EVIDENCE FOR SYMBOLIC BEHAVIOR IN THE MOUSTERIAN

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As we know, there is much evidence for the use of ochre by Neandertals. Despite this, the possibility that they tattooed themselves has rarely been discussed. In Cioarei Cave, the discovery of recipients to prepare ochre provides direct material proof of painting, perhaps on the body, by Mousterian communities. This evidence concerns the preparation and use of ochre in a precise manner, consciously and with known meanings.

In Cioarei Cave, the pigments and recipients are concentrated in level E, which is contemporary with the Borosteni warming complex. The $^{14}$C dates of this level are between 51 900 ± 5300 / -3200 BP and > 45 000 BP. We nonetheless suspect that they are younger than the true age, as has been indicated by palynological and faunal analyses, probably due to the age limit of the radiocarbon method. It is possible, considering the chrono-climatic correlations of the Borosteni warming complex with the last interglacial, that the ochre found in Cioarei Cave is older than 80 000 BP.

In addition to the large quantity of ochre in level E (48.62%), we found a significant amount in level F (16.28%) as well. This level is contemporary with the first glacial phase after the last interglacial.

The samples were generally used in their natural state. Many originate from clay, and others have a fibrous structure similar to that of goethite. There is also a close correlation between the highest quantities of ochre and the levels intensively occupied by Paleolithic humans (level E).

The discovery of ochre with different tints in Cioarei Cave in general, and especially in level E, is closely linked to the presence of recipients for its preparation, most of which are concentrated in the same level (figure).

A first observation concerns the way the recipients were made, most with the upper part of stalagmites that were truncated before successively scraping the internal layers. The Mousterians thus obtained bowls with variable dimensions and depths, though generally similar, for the preparation of ochre.

The fact that the ochre is mostly concentrated in the bottom of the bowls is another argument in favor of their use for similar, well-defined purposes. If the ochre was found in greater quantities on the outside of the recipient, we could have deducted that the recipient was placed on a substrate of ochre.
Recipients made from stalagmites and images of ochre obtained with a VHX-600 digital microscope

The first recipient discovered in Cioarei cave (1983)

Diverse tints of ochre inside the recipient

Layers of superimposed colors

A recipient discovered in 1985 in level E

ochre spread inside the recipient
All of this indicates the existence of a specific manner of preparing ochre for body and/or facial tattooing by Neandertals, who would have possessed the technical capacities necessary to make the recipients. The ritual of body painting permits us to speculate on the spiritual context that incited these populations to attribute symbolic value to each color used. Though much evidence has been found for the collection of ochre during the Mousterian, we have little material evidence of how it was prepared and used for body and facial tattooing.

The discovery in Cioarei cave of recipients for the preparation of ochre provides direct material evidence for the practice of body painting by Mousterian communities, even if we cannot completely refute the hypothesis of ochre preparation for other purposes, such as to paint tools, weapons, or skins used to protect the body or as a blanket.

In Froide Cave (Rece), a very strange distribution of four *Ursus spelaeus* skulls was discovered enveloped in calcite. The $^{14}$C date of an *Ursus spelaeus* maxilla found nearby is only 40 000 BP, while the calcite covering the skulls has been dated by U/Th to approximately 75 000-85 000 BP.