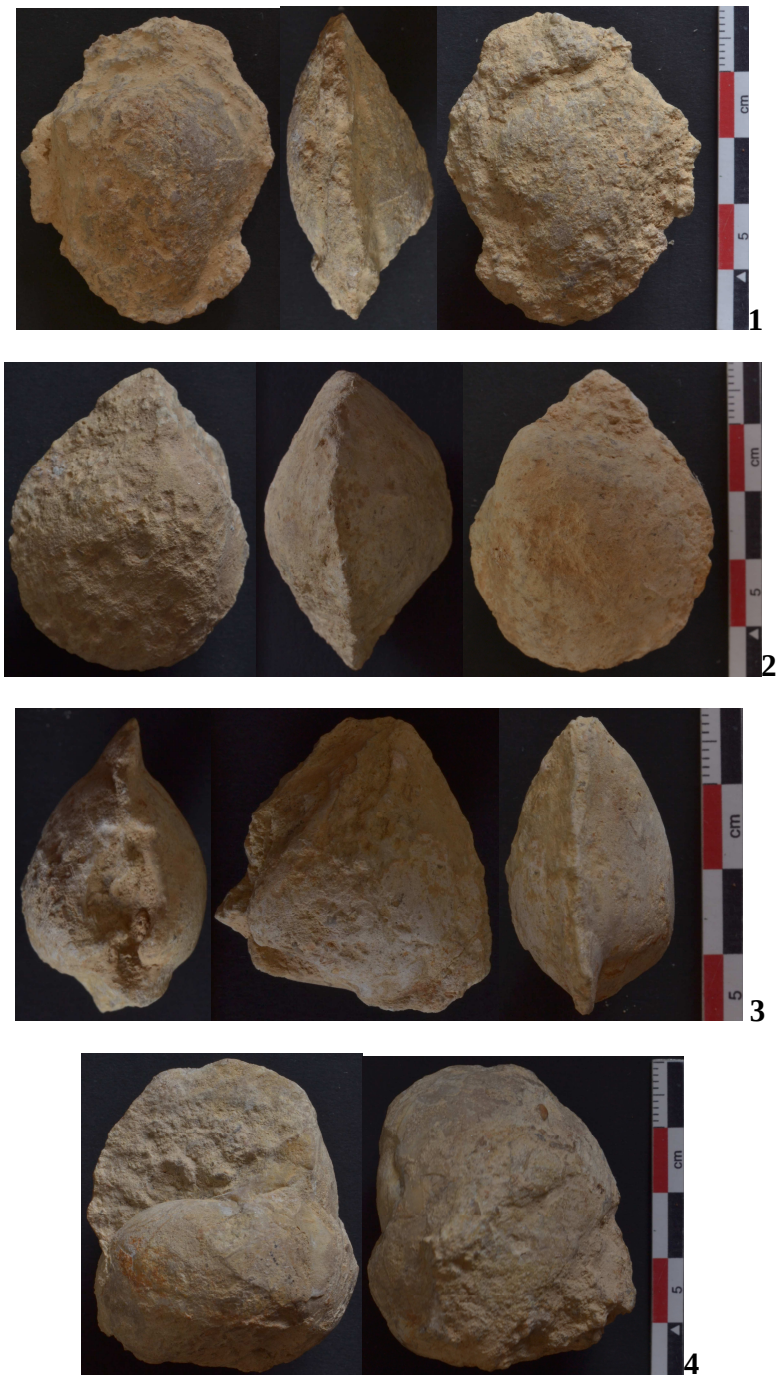

Fig. 16 - Bivalve and gastropods molds discovered in 2010 Bordul Mare cave. 1- *Crassatella* sp. (227-230 cm); 2- *Gramocardium* sp. (242 cm); 3-*Poronya* sp. (260-265 cm); 4-*Globularia* sp. (280 cm) (identification by Dr. Mirela Popa)

