

A newly-discovered stone pendant from the Gravettian of Poiana Cireşului-Piatra Neamţ (Romania) and its wider context.

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Abstract: In 2022, a stone pendant was found was recovered from the Gravettian I level of Poiana Cireşului-Piatra Neamţ, Romania. Dating to ~24,096-22 992 cal. B.P. It is made on an oval-shaped quartz/quartzite pebble of 29mm maximum dimensions. It bears 11 discrete incisions around its circumference, and a perforation to allow for suspension. Unlike other known Gravettian pendants from the Romanian sites of Mitoc-Malul Galben, the Cioarei-Boroşteni cave and additional items from Poiana Cireşului-Piatra Neamţ, this pendant has no decoration on the two sides and the incisions on the circumference are superficial and hardly visible, adding to the picture of variability of Eastern European personal ornamentation. We present it here, discussing its significance as part of a chronologically and regionally constrained visual symbol.

Keywords: stone pendant, Gravettian, Poiana Cireşului, symbolism, ornaments.

Introduction

During archaeological excavations in 2022, a new stone pendant was found in the cultural level assigned to the Gravettian I of Poiana Cireşului-Piatra Neamţ. The site is located on the right slope of the Bistriţa valley (Figure 1), at the confluence with the Doamna river. Administratively, it is part of the Piatra Neamţ Municipality (Neamţ County), and lies at 46°55'919" N and 26°19'644" E (Figure 2). Excavations have been conducted at the site since 1998, establishing the presence of the following cultural levels:

- An Epigravettian level in the upper part of the deposit (>1,500 lithic items);
- Gravettian I level (~17,000 lithic items, 170-210 cm depth) dated to ~24,096-22,300 cal B.P. (RoAMS 6733:18 607 ± 87 B.P. and ER 12 163: 20 154 ± 97 B.P. () (.) ());
- Gravettian II level (290-310 cm) dated to between 23 420 ± 310 B.P. (OxA-X-2762) and 25 135 ± 150 B.P. (Beta Analytic 244.072) (several thousand lithic items);
- Gravettian III level (375-415 cm) between 25 390 ± 140 B.P. (Beta Analytic 244.073) (29 895-29 030 cal B.P.) and 27 321 ± 234 B.P. (ER 11 859) (31 969 cal P.B.) (excavations were carried out over a limited area and several thousand lithic items were recovered).

- Early Upper Palaeolithic (510-530 cm) for which there are two dates: $32\,400 \pm 180$ B.P. ((Beta 507.489) (36 750 – 35 850 cal B.P.) and $32\,630 \pm 190$ B.P. (Beta 507.487) (37 250 – 36 077 cal B.P.)

- Early Palaeolithic level dated to $37\,550 \pm 360$ B.P. (Beta 507.488) (42 475 – 41 417 cal B.P.).

In the Gravettian I level, the density of the osteological material is impressive (more than 20 000 remains). The archaeozoological study showed that the settlement dwellers were mainly hunters of reindeer (*Rangifer tarandus*) and to a lesser extent of bison (*Bos/Bison*), red deer (*Cervus elaphus*), horse (*Equus* sp.), chamois (*Rupicapra rupicapra*) and fox (*Vulpes/Alopex*).

The ^{14}C dates obtained for the Gravettian I level are extremely coherent as are those from older Gravettian levels, given that the analyses were carried out in several laboratories, some of which are widely recognised (Table 1). The age of the Gravettian I range between $18\,607 \pm 87$ B.P. (RoAMS 67.33) (22 696–22 300 cal. B.P.) and $20\,154 \pm 97$ B.P. (ER 12 163) (24 096 cal. B.P.).

The diversity of art objects and personal ornaments is outstanding in the settlement of Poiana Cireşului-Piatra Neamţ. So far, 90% of all art objects and over 85% of the ornaments retrieved from sites assigned to the Palaeolithic in Romania have been found here. If we consider only the Gravettian I, we should mention a number of variously engraved bones, such as a diaphysis with 17 rhombus-shaped incisions, a horse lateral metapodium with 11 incisions, a laterally engraved rib with 5 incisions on the right side and 4 incisions on the left side, a small engraved bone with 4 incisions on the left side and 9 on the right, another bone engraved on the median part of the surface with 13 incisions arranged in a single row and two others at one of the extremities, a number of small variously engraved fragments etc. Personal ornaments are mainly represented by a richly engraved siltite pendant, a calcareous marl bead, perforated snail shells of the species *Tritia*, *Dentalium*, *Potamides bicostatus*, wolf, red deer and fox perforated canines. We may also mention a wind instrument made of a reindeer phalanx, a quartzite pebble with a few incisions on a segment of the circumference and traces of ochre etc. (Cârciumaru & Niţu 2018; Cârciumaru & Țuţuianu-Cârciumaru 2009, 2011, 2012; Cârciumaru *et al.* 2011, 2016, 2018; Niţu *et al.* 2019, 2021).

Description of the pendant

The 2022 Poiana Cireşului pendant in was retrieved from section XVI, square D-1 (X=47 cm; Y=13 cm; Z=177 cm), in the Gravettian I level. It is made on an oval-shaped

white/offwhite quartz-to-quartzite pebble 29 mm long, 24 mm wide, and between 1.9 and 5 mm thickness. 11 incisions have been identified on its circumference, most of which are quite discreet probably due to the significant rock hardness.

The choice of the pebble shape was not at all random, as it has a flat appearance, is thin enough, 5 mm at most, and the outline is not a perfect circle, with one part rather elongating in the form of an ellipse. This last aspect gives it the right balance, insofar as it was not by accident that the perforation was placed on the longest vertical, precisely in the slightly elliptical part (Figure 3). One may therefore state that the shape of the blank chosen for this pendant was closely related to the preconceived technological intentions.

Although the pebble thickness was merely 5 mm, polishing was performed in the upper part where the hole was to be made (Figure 3b; Figures 4a & b). In order to make the orifice, the artisan must have felt the need to thin the natural blank even more, considering the particular hardness of quartz. Even so, the making of the hole required some scraping in the area in which it was to be placed (Figure 4a; Figure 5a – the blue semicircle). In this way, the orifice for suspension is biconic and was therefore obtained by priorly preparing the surface through scraping that particular area, followed by the use of a hard rock point for the final penetration (Figure 4c; Figure 5c).

The initial oval shape of the suspension hole was slightly deformed following the use of the pendant by hanging. It is now shaped like an ellipse, with visible wear and tear marks on the upper curvature (Figure 4c; Figure 5c).

The 11 incisions decorating the circumference are too softened for one to claim that they are an element of decoration which particularises the pendant (Figure 5d).

Accumulations of iron oxides are present on both faces (Figures 4d, e & f; Figure 5c). It is not excluded that some of them may even contain red ochre, most likely derived from the ochre often present in significant amounts in the cultural layer.

The context of Gravettian stone pendants in Romania

In Romania, perforated stone pendants have been found in Gravettian levels at Mitoc-Malul Galben (Figures 6a & b), the Cioarei cave from Boroșteni (Figures 6c & d) and Poiana Cireșului-Piatra Neamț (Figures 6e & f).

The pendant from Mitoc-Malul Galben (Figures 6a, b) was found in 1981 and was made on a flake of flint cortex; it is 3.4/3.4/0.8 cm, relatively oval-shaped and the part opposite the perforation is slightly concave (Chirica 1982). The pendant is decorated on both faces with straight and curved radially-arranged incisions (Beldiman 2004), whereas the circumference has 23 parallel incisions. The pendant was initially dated to $20\,495 \pm 850$ B.P. (GX 8503)

(Chirica 1982), but later the date $26\,700 \pm 1\,040$ B.P. (GX – 9 418) was assigned to it (Chirica 1989; Chirica & Noiret 2007).

The 1995 archaeological excavations in the Cioarei cave from Boroșteni revealed, among other personal ornaments, a highly silicified marly sandstone pendant in the Gravettian level (Figures 6c & d). The age of that respective layer is $25\,900 \pm 120$ B.P. (GrN 15 051) – $23\,570 \pm 230$ B.P. (GrN 15 050) (Cârciumaru & Dobrescu 1997; Cârciumaru Otte & Dobrescu 1996; Cârciumaru & Nițu 2018). The pendant, which is roughly triangular, is 5.3 cm long, with a maximum width of 1.9 cm, maximum thickness of 0.7 cm, 0.25 cm thick at the extremity towards the perforated end, and the diameter of the suspension hole is 0.5 cm. The decoration is fairly complex and consists of oblique incisions, which suggest the *chevron* engraving, and transversal incisions on all sides. The entire surface of the pendant was painted with ochre.

In 2013, one of the most interesting Gravettian stone pendants (Figures 6e & f) was discovered in the Gravettian I level of Poiana Cireșului-Piatra Neamț. It was made of siltite, a rock with a greenish tint, a colour which becomes more pronounced when the rock is wet. The shape of the pendant is oval, kidney-like, with convex-slightly concave sides, on which there are 23 transversal *encoche*s. The faces of the pendant are decorated with geometrical engravings and the biconic, slightly deformed perforation points to its having been used by suspension (Cârciumaru & Nițu 2018; Cârciumaru *et al.*, 2016; 2018; 2019).

Discussions

Most Gravettian stone pendants were made of a pebble chosen from nature according to a number of criteria, such as shape, the more or less flat appearance, the type of rock, its hardness and aspect, colour etc. Pendants made of small pebbles previously carried by waters were found in several Palaeolithic sites. In the Streletskian from Sungir (Russia), two pendants are rather elongated in shape (Zhitenev 2017), just like the one from Dzudzuana Cave (Georgia), attributed to a Gravettian dated to between $21\,930 \pm 190$ B.P. ((RTA-3.435) and $20\,620 \pm 155$ B.P. (RTT-3.822) (Bar-Yosef *et al.* 2011). At the settlement of Trenčianske Bohuslavice (Slovakia), the pebbles that 14 pendants are made of are very different in shape. However, except one which is made of sandstone, all the others are made of quartzite and only two have incisions on the circumference (Wilczyński *et al.* 2020), similar to that of Poiana Cireșului. As regards the Pavlovian from Dolní Věstonice (the Czech Republic) Valoch & Lázníčková-Galetová (2009) mention 5 pendants of pebble stones of various shapes; here, the artisan's only intervention was the making of the suspension hole. A sixth pendant was mentioned by Škrdla (2000). 22 stone pendants, made of river pebbles probably, as only

drawings and comments on how the perforation was made have been provided, were found at Pavlov II (Škrdl 2000). The pendants from the settlement of Pavlov VI are much better illustrated (GrA 37.627: 25 950 ± 110 B.P. - OxA 18 306: 26 660 ± 140 B.P.); though quite diverse in terms of shape, the choice of pebbles seems not to have been devoid of meaning (Lázničková-Galetová 2011). An elongated pebble was perforated in order to be turned into a pendant, as shown by the description made by Valoch (2013) in the Predmosti site (the Czech Republic).

The pendant recently discovered in the Gravettian I from Poiana Cireşului is a good example of the exactingness with which the pebble was chosen. Its shape is highly balanced and its circumference not being perfectly round gives it more suspension balance, insofar as the hole was made in the slightly ellipsoidal part. It is very thin, its thickness varies between 5 and 1.9 mm, which made it easier for the craftsman to make the perforation and provided an excellent stability on the blank surface.

In relation to the other Gravettian pendants found in Romania, it is the only one that has no decoration whatsoever on the two faces. On the other hand, Palaeolithic pendants are generally less often engraved on both surfaces. We believe this was offset by the features of the rock it was made of, namely, a milky quartzite with real aesthetic virtues, which makes it very attractive and gives it a special particularity. The absence of the decoration on the two faces was clearly entailed by the rock hardness, as were the discreet incisions on the circumference.

As previously mentioned, two stone pendants were recovered from Poiana Cireşului. The one discovered in 2013 (Figures 6e & f) was found at the base of the Gravettian I level, whereas the 2022 pendant (Figures 6g & h) lay in the upper part of this layer. This means that we may presume that the two pendants might have belonged to different communities, given the chronological range of dates in this layer.

The remarkable features and the particular appearance of the pendant recently found at Poiana Cireşului come to complete the originality of Gravettian stone pendants discovered in Romania. They have been retrieved from the Gravettian sites where some of the most extensive archaeological excavations have been carried out.

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FIGURES AND TABLE

Figure 1. Gravettian settlements where stone pendants were found.

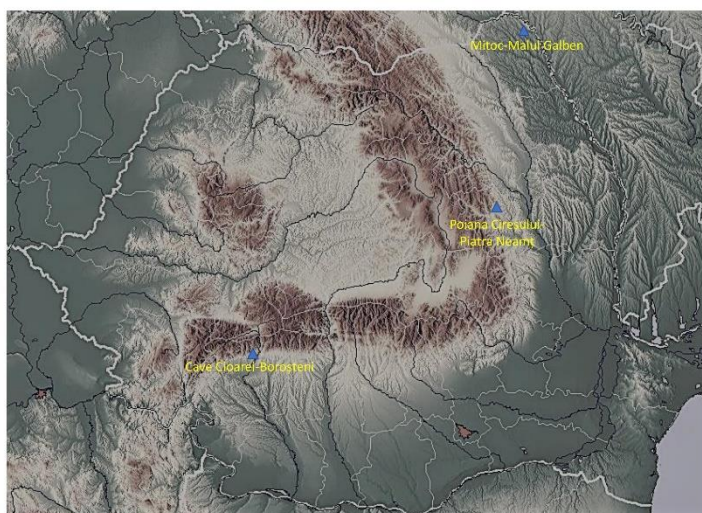


Figure 2. Location of the site Poiana Cireşului–Piatra Neamţ and pictures taken during the archaeological excavations.



Figure 3. Quartz-quartzite pendant

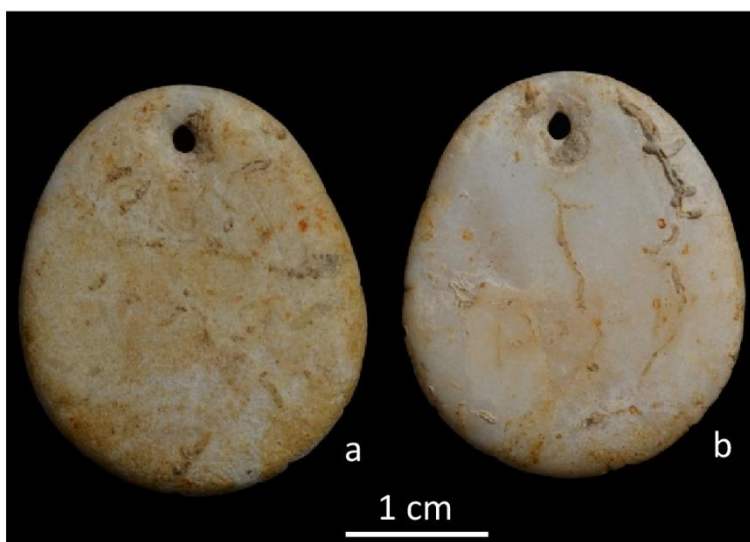


Figure 4. Processing details on the lower face related to the making of the suspension hole, which point to the pendant being worn by suspension, and traces of iron oxides and ochre.



Figure 5. Details on the upper face, with traces of iron oxides, use-wear marks on the suspension hole and several incisions on the circumference.



Figure 6. Gravettian stone pendants with suspension hole, found in Romania.



Table 1. C14 dates from the Gravettian I level

Depth below datum (cm)	Cultural attribution	Sample material	Laboratory reference	Uncalibrated measurement	Age range (2 σ)
185	Gravettian I	Bone	RoAMS 67.33	18607 \pm 87	22859–22351
148	Gravettian I	Tooth	RoAMS 68.33	18819 \pm 96	22.450

183	Gravettian I	Charcoal	OxA-36785	19320 ±80	23.538-22.992
190	Gravettian I	Soil	ER 12.162	19.459 ± 96	23.240
185	Gravettian I	Tooth	OxA-X-2762-24	19.440±130	23.779-23.020
182	Gravettian I	Charcoal	OxA-36786	19.555 ± 80	23.856-23.265
185	Gravettian I	Charcoal	RoAMS 65.33	19.571 ± 67	23.850–23.320
184	Gravettian I	Charcoal	RoAMS 64.33	19.615±105	23.961–23.321
148	Gravettian I	Tooth	RoAMS 69.33	19.640 ± 87	23.948–23.390
190	Gravettian I	Charcoal	RoAMS 62.33	19.710 ± 64	23.981–23.506
180	Gravettian I	Reindeer tooth	OxA-X-2762-23	19.790±180	24.277-23.385
185	Gravettian I	Charcoal	RoAMS 66.33	19.836 ± 83	24.125-23.610
151	Gravettian I	Tooth	RoAMS 71.33	19.881 ± 91	24.195–23.645
192-193	Gravettian I	Charcoal	Beta 224156	20.020±110	-
210	Gravettian I	Charcoal	Beta 244.071	20.050±110	-
207	Gravettian I	Charcoal	ER 9.964	20.053 ± 88	23.978
210	Gravettian I	Charcoal	ER 9.965	20.076±185	24.000
210	Gravettian I	Soil	ER 12.163	20.154 ± 97	24.096



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