Back to the past: Symbolism and archaeology in Altxerri B (Gipuzkoa, Northern Spain)

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ABSTRACT

In a previous publication on Altxerri B Cave, we explained a chronological hypothesis which proposed that the graphic activity in the site dates to an early Aurignacian phase. This paper presents a complete study of the parietal ensemble, including descriptions of the graphic motifs and other anthropic evidence that has been documented. The number of figures identified in the only panel documented in previous studies has been increased considerably, while several previously unpublished panels in other parts of the cave are described. The iconographic and stylistic characteristics of the rock art, far from contradicting our first conclusions about the chronology, support these and link the art in Altxerri B with other European Early Upper Palaeolithic graphic ensembles.

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1. Introduction

One characteristic of Anatomically Modern Humans (AMH) traditionally used to distinguish them from their predecessors is complex symbolic culture, including portable and parietal art forms. Personal ornamentation is documented in many of the Earliest Upper Palaeolithic sites (White, 1989, 2007; Kuhn et al., 2001; Vanhaeren and d’Errico, 2006) and the first definitely intentional Palaeolithic graphic productions are also associated with AMH. In recent years, archaeological understanding of the beginnings of this phenomenon in Europe has advanced considerably. Since the ‘shock’ produced by the first dates for Grotte Chauvet (Clottes et al., 1995), new discoveries and analytical methods have expanded the repertoire of parietal art in the Early Upper Palaeolithic to include sites such as Aldène (Ambert et al., 2005), Fumane (Broglio et al., 2006), Arcy-sur-Cure (Baffier and Girard, 1998), Coliboaia (Clottes, 2012), Castanet (White et al., 2012), Baume-Latrone (Azéma et al., 2012), Titou Bustillo, Altamira and Castillo (Pike et al., 2012) and Altxerri B (González-Sainz et al., 2013). The widespread distribution of this “first” rock art has passed European borders to include sites in Indonesia (Aubert et al., 2014) and Australia (David et al., 2013). These sites comprise the patchy Aurignacian artistic record. Before 1995, Aurignacian art was scarce in south-western Europe, apart from a few geometrical decorations on stone and bone artefacts and some simple engravings in French and Spanish rock shelters (Delluc and Delluc, 1991; Fornea, 1994). However, this relative poverty contrasted with the abundant remains recovered from some sites in Central Europe, such as the famous statuettes from the Swabian Jura (cf. Conard, 2003; Floss, 2007).

In Cantabrian Spain, one of the “classic” areas in the distribution of European Palaeolithic art, new studies of some major ensembles have assigned part of their decoration to very early phases of the Upper Palaeolithic (Pike et al., 2012; González-Sainz et al., 2013). One such ensemble is Altxerri Cave, located in the east of the northern Spanish coast, near San Sebastián (Fig. 1). The cave, which had been sealed off for millennia, was discovered in 1956 when a temporary quarry was opened during road-building. This broke through to the intermediate level of the cave system. In 1962, speleologists discovered paintings in this passage (Altxerri A), which J. M. Barandiarán studied and published two years later (Barandiarán, 1964). A second compete study of the parietal ensemble in this level was carried out later (Altuna and Apellaniz, 1976). Apart from some small contributions to knowledge of the ensemble (cf. González Sierra, 1993; Altuna, 1996), the last monographic study was published more recently (Ruiz-Redondo, 2014). This analyses Altxerri A in depth, an independent ensemble where 150 graphic units were defined. A high variety of animal figures was identified among them, including bison, reindeers, horses, ibices,
fishes, chamois, an auroch, a red deer, a bear and some rare representations, such as a bird, a fox, a snake and a hare. The study also describes Altxerri B and some of the more recent discoveries in this level, but in much less detail.

The existence of an upper decorated level (Altxerri B) had been known from the time of the first research in the cave. The difficulty of access through the intermediate passage made it impossible for J. M. Barandiarán to study it directly, but he mentions the existence of paintings (Barandiarán, 1964). The discoverer later published a more complete account of the main panel (Fernández-García, 1966). However, this decorated passage was ignored in the 1976 monograph, which makes no mention of it. The next information about this level was the publication of two radiometric determinations obtained for two bones from its archaeological deposit (Altuna, 1996). A new study of the ensemble was initiated in 2011 and the first conclusions of this research were published recently: a chronological approach to the graphic activity (González-Sainz et al., 2013). The present paper reaches beyond that chronological study to include the graphic, symbolic and archaeological characteristics of the ensemble.