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Fig. 17 – Snails molds, coral fragments and *Pecten* sp. Print discovered in 2010 Bordul Mare cave. 1- *Trochacteon* sp. (260-266 cm); 2- *Ceritella* sp. Fragment (260-266 cm); 3- coral mold(245-249 cm); 4- *Pecten* sp. print (identification by Dr. Mirela Popa)

case is hardly feasible. We can, of course, take into account the symbolic value of some fossils which the Neanderthal man might have recovered from the limestone in which the caves were dug, but an argument supporting transporting them from places further away or closer to the cave would confer more credibility to the action itself and a higher awareness level of such a process. Furthermore, G*ranocardium* is also specific to the Cretaceous age and *Poronya* is still found today. Under these terms, we consider it necessary to identify more specimens and to make specific determinations in order to have a clearer view on which are the allogenic fossils from Bordul Mare cave's Mousterian deposit.

Several years ago, at Cioarei cave from Boroșteni (Peștișani town, Gorj County), in a Mousterian layer dated to 47,900 + 1,800/ - 1,500 B.P. (GrN 15054), a strange, round-shaped object was discovered. Initially, it was thought that it was a "bolas", but later on it was classified as an enigmatic limestone bubble (M. Cârciumaru, M. - H. Moncel, M. Anghelinu, R. Cârciumaru, 2002; M. - H. Moncel, L. Chiotti, C. Gaillard, G. Onoratini, D. Pleurdeau, 2009). At the time of the discovery, even if it was covered in calcium carbonate, it drew attention by the fact that it weighed a lot as compared to its volume.

Afterwards, given the discovery of fossil echinoids (sea urchins) in the Mousterian layers in Europe, as well as its relatively spherical shape, similar to some of these species, we believed that the bubble from Cioarei cave could be the same thing. The absence of outer ornamentation, specific to echinoids, determined us to run a tomographic analysis (we used a "General Electric HiSpeed Dual" tomograph, which allows 3D reconstructions, the images being digitally processed) of this object. It was observed that it was a "petrographic formation" with a spherical to elliptical morphology, with a geode-like concretionary aspect. The images revealed the characteristic features of a geode, defined by the successive concentric growth, as well as a hollow core which might contain forms of crystals (Fig.18). The geode is shaped like a sphere with the maximum diameter, after removing the crust, of 77.0 mm and the minimum of 61.2 mm. It weighs 479 grams. The high weight per volume ratio of the object is caused by the geode's high density, of 3.99525 g/square cm. We consider the fact that the rocks most frequently used for carving by the Neanderthal man have much lower densities: flint and jasper – 2.1-2.4 g/square cm, quartz – 2.65 g/square cm, granite – 2.7 g/square cm, basalt – 3.0 g/square cm, compact limestone – 2.7 g/square cm. The geode's high density is probably due to metalliferous formations present in its internal structure (Carciumaru et al., 2014).

The surface of the geode from Cioarei cave is uneven, being sprinkled with numerous circular excavations with a diameter of 6-8 mm, as well as with shallow grooves of various lengths, resulted from the geode's surface dehydrating (Fig 18/1; 19/1-3). Such geodes are common especially in hydrothermal areas around volcanic regions and are rarely found in areas with metamorphism. The origin of the geodes rules out the possibility of being formed in the Barremian-Aptian limestone deposits in which Cioarei cave was formed.

This means that the geode was certainly brought into the cave by the Neanderthal man, in so far as natural phenomena that could have transported it in the cave deposit are excluded. Whether there was volcanic activity near the cave is testified by the Paleozoic magmatites found as granite and granodiorite formations developed and crossed by the tributaries of Bistricioara river, which flows at the base of the cave (M. Cârciumaru, E. - C. Nițu, O. Cîrstina, 2014).

Its surface preserves traces of red ocher which the Neanderthal man used to paint it (Fig. 19/4-11), as well as sediments from the layer in which it rested. In most cases, the red ocher is covered in a black sort of resin or maybe bitumen (Fig. 19/5-8; 10-11). The two layers' overlapping is quite visible, the resin being, probably, responsible for the better preservation of the red ocher. These observations were only possible after the fossil was recently examined with the Keyence VHX-600 high resolution digital microscope.

