

Beyond Leroi-Gourhan's Style IV: portable art at La Peña de Estebanvela Rock-shelter (Segovia, Spain)

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Abstract

At La Peña de Estebanvela, 43 portable art objects have been found in late Upper Palaeolithic levels. Most of the ensemble displays linear patterns forming complex signs. Three equids have also been identified. The decorative motifs at this site are presented and assessed in the context of the art of the last hunter-gatherer groups, demonstrating the existence of art in the last moments of the Palaeolithic (12 000 and 9500-9000 BP), after the time when Palaeolithic art is traditionally thought to have disappeared, at the end of the Magdalenian. A review at a European scale shows the existence of a common symbolism in the last stages of hunter-gatherer societies, which reflects social links.

Keywords: portable art, linear decoration, final Paleolithic art, Final Magdalenian/Azilian, Spain

It has traditionally been thought that with the end of the Magdalenian, Palaeolithic art, particularly figurative representations, disappeared suddenly (Breuil 1952; Leroi-Gourhan 1965). However, in the last 25 years, new discoveries have led to hypotheses (Lorblanchet 1989; Lorblanchet & Welte 1990; Roussot 1990; Guy 1997; d'Errico 1996; Bueno et al 2007) advocating the existence of portable art in a Palaeolithic style in Europe between 12 000 and 9500/9000 BP (approximately 14 000-10500 calBP) and some researchers have followed A. Leroi-Gourhan's (1965) system by classifying this art as Style V. In the context of this hypothesis and the characterisation of a final Palaeolithic art, the excavations at La Peña de Estebanvela have recovered one of the most significant ensembles of portable art in a Palaeolithic tradition.

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1. Human occupations at La Peña de Estebanvela

La Peña de Estebanvela (Figure 1) is a rock-shelter at 1065m above sea level on the northern Spanish Plateau, in Segovia. It is located on a hillside above the River Aguißejo, in the southern Douro valley. The archaeological levels are dated between the Middle and Late Magdalenian. Excavations carried out between 1999 and 2009 have recovered large lithic (51 000 objects) and faunal (64 155 remains of large fauna) assemblages, objects of adornment, osseous artefacts and an ensemble of portable art, as well as hearths (Cacho 2013; Cacho et al. 2007, 2012).



Figure 1: Location of La Peña de Estebanvela and the Stratigraphic and Occupational Sequence

The calibration of radiocarbon determinations attests three occupation periods: 17 770-17 190 calBP (Levels V and VI), 15 150-13 890 calBP (Levels III and IV) and 13 720-12 610 calBP (Levels I and II). The comparison of accumulated probability curves with palaeo-climatic curves from cores in Greenland ($\delta^{18}\text{O}$ GISP2 Hulu Age Model) and the Alboran Sea (SST MD95-2043) locates the sequence in the time between the early GS 2a stadial to the early GS 1 stadial, including the GI 1e and GI 1c interstadials and the GI 1b cold oscillation (Jordá Pardo & Cacho 2013). In Levels I and II (Late Magdalenian) the most common elements in the lithic assemblage are tools made on bladelets and short endscrapers.

In addition, the upper level yielded a significant number of blades with scalariform retouching. In Level III (Upper Magdalenian) and even more so in Level IV (Upper Magdalenian), burins become increasingly numerous, but endscrapers and, above all, single and double backed bladelets with fine direct retouching are still more common. The two lower stratigraphic units (Levels V and VI, Middle Magdalenian) reflect a change in the typological composition, as burins outnumber the endscrapers group. Together with greater variety in the range of raw materials, this suggests a process of techno-typological transformation (Martos et al. 2013). The osseous assemblage is quite small, and includes borers and needles, while assegai points are scarce. The presence of adornments (Avezuela 2013), mostly made from marine gastropods gathered on Atlantic or Mediterranean shores, implies that the human groups travelled to the coast to gather the shells themselves, or that they obtained them by exchanging goods with other groups who had direct access to the resources.

