

## The Identification of the first Paleolithic animal sculpture in the Ile-de-France: the Ségognole 3 bison and its ramifications

Duncan Caldwell

This article unveils imagery that seems intended to be recognized in phases from such sites as **Font-de-Gaume** (pg. 24), **Laugerie-Basse** (pg. 35-37), **Isturitz** (pg. 37-38), **Saint-Cirq-du-Bugue** (pg. 38-39), and **Guy-Martin** (pg. 26-35), after describing the first Paleolithic sculpture of an animal reported in the Ile-de-France. These include:

**1)** The extended panel of **Ségognole 3**. The grotto is known for a vulva between 2 faint horses, but its largest graphic element is a groove that has been explained away as a "border". The groove is actually the caudal line of a 1.9 meter-long bas-relief of a bison that has been overlooked because of the failure to apply the same conventions of the vulva – figurative realism, monumentality, and the use of natural forms – to the engraved line, although it is identical in manufacture. The wisent composed by natural relief accentuated by incising, flaking, and polishing confirms that the ensemble is Paleolithic.

**2)** A survey of Paleolithic parietal images whose contours are defined like the Ségognole bison by natural relief uncovered over 120 examples. This revealed that mammoths and bison were illustrated far more commonly this way than other species. Such statistical analyses of how imagery relates to rock morphology provides a new way of grouping Paleolithic art and opens another window into makers' intentions. It also raises the related phenomenon of imagery that played upon similarities between the contours of bison and mammoths.

**3)** The "mammoth" on the **Grotte de Canecaude** spear-thrower, which has one eye above a crescent that makes it read as a tusk and another eye below the same crescent that makes it read as a bison's horn. The sculpture is one of several images that combine mammoths and bison in some of the oldest

known figure-ground illusions.

**4)** The art of **Font-de-Gaume**. Numerous paintings blend aspects of mammoths and bison, extending the theme of Paleolithic figure-ground illusions and making the relationship between the "armor-headed" herbivores the cave's leitmotif.

**5)** The **Roc-aux-Sorciers**. The juxtaposition of the generative portion of a woman's body with one of the two herbivores identified as having some equivalency in Magdalenian art turns out to be a re-current theme in northern France, where it is also seen at **Guy-Martin** and **Ségognole 3**. Links are established between these northern friezes and the **Grotte des Fieux**, **Grotte du Sorcier**, and **Abri Reverdit**.

**6)** **Guy-Martin's** "obstetric" frieze. The panel uses a compositional technique similar to **Cubism** – building a "de-composed" horse, for example, out of figurative, natural and schematic elements. Another example of the panel's "interactive" technique involves a single crescent that is positioned to be read 4 ways: as one horse's tail, another horse's mane, an ibex's backward horn, and an auroch's forward horn.

**7)** The "**Femme au Renne**". Several Magdalenian engravings of "women" are re-examined in light of such findings of polysemic density, leading to the discovery of more secondary imagery. This re-examination shows that "*la femme au renne*" contains at least 4 degrees of engraving, ranging from the pregnant female under the herbivore to such lightly incised details as hocks that transform the figure into a therianthropomorph, 2 outer "pregnancies", an umbilical snake within the over-arching external pregnancies, and even a "spectral" baby whose head is formed by a circle of light crosses.

8) Similarly, the “women” and bison on a wand from **Isturitz** share such traits as hooves and hackles.

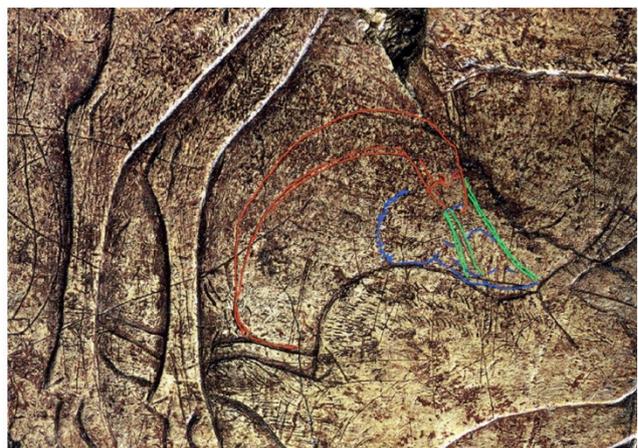
9) The **Grotte du Sorcier** “anthropomorph”. The “sorcerer” turns out to have both short hooved and longer human legs and rounded buttocks enclosed within a herbivore’s rectilinear rump. The figure can also be read as being juvenile or female, rather than just as an ithyphallic male.

These analyses coalesce into a new interpretation of the relationship between some Paleolithic feminine imagery and symbolically important prey species: a **“prey-mother” hypothesis**. Although the theory is based on internal evidence that “women” were repeatedly associated with herbivores through shared traits and connections, it is also in keeping with female roles in glacial subsistence systems where there is little for women to gather for much of the year and fitted clothing is essential.

Frequently, one female role in such **“hunter-sewer”** economies is to increase the chance of a hunter’s success by providing him with animal qualities. Several polar cultures believe women do this while sewing clothing

and camouflage by synthesizing the powers of the species whose hides compose the garments, thereby imbuing hunters with qualities needed for success. Another common role is for wives to enter trances in which they “become” prey and lull it into coming within range. A third is to reconcile hunters with animals they have killed by “feeding” dead animals like guests and inviting them upon their “departure” to return home as living creatures. “Whale-wife-mothers” among the Koryaks and Nootka, for example, do this by initiating the regeneration of whales. All three roles involve beliefs in a woman’s maternal capacity not only to give birth to humans but also to morph into, control and generate socially important prey.

At the heart of the polysemic Paleolithic imagery examined here there probably lay equally layered beliefs concerning the relationship between women and animals. The repeated association of the generative portion of women’s bodies with large herbivores suggests that some Paleolithic societies believed that women had the capacity to generate and intercede among humans and their prey - making them the sex that spiritually controlled the food supply.



**Figure.** Combined Laugerie-Basse Femme au Renne, hocks, fur, inflations, snake, baby and 4 parallel lines slanting from the herbivore’s penal sheath to the top of the snake’s head.

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## The identification of the first Paleolithic animal sculpture in the Ile-de-France: the Ségognole 3 bison and its ramifications

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### Abstract

*A 190 cm. bison sculpture exists beside Ségognole 3's vulva and horses. The deep grooves making up parts of the vulva and bison are technically identical, making them likely Paleolithic contemporaries, but differ from the light incisions making up the horses. Compositional analyses reveal how the frieze resembles ones at Guy-Martin and Roc-aux-Sorciers. A survey of representations with some natural contours shows that mammoths and bison seem to be the main species illustrated this way. This adds support to a "prey-mother" hypothesis linking "armor-headed" herbivores and some Paleolithic feminine imagery. Finally, the kind of compositional inquiry that led to the bison's discovery is shown to have wider applications.*

**Key words:** *Paleolithic art; Cave art; Paleolithic sculpture; bison; Fontainebleau; Roc-aux-Sorciers; Magdalenian; Compositional analysis; Cubism*

### Résumé – L'identification d'une sculpture animalière Paléolithique de grande taille en Île-de-France: Le Bison de la Ségognole 3 et ses implications

*Il existe, à côté de la vulve et des chevaux de Ségognole 3, une sculpture de bison de 190 cm de longueur. Les fissures qui composent les parties de la vulve et la queue du bison ont subi des interventions humaines qui les rendent techniquement identiques, et susceptibles de contemporanéité, mais elles diffèrent des tracés qui dessinent les chevaux. Des analyses de composition montrent que la frise ressemble à celles de Guy-Martin et du Roc-aux-Sorciers. Une enquête sur les représentations qui utilisent des contours naturels montre que les mammoths et les bisons semblent être les principales espèces traitées de cette façon. Cela ajoute du crédit à l'hypothèse d'une « proie-mère », qui permet de relier certaines représentations féminines paléolithiques à des herbivores à « têtes cuirassées ». Enfin, l'article montre que l'on est en mesure d'attendre davantage de résultats du type d'analyse compositionnelle qui a conduit à la découverte du bison.*

**Mots-clés :** *art paléolithique ; art rupestre ; sculpture paléolithique ; bison ; Fontainebleau ; Roc-aux-Sorciers ; Magdalénien ; cubisme*

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**Fig. 1.** Ségognole 3's previously known art panel consists of images of a horse's head and neck in the shadow on the left, a vulva with a mineral concretion above it that suggests pubic hair, and a finely incised horse visible here on the right "thigh". But it also includes the deep, sinuous incision and flaked zone on the right, which have been previously dismissed as a mere framing device. This article will propose that these features represent the caudal groove and sculpted contour of a largely "readymade" sculpture of a reclining bison to the right, which appears to be life-size in the small chamber. Note the immediate shift in color from grey to the left of the caudal incision to ochre to its right, suggesting that the bison was once painted.