The ochre painting of the geode by the Neanderthal man has obviously increased the aesthetic value of this unusual object and conferred it additional symbolic attributes. Moreover, in this way, we have yet another piece of evidence supporting the use of ocher.

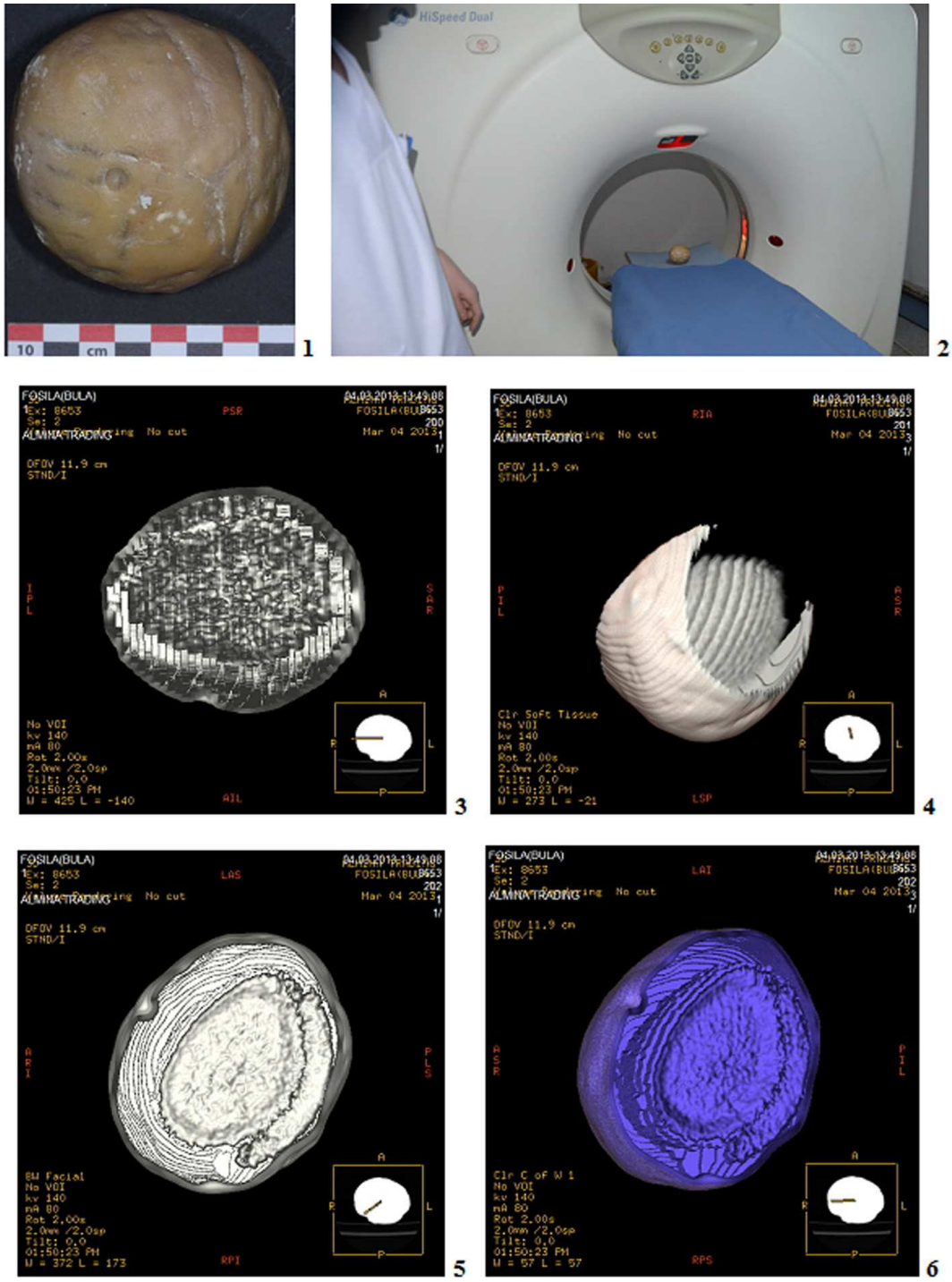

Fig.18 - 1–2 the geode and the tomograph which provided images of its internal structure; 3-6 images obtained with the help of the tomograph which illustrate the geode's internal structure (after M. Cârciumaru, E.-C. Nițu, O. Cîrstina, 2014)

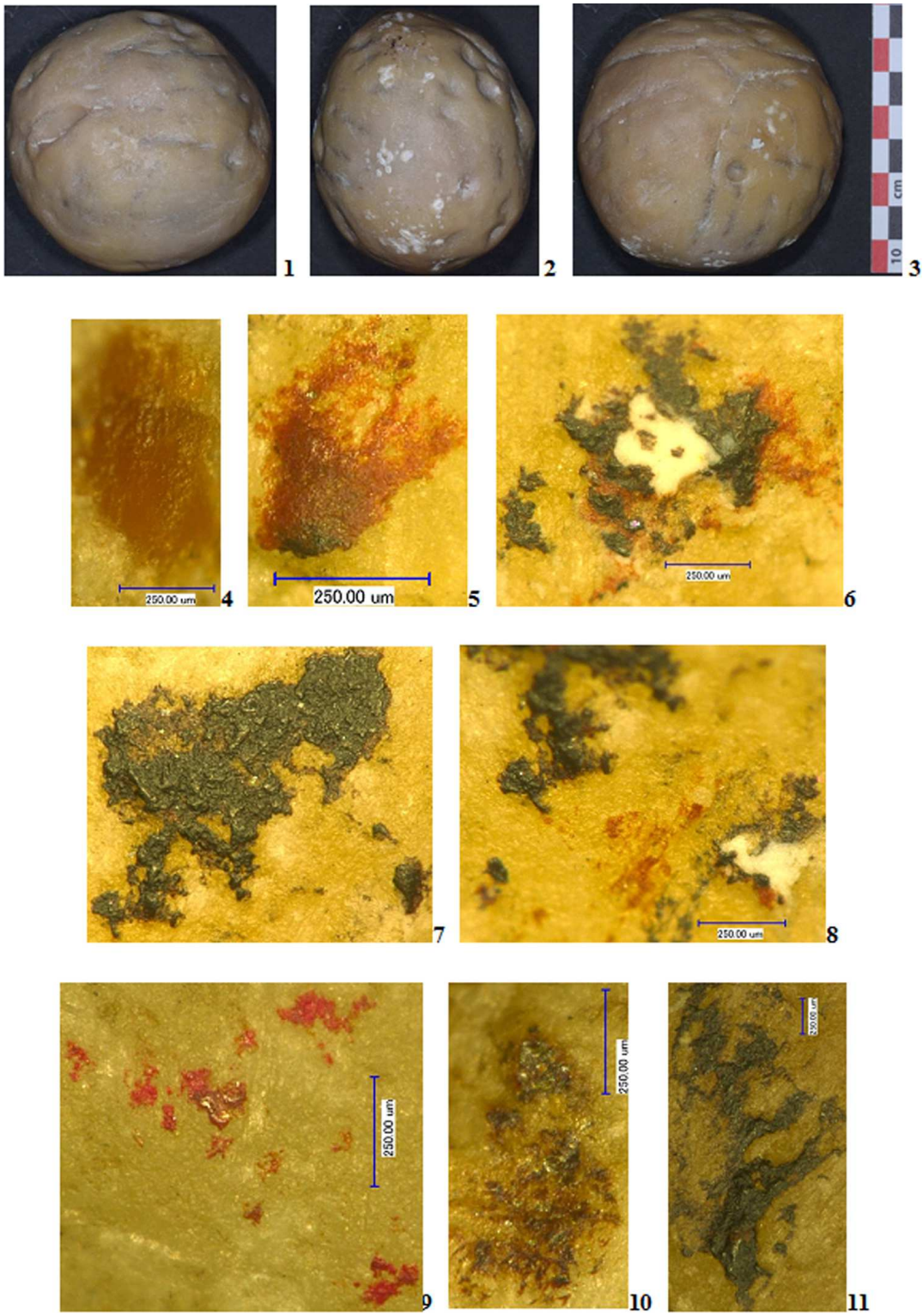

Fig. 19 – the geode (1-3) and the traces of red ocher covered with a black coloured substance, observed under the microscope (4-11 x 200) (after M. Cârciumaru, E.-C. Nițu, O. Cîrstina, 2014)