The microfauna indicates the climate was temperate and humid, similar to the modern climate, with the characteristic taxa of an environment with water-courses and abundant plant cover, woodland, transition zones towards open areas with forest-edge vegetation, shrubs, and both dry and wet pastures. The herpetological sample reflects similar climate conditions (Sesé 2013; Sanchiz & Bailon 2013). Taxonomical and archaeozoological studies demonstrate that several ecological niches were exploited: open environments (*Equus ferus* and *Equus hydruntinus*), woodland (*Capreolus capreolus* and *Cervus elaphus*) and mountain areas (*Rupicapra pyrenaica*). Equids, cervids and caprids were transported whole to the site, whatever their size, suggesting that they were hunted in the immediate surroundings (within a radius of less than 10km). This diversified consumption of ungulates is additional to the selective capture of prey between 3 and 6 years old, complemented by infantile and juvenile individuals. The seasonality data (based on the ungulates in Levels I, II and III) indicate that prey were captured at two times within the annual cycle: spring-early summer and autumn, which coincided with the calving season (greater vulnerability) and the rut (greater aggregation of individuals). This pattern of use of the rock-shelter is repeated throughout the sequence (Yravedra & Andrés 2013; Arceredillo 2013). Charcoal shows that willow was the main firewood burnt in the hearths (Ruiz Alonso et al., 2013). Its predominance reflects an intense and repeated use of the riverbank vegetation. Although remains have not been recovered, the Magdalenian groups had access to edible fruits (cherries, sloes, hazel nuts and apples) and these may have formed part of their diet.

The use of nearby resources was complemented by fishing (*Salmo trutta*) (Perea & Doadrio 2013).

2. Portable art at La Peña de Estebanvela

A total of 43 objects with engravings have been found. They comprise: a) 7 objects outside an archaeological context, b) 15 objects from Level I, c) 17 objects from Level II, and d) 4 from Level III. The raw materials are four types of rock and an organic matter; 38 of the objects are made of slate, 2 of limestone, and 1 each of sandstone, sepiolite and bone. The slate is associated with outcrops barely 5km from the site, but in the current geomorphologic situation it can be procured within shorter distances (Ripoll & Muñoz 2003; Jordá 2007: 42-47). The limestone and sandstone are rocks associated with the conglomerates forming the rock-shelter. Sepiolite, a mineral located 20km from the site, departs from this pattern of local procurement.

The greatest diversity of raw materials is found in the Upper Magdalenian occupation, although in all levels slate is the most common choice of material. Thirteen of the objects are intact. Others were shaped and used in several ways. Two were used as a compressor-retoucher, and one of these was shaped like a burin. One is linked with a very intense abrasive use and another displays clear evidence of incision-abrasion. The sepiolite artefact was pierced like a pendant. 31 objects were decorated on one side, 11 on both sides, and 1 all over its surface. The shape of the outline of the objects is varied but can only be studied in the case of the intact pieces: 6 are ellipsoids or semi-ellipsoids, 3 are triangular, 2 rectangular, 1 rhomboidal and 1 is irregular. The stones are mostly in the form of thin plaquettes. Their surfaces are flat and polished, with rounded edges. The intact objects are of medium or small size (length and width between 0.9 and 11.7 cm, and between 0.3 and 1.3 cm thick). The representations are characterised by linear motifs (Figure 2), rather than animal figures, and the former is the only kind in the Upper Magdalenian level. The linear motifs display great compositional diversity (Figure 3) and variability. In the different levels: i) series of parallel lines are the most common, particularly opposing series of parallel lines, generally associated with the edges of the objects; ii) both simple and complex motifs are found throughout the sequence; iii) the thematic diversity is noticeably greater in Level I and II (Late Magdalenian); and iv) regarding the typological variability in the Late Magdalenian occupations, there is a deep-rooted common graphic base in which significantly less numerous specific types are introduced in each moment.



Figure 2: Objects with Linear Decoration at La Peña de Estebanvela

	1	2	3	4	5
A					
B					
C					
D					
E					
F					
G					

Figure 3: Typology of Simple Linear Motifs at La Peña de Estebanvela

Animal representations are scarce and monotonous (Figure 4): three equids on two objects. When the figures are compared with the faunal remains found at the site (Yravedra & Andrés 2013), horse (*Equus ferus*) is the most numerous species in the levels that yielded the objects. In other words, the animal figures represent the main choice of meat for the human groups.