## Introduction

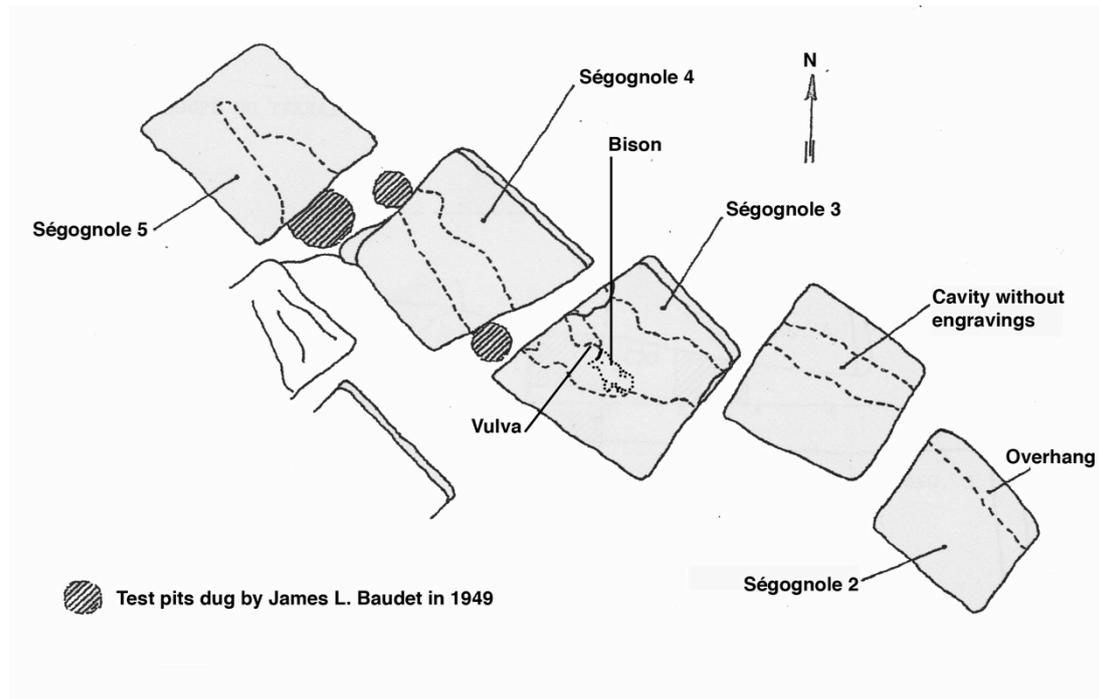
This paper will argue that a 190cm. long sculpture of a bison exists to the right of the known art panel of Ségognole 3, which consists of a vulva with a partial horse on its left and complete horse on the right (Fig. 1). The known ensemble has been dated stylistically to the Magdalenian, and the bison confirms the Paleolithic date. The grooves that make up parts of the vulva and proposed bison are identical, since they were all natural cracks, which were regularized, and are completely different from the light incisions that form the horses. The vulva and wisent are therefore probably contemporaneous, while the horses may have been added after the two "ready-made" features that they are associated with had been "recognized" and enhanced. Like many other Paleolithic artists, the maker(s) of the bison and vulva simply reinforced impressions inspired by natural relief with minimal anthropogenic changes as if to say, "I have seen you." Similar examples of animals and vulvas whose contours are delineated by natural relief will be discussed. This survey turns up the oddity that mammoths and bison seem to be the main species to have been illustrated in this manner, suggesting a different ideological relationship between these animals and rock faces from others. This supports observations of a pairing between these "armor-headed" herbivores and examples of Paleolithic feminine

imagery in previous articles (Caldwell 2009a, 2010) outlining a “prey-mother” hypothesis. While the discovery of a bison-horse-vulva ensemble echoes the interpretations of Laming-Emperaire and Leroi-Gourhan, a case will also be made for more specifically linking the Ségognole 3, Roc-aux-Sorciers, and Guy-Martin friezes –as well as imagery from Abri Reverdit and Saint-Cirq-du-Bugue. One of the two closest of these geographically –the Guy-Martin frieze– also has a disproportionately large herbivore –a mammoth– beside lightly incised horses adjacent to vulvas. Finally, the article will provide an extensive new analysis of previously un-noticed imagery from the Vienne, Laugerie-Basse, Isturitz and other sites while arguing that this iconography adds further support to the prey-mother hypothesis.

Ségognole 3, which is also known as the Abri du Cheval (“Horse Shelter”), is an engraved cavity at Noisy-sur-École in the Trois-Pignons forest of the Seine-et-Marne department of France. The region, which is known geologically as the Massif de Fontainebleau, is famous for its landscapes of huge boulders, which were memorialized during the 19<sup>th</sup> century by painters of the Barbizon school. Both the sandstone around the edges of the plateaus and the soft sand beneath it were left by a marine incursion during the Stampian phase of the Oligocene, although there is a debate about when the table rock solidified, since it does not seem to extend to plateau centers. This suggests that it concretized when the present hydrographic system came into being around the beginning of the Quaternary (Bénard 2007b: 2).

Regardless of when the peripheral rock formed, the erosion of un-cemented sand from under it leaves it cantilevering, creating rock shelters. Eventually these hang so far out that they collapse, strewn the slopes below with a succession of gigantic slabs. Some of these blocks are so huge that they contain sections of tunnels that once wound through the solidified strata. Geologists hypothesize that these caves were originally filled with sand that failed to concretize and that the sand only spills out once the blocks collapse and fragment, exposing their hollow cores (Bénard 2007b: 10), but the present author has discovered networks extending up to 30 meters into intact table rock that never seem to have been filled with sand. Whatever the cause, the un-solidified hollows typically form rounded chambers and galleries, which offer innumerable opportunities for making rock art.

Since the first report of engravings in the area’s cavities in 1865, around 1200 rock art sites have been found, ranging in age from the Upper Paleolithic to modern times, with the vast majority apparently having been made from the Mesolithic through the Bronze Age. Many contain nothing more than a few incisions but others are elaborately incised. On May 22, 1947, James Baudet –the Abbé Breuil’s assistant and a professor at the Institut de Paléontologie Humaine– and Robert Humblot –a painter living in Noisy-sur-École, who had prospected for rock art sites while in the Resistance during the Second World War, finding about 30 of them around his village alone– presented their discovery of four –out of what are now seven– engraved cavities in part of Noisy-sur-Ecole called La Ségognole before the Société Préhistorique Française (Poignant 1995: 23-24). These four grottoes are in an alignment of 5 somewhat rectangular blocks, ranging from 5 to 8m per side (Fig. 2), making each gigantic slab the size of a small building, which were originally connected along the receding edge of a plateau. Each of the five blocks contains a segment of a cave that originally ran parallel to the edge before the table rock fell and fragmented.



**Fig. 2.** Ségognole 3 is one of 4 engraved grottoes, numbered Ségognole 2 through 5, in an alignment of 5 somewhat rectangular blocks, ranging from 5 to 8 meters per side. (After Bénard 2007, Fig. 2.)

One of those sections, Ségognole 4 (Nehl & Poignant 1983: 67-71), contains a tunnel with such rich engravings that it immediately attracted particular attention. The cave walls are covered with a phantasmagoria of grids and other apparently abstract forms, including a ground and incised cupule interpreted as a vulva, but attention focused on a small scene engraved along the summit of a low, rounded, axial ridge on the floor. Unlike the surrounding abstractions, it is fairly figurative, although it is centered on a vertical incision with forked ends, with shorter vertical incisions on each side. On either side of the three central incisions, which look like staffs or scepters, is an animal. The one on the right faces the central incisions and is clearly a small schematized stag with straight stick legs, a raised curved tail, divided duck-beak muzzle and antlers shaped like outward-facing, oblique combs. The opposite animal is nothing more than a horizontal tubular “S”. Although it has no antlers, this animal on the left has been described as “an unfinished start of a second deer” (Nehl & Poignant 1983: 67) and as “an unfinished animal” with nothing but a “body and the back legs” in a “composition of two deer facing one another...” (Bénard 2007a: 15-16). This interpretation is based on reading the doubled downward curve of the animal’s body as its rear legs and the S’s upward branch by the central incisions as a stick neck and head, facing the stag.

But Laurent Valois, the editor of the GERSAR journal and author of a monograph on a nearby cave (Valois 1996) notes that the double downward curve of the supposed “rear haunch” mimics the downward angle and form of the stag’s head – minus the mouth– while the upward projection at the other end of the more schematic animal echoes the stag’s lifted tail, making the two animals face the same direction (personal communication 2010). This interpretation corresponds with most of the region’s other pairs of deer at such sites as Béorlots and Mont Aiveu, where one cervid “follows” another, although it should be noted that the two stags in the last cavity in the Ségognole sequence, Ségognole 5, break this paradigm by facing each

other. His reading also suggests that the antlered stag on the right may be shown passing across a dimensional barrier symbolized by the three central incisions, and coming out the other side as an animal without antlers –a process that happens to deer annually and which symbolizes rebirth and transcendence for many cultures.

A few meters away from the northwest entrance to Ségognole 4 lies the last block in the loose alignment of five blocks containing cave segments: a gigantic slab with a one-way tunnel, which formed a dead-end in the original intact cave. The left wall of this tunnel, Ségognole 5, which is engraved with another profusion of linear patterns, including broad grooves and grids, has two more stags with schematized antlers, stick legs and necks, and simple box-or-loop bodies (Nelh & Poignant 1983: 71-76). Together, the art of the two small caves –Ségognole 4 and 5– is so rich that the two cavities were registered together as a National Monument on January 2<sup>nd</sup>, 1953. Ségognole 4, with its more obvious stag on the floor, was seen as more important, however, and was walled at both ends to protect its contents.

Meanwhile, the most figurative –and therefore, one would think, most obvious– imagery in the row of five blocks, which stretch for 33m (Bénard 2007b), was being overlooked –probably because its imagery was in the dark as opposed to the motifs in Ségognole 4 and 5, or for that matter, most of the Mesolithic to Bronze Age art sites in the region, whose engravings are usually visible without a lamp. Less than two meters from the southeast entrance to Ségognole 4 lies the easiest entrance to a Y-shaped cave through the middle slab in the alignment. Baudet reported that this central cave, Ségognole 3, lacked any signs of anthropogenic activity, except for a few minor schematic incisions on the roof near the entrances (Baudet 1960). In 1949, he even dug three test pits around Ségognole 4, including in the alley directly between Ségognole 3 and 4, but never published a report.

Decades went by. Then, in September 1981, Christian Wagner revisited the series of blocks with their aligned cavities while undertaking a systematic prospection of sites under the aegis of an association for their study that he had founded called GERSAR (Groupe d'Études, de Recherches et de Sauvegarde de l'Art Rupestre) (Tarrête 1985). Wagner later told Laurent Valois that “each time that I went to look in Ségognole 3, I saw that there were incisions, but I didn't understand what they could be. Then, one day I suddenly realized that they made up a horse” (Fig. 1) (Valois, personal communication). One reason the horse(s) had escaped detection for so long was simply that the imagery lay just beyond a tightening of the cave entrance opposite Ségognole 4 from two meters to less than one meter in both height and width, and within a concavity of the wall around a bend on the left, placing them in deep shadow.

Another reason the more evident horse was so hard to see was that its fine incisions were so shallow and eroded. But whether Wagner's delayed recognition was due to their faintness, the darkness, or because of the difference between these flowing incisions and the region's more common linear motifs, the difficulty that even such an experienced observer had in seeing the cave's figurative imagery is revealing in terms of what is to come.

When Wagner finally discovered the more complete horse (Fig. 1), he immediately recognized that it could be Paleolithic and reported the engraving to the Service Régional de l'Archéologie (SRA), whereupon Denis Vialou and Jean Clottes visited the site to authenticate it while Leroi-Gourhan confirmed that it was probably Paleolithic based on a photograph (Bénard 2007b: 4 & 9). In 1983, GERSAR members dug four more test pits, this time at either end of Ségognole 3 –at its two

most accessible entrances— and in the forecourt to the alley between blocks 3 and 4, but did not turn up anything except a few shards from the Lower Middle Ages (Nelh 1983).

And there the matter lay until I began reflecting on the cave's art during the late nineties. While I was preparing this study, Alain Bénard, the new president of GERSAR, an organization to which I belong, decided, unbeknownst to me, to make the cavity and its art the subject of his 2007 Master's thesis for the Museum National d'Histoire Naturelle's Department of Prehistory. As we will see, Bénard's study focused on increasing what was known about previously discovered features while mine focuses on questions that begin with "Why?" Even though the studies reach quite different conclusions, their varied approaches may make them complementary.

## 1. Questions raised by Ségognole 3

The first question to puzzle many observers is: Why are three of the richest art ensembles representing such different styles –and, therefore, in all probability, at least two or three different cultures and periods– in chambers, which in the case of Ségognole 3 and 4, are less than two meters apart in a region riddled with tens of thousands of cavities and rock shelters –the vast majority of them empty of signs or imagery? If it were just a coincidence, the chance would be one in thousands. If we assume that the juxtaposition is not random, and that the later ensembles were incised in Ségognole 4 and 5 because their makers knew about some of the earlier imagery in Ségognole 3, then why didn't they add their art to the images in the Paleolithic cavity, creating a super-imposition of styles? Could a taboo or sense of respect for the chamber with the horses and vulva have survived for millennia? Did they know of the vulvar and equine imagery in the darkness but prefer surfaces visible in daylight –like at most other Holocene sites in the region? These questions will remain in suspense as we move to less obvious questions that may lead to actual recognitions.

But first, we must try to date the engravings of the three chambers. The rectilinear style of grids, "key-boards" and other abstract motifs on the walls and floor of Ségognole 4 and 5 is identical to that of many motifs in the Grotte à la Peinture in Larchant, France, some of which were found in sediment filled with Sauveterrian, Mesolithic microliths and hearths containing charred hazelnut shells that provided carbon dates of approximately 9000 BP (Hinout 1993, 2002), while the schematic stag incised into the floor of Ségognole 4 duplicates engravings at such Chalcolithic and early Bronze Age sites as Valcamonica, where an almost identical buck, with outward-facing oblique combs for antlers, exists on Rock c at Paspardo, which dates to ca. 5000 BP (Gimbutas 1991: 397, Fig. 10-42, 2).

The art of Ségognole 3, on the other hand, is stylistically closest to representations made during the Upper Paleolithic, and the complete horse, at least, has strong parallels with equine engravings on cobbles and slabs from such northern French sites as:

- Étioilles (Fig. 13 R) (Taborin *et al.* 2001),
- la Grande Paroisse at Pincevent (Baffier 1996),
- la Pierre aux Fées at Cepoy in the Loiret (Allain 1976),
- and Roc-la-Tour 1 at Monthermé in the Ardennes (Rozoy 1990) –all of which are Magdalenian, terminal Magdalenian or Hambourgian.

Even though only one other image of a Paleolithic horse has been found in any of the cavities of the Ile-de-France –a painting on a block left after a cave’s destruction at la Justice, near Boutigny, in the nearby Essonne (Baudet 1960)– a few points of comparison with parietal images do exist in the rest of northern France. These include horses on cave walls at Arcy-sur-Cure, Thorigné-en-Charnie –where both the caves of Mayenne-Sciences (Pigeaud 2002 and 2004) and Margot (Pigeaud *et al.* 2006, Pigeaud & Hinguant 2007) have representations– and Gouy.

The horse from the Grotte du Cheval at Arcy-sur-Cure is useless in terms of helping to date the Ségognole horses because it has been assigned both to the Magdalenian (Leroi-Gourhan 1984) and Aurignacian (Baffier & Girard 1998) and has such a long, twisted, and unusual tail.

The dating is more secure on the Mayenne-Sciences horses –with their ballooning bodies and tiny heads– which are comparable to well dated Gravettian horses from elsewhere –such as one of the punctuated horses at Pech-Merle, which was  $24\ 640 \pm 390$  BP (Lorblanchet *et al.* 1995; Gif A 95357). But they contrast stylistically with the Ségognole example. Not surprisingly, carbon dates of  $24\ 220 \pm 850$  BP (Gif A 100 647) and  $24\ 900 \pm 360$  uncal BP (Gif A 100 645) on horse 15 in Mayenne-Sciences confirmed its attribution to the Gravettian (Pigeaud 2002: 460; 2004: 126-127).

A better point of comparison for the Ségognole equine is a fine parietal engraving of a horse from Margot Cave, which contains art from both the Gravettian and terminal Magdalenian (Pigeaud & Hinguant 2007). Like both the Étiolles (Fig. 13 R) and Ségognole horses, it has parallel lines, representing a mane, running deeply into its neck. This is so unusual in Paleolithic equine imagery, where horses are almost always illustrated with erect manes like those of Przewalski’s horse, that these three regionally grouped representations may indicate a local artistic convention –most probably during the Magdalenian when the most firmly dated of these horses, from Étiolles, was made– or even the existence of a regional equine strain with limp or long manes. It is too bad that the Margot example does not have a tail, because another feature that the Étiolles and Ségognole horses have in common is their long, gently curved, thin tails composed of a few parallel lines. These differ markedly from the short, single “rat tail” incisions hanging from equine rumps at Mayenne-Sciences, for example. All the same, both the difference between the Margot horse and Mayenne-Sciences’ carbon-dated Gravettian equine, and the similarity of the horses from Margot and Étiolles, suggest that the Margot example belongs to the cave’s later artistic phase.

Finally, there’s Gouy in the Seine-Maritime, where nine engravings of horses may be associated with a sparse late Magdalenian assemblage (Martin 1972; Martin & Martin 1984). Although their style has sometimes been seen as too “original” to date typologically, Breuil, Leroi-Gourhan and Clottes have all assigned them to the Magdalenian (Bénard 2007b: 54; Clottes 2008: 210-211) while their striated interiors follow a convention that is common in the late Magdalenian art of the Iberian Peninsula. Regardless of whether there was a connection, perhaps across the now flooded coastal shelf, the shift towards a more rectilinear portrayal of animals with linear patterns both inside and around them seen in Horses n°1 and 2 in Gouy’s Salle de l’Oiseau heralds even more rectilineal zoomorphs amid a profusion of similar patterns at such apparently Mesolithic sites in the Ile-de-France as Buloup n°9 –also known as the Antre du Sorcier (Tassé 1982: 179; Poignant 1995: 9)– Mont-Aiveu N°2 (Tassé 1982: 129; Poignant 1995: 19), Le Montrouget 2 (Nehl & Poignant 1983: 93),

Ségognole 5, where two stags are hidden amid the linear patterns on the left wall (Nehl & Poignant 1983: 74, 76), and, most especially, an equine head in the Trou du Sarrazin in Villeneuve-sur-Auvers (Bénard 1995: 11; 2007b, Fig. 26.2), which Alain Bénard attributes to the Mesolithic (Bénard 1995: 18). This suggests that some aspects of the Mesolithic art of the Massif de Fontainebleau evolved schematically from a late Magdalenian tradition. If so, the equines of Gouy illustrate the transition from the Upper Paleolithic's more figurative portrayal of animals to the Mesolithic's schematization of zoomorphs and suggests that there was enough cultural continuity for the engravers of Ségognole 4 and 5 to have been aware of the significance of Ségognole 3.

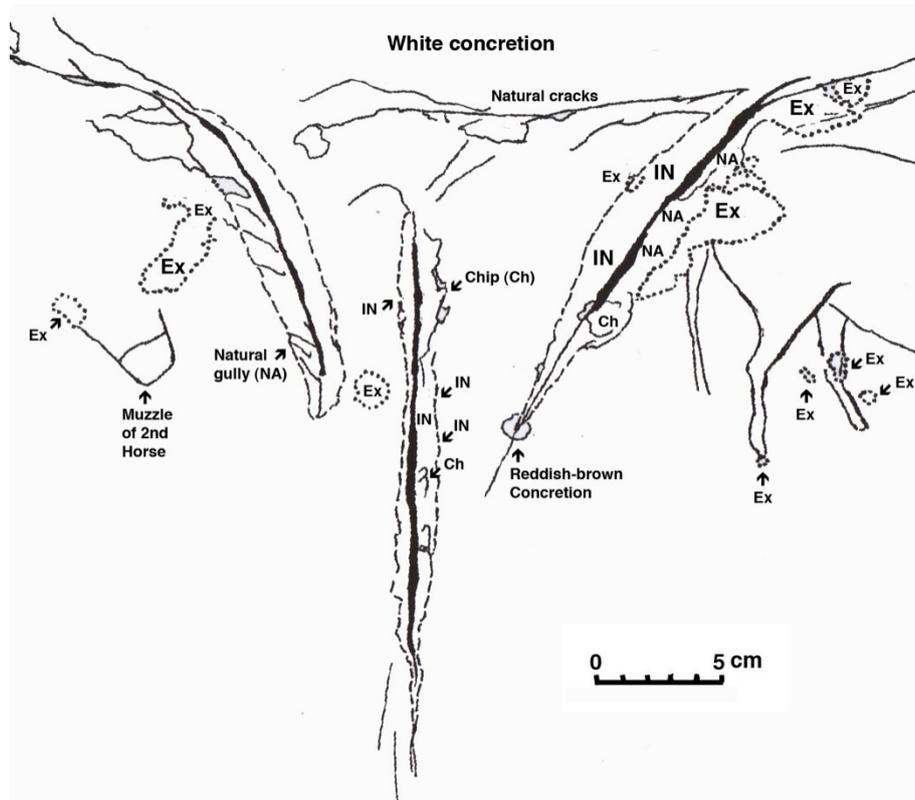
Looking beyond the northern half of the country, the “Black” and “Chinese” horses from late Solutrean Lascaux came closest to Ségognole's complete horse in a comparison of proportions of Paleolithic images of horses (Bénard 2007b: 37-39). So, despite the poverty of good parietal comparisons (for equine imagery) from northern France, the similarity of Ségognole's complete horse with well dated Upper Paleolithic engravings on cobbles and small slabs from the region makes it likely that the Ségognole 3 ensemble is also Paleolithic, and, more specifically, Magdalenian – a point that will be reinforced when we broaden the scope of the frieze and discover how similar the extended ensemble is to a frieze with excellent mid-Magdalenian contextual data from the Vienne.

The next question that occurred to me on site, in 1995, was why the composition, as illustrated in a photograph at the Regional Museum of Prehistory at Nemours, was so lop-sided. The main art panel, which contained all the points that were pointed out to me at the time, consists of two inclined walls, divided from the ceiling by deep creases, that meet in a corner. Before they were even modified, these natural fissures between the walls and ceiling dipped towards each other in the corner, defining a triangular zone between the ceiling above and lateral fissures that created the impression of a vulva between thighs (Fig. 1, 3, 4L). Directly above the “vulva” on the bellying ceiling was such a suggestive mineral concretion that the ensemble even seemed to have pubic hair (Fig. 1). The whole corner was a larger-than-life natural imitation of a woman's genitals, thighs, and belly in the shape of a ceiling and wall – or rather, a partition, since the wall simply separates the two shorter branches of the cave's 7-meter-long, Y-shaped structure– a point which will take on importance later. To perfect the illusion, there was even a 26cm. vertical gully down the center of the triangle, creating the impression of a vaginal slit. All the Paleolithic sculptor had to do to confirm that he or she had seen genitalia there was slightly deepen and regularize at least two of the three cracks –the central slit and right fissure (Fig. 3, 4L; Bénard 2007b: 23-26).

The problem was that the bilaterally symmetrical composition of a “vulva” between thighs as illustrated at the museum and described on site had the finely incised horse on the right “thigh” –with nothing to echo it on the left. Unlike the vulva, none of the animal's contours or internal lines were suggested by the cave's topography. Although it was faint, eroded, and just 32.5cm long from muzzle to tail, one could just make out its mouth, nostril, eye, mane, graceful back and belly lines, and four legs (Fig. 1). Like the rest of the somewhat elongated equine, the legs were so naturalistic in the organic flow of their lines and details, despite their shortness and spindly stylization, that they had fine features like hocks and were even shown in perspective. But the very sureness and clarity with which the animal had been drawn

in the clear space of the right “thigh” emphasized the imbalance with the apparently empty left “thigh”, leaving the horse “hanging”.

Suspecting that the composition must have originally had a second horse to the left, I immediately began to scrutinize the supposedly empty surface there. The zone was so eroded, because of its greater proximity to the closest entrance and elements, that any lightly incised motifs would probably have been erased. But what if a trace could still be discerned? Parts of the wall had exfoliated, destroying the original surface, while the rest was so stippled and pocked from weathering that it was hard to distinguish the rounded trace of a washed-out incision. But there it was – looped and closed off by a line –a muzzle!– and there was the bottom of the neck. A second equine head!



**Fig. 3.** The vulva, showing details of its three fissures. Alain Bénard felt that the left lateral crack (F1) was entirely natural, while finding that the fissure forming the vaginal slit (F2) and right lateral groove (F3) had been modified. My own examination confirms this by showing signs of incision (IN) and chipping (Ch) in F2 and F3, with some possible anthropogenic modification to the right wall of F1.

Later I learned that Georges Nelh had recorded that one could “distinguish another, very effaced curvilinear line belonging to the head of a second equine” “to the left of the fissures” in 1984 (Nehl 1984: 308). The next year, Jacques Tarrête reported that, in addition to the complete horse and vulva, Ségognole 3 contained “numerous fissures in the sandstone, whose traces, it seems, were regularized, as well as a heavily eroded engraving of the head of another horse” (Tarrête 1985).

But in 1995, during my first visit to the decorated cavity, my companions and I were unaware of these publications and of the fact that the fragmentary animal had already been observed. We thought I had made a discovery. Although it would turn out to be nothing more than a rediscovery, it has remained significant, in my eyes,

because it showed how the recognition of compositional gaps or inconsistencies can lead to the discovery of obscured elements. Exactly the same kind of analysis would lead me to propose that the area to the right of the known imagery should be interpreted as a large sculpture of a bison.

The compositional inconsistency this time was a long sinuous groove to the right of the clearer horse (Fig. 1, 4R, 5). The line, which took the path of an existing crack, is far more heavily regularized by chipping and incising than the ones forming the vulva, making the groove the biggest intentional compositional element in the figurative ensemble.



**Fig. 4.** A comparison of the vulvar incisions (**Left**) with the rear incision of the proposed bison (**Right**) shows the same manufacturing marks, with extra care being given to the longer and deeper caudal groove of the bison. From its source amid an anthropogenic flaked zone at the top to a fork 52cm down the slope, the deep sinuous incision to the right of the clearer horse has been sculpted. The smooth sides and regularly scaled right edge of the furrow appear to be manufacturing marks, while a double-beveled or stepped interior indicates that the incising was done in two stages. The zone at the top of the incision was apparently flaked to remove stone that broke the desired contour of a bison's rump. The area one third of the way down the photo on the right also shows signs of pecking and polishing to make the haunch curve in the manner of a living bison's. Finally, note the sudden color change from pale gray on the incision's left to light brown on its right, which may be due to pigment applied to the "bison". Even if the dramatic color change is natural, and not an anthropogenic residue, it must have influenced the positioning of the incision, which is far more heavily regularized by chipping and incising than the ones forming the vulva, making it the biggest intentional compositional element in the figurative ensemble.

*(Photo D. Caldwell.)*

The only existing explanation for how the biggest anthropogenic graphic element in the cave might fit into the composition is that it is a framing device echoing the bend in the wall near the left entrance and limiting the frieze to a width of 87cm (Bénard 2007b: 32). Although diagrams showing anthropogenic modifications by chipping and incising to the central and right vulvar fissures (Fig. 3) have been



So let's examine the parts of the sinuous groove that have been adulterated more closely. From its source amid an anthropogenically flaked zone at the top, with conchoidal negatives and impact scars, to a fork 52cm down the slope, the deep incision has clearly been sculpted, resulting in a cross section that is double-beveled or stepped in many places because of secondary incising (Fig. 4R, 5). The crack continues downwards below the fork for another 32cm, but that section is unmodified. Another branch of the fork below the anthropogenic section extends to the right and, as we shall see, may form a pictorial element, despite the fact that it seems to consist of a series of natural cracks.

The zone at the top, where the deep incision starts, turns out to be a completely artificial platform created by the elimination of large flakes (Fig. 4R, 5). Although the groove below was probably visible as an erosion gully from the start, something was so important about this fissure that it was repeatedly enhanced by re-incision, smoothing, and even chipping, which has given it a saw-toothed right edge. Could such a dominant feature in the frieze really be a simple framing device –and if so, why don't artificial frames appear around other Upper Paleolithic images? If it wasn't a framing device, then could it be an abstract symbol? If so, it does not resemble the abstractions from other Paleolithic sites, such as tectiforms, which are often geometric –and, more troubling still, it has the organic flow usually associated with Paleolithic portrayals of animals. Could the idea that the line was a limit have prevented observers from looking to the right?

## 2. The proposed sculpture of a realistic bison

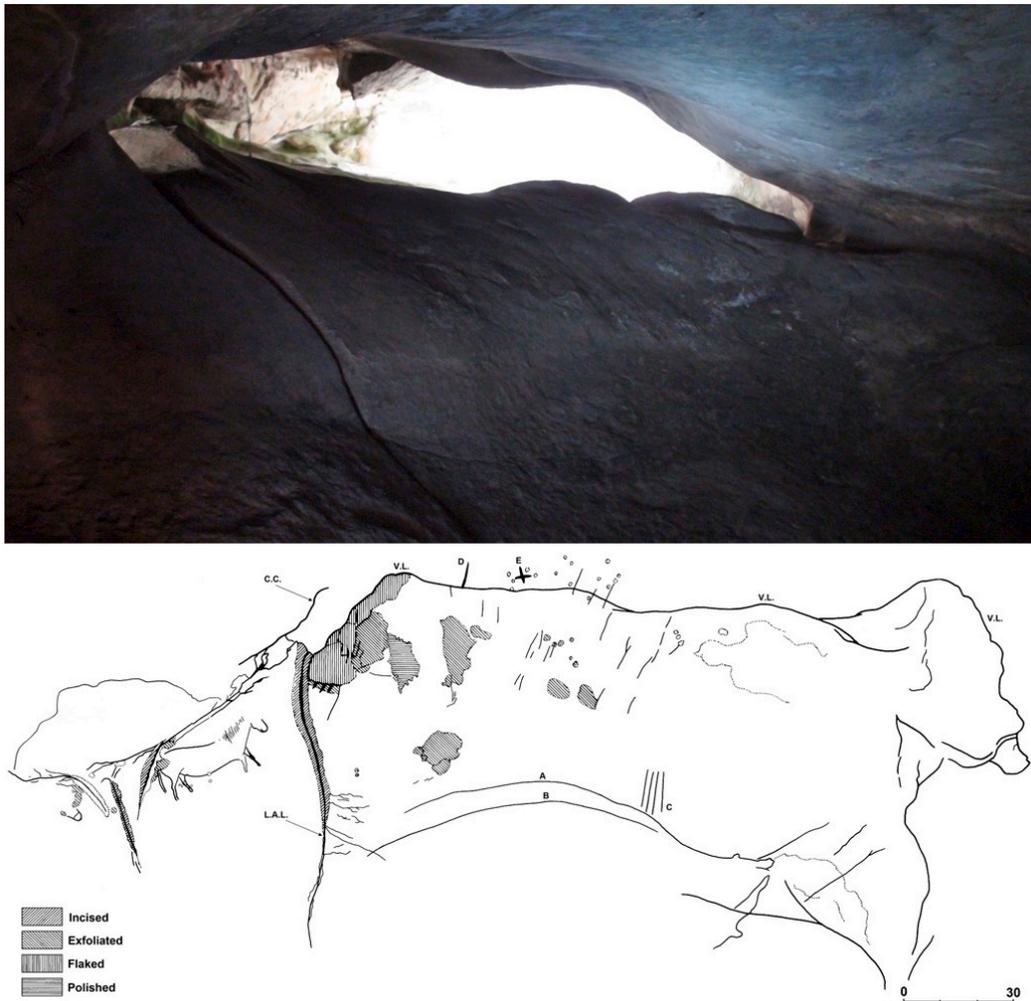
Applying compositional analysis, I realized during my next visit that the long incision might be part of an image that was:

- 1) on the same scale as the line –in other words, large;
- 2) a readymade in the same figurative style as the vulva, since the groove had been deepened and regularized (Fig. 4R, 5, 6B) in precisely the same manner as those of the genitals (Fig. 3, 4L, 6B).

If so, we should be looking for something that only needed a few enhancements like the deepened line to complete or “fix” an impression, as if the first Paleolithic observers had borne witness by saying “I have seen you. I know you are here!” If the same artist had also produced the vulva, which seemed likely, given its use of the same method and techniques, then the image –quite possibly of an animal– that would be suggested by the adjacent contours would be captured with the same succinctness –a concision typical of much Upper Paleolithic art.

No sooner had I reasoned this way, than the bison that I am proposing appeared like a bestial odalisque (Fig. 6 T&B) (Caldwell 2009b) –190cm long, 58cm deep from the dorsal to the ventral lines, and naturalistic down to the bearded chin, hump in the right place behind the head, perfect sway in the back, ventral line announced by dramatic changes in both color and contour, and, of course, the deeply incised line that now made sense either as the back of the rear leg or as the bison's tail (Fig. 6 T&B). The color even changed abruptly from one side of the rear incision to the other, enhancing the impression of the wisent's unity. The removal of large flakes at the groove's summit now made sense as a refinement of the rump (Fig. 4R, 5, 6) by eliminating an extension to the ceiling that had broken the naturalistic line. Below the chipped rump, a concave zone showed signs of pecking and polishing (Fig. 5, 6B) to perfect the swale between the bison's back and haunch. Just as I'd reasoned, the

rest of the image was largely –if not entirely– composed of natural relief that almost perfectly reflected the mounds and hollows of a sleeping or dead bison (Fig. 6).



**Fig. 6. Top:** A view showing the full extent of the 190cm. long, proposed bison, with the head and foreleg formed by relief under the cave ceiling at right and the rear formed by the deep sinuous incision on the left. The ventral line of the proposed bison is announced by changes in both relief and color, with light grey above giving way to dark grey below the arch of the “belly”. A crack, which branches to the right from the fork at the base of the anthropogenic section of the rear fissure, extends to the proposed bison’s front leg, forming a second, lower ventral line below the one formed by changed relief. (Photo Caldwell.).

**Bottom:** A tracing of the broadened frieze in Ségognole 3: **A.** A ridge that forms the 1<sup>st</sup> shift in contour that causes the area above to be read as a bas-relief of a bison; **B.** The 2<sup>nd</sup> shift in contour that causes the area above to be read as the belly of a bison. Together A & B form the ventral line; **C.** Four incisions on the ceiling directly above the bison’s ribcage; **D.** A single anthropogenic groove, which touches the hidden side of the visual limit, but which cannot be seen when looking at the bison from the small chamber containing the vulva, horses and bison; **E.** An incised cross on the hidden side of the ridge that forms the visual limit. Like the incision to the left (D) it seems to be associated with the dorsal line established by the visual limit; **L.A.L.** The lower anthropogenic limit of modification to the bison’s caudal groove; **C.C.** Cave ceiling; **V.L.** The visual limit that forms the bison’s back, hump, head silhouette, and front leg when the viewer is positioned in the only place with enough headroom to sit upright, which is directly in front of the panel with the vulva and horses.

The patch within dotted lines under the hump is somewhat exfoliated, especially in the patch’s left side. The center of the proposed bison’s is also marked by a series of light parallel incisions, but they are not as clearly anthropogenic as the two motifs marking the dorsal line (D & E) or the 4 incisions over the ribcage.

Like many other Paleolithic artists, the Ségognole sculptor(s) of the vulva and proposed wisent did not feel a need to “complete” certain images once they were “clarified” –apparently because they felt it was superfluous and that their images grew from and merged with the surrounding rock. Thus the “thighs” next to the vulva have no bottoms, just merging into the cave. The ventral line of the proposed bison is similar, since it is suggested by both a concretionary line and an apparently natural “bas-relief” change in contour (Fig. 6) that is complemented by a simultaneous color change from the “body” above to the floor below, rather than the “overkill” of an additional incision.

The right, as opposed to the downward branch of the rear fissure, forms an alternative ventral line below the “bas-relief” line as it curves towards a ridge that reads as a front leg. While largely natural, this sequence of cracks further isolates the space above, reinforcing the impression of an animal by giving it a second “belly” that is more distended. It is still possible that the changes of relief and color that form the bison’s concave, “bas-relief” ventral line above may have been enhanced with pecking and pigments, but their vulnerability as part of the cave’s floor, where even prehistorians have scuffled for decades without a second thought, has abraded away proof that would convince the naked eye.

All the same, the macroscopic evidence of intentionality is considerable. First there is the enhanced groove, then there is the hammered rump, and then there are more subtle marks, including a cross and incised line, hidden from the viewer, but which terminate directly on the visual limit that forms the “animal’s” dorsal line (Fig. 6B; D-E). Above the belly, on the ceiling, may be another clue –a motif composed of 4 short, parallel grooves (Fig. 6B-C) which seems isolated until one realizes that the lines are directly above the ribcage of the “animal” below.

There are many parallels for such use of natural relief, with a minimum of anthropogenic intervention, to enhance the impression of both animals and vulvas. In fact, cases where Paleolithic artists avoided adding anthropogenic contours, when natural changes in color, contour or relief already provided them, are so common that natural forms often dictated both the type and placement of images. A rapid search for animals with one or more contours represented by a natural formation turned up the following:

- 1-2) Mammoths 2 and 3 in the Aurignacian Chauvet Cave, which are suggested by natural stalagmitic drapery, except where the impression was minimally enhanced for parts of their forequarters by pigment in the case of n°2 and pigment and incisions for n°3 (Gély & Azéma 2005: 15; Clottes 2003: 61);
- 3-4) mammoths 7 and 8 in Chauvet, whose placement is determined by cracks that form parts of the dorsal line, head, trunk and belly of n°7 and the dorsal line of 8, with its belly indicated by a natural color change (Gély & Azéma 2005: 19)
- 5) mammoth n°12 in Chauvet, the engraving of which mirrors a larger mammoth formed by a natural hump and dorsal line while the trunk and tusks are composed almost entirely by natural cracks (Gély & Azéma 2005: 25);
- 6) mammoth n°59 in Chauvet Cave, whose forehead is a natural crack (Gély & Azéma 2005: 59);
- 7-8) mammoths 73 and 74 in Chauvet, whose engraved heads are announced by the shape of the surrounding relief –a classic case of anthropogenically made images

mirroring larger natural ones (Gély & Azéma 2005: 71). *Curiously, I'm not aware of the inverse, suggesting a characteristic of thematic and ideological importance.*

- 9-10) a double, inner and outer mammoth in Chauvet, both of whose back legs and rumps marry the edge of the panel (Clottes 2003: 93, 153);
- 11) the left scraped mammoth of Chauvet, whose legs, belly and trunk all follow contours or cracks perfectly (Clottes 2003: 102-103);
- 12) the back of the club-footed mammoth in Chauvet, which follows a fissure beside a ridge on which is illustrated a stack of bison heads (Clottes 2003: 137);
- 13) a mammoth, attributed to the early Aurignacian, in Font-Serein cave at Lussac-les-Châteaux, in the Vienne, with the whole belly and ear formed by cracks. Fissures and changes in relief also make up parts of the head around the eyes, mouth and leg (Airvaux 2001: 40, Fig. 11);
- 14-16) three mammoths in the Salle du Mammouth of the Grotte du Cheval cave at Arcy-sur-Cure. One, whose trunk and back follow natural cracks, seems to be gesturing with its raised trunk towards the rear of the gallery (Leroi-Gourhan 1984: 293, Fig. 3; Baffier & Girard 1998: 43, Fig. 33). The forehead, ear and rump of an 85cm long by 70cm tall mammoth are formed by the edge of the panel at the rear and a stalagmitic flow in front (Baffier & Girard 1998: 40-41, Fig. 28). The profile of the head, back and hindquarters of another mammoth, which is 65cm long by 85cm high, are all formed by natural relief, basically meaning that its whole contour is composed of nothing but natural elements. The area inside the natural contours has simply been scraped to indicate an eye and vertical strips of fur (Baffier & Girard 1998: 39, Fig. 27). Leroi-Gourhan attributed these mammoths to the Magdalenian, but, in the light of the Aurignacian radiocarbon dates obtained at Chauvet and the existence of mammoths and vulvas as a common theme in that period, a much older date is possible;
- 17) a mammoth, attributed to the mid-Magdalenian, in Guy-Martin cave at Lussac-les-Châteaux, in the Vienne, which takes advantage of both folds in stalagmitic drapery to define the back legs and fur and of shadows and relief to form the dorsal line (Airvaux 2001: 132-133, Fig. 118-119). This mammoth occurs in the same relation to the ensemble of images to which it belongs (Airvaux 2001: 127 Fig. 115) as the proposed Ségognole bison, with both animals being immediately adjacent to a zone with a finely incised horse associated with vivid vulvar symbols that also use natural relief (Airvaux 2001: 136-137, Fig. 120-121). Furthermore, both of the "armor-headed" herbivores are disproportionately large by comparison to their associated vulvas and horses. This series of resemblances is all the more striking because the Vienne panel is one of the closest major works of Magdalenian parietal art to be found to the Seine-et-Marne, suggesting that they belong to the same period and tradition within the Magdalenian.
- 18-19) both the topmost mammoth on the left of the "Black frieze" of Pech-Merle and a second almost spectral mammoth within it, which itself contains a third mammoth, whose cartooned outline mirrors the largely natural outline of the intermediary animal (Bahn & Vertut 1997: 122). The rear legs of the topmost animal, which has the shaggier trunk fur and bigger cranial hump of an extremely old animal, are simply formed by cracks and the panel's edge. The dorsal line of the smaller intermediary mammoth is also just a crack. The sequence of three animals seems to reflect the species' growth phases;

- 20) an engraved mammoth in Trois-Frères Cave, whose neck, cranium, lower trunk, front leg and rear haunch are all natural, while the forward part of the head is mirrored within a larger natural contour (Bégouën & Clottes 1984: 401);
- 21) an indeterminate animal with a hump, horn-like projections and proboscis composed of red palm-prints in Chauvet, whose rear follows the edge of the panel. More interestingly, the contours of the pointillist animal mimic those of the light-colored zone enclosing it, which are highly suggestive of a mammoth –making an inner and outer animal or two animals (Gély & Azéma 2005: 16; Clottes 2003: 66);
- 22) the vertical bison therianthropomorph associated with the Chauvet “Venus” whose horns and legs follow the protuberance’s contours and whose back is composed purely of natural relief (Clottes 2003: 144);
- 23) a natural block with a contour that suggests a bison from La Ferrassie on which are inscribed an eye, horn, nostril, different types of cupules, and two large vulvas (Anati 2007: 70-71). This Aurignacian bison associated with vulvar representations has even fewer anthropogenic indications concerning its identity than the one in Ségognole;
- 24) the extraordinarily close example of the “bison mourant” (Animal n°20) in the inner gallery of late Magdalenian Niaux Cave, whose entire dorsal line is a natural ridge (Clottes 1995: 160, 165; Clottes & Lewis-Williams 1998: 90);
- 25) another bison in Niaux, this time Animal n°96, whose dorsal line is simply the top of a block (Clottes 1995: 142);
- 26) the polychrome dripping bison in Fontanet Cave, whose dorsal line again hugs the relief and echoes an adjacent fissure (Clottes 1995: 32);
- 27) a second bison in Fontanet. From the hump backwards, the dorsal line of the brown bison hugs the bottom of a ridge. The red-faced bison is modeled on relief as well. (Bégouën *et al.* 2009: 372, Fig. 463);
- 28) a vertical bison in Fontanet. Segments of the natural changes in relief that form the contours of two, back-to-back, vertical bison are incised, others are left natural (Bégouën *et al.* 2009: 355, Fig. 439);
- 29) the remarkable vertical, mid-to-late Magdalenian bison on a stalagmite with a bison-like “horn” at its summit in Castillo Cave (Clottes 2008: 274; Clottes & Lewis-Williams 1998: 87). The backs of the rear legs, tail and dorsal line are all indicated almost purely by the relief, *just like at Ségognole 3*;
- 30-32) three adjacent bison on the lower-to-mid Magdalenian bison ceiling of Altamira Cave, all of which hug the contours of their mounds –not to mention other bison in the cave, whose outlines also faithfully follow natural contours (Saura Ramos 1999: 63, 67, 93-94, 112, 166; Clottes 2008: 281);
- 33) a bison (Animal n°14) from Ekain Cave, in the Basque Region, whose dorsal line and rear are almost exclusively composed of uncannily naturalistic changes in contour –*making it highly reminiscent of the Ségognole 3 bison* (Altuna 1997: 58). Although Ekain also has an early Magdalenian component, the art seems to be related to its rich late Magdalenian industry (Altuna 1997: 22);
- 34) a bison (Animal n°17) from Ekain Cave –this time with hindquarters formed by changed relief (Altuna 1997: 63);

- 35) a bison (Animal n°35) from Ekain –with nothing indicating the back except changes in relief that suggest the swales above the pelvis and between the horns (Altuna 1997: 79);
- 36) a bison (Animal n°18) in Altxerri Cave, in the Basque Region, with a natural ventral line (Altuna 1997: 139);
- 37) bison V, 2 in late Magdalenian Altxerri (Altuna 1997: 22), with almost nothing anthropogenic, since the head, dorsal line, hindquarters, and front line of the foreleg are all natural cracks or changes in contour –leaving nothing manmade except the black lines of the belly and bottom of the neck, *making this another close approximation of the Ségognole bison* (Altuna 1997: 169);
- 38) a bison, which has been placed vertically so its back can follow the edge of a wall, facing a normally positioned horse in Las Monedas Cave, Puente Viesgo, Spain (Clottes & Lewis-Williams 1998: 73). Parts of the horse's rear also follows relief and a crack, but this may be a coincidence since the overlying painting does not follow the relief faithfully;
- 39) a bison in the Grotte La Martine whose legs, belly and beard are all formed by natural contours (Delluc & Delluc 1984: 100);
- 40) a bison in the Grotte Nancy in the Dordogne, much of whose back is simply a natural contour. The engraving is probably Magdalenian (Rousot 1984: 148);
- 41-43) three bison in one mid-Magdalenian ensemble from the Grotte de Labastide in the Hautes-Pyrénées (Simonnet 1984: 530);
- 44) the two-headed bison at the right end of the “panneau de l'Empreinte” in Lascaux whose body seems squeezed by natural features (Ruspoli 1986: 135). Since this bison is painted, it does not rely completely on natural relief to designate parts of its contour, but, in a related phenomenon, its outline follows cracks, ridges and edges closely. The same can be said for many of the painted bison below, especially those of Font-de-Gaume;
- 45) the red and black bison of the crossed bison pair in Lascaux, much of whose back is delimited by a crack (Ruspoli 1986: 141);
- 46-47) two bison in the Grotte du Portel, one of whose legs and belly merely mirror cracks, while the other's painted dorsal line follows a natural crack (Dauvois & Vézian 1984: 386-387);
- 48-51) aspects of the four right-hand bison in the frieze on the left wall of Font-de-Gaume's main gallery, whose painted legs, caudal contours, backs and other details follow relief (Daubisse *et al.* 1994: 24-25);
- 52) a graffitied red bison on the left wall of Font-de-Gaume's main gallery, whose belly, legs and humps follow natural relief (Daubisse *et al.* 1994: 15);
- 53) a painted bison above the composite mammoth-bison in Font-de-Gaume's “Cabinet des Bisons” whose massive head and hump hug the form of the cavity (Daubisse *et al.* 1994: 23);
- 54-56) at least three painted bison on the right wall of Font-de-Gaume's main gallery;
- 57) the mid-Magdalenian “bison du Tréfonds” in Trois-Frères Cave, Montesquieu-Avantès, Ariège, whose dorsal line, from the hump backwards, and hindquarters are only indicated by a crack and changed relief, even though the head is both painted and engraved (Clottes 2008: 246);

- 58) an upside-down bison in Trois-Frères. Although the outlines of the back and head are engraved, they are also determined precisely by a suggestive natural edge. Even the engraved upside-down legs follow relief (Bégouën *et al.* 2009: 356, Fig. 441);
- 59) a vertical black bison in La Garma. Like the upside-down bison of Trois-Frères or the vertical bison of El Castillo, the bison seems to have been positioned so its hump and mane could follow a natural feature, which, in this case, is a crack (Bégouën *et al.* 2009: 356, Fig. 440);
- 60) an almost entirely natural, slightly engraved bison in Covaciella Cave in Asturias. The dorsal line is unmarked but formed by a ridge like the one in Ségognole while the tail is formed by the ridge and a cavity below it. Although the rear line of the hind leg is formed by an edge, it was also marked as having been seen by several incisions. The only segments of the animal that are incised without accompanying relief are the front line of the hind leg and the adjacent curve to the belly, before a crack and cavity extend the ventral line (Bégouën *et al.* 2009: 356, Fig. 442);
- 61) a red bison facing a red horse over six claviforms in El Pindal. Unlike the facing horse, the dorsal line and legs of the abstract red bison are formed by ridges. The use of natural contours has been emphasized by the contrast between two rows of red lines above the ridge and rows of red dots below (Bégouën *et al.* 2009: 366, Fig. 454);
- 62) a bison head in Marsoulas. Although the forehead of this detailed bison head is engraved, the incisions are mated to an edge and the head fits within a natural contour that suggests a larger head (Bégouën *et al.* 2009: 358, Fig. 444 a & b);
- 63-65) a bison and two deer in Llonín Cave. The dorsal lines of a bison and two reindeer are marked directly upon suggestive changes in relief in the case of the bison and larger deer, and mirror it in the case of the 2<sup>nd</sup> deer. The lower front of another deer and back of a fourth one also hug topographical changes (Bégouën *et al.* 2009: 388, Fig. 480 a);
- 66) a deer whose ventral line hugs relief in Covalanas Cave, Ramales de la Victoria, Cantabria (Anati 1989, pl. 11);
- 67) a stag (Animal n°114) –or vulva– (or both) from Niaux Cave, which is simply composed of “antlers” on either side of a hole below, showing that the aperture may have been seen as a buck’s head (Clottes & Lewis-Williams 1998: 87; Clottes 1995: 117, 143; Anati 1989, pl. 8.);
- 68) a mid-to-late Magdalenian, engraved reindeer in Altxerri Cave, Aia, Guipuzcoa, Basque region, Spain, with a fox set inside his neck. The top of the head, neck and hump all “mirror” both a crack and an accompanying change in relief (Altuna 1997: 133; Clottes 2008: 267);
- 69) a bottom of a deer’s head and neck, which are simply designated by a rock edge, in Altamira Cave (Clottes & Lewis-Williams 1998: 90);
- 70) a deer’s head in the Grotte du Cheval at Arcy-sur-Cure, the top of whose head is formed by a fissure (Leroi-Gourhan 1984: 295, Fig. 5);
- 71-72) the red and black stags on the right wall of Lascaux’s Rotunda, whose painted antlers follow relief. More pertinently, the rump of the red stag is simply formed by a crack;

- 73-74) both of the megaloceroses in Cougnac Cave. The bottom of the red ones head and neck echo a crack and changed relief (Clottes & Lewis-Williams 1998: 54) while the bottom of the neck, front leg and contours of the ribcage of the black one are almost exclusively formed by relief (Clottes & Lewis-Williams 1998: 68);
- 75) one of the two spotted horses in Pech-Merle Cave, whose small painted head fits within a larger natural contour suggestive of a correctly proportioned horse's head (Clottes & Lewis-Williams 1998: 91), *mirroring* it but not using its contours directly;
- 76) a horse (Animal n°77) in Ekain Cave, in the Basque Region, whose belly, head and neck follow cracks (Altuna 1997: 83);
- 77) the largest horse in Gouy Cave, whose belly is defined around a cavity (Martin & Martin 1984: 558);
- 78) a horse on the northwest wall of Commarque Cave, in the Dordogne, whose mane, ears, and foreleg are simply composed of relief (Delluc & Delluc 1984: 121). The cave is also notable for its vulvar representations;
- 79) the disembodied head of a horse that is probably Magdalenian and fits within the natural contour of a much larger "horse" in Montespan Cave in the Haute-Garonne (Bahn & Vertut 1997: 57). This *mirroring* of natural contours by images inside them should probably be viewed as a separate phenomenon from the actual use of natural contours to form all or parts of an animal. The mirroring here resembles that of the small horse head in the larger natural form at Pech-Merle and that of the reindeer in Altxerri. Both mirroring and delineation by natural contours is seen in the mammoth sequence of Pech-Merle;
- 80-81) two horses (horses n°57 and 60) at the start of the "panneau de l'Empreinte" in Lascaux's Nave whose manes and back partly follow natural cracks and ridges, while not relying on them for definition (Ruspoli 1986: 134);
- 82-83) two horses on the right wall of Font-de-Gaume's lateral gallery. The back of the rear one mirrors relief above it while its rear haunch and legs are set on a protuberance. The legs, tail, and bottom of the neck of the front horse are almost entirely composed of stalactites (Breuil 1952: 80; Daubisse *et al.* 1994: 21);
- 84) a horse in the Grotte des Merveilles in Rocamadour which fