

Summary of recent discoveries of parietal and mobile art at Isturitz cave (Pyrénées-Atlantiques): 1996/2009

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Since 1996, a number of original and varied works have been discovered in relation to parietal and mobile art at Isturitz Cave. The discovery of certain forms of parietal expression (incorporated bones, paintings) creates new research opportunities as the fundamental relationship is explored between parietal art (cave paintings) and habitat areas rich in mobile art. Two new sculptures from the middle Magdalenian period supplement and enhance existing known series of perforated batons and sandstone statuettes, whilst the discovery of an engraved pebble and an engraved bone shaft from the Aurignacian period has led to questioning of assumptions concerning the beginnings of this art.

The Gaztelu hill, located in the heart of the Basque Country (Pyrénées Atlantiques), twelve kilometers from Hasparren, is one of the most eminent heritage sites because of its archeological originality contained in three distinct superposed networks: Isturitz cave, Oxocelhaya cave and Erberua cave.

The archeological originality lies in the coexistence within a limited area of human traces reflecting both an intense daily life (place of hunting and place of social life: abundant stone- and bone-working, serial production of artistic works, utilitarian or otherwise), along with many works on walls with varied animals and artistic diversity on the technical, plastic and semantic levels.

From 1912 to 1998, the excavations of E. Passemar, R. and S. de Saint-Périer, along with the research carried out under the direction of G. Laplace, led to the discovery of portable art that is undeniably original, rich and well-known, while the parietal art, although known, has remained misunderstood. This poor understanding can be correlated with the lack of publications regarding the parietal works of the hill, despite the studies carried out as of the discovery of the first human manifestations on the walls.

The purpose of this article is thus to report on the new perception of this site of art and daily life by presenting the new discoveries and by reviewing the history of artistic research at the site. The human manifestations on the walls of the Isturitz cave will also be discussed with, in particular, a nuanced interpretation of the central pillar of Isturitz, the incorporated bones and red patches and the new portable art data from the current excavations. Lastly, a summary of the latest plastic analyses from the Oxocelhaya cave will be presented.

The Isturitz cave: scattered discoveries ...

The decorated pillar of the great Hall of Isturitz

The parietal "adventure" began in 1913, when E. Passemard began his archeological excavations. Following the collapse of the archeological layers that constituted the reference, he perceived the first elements of "decoration", the term he used to define his discovery. It was only in 1922 that he completed the clearing of the decorated pillar that was covered with sediments.

E. Passemard identified about fifteen sculpted animals made with varied techniques such as bas-relief, champlevé, and deep etching.

He identified on the wall a reindeer, a stag, a doe, and a mammoth head seen face on, a bear, a horse... At the beginning of the reinterpretation of the pillar in 1950, G. Laplace and I. Barandiaran accepted only seven figurations: a reindeer superimposed on two vague headless deer, the protome of a horse, an ibex, a quadrangular sign and a bear.

The bear is debatable; the hindquarters of the aforesaid bear are disturbed by the presence of a raised tail which is deeply marked in bas relief in the rock. The linearity of the dorsal line up to the tail is so deeply marked that the link is undeniable even though the representation is substantially damaged by the erosion of the calcite and by the picks of past archeologists. A fine study of the working techniques could be done to differentiate the initial lines and the contemporary invasive lines. We would then be able to explain whether the animal had undergone a change of species (from a wolverine to a bear, or vice versa), or whether the bear only ever existed to our eyes. But the problem of this determination is not only linked to this point, it is thought to have a link with the semantics of the composition of the pillar.

It is not unusual, because of their general appearance, that there could be confusion between a bear and a wolverine, as the main element that differentiates them in their respective images is the presence of the raised tail. If we accept the representation of the wolverine, we must then accept the general semantic composition of the pillar: on the left wall the group of deer, on the right part the "wolverine" shown in a process of anamorphosis in a concavity. Located on an imaginary promontory marked by a natural convex relief, the positioning of the animal, with head lowered and paw forward, gives it a dominant attitude facing the deer. The artists were able to depict the moment of truth, in which all futures are possible. The creators address not so much the movement of the animal but rather the movement of the scene which is in reality an illusory movement because it is set in the future, linked to the story of the animal hunting scene.

If we accept this corporeal and plastic interpretation, the scenic composition depicts the wolverines' hunting technique. They perch on a promontory, either a rock or the branches of a tree. The wolverine lies in wait for the arrival of a herd of deer. When the animal approaches, the wolverine jumps on its back and bites it on the neck until it dies. The decorated pillar of the Great Hall precisely reflects this act of hunting, in which the violent part of the scene does not appear. Only the instant in which everything is possible is shown on the pillar: all ends can be imagined, all stories can be told...

Such a composition concept reveals the importance of the orality behind such works. This probable orality can be correlated with the stratigraphic context.

In light of the historical opening of the cave located exactly in the axis of the decorated pillar, E. Passemard considered the making of this work with the light of day. He discovered, at the foot of the pillar, although at a reasonable distance, of one of the largest hearths of the cave, chiefly using bones as fuel, allowing for the creation of particularly long and constant flames, thereby favoring the diffusion of light onto all of the surrounding surfaces. Around this hearth, five stone seats were cleared, at the foot of which many carved works and varied tools were found. The decorated pillar, located at the North entrance of the cave, visible to all, positioned within the area of activity and illuminated by the light of day and especially the hearth, had been a place for gatherings and exchanges. It seems beyond doubt that, because of its location and its composition, these parietal works were bearers of orality, of the history of the group, including stories of hunting, legends, mythology but also of learning, i.e. learning to be patient while lying in wait to move into the future. These conceptions remind us of the essence of the principles of orality of each human group, and above all the relationships and transmissions at work through the discourse about the images.

But it must also be demonstrated that these works are contemporary with each other in order to support these principles of orality. The dating of the works of the pillar ranges from the middle Magdalenian to the Solutrean. Culturally well-defined stratigraphic layers (middle Magdalenian) are thought to have covered the decorated pillar and an application of the chronology of style of André Leroi-Gourhan by G. Laplace allowed for the recognition of styles III and IV. For the moment, the contemporaneity of the works is not attested. A new comprehensive interpretation of the pillar would allow for nuancing of the different styles and phases of composition, and also for a better understanding of the principles of orality conveyed in this composition, which is richer than the simple scene depicted here.

Varied human parietal manifestations: incorporated bones and red patches

At the beginning of the 1990's, the idea emerged of writing a white paper with the aim of defining the archeological heritage of the hill of Gaztelu. In 1994, the project took on a more precise shape and the analysis was assigned to A. Turq, co-directed by C. Normand. Several objectives were set over the course of three years including doing a detailed appraisal of the state of conservation of the parietal works of the two networks, Erberua and Oxocelhaya. For various reasons however, it was not possible to do this.

As of 1996, when the team of F. Rouzaud did the topography of the Isturitz cave, several human activities were identified on the walls, thus throwing into doubt the parietal reality of the art of Isturitz, until then known only for its central pillar. In the Saint Martin hall, the topographers discovered near the excavation site a dorsal line of a bison, in a chamber near the entrance red markings, a bovine tooth inserted into a fissure, and three vertical red lines in the sepulchral area. In the rhinolophus hall, a black dorsal line was recognized.

Following these discoveries, and as part of the preparation of the white paper, I was assigned the prospection of the incorporated elements in the walls of the Isturitz cave.

This prospection was only partial however, given the proportions of the Great Hall of Isturitz; only the wall surfaces at human height were inspected, limiting the observation to two meters of height.

I was able to analyze three large areas of use of the walls in which elements were intentionally inserted.

– The Phosphate hall has the richest set of incorporated bones in the dextral wall, immediately at the entrance from the Saint Martin hall. Twenty-four fissured zones have multiple, non-identifiable bone fragments. The arch is low, the fissures are adequate for good conservation quality: they are wide, numerous and the inclination more or less horizontal. The elements are particularly well inserted in the fissures, stuck in the interstices of the rock and sealed by calcite.

– In the Saint Martin hall, the second dextral chamber and the dextral wall contain various incorporated elements: the artifacts are scattered along the wall, and the fissures more or less isolated. In the chamber we find a wide variety of incorporated elements: bone fragments that never exceed one cm³, an ochre pencil and a sliver of black flint. In one isolated position, a bovine tooth was inserted into the end of a fissure.

– In the Great Hall, the positions of the incorporated elements are scattered: On the right wall facing the decorated pillar, two wide and long fissures preserve a multitude of bone fragments of dimensions larger than in the preceding rooms, although the size of the elements never exceeds 1.5 cm³. These series of incorporated bones lead us to imagine a forced insertion, with the bones probably broken when they were put into the fissures. Two tools were inserted in cavities in the rock: one in the passage from the Saint Martin hall to the Great Hall, on the dextral wall, the other one on the suspended stalagmite floor in the Rhinolophus hall, on the left wall. These two elements are isolated.

In all, four types of elements were inserted in the fissures: particularly small bone fragments (they very rarely exceed 1 cm³, practically all non-identifiable), tools or silvers of flint (only four, including one lamella), an ochre "pencil" (hematite), and one incorporated tooth. The incorporated bones are mostly inserted in long fissures, with openings of more than 1.50 cm. In general, the fissures are more or less enclosed, which undeniably promoted the concretion of the incorporated elements and their conservation. The ochre pencil and the flint pieces are located in small concavities, deep ones for the flint. These artifacts are also isolated for the remainder of the incorporated elements. The bovine tooth is located at the end of a natural fissure; the enameled part is visible, while the roots are planted in the rock, with no visibility. As it is on the tour circuit, this artifact was unfortunately touched and removed from its original location without our knowing it; it was found on the ground several times, so we decided to remove it in order to preserve it, and we inserted a resin copy in its place. Inspection of the tooth reveals that it was cut in its longitudinal part by an impact with pressure, in the middle of the root. It appears that the shape was predetermined before the insertion: the tooth did not break during insertion in the fissure, the shape was consciously chosen for insertion in the fissure.

Manifestations of this type are known in other caves (Erberua, the Volp caverns, Gargas, Beidheillac, etc) but up until now only large incorporated elements have been the subject of attention, publications and interpretations. Such small fragments have never been the subject of studies or particular prospection. The meaning of these acts remains enigmatic, even though we can say that they were symbolic.

As the prospection of the incorporated bones developed, we discovered at the same time a multitude of paintings with solid red patches, very poorly preserved but recurrent in several halls of the Isturitz cave. For the Saint Martin hall, all of these colored patches can be correlated with the incorporated bones. However, this is not the case for the Rhinolophus hall, in which we found multiple red surfaces, one of the longest of which is near the collapsed section of the entrance porch. The colored surface is close to 3 meters long by about one meter. In this colored application, there are scattered mottled areas. I took a personal interest in these small markings, because their organization suggests markers for the proportions of an animal shape.

All of these new discoveries encourage us to reconsider the parietal art of the Isturitz cave which was formerly limited to the etched pillar. This raises several questions: What period are all of these parietal manifestations from, are they all from the same period? Are they contemporary with the living site? Was the cave abandoned for a certain time as a living space and used only as a sanctuary?, Can the parietal manifestations be correlated with the economic activities known to have existed at the site, particularly the serial artistic activities of the middle Magdalenian?

The current excavations: the discovery of portable art...

Following the period of evaluation of the archeological potential of the Isturitz cave from 1996 to 1998, and given the extent of the early Aurignacian strata in the Saint Martin hall and the enigmatic excavated material from the large chamber of this same hall, the scheduled excavations began in 1999. Over the course of ten years of excavations, several works of portable art have been extracted from the soil belonging to the early Aurignacian and to the middle Magdalenian.

The engraved pebble– early Aurignacian

Engraved pebble

Dimensions:

Length: 6.3 cm, width: 4.5 cm, thickness: 1.9 cm

Material: Peridotite rock (ophite)

Inventory: Ist04 C4c6 W1 30 No. 318

This item was found in 2004 in stratum C4c6 determined as belonging to the early Aurignacian culture. Layer C4c6 is located between layer C4b dated 32 400 (\pm 310; Smith – Toronto) and layer C4d dated 34 630 (\pm 560; GIF 98237).

This ophite pebble has multiple intentional transversal fragmentations (in its thickness and its upper concave side) and surfaces (chipped out areas and impacts of striking). On its concave part, a series of intentional lines seems to represent an animal figure, reflected in the representation of a deer's hindquarters, with the legs joining the "horizon" structuring line.

The technical analysis was done with a binocular magnifier on the concave surface corresponding to the graphic space of the work. The surface of the pebble is entirely marked by either natural or intentional impacts. The intentional impacts, which are

rougher, were made after the etching. They are thought to correspond to a phase of reuse of the pebble, possibly for striking things (to be determined more precisely). Polished surfaces, very probably natural, are visible on the lateral extremities. No stigmata are perceptible on this surface, except for some thin incised and scattered sections made after the polishing.

The etching is interesting because of the variety in the ways of making the lines. With a technical analysis of the lines, it is possible to determine a hierarchy of the etched sections. The main lines have mostly wide and symmetrical sections; they correspond to the so-called "horizon" line and to the contour of the hindquarters. The secondary lines are thin, difficult to make out and not significantly structured, even though some of them enhance the strength of the execution.

The graphic surface is fully taken into account in the making of the graphic representation. The contours of the hindquarters are linear and the sections are long. The obvious linearity of the animal contour confirms the desire to define a shape, whether in the making of the lower line of the animal or the presence of the start of the tail. All of the other lines are short and incisive, with no enhancement of the shapes. They act as elements that structure the work by adding dynamics, particularly to the graphic space.

The great particularity of this work is the line which, up until now, has been referred to as the "horizon", which is thought to correspond artistically to a line structuring the space of the animal representation. The overlapping of the lines indicates that it was made before the animal contour. For this reason, this line plays a role in both the structuring of the work (the composition) and the taking into account of the graphic space, but also as a "horizon" line in the figure.

The particularity of the structuring line and the diversity of the techniques suggest an encouraging outlook for thinking about the beginnings of the art, particularly questions regarding the plasticity of the works of art, the perspective effects, the dynamics of the works, the principles of composition and appreciation of the graphic spaces, etc. This work can be compared with various archeological pieces that were discovered by the Count of Saint-Périer, dated from the end of the Aurignacian. The image characteristics are quite similar, although an in-depth study would be valuable in order to understand all of the similarities and contrasts.

The diaphysis with crosses – Early Aurignacian

Cross

Dimensions:

Length: 12.4 cm, width: 1.9 cm, thickness: 0.6 cm

Material: Bone knife (fragment to be identified)

Inventory: Ist04 C4d1c W1 33 No. 231

This item was found in 2006 in stratum C4d1c determined as belonging to the early Aurignacian culture. Layer C4d was C14 dated from burned bone fragments, at the top and bottom of the layer: 34 630 ± 560 (Gif-98237) and 36 550 ± 610 BP (Gif-98238).

This bone knife, fragmented in its length, has an internal cancellous part, and a bony upper part along which 5 "crosses" are evenly spaced. The bone knife is composed of 2 joined fragments.

The bone knife only has intentional marks on the upper convex surface. Five crosses are etched on this same surface. The surface of the bone knife is entirely worked with long, rather marked, longitudinal striae covering the entire surface. These scrapings indicate preparation of the surface of the bone material. The upper fibers of the ossified material are thus broken; this preparation facilitates the making of the perpendicular lines in the direction of the fibers of the bone material.

The five X-shaped crosses are evenly-spaced in a line. The shapes of the crosses are not standardized, the length of each branch varies between 1.4 cm and 2.5 cm, the crossing of the sections is variable between 1/3 and 1/2 of the length of the cross. The depth of the incision takes precedence over the quantity of lines made, and there is no technical standardization of the cross production. The incisions are particularly deep (up to 2 mm), mostly made in symmetrical V's. If there is dissymmetry, it is because of the reworking of each incision in order to widen the line. The dissymmetry is very low however. There are many signs of corrected working attempts near the crosses. They correspond to the first incisions of initial positioning of the shape, to places where the tool slipped, and the maker's determination to gouge each of the sections deeply.

This artifact is the oldest symbolic marking that we have from the Isturitz cave, but this element does not in any way represent an isolated case of a cruciform figure. Even within a well-defined archeological context, the meaning of these cross shapes remains very enigmatic...

The bison heads – middle Magdalenian

Bison heads

Dimensions:

Length: 4.9 cm, width: 2.8 cm, thickness: 1 cm

Material: Antler

Inventory: Ist08, GD B8 C1C2

This antler artifact was discovered in 2008 in the large chamber, in the debris of the count and countless of Saint-Périer.

This antler has two bison heads sculpted in bas relief. One of the heads is arranged longitudinally, the second one transversally, and this double representation and disposition give it its originality.

This object can be compared with the series of perforated batons with bison heads on longitudinal supports from the Passemard and Saint-Périer excavations, dated from the middle Magdalenian.

The antler support is entirely worked; much surface scraping can be seen. The surface treatment takes on its significance with the enhancement of the contour of

the bison heads. There is a deep routing corresponding to a bas relief treatment of the 2 bison heads.

These bison heads have the classic stylistic conventions of representations on perforated batons of the middle Magdalenian:

- Major use of hatching to enhance particular anatomic details such as the dewlap, the eyebrows, the fur of the head with these luminosity variations,
- Stylistic convention of the representation of the eyes (naso-lacrymal groove) and the nasal palate
- The ear is worked in bas relief, inside and out
- Special attention is paid to the quality of the perimeter with many curves and countercurves in order to come close to the photographic realism of the head of a bison.

Despite all of these conventions, the artistic study of the works revealed the use of parallel striae essentially to start making a shape in volume, in contrast with the parallel striae used to mark the fur of the animal, which seem like mere details artistically speaking. The two heads observe the stylistic conventions, although the plastic effects are different: the head arranged longitudinally on the antler is handled in a naturalist manner in terms of its shaping. The curves, whether convex or concave, indicate a particularly fine and precise attempt to determine the volumes, tending towards naturalist realism.

In contrast to this approach, on the other side of the piece, the second head has a much more angular volume, although it scrupulously respects the placements of the volumes and the stylistic conventions. The lines at least display subtlety in the search for volume effects, like a sort of habit in shaping, in the literal sense of the term: it is a disposition acquired through repetition. This same disposition of the gesture goes into the making of a head that appears more stereotyped. Perhaps there is a hierarchy in the making of the shape.

The lion head – middle Magdalenian

Feline head

Dimensions:

Length: 3.9 cm, width: 2.3 cm, thickness: 1.1 cm

Material: Sandstone

Inventory: Ist05 GD "Lair" C2

The lion head was discovered in 2005, in the large chamber, following the exploration of several lairs of small rodents.

The small sculpture is made of yellow sandstone, and has the same fragmentation as the already-known series of sandstone animal statuettes, intentionally divided into

two parts, with one of the parts of the bodies having disappeared. The sandstone statuettes previously found depicted almost exclusively horses and bison. This work added nuance to the series through its determination because it is a representation of a feline that received the same treatment as the other statuettes of herbivores.

The sandstone material is entirely worked, and the shaping of the volume is the main perceptible action. Many burin impacts can be seen on the surface, gouging by juxtaposition sub-parallel lines in order to enhance the general shapes of the animal volume: the collar is particularly accentuated, the cheeks are particularly curved. While the general volume is established progressively, the accentuation of the shapes in relief is guided by the reworking of the first shaped volumes. The treatment of the eyes is also important, with special attention to the representation of the pupil.

Just as in the preceding work, it is artistically possible to detect the effects of habits in shaping by comparing the two sides: the angularity of the volumes is perceptible, as the plastic details are less precise on one of the two sides, although they are well done.

The Oxocelhaya cave: summary of the artistic studies

In 1929, the median cave of Oxocelhaya – Haristoya was discovered. When the exploration began, in the Haristoya complex, three sets of red marks were noticed. During a personal investigation in the Oxocelhaya complex on July 23, 1955, Laplace discovered the works of the terminal gallery that he archived. He discovered a finely etched frieze of horses, and the representation of a small horse in coal.

When J.-D. Larribau was doing a topographical survey of the Oxocelhaya cave on January 16, 1982, under the direction of G. Laplace, he noticed the bison on the ceiling-wall and macaroni-shaped lines in the great hall of Oxocelhaya. In March of the same year, he discovered in the gallery that now bears his name, the so-called horse "with halter", and the horses on clay. In order to supplement the iconography of the site, photographic surveys were done and publications were presented. In these same publications, S. Prudhomme promised to write more about these works.

In 1989, S. Prudhomme presented his doctoral thesis on the prehistoric parietal art of the Basque Country. As the subject was the application of statistical methods to the parietal art of the Basque Country, it presents a comparative study of the various local decorated caves. It recognizes for Oxocelhaya 22 graphic units (animal representations) and 18 abstractions. As it had a mainly mathematical vision, it did not focus on the artistic aspects of the works. However, the doctoral thesis of S. Prudhomme remains a fundamental resource for understanding the parietal works of the hill of Gaztelu.

Lastly, the latest research on human actions on the walls was done in 2000/2002. This study was part of the extension and addition to the White Paper. The study focused on the Oxocelhaya cave, and only on the works of the Larribau gallery. The first step was to find the works on the walls according to the locations indicated in the thesis of S. Prudhomme. During this reopening of the site, and given the vigilance and attention paid to the walls, a great many red surfaces were discovered, although some of the etchings mentioned still have not been found (the crow, the lion, etc.). It

now seems necessary to do a new inventory of the works and to do a systematic prospection of the walls.

In the current state of the work done on the walls, 43 zones or panels with human manifestations have been identified. Each of these parietal zones can have several graphic units (representations of animals, red patches, red signs, etc.), representing in all more than one hundred human manifestations on the walls, more than half of which are abstractions (e.g. markings).

In 2001/2002, attention was focused on the plasticity of the prehistoric works of art, defined by the interaction of the architectural elements of a work: shape, color, value, material and composition. The analysis of the interaction of these plastic elements sheds light on the processes of creation, the artistic conventions from one group to another and the links and differences between works within the same cave. The artistic study addresses precisely the choices made by the creators in doing their work, and the interaction between their technical know-how, the constraints of the supports and tools, the corporeal constraints and the artistic restrictions imposed by the societies.

The artistic study focused on three graphic units: the panel of the horses with halters, the bison on the wall/ceiling and the horses on clay. The following points were revealed:

- The revised interpretation of the so-called "horse with halter" panel allowed us to understand this panel differently, with the existence of four etched horses. Each of the four horse figures has its own technical, plastic and stylistic originality.
- The works of the Larribau and Laplace galleries can be compared: The leaning horse uses the style conventions defined graphically in the Laplace gallery, but the other animals don't.
- The creators of the bison and the spontaneously-made horses have in common the use of linearities of variable thickness, particularly when the lines mark the change from one part of the body to another.
- Whether with the horses in clay or the bison on the ceiling/wall, the artists "played" with optical illusions of the weights of the shapes on the reliefs of walls, the intentionally empty spaces, the areas reserved for the lines and the interplay of lines of variable thicknesses.
- The artistic study also revealed the use of the manual field in correlation with the graphic space, its composition and the corporeal interplay of the lines, especially on the small horses on clay.
- All of the artistic actions studied on the works undeniably point to a search for balance in these works, a balance that belongs to the individual himself, and that also comes from his know-how and his artistic dexterity.

Conclusion

Since 1996, much archeological information has destabilized the interpretations that were accepted by all and published concerning the Isturitz and Oxocelhaya sites.

With regard to parietal art, the Isturitz cave is no longer limited to the decorated central pillar, and diverse manifestations on the walls (incorporated bones, red patches, etc.) have led us to reconsider the boundaries between parietal art and daily life, and also the phases of occupation of the cave in conjunction with the artistic actions. All of these discoveries lead us to the fundamental question: what is the place of parietal art in the upper Paleolithic societies.

The few works presented in brief here provide interesting information about the already-known Middle Magdalenian series of Isturitz. The animal statuettes suggest some nuances regarding figurations, which are always important, in order to better understand the great plastic and technical diversity of the works. As for the Aurignacian works, the comparison with the other works from the same period could also provide arguments concerning the place of mobile art in these societies.

Today, we see that the arts of Isturitz and Oxocelhaya are very poorly understood.

According to this summary, several approaches could supplement our artistic knowledge:

- redoing the prospection of the walls of the two caves, checking the inventory and supplementing it;
- Temporarily positioning the manifestations on the walls and working on the link between the habitat areas and the decorated areas;
- Further study of the nuances of the serial productions of works of portable art;
- Putting in perspective the Aurignacian works of art, through a technical, plastic, and stylistic comparison with the other works of the same period.

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