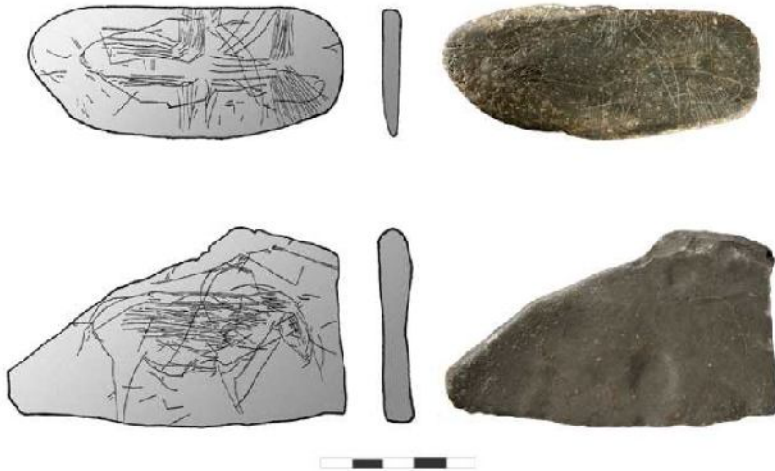


Figure 4: Equids at La Peña de Estebanvela

The two figures on one object display a format focused on the head and mane (which is shared by the two figures). The other horse is represented complete and the interior of the body and head are filled with more or less parallel lines to indicate anatomical shape and volume. The morpho-stylistic characterisation reflects: i) a tendency to focus the representation on the outline, ii) little attention to secondary anatomy; iii) only one fore and one hind limb; iv) interior fill focused on the body and head, consisting of straight lines that tend to be parallel to the outline; v) the outline and anatomical connections are modulating in general, although the horse's head is rigid, and vi) the general perspective is simple and in absolute profile. Finally, the slightly forward position of the forelimb and the lowered head, in coordinated animation, suggest the posture of an equid when it is walking. Regarding the formal conception, the scanty representativeness of the ensemble and little difference in time between the two Late Magdalenian layers, the figures tend to be slightly schematic. As regards the context of the linear motifs, the graphic fields on the objects are small or of medium-size and flat, which is ideal for an orderly juxtaposed artistic process.

In the intact objects, in most cases (8 out of 13) the decoration only partially covers the potential graphic field. In contrast, in the figurative art, there is a tendency to make full use of the surface. The composition of the two horses' heads facing in opposite directions on one object shows that the decoration corresponded to a structured plan, which is manifest in the compositional duplication representing the two figures with the same mane. All the motifs were engraved with a simple outline. A double line is only seen in part of the outline of one horse. The lines are generally fine and shallow, with V or U-shaped cross-sections. The technique of piercing by rotation and probably by percussion has only been documented on the unique sepiolite pendant.

To conclude, the differences and similarities document: i) a preference for pieces of slate, although some other raw materials were used, mostly procured in the surroundings of the site; ii) high frequency and variability in the linear motifs and scarcity of figurative representations, which are concentrated in the Late Magdalenian; iii) a common graphic base in the linear motifs, with presence and absence of simple and complex types throughout the sequence; iv) high frequency of series of parallel lines in the Late Magdalenian (either in isolation or, as a trait of this ensemble, in opposition); v) a tendency to a complete animal format in the more recent phase of the Late Magdalenian; vi) outlined figures in both phases of the Late Magdalenian and very little representation of secondary anatomy in the oldest phase; vii) representation of body mass in the recent phase of the Late Magdalenian with a rigid solution; viii) tendency towards the geometrisation of the animal figure in the last phase, in comparison with the earlier phase of the Late Magdalenian; ix) appearance of coordinated elements of animation in the last phase; x) representation in absolute profile; xi) motifs in a small and medium-sized format; xii) engravings with a simple outline; and xiii) high level of fragmentation, and to a lesser extent of functionalisation, of the objects in all the levels.

3. Discussion: Portable art in Europe at the end of Palaeolithic-Style Art

The portable art at La Peña de Estebanvela enables a characterisation of the graphic production of the last hunter-gatherer groups in Europe within a reflection on the end of the Palaeolithic style and its implications for socio-territorial relations.

The nearest site, in inland Iberia, with paintings dated precisely by AMS (between $11\,470 \pm 110$ BP and $10\,950 \pm 100$ BP, calibrated to 11 638-10 689 BP with a probability of 95%) is the Hall of the Paintings in Ojo Guareña (Corchón et al. 1996). The zoomorphs in this chamber display a similar stylistic conception (a highly schematic/geometric style with an interior fill of lines inside the figures —Figure 5—) to the construction of one of the equids in Level I at La Peña de Estebanvela. At both sites, non-figurative motifs are very common (triangular shapes at Ojo Guareña and linear designs at La Peña de Estebanvela).



Figure 5: Zoomorph with Interior Parallel Lines in the Hall of the Paintings in Ojo Guareña (Corchón et al. 1997)

Similarities are seen with other parts of the Iberian Peninsula. In the Upper Magdalenian at the Cave of El Parpalló, two different graphic conceptions have been documented (Villaverde 1994; García-Diez 2004; García-Diez & Vaquero 2006) which are similar to the figurative component at Estebanvela: one linked to the style of the animals at Ojo Guareña which co-exists with another tending towards a naturalistic style and an analytical figurative stage. The stylised/geometric character of the animal in Level I at La Peña de Estebanvela can also be recognised at Tossal de la Roca (Cacho & Ripoll 1987), Matutano III (Olària 2008), Sant Gregori de Falset (Vilaseca 1934), Molí del Salt Asup (García-Diez & Vaquero 2006) and Arenaza (Apellániz 1982). On the Atlantic side of the Peninsula, the objects from Fariseu de Foz Côa are also important (García-Diez & Aubry 2002; Aubry & Sampaio 2009). In Europe, La Peña de Estebanvela can be associated with French portable ensembles, such as collection from Abri Murat (Lorblanchet & Welté 1987).

At this site, a persistence of zoomorphic figures was documented in the Magdalenian-Azilian sequence, as well as an increase in linear and abstract motifs. Despite the graphic continuity represented by the persistence of figurative decoration, a formal reduction was recognised in the animal compositions, in terms of simplification through an anatomic and stylistic schematisation and geometrisation process, as seen at La Peña de Estebanvela. This tradition has been documented at other French sites: Pont d'Ambon (Célerier 1984) and La Borie del Rey (Coulonges 1963), whose graphic ensembles are dated to later phases of the Magdalenian (like La Vache, Pégourié and Pincevent — d'Errico 1994—), where animals in a naturalistic style are found together others that are more geometric and stylised. This tendency can also be seen in Italy (as at Grotta di Levanzo, Cavallo, Grotta d'Addaura II, Cavallo and Romanelli —Graziosi 1973; d'Errico 1996; Vigliardi 1996; d'Errico & Possenti 1999—) in ensembles dated between 11 500 and 10 500 BP (approximately 13 500-12 000 calBP).

The linear motifs, which are more common than the figurative representations at La Peña de Estebanvela, also resemble some graphic production in Europe, and equally in Late Magdalenian and Azilian levels in northern Spain, when linear designs were favoured over figurative decoration (Corchón 2004). The motif of a notched line, or marks in the form of small appendices, has been documented, with rare examples, in France (Chollot 1980) and northern and central-eastern Europe (Ptonka 2003), and more significantly because of their relative frequency in Italy (Graziosi 1973; Vigliardi 1996).

The objects with decorations based on two series of parallel lines perpendicular to the edges and opposite each other, which are the most common portable art objects at La Peña de Estebanvela, are very similar to pieces in France at Late Magdalenian and Azilian sites: Rochedane (—Figure 6— Thévenin 1983; d'Errico 1994), Villepin (Peyrony 1936), Pagés (Couraud y Lorblanchet 1986), Rhodes II (Simmonet 1967), Espèlugues (Thévenin 1983), Roc (Lenoir y Roussot 1975) and Dufaure (Straus et al. 1995). Within this wide range of representations, the ensemble from La Peña de Estebanvela most closely resembles the Type A or Rochedane Type, as classified by A. Thévenin (1983). This is to say, an object decorated with two series of parallel lines facing each other and located on the sides of the object, where the decoration is found in the middle and at one end of the stone surface.

In some examples from the site of Rochedane, similarities are even found in the rhomboidal/oblong shape of the objects, as at La Peña de Estebanvela. It may therefore be possible to imagine a compositional identity, implying the existence of close cultural relations between human groups in inland Iberia and in north-east France, regions separated by about 1400km. In this way, it may be claimed that La Peña de Estebanvela, according to the linear decorations in the portable art, is integrated within a pan-European tendency documented in several regions.

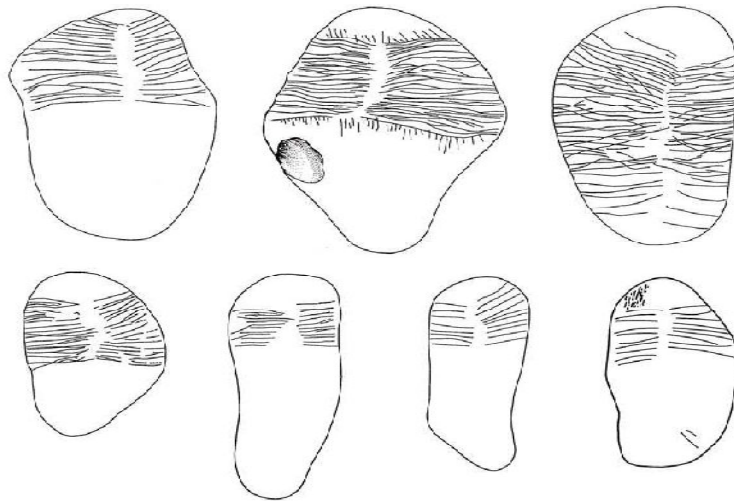


Figure 6: Cobble-Stones from Rochedane Decorated with Series of Parallel Lines Facing each other and Located on the Edges (from d'Errico 1994)

4. Conclusion

Archaeological research at the site of La Peña de Estebanvela documented an intense occupation by the last hunter-gatherer groups in the Palaeolithic tradition. In the three more recent levels (Late and Upper Magdalenian), 43 portable objects were found with linear and zoomorphic decoration. The portable art at La Peña de Estebanvela is an important ensemble for understanding the symbolic graphic expression of these hunter-gatherer groups. Its characteristics (the typological variety of the linear motifs, predominance of this compared with figurative representations, the geometric/stylised nature of the construction of the animal figures, and in some cases the co-existence with realistic or naturalistic graphic expression) can be linked with a graphic tradition rooted in the Palaeolithic which developed between 12 000 and 9500/9000 BP (approximately 14 000-10 500 calBP).

From the Atlantic façade to Italy, the same graphic tradition is seen in the figurative conception, characterised by the formal simplification and concentration of the figures (in a stylisation or geometrisation process), anatomical disproportions (small or unrepresented heads compared with large bodies, long bodies and/or necks, and/or short limbs) and few details (if at all, mainly lines inside the bodies over the whole of the interior or in certain parts, and either parallel or angular). This tradition represents continuity with previous styles, when naturalism was constant, although elements of disproportion and anatomical rigidity were introduced in later phases of the Magdalenian. The large number of examples with linear decoration compared with figurative representations is, in general, a tendency of the Late Magdalenian and Azilian which steadily increases and diversifies, at the same time as the animal figurative component disappears. This graphic tradition is found across all Europe. The links in graphic representation demonstrate a pan-European tradition in which the figurative component is more important in the west while linear motifs persist with greater intensity in the centre and east of Europe. The existence of close similarities (practically representative of formal identities) between the decorated objects at La Peña de Estebanvela and those in France and even Italy is indicative of close social ties and/or the mobility of human groups. This graphic activity in the last stages of the hunter-gatherer way of life suggests that some chronological attributions traditionally given to certain rock art ensembles will need to be reappraised. It will also allow a more precise determination of the end of the Palaeolithic graphic cycle and the recognition of regional variations in this activity which developed after A. Leroi-Gourhan's style IV.

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