A. Leroi-Gourhan (1964 a, b) offers us an interpretation of the meaning of these types of materials, considering that they represent ancient proof of the Neanderthal man recognizing shapes, a very important sign of searching for the natural fantastic and proof of promoting the aesthetic sentiment which pushed him towards the mystery of the fossils' bizarre shapes. M. Otte (1996) states that the Neanderthal man was bringing into caves unusual objects, which he recognized and extracted from their natural context in order to grant them a new value in an "enlightened" environment (p. 177). He believed that picking and carrying them into the Neanderthal man's settlements are enough to prove their symbolic character. In his turn, M. Eliade (1987; 1989) admitted that we can imagine that the prehistoric man perceived certain objects as carrying meaning, associating perception to the eye and the spirit. The aesthetic importance granted by the Neanderthal man exists beyond any doubt as it is not limited to identifying it as a strange object. Painting it with ocher certainly adds to it, possibly giving it a special symbolic value.

The cave bear cult

A cave bear cult was first brought into discussion in 1917-1923 by E. Bächler (1940), through his research in Drachenloch cave, located at a rather high altitude (2,445 m) in the Swiss Alps. His hypothesis was adopted by J. Maringer (1958, 1960) in Wildenmannlisloch cave in Switzerland. Similar discoveries were also mentioned in the caves of France, such as Régourdou (Bonifay, Vandermeersch, 1962), Saône-et-Loire (A. Leroi-Gourhan, 1947). Afterwards, the cave bear cult would enter obscurity, especially after having been harshly criticized by A. Leroi-Gourhan (1965). He relied mostly on the considerations and arguments supported by biologist F. E. Koby (1951a, b; 1953), an expert in bear behavior, rejecting all of the alleged situations regarding the supposed cave bear cult, especially with regards to the arrangement of bones in a semi-circle, which he considered the result of this animal's hibernation habitats. In this way, out of all aspects related to the Neanderthal man's symbolic behavior, the cave bear cult was the most challenged one.

Given this situation, we mention right from the beginning that we wish to delimit ourselves both from the cave bear cult's supporters and from its vehement critics. Still, we must mention the fact that we consider the concept of a "cult" to be exaggerated. For this, we wish for the discoveries we are going to mention to be interpreted only as casual deposits of the Neanderthal man with a significance that would lead to a possible symbolic behavior of the latter.

Concentrations of long bones of skulls belonging to *Ursus spelaeus* have been mentioned in some Mousterian or contemporary to this period sites, the discoveries being often interpreted through analogies with various ethnographic data. Instead, it was often talked about the absence of taphonomic analysis in sites, especially in the case of cave deposits, where the existence of various natural processes could have determined the accumulation of fauna in certain area of a relatively closed space such as a cave. Furthermore, the lack of rigorousness and consistency in recording the alleged symbolical situations was also underlined (Ph. Chase, H. Dible, 1987; I. Wunn 2001).

There are only two caves in Romania mentioned, where we could talk about the possible existence of a cave bear cult. The first mention refers to a discovery made in Cioarei cave, Boroșteni, where, in section IV, located toward the middle area of the cave, at a depth of 315 m, in the upper part of layer G, right next to a large-sized limestone slab and a thin layer of charcoal deposits and sediment calcination traces, two *Ursus spelaeus* skulls were found. The two skulls were found back to back, nearly joint, and oriented, willingly or accidentally, on an East-West axis. The skulls were laid with the cranium facing up, while other important bone fragments were not found around them (Fig. 20/a) (M. Cârciumaru, 2000).

An interesting bear skulls accumulation was described in Rece cave (Cold cave) in Bihor Mountains (western Romania) where, in 1987, four juvenile bear skulls were found laid in the shape of a cross, with the occipital bone directed towards the inside of the cross (C. Lascu 1999; C. Lascu *et al.* 1996).

Fig. 20 - Evidence of the cave bear cult: a - Cioarei-Boroșteni cave; b – cave bear skulls from Rece cave; c – restoration from Rece cave (after a - M. Cârciumaru, 2000; b, c - C. Lascu, 1999; 2001; C. Lascu, F. Baciu, M. Gligan, Ș. Sârbu, 1996).

The four skulls were discovered in a fairly inaccessible chamber, most of which was covered by a crust of calcite, and, therefore, the skulls were embedded in this crust. It looks like, other than cave bear bones, no other animal bones were discovered, and the human presence in the cave, according to the authors (C. Lascu et al. 1996), can be suggested by the mammoth tooth blades found in a niche. C14 dating of one of the *Ursus spelaeus* bones found near the skulls revealed an age of 40,000 years, but the crust which covered the skulls was dated using U/Th and indicated an age of 75,000-80,000 years. As result, both ages place the discovery in the Middle Paleolithic. The interesting position of the four skulls is explained by I. Wunn (2001) by the movement of the wet sediment and by the presence of some rock fragments, which moved and deposited the bones around obstacles (rocks, pieces of limestone), something which can be seen in the photograph published when the Rece Cave discovery was made. Such a hypothesis, as long as it is based on the existence of a single stone, as appears in the published image, is hard to accept without serious reservation. At the same time, the lack of more taphonomic studies, almost impossible to be carried out, given the difficult route in the Rece cave, is regrettable.

Conclusions

The archaeological research of the Middle Paleolithic settlements from Romania carried out recently created the premises of some interesting interpretations of the Neanderthal man's symbolism. Sometimes they created the premises of understanding and interpreting some discoveries for which no satisfactory solutions had been found. This is the case of the numerous ocher samples recovered from Mousterian sites in Western Europe, for which we only had some hypothesis regarding a possible use of ocher for symbolic purposes. The discovery of containers made from the receptacle of stalactites or the crust of stalagmites, of modest sizes, for preparing ocher came as a needed material evidence to support the processing and use of ocher for well-determined purposes, results of a conceptual way of thinking.

Because, as we have seen, the discovery of fossils in the deposits of a cave which was inhabited by the Neanderthal man requires very careful and complex studies, we urge for caution when interpreting such situations. We dare to recommend even the reevaluation of older discoveries, which have sometimes entered the scientific circuit too easily, without deep interdisciplinary studies. Not only that, often, the fossils contained by the actual limestone in which the caves were formed are not known, but the possible natural contributions, given that some of the cave's galleries were obstructed, are disregarded. Such galleries can run through limestone packages belonging to diverse geological levels, formed in very different facies and, consequently, with an unsuspected fossil content.

The discovery of a geode in Cioarei cave which, merely by its shape and morphological features is a unusual presence, represented a contribution to complete the collection of collected objects brought by the Neanderthals in the closed space of caves. The fact that it was proved to have been painted with ocher increased its symbolic significance and the meaning of being brought inside the cave gained new valences.

We consider that the two cave bear skulls laid in a curious position in Cioarei cave from Boroșteni, in Northern Oltenia, as well as the four juvenile skulls, also belonging to cave bears, laid in the shape of a cross in Rece cave in Apuseni Mountains are important enough arguments to pay greater attention to the pieces of evidence supporting their possible intentional laying by the Neanderthal man, with which we find it hard to believe he did not come in contact or even competed for caves often enough.

In conclusion, we hope that these discoveries made in Romania will complete the image surrounding the Neanderthal man's symbolism, will cause such discoveries to be treated with greater attention and will establish the need of the taphonomic studies required to make pertinent interpretations of materials.

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