2. Materials and methods

2.1. Characteristics of the cave

The Altxerri Cave System consists of three parallel levels connected by a series of avens and shafts. A total of 2.5 km of passages have been explored, extending over 785 m in plan view, with a total depth of 58 m. Both the upper (Altxerri B) and intermediate levels possess parietal graphic representations although they are separate graphic ensembles, produced at very different times in the Upper Palaeolithic.

The modern entrance to Altxerri Cave leads into the intermediate passage through a small opening 80 × 100 cm in size, breached in 1956 by the quarry which uncovered the cave. The original entrance to this level was some 5 m further north-east (and faced in that direction), and was located by Barandiarán (1964). From this entrance, after descending the talus cone deposited inside it, the cave continues for 45 m towards the WNW in a large passage, as a kind of vestibule, with a high roof and very uneven floor because of blocks fallen from the roof. At the end of this part, the roof lowers in a series of strongly folded strata, which forms the modern access to Altxerri B Cave.

It is unlikely that this access, up a 14 m-high aven, was used by the Palaeolithic explorers. Another entrance must have existed, which collapsed during the Palaeolithic, and which is marked by a large talus cone covered by a thick layer of fl owstone. This entrance, which faced east, leads into a small entrance hall up to 10 m wide (Sector III). A short low passage reaches the Main Hall (Sector I), a rectangular chamber with the roof 5 m high and the floor rising towards the south-west. This is the location of the Great Panel, as well as two small groups of red dots. Following the Great Panel towards the north-east, a short passage ends abruptly at a shaft, which is the modern access from the intermediate passage. In the opposite direction, ascending towards the south-west, the wall following the panel has collapsed creating a pile of boulders, and Sector I then ends in another shaft, about 4 m deep. At its base, the passage first runs south-west and then turns to the south-east. This is the location of the unpublished parietal motifs in the ensemble (Sector II).

2.2. Methodology

The study of the parietal art in Altxerri B involved several procedures. To identify and follow the graphic units, we have used four types of illumination with different luminosity and colour temperature. For the photography we used a Nikon® D90 camera with macro lens to photograph details. We also used a 30×–200× handheld microscope to identify superimpositions. The photographs were processed with the Dstretch® plug-in for the ImageJ®

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program, and the digital tracings were made with Adobe Photoshop® CS6. The graphic restitution of the paintings was performed with a methodology based on computer graphics (Fritz and Tosello, 2007). For the plan of the cave, we have used a 3D model made with the I-Site system. A Leica® TCRM 1205 total station was used in areas that were inaccessible for the 3D scanner, and to situate the decorated panels. Finally, four samples taken from the archaeological context for 14C-AMS dating were analysed by Beta Analytic Inc. Both the new date obtained and the previous ones (Altuna, 1996) were calibrated with the OxCal 4.2 program (Bronk Ramsey, 2001), using the IntCal09 curve (Reimer et al., 2009).

3. Results: the graphic ensemble

In order to determine the dynamic of human occupation in the cave, it is essential to identify the possible entrances and calculate how long they were practicable. As noted in the cave description, geological and speleological exploration has determined the existence of two possible entrances during the Palaeolithic (Fig. 2). One of these is near the modern entrance, in the intermediate level of the system (Altxerri A) and the other, now blocked, was about 5 m wide and faced east. It is now only visible by the remains of its collapse; a talus cone descending towards the interior of the cave, covered by a thick layer of flowstone and tall speleothems (Fig. 3.1).

This collapsed entrance was probably the access used during the Upper Palaeolithic and the following arguments indicate it was quite likely the only one used:

Access from Altxerri A. The modern route from the intermediate passage includes a series of obstacles that need to be taken into account: an area of flowstone ends in a smooth vertical aven that is completely unscalable without the use of climbing techniques. In addition, it is not known how long the entrance to the intermediate level was open. It may have been open during the whole of the Upper Palaeolithic, but neither the reappraisal of the graphic representations (Ruiz-Redondo, 2014) nor the excavation of the archaeological deposit (Barandiaran, 1964) found any evidence of an occupation prior to the Magdalenian.

Bear scratches. This sign of the entry of animals has been identified in Sector I in Altxerri B (Fig. 3.2). This is interpreted as evidence of access to the passage different from the modern route, as it seems unlikely that a bear would have climbed a 14 m vertical aven.

Remains of large mammals. Some osseous remains of large mammals (e.g. Bos) have been found on the floor of the upper cave, especially in the Main Hall (Fig. 3.3). Some display clear signs of human action (they are burnt, deposited on stones, driven into fissures …). It seems unlikely that these animals or parts of them could have been carried during a hypothetical climb from Altxerri A.

There is therefore no evidence that the modern route of access to Altxerri B was used in the Upper Palaeolithic. All the above reasons suggest that the only access to the upper passage used by the Palaeolithic visitors was the entrance that is now blocked by a talus cone. Consequently, it seems that in the Palaeolithic the two levels were independent caves, occupied alternately by human groups in different times during this period.

**Fig. 2.** Plan of Altxerri B cave, marking the sectors and the position of the graphic units and other elements referenced in the text.
3.1. Sector I

I/1. A line of diluted red dots, slightly convex, with some further extensions of more faded colour nearby. It is on the roof of the passage leading to the Main Hall from Sector III, opposite the Great Panel and visible from it. The distribution of the remains and the existence of another two red stains to the right of the main line suggest a non-figurative motif, somewhat more complex than a mere line of dots. It is 22 cm long and 8.5 cm high, and is located 177 cm above the floor. It was painted from a standing position (Fig. 4.1).

I/2. This is a red dot, 2.7 cm in diameter. It was painted in a small narrow space, difficult to reach, above the passage between the Main Hall and the shaft to the intermediate level. The motif is at a height of 110 cm above the floor of this high-level space, and must have been painted kneeling or seated. This alcove, located above the Main Hall (whose floor is some 4 m below), enjoys a good view of the chamber, and in turn the motif is visible from the chamber (Figs. 4.2 and 4.3).

3.1.1. Great Panel (I/3 to I/7)

Most of the parietal representations in Altxerri B, and all the figurative depictions, are located in this impressive panel, with a markedly scenographic character. It is on a vertical wall at the northern end of the most suitable chamber in the upper cave, at the foot of a boulder and clay slope descending from the original entrance.

This wall of limestone is crossed by cracks that have played a certain role in the positions of the highest non-figurative motifs. The painted surface covers an area of $435 \times 310$ cm. The poor state of conservation of the pigment and the palimpsest of motifs hinder a precise interpretation of the representations in the panel. Nonetheless, a minimum of 15 graphic units can be distinguished, above all the large figure of a bison facing left, 399 cm long from its nose to its tail, articulating the whole original composition (Fig. 5).

The motifs and representations that have been individualised, beginning in the highest part of the panel, are:

I/3. Two short vertical lines in red, probably painted with a finger. The highest is 4.5 cm long and the lowest is 3.5 cm long. The highest motifs in the panel, they are 304 cm above the floor and would therefore have required some means of gaining that height.

I/4. Diluted red stain, barely a centimetre in diameter, located below the two previous lines, 277 cm above the floor.

I/5. Short red line slightly inclined towards the left. It therefore resembles the two highest marks (I/3) although it is a little shorter (3 cm), 280 cm above the floor.

Fig. 3. Photographs of the collapse at the original direct entrance to Altxerri B (1), a bear scratch on a limestone boulder (2) and the vertebra of a large bovid in a fissure (3).
1/6. A series of faded and imprecise red marks in an area 8 cm wide and 10 cm high, 243 cm above the floor.

1/7. The figure of a large red bison in a horizontal position and facing left. Probably originally complete, it is the clearest representation. This is because of its unusual size (399 cm from nose to tail, 206 cm from the horn to the end of the foreleg and 210 cm high at the withers) and because its upper part has not been affected by the other figures that are overlapping inside its body. The head and eye, and a horn painted with double lines that converge to a point are seen quite clearly, and above all the cervical—dorsal line with the characteristic curves of this species. This line appears to end in a tail painted with double lines. In the lower part of the figure, the remains of a limb ending in a cleft hoof can be appreciated. No remains clearly associable with the belly or hind-limbs of the animal can be determined.

The whole figure was painted with a diluted red line, varying in width, with the dorsal convexity particularly clearly marked. It was painted at a more comfortable working height on this vertical wall, standing or crouched to paint the fore limb and moving from side to side over a distance of nearly four metres.

1/8. Quadruped facing right located inside the bison’s body, in its fore-quarters. The figure, painted with a violet line that is noticeably thinner than that of the bison, consists of a full cervical—dorsal line, with a short wide ear at the start of the head. The cervical—dorsal line ends in a raised tail painted with double lines. The line of its hind-quarters and remains of the belly area can also be seen. Dots inside its body have been interpreted as a fill.

The anatomical traits, such as the tail, the form of the cervical—dorsal line and the ear suggest the figure of a feline or less probably of a hyena. The animal is horizontal and was represented from a standing position (its height above the floor varies from 194 to 122 cm). It is a large figure; 153 cm long from the hind-quarters to its ear and 117 cm tall (Fig. 6).

1/9. A group of lines belonging to one or more representations that cannot be defined in their present state. They are located below and to the left of the head of the bison 1/7. The lines furthest to the left are relatively thin and reddish-violet in colour. They probably correspond to a figurative representation, which cannot be identified now.

1/10. Lines associated with the remains of the fore-quarters of bison 1/7. These marks of violet pigment are dispersed over a horizontal length of 70 cm, whose centre in 76 cm above the floor. They might correspond to a horse’s head facing right adapted to the cracks of the wall, but the continuity of the frontal line (and therefore the identification) is not clear.

1/11. Below the withers of the feline 1/8, 160 cm above the floor, some straight violet lines meet in an angle. They belong to a different representation from those described above.

1/12. Very diffuse remains of red lines inside the hind-quarters of the large bison 1/7, which apparently do not belong to it, but to a smaller quadruped. In their present state, the clearest is a possible cervical—dorsal line, with the characteristic curves of a bison, which is horizontal and faces left.

1/13. Remains of simple, finer violet lines located in the same area as the possible quadruped 1/12.

1/14. This is a complete violet quadruped, probably a bear, in a horizontal position and facing left. The croup, ventral line with both a fore-leg and a hind-leg drawn with double lines, and remains of the head can be recognised. It is the smallest of the four identifiable quadrupeds in the panel. It is 64 cm long, 41 cm high in the hind-quarters and about 34 cm high in its fore-quarters. The croup is 195 cm above the floor (Fig. 6).

1/15. A series of three red dots, all probably painted at the same time with fingertips held together. They are inside the body of the bison 1/7. The diameter of the dots varies from 1.3 to 1.5 cm and the total length of the series is 6 cm.

1/16. A series of three dots painted together with fingertips, very similar to the group 1/15. They are located below the dorsal convexity of bison 1/7. The length of the series is 6 cm, the average diameter of the dots is 1.4 cm and the height above the floor is 235 cm.
I/8. Sub-circular diffuse red stain, partially covered by a film of calcite on the left; 16 × 14 cm, 70 cm above the floor.

At the end of the passage, a series of parietal evidence is seen in an irregular space formed by a talus cone with numerous speleothems.

I/9. Diffuse remains of a red stain at the top of a stalactite. It measures 4 × 4.5 cm, and is 95 cm above a flowstone slope covering the floor.
I/10. Lower end of a small stalactite coloured red; 3.5 × 1 cm, 92 cm above the flowstone.
I/11. A disc-shaped rock protuberance is coloured irregularly in red along its outer edge; 23 × 1.5 cm, 120 cm above the flowstone.
I/12. Faded red stain on a piece of calcite formed on a sloping wall; 2 × 4 cm, 60 cm from the floor.
I/13. Lower end of a small stalactite coloured red. 4 × 1 cm, 115 cm above the flowstone.
I/14. Diffuse remains of red pigment on the edge of a small calcite curtain, with another line to its left; 20 × 6 cm, 88 cm from the floor.

4. Discussion: assessment of the parietal ensemble

The ensemble in Altxerri B is located in three sectors. Sector III, which is the area of the blocked original entrance, where a bison vertebra was found, driven into a fissure in the wall and with remains of red colouring on its outer surface; Sector I with the Great Panel including 15 graphic units and a further two isolated motifs; and Sector II with another 14 representations. All the motifs were painted, usually in red and occasionally in violet, and all the figurative representations are in the same panel in Sector I.

<table>
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<th>Sector I Graphic unit</th>
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<th>Pigment</th>
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<tbody>
<tr>
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<td>Series of dots</td>
<td>Red</td>
</tr>
<tr>
<td>I/2</td>
<td>Dot</td>
<td>Red</td>
</tr>
<tr>
<td>I/3</td>
<td>Two lines</td>
<td>Red</td>
</tr>
<tr>
<td>I/4</td>
<td>Colour stain</td>
<td>Red</td>
</tr>
<tr>
<td>I/5</td>
<td>Line</td>
<td>Red</td>
</tr>
<tr>
<td>I/6</td>
<td>Series of stains</td>
<td>Red</td>
</tr>
<tr>
<td>I/7</td>
<td>Bison</td>
<td>Red</td>
</tr>
<tr>
<td>I/8</td>
<td>Feline</td>
<td>Violet</td>
</tr>
<tr>
<td>I/9</td>
<td>Zoomorphic figure Remains?</td>
<td>Violet</td>
</tr>
<tr>
<td>I/10</td>
<td>Horse’s head?</td>
<td>Violet</td>
</tr>
<tr>
<td>I/11</td>
<td>Sign</td>
<td>Violet</td>
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<tr>
<td>I/12</td>
<td>Zoomorphic figure remains?</td>
<td>Red</td>
</tr>
<tr>
<td>I/13</td>
<td>Several lines</td>
<td>Violet</td>
</tr>
<tr>
<td>I/14</td>
<td>Bear</td>
<td>Violet</td>
</tr>
<tr>
<td>I/15</td>
<td>Three finger marks</td>
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</tr>
<tr>
<td>I/16</td>
<td>Three finger marks</td>
<td>Red</td>
</tr>
<tr>
<td>I/17</td>
<td>Four series of paired marks</td>
<td>Violet</td>
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</tbody>
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<table>
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<td>Colour stain</td>
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</tbody>
</table>

II/6. Diluted red paint over a small calcite ridge; 13 × 15 cm, 85 cm above the floor.

II/7. Two parallel horizontal lines; 2.5 × 0.5 cm, and 110 cm above the floor.

In the final part of this sector the passage widens to the left, although the roof is very low and progress is uncomfortable. A single parietal representation is found on the left-hand wall, after a 90° corner.

The formal and technical characteristics of the figurative representations (bison, feline and bear) allow the Altxerri B ensemble to be linked with other Palaeolithic parietal art. Despite the lack of precision in interpreting the figures in the Great Panel hindering comparisons until quite recently (González-Sainz et al., 2013), it can now be affirmed that the size of the figures (4 m in the case of the bison) and the themes (feline and bear) are quite unusual in
northern Spain. Comparisons must be made on a larger geographical scale. The spotted feline painted in red (I/8) resembles the figure in the panneau de la Panthère at Chauvet (Clottes, 2001; Clottes and Azéma, 2005). Variations on the spotted fill are seen in two ivory figurines from Level IV at Vogelherd (Swabian Jura, Germany; Conard, 2003). The simply-outlined bear with its limbs ending in straight lines (I/14) is similar to a figure in Micolón Cave (Cantabria, Spain; Garate and González-Sainz, 2009) and, above all, to the bears in Grande Grotte de Arcy-sur-Cure (Bourgogne, France; Baffier and Girard, 1998). Another interesting aspect is the presence of some particular signs: groups of three finger marks (I/15; I/16).

The same motif can be seen in a panel in the Galerie du Cactus at Chauvet, together with bears, felines and series of dots also painted in red (Clottes, 2001). All these ensembles have been dated in very early phases of the Upper Palaeolithic by different methods. In Chauvet, black paintings made with organic matter were dated directly. The portable art in Vogelherd was found in a stratified deposit whose levels were dated. In the case of Arcy-sur-Cure, the immediate archaeological context was dated.

The modest archaeological deposit located at the foot of the Great Panel in Altxerri B, made up of bone remains, some of them burnt, charcoal and ochre fragments, points in the same direction. It
is a deposit that can reasonably be associated with the graphic activity, as has been recently argued (Garate et al., 2015). Three $^{14}$C AMS determinations have been obtained for organic samples: two chamois bones ‘deposited’ at the foot of the Main Panel, analysed in the Uppsala laboratory (Altuna, 1996) and a burnt bone fragment retrieved a few centimetres away and analysed by Beta Analytics Inc (González-Sainz et al., 2013). Of these three dates, two are very coherent (particularly considering that they are respectively unburnt and burnt matter and were analysed twenty years apart by different laboratories) at about 38,000–40,000 cal. BP. The third result is a little more recent but also Aurignacian, about 33,000–35,000 cal. BP. The link between the archaeological and parietal records is also supported by geological data. The collapse at the original entrance is old and the stalagmites on top of it may well represent the latest speleogenesis phase in northern Spain, which started in the late Pleistocene (McDermott et al., 2011; Rudzka et al., 2011). This would indicate that the old entrance to Altxerri B collapsed before the end of the Upper Palaeolithic, in the time between the Aurignacian and the Magdalenian.

In short, the existence of similar figurative art not in northern Spain, but at other sites dated in the Early Upper Palaeolithic in France, the dates obtained for the deposit in the Main Hall, and the geological evolution of the cave are indirect arguments, but they converge in the same direction and support the proposal that Altxerri B Cave was in all likelihood decorated in the Aurignacian.

5. Conclusion

In the last twenty years, the record of Aurignacian parietal art has increased remarkably in Europe. This new situation has been stimulated, in the first place, by a change in paradigm. Until the confirmation and acceptance (by the vast majority of researchers) of the chronology of Grotte Chauvet, there was a tendency to dismiss data that suggested an Aurignacian age, except in cases when it was very clear (e.g. elements found in a stratified deposit, like the statuettes in the Swabian Jura, the engraved blocks in Dordogne and the engravings at La Viña). In second place, the systematic application of archaeological methodology and its
combination with new dating techniques has enabled a reappraisal of known sites. It should be noted that only six direct Aurignacian dates have been obtained for parietal art and they are all from the series of black paintings in Grotte Chauvet (Clottes, 2001). Some other possible dates have recently been dismissed because of contamination problems, as at La Peña de Candamo (Corchón et al., 2014).

Therefore, the ensembles recently attributed to this period have been dated by indirect methods. Projects dating calcite layers by U/Th have succeeded in increasing the list of Early Upper Palaeolithic ensembles both in Europe (Pike et al., 2012) and in Asia (Aubert et al., 2014). However, some of these results need to be checked by other methods to verify their validity (Pons-Branchu et al., 2014). Equally, most Aurignacian parietal ensembles have been dated by the archaeological deposit in their proximity, as at Aldène (Ambert et al., 2005), Arcy-sur-Cure (Baffier and Girard, 1998), Coliboaia (Clottes et al., 2012) and Baume Latrone (Azéma et al., 2012). In some cases their association is evident, as fragments or parts of decorated walls were covered by Aurignacian archaeological levels, as occurred at La Viña (Fortea, 1994), Fumane (Broglio et al., 2006) and Castanet (White et al., 2012).

In this respect, the method used to estimate the age of the Altxerri B ensemble is the habitual procedure for ensembles of this period and even for Palaeolithic parietal art in general. Three types of arguments have been put forward, coherent with each other and they indicate a time in the Aurignacian, with no archaeological data of any kind suggesting a later chronology: 1) $^{14}$C dates for the archaeological deposit in the site; 2) the geological context and 3) stylistic comparisons. Regarding the latter, it is striking that most of the figures find their parallels in ensembles that are geographically distant. The themes, with a major protagonism of ‘dangerous animals’ (Clottes, 1996) is typical of the period; it is common at sites such as Chauvet and in the portable art of the Swabian Jura. In these places, we can find some of the same graphic conventions, like the ‘spotted felines’ or the series of three fingerprints in red (Chauvet). The inclusion of Altxerri B in this

**Fig. 8.** Photographs of the graphic units in the final part of sector II.
group of sites is of great interest for two reasons. First, because it indicates an extension of the same graphic forms from northern Spain to the south of Germany. Although the number of sites is very small in the Aurignacian, symbolic cultures covering similar geographical areas are documented in the Gravettian (cf. Otte, 2013) and the recent Magdalenian (cf. Sieveking, 1978, 2003; Sauvet et al., 2008). Second, this homogeneity in the graphic forms should be included in the debate about the unity of Aurignacian culture. In this way, the circulation of ideas shown through art would be added to the evidence for the long-distance circulation of raw materials, such as flint (cf. Le Brun-Ricalens and Seronie-Vivien, 2004), steatite (White, 1996) and shells (Taborin, 1993; Vanhaeren and d’Errico, 2006). These data fit perfectly within a polygenic model for the “cultural entity” called Aurignacian; the appearance of a mosaic of different forms of behaviour (Straus, 1996) and the spread of some of them through growing mobility (Marks, 1988) to finally shape a techno-cultural entity with certain common patterns over a wide area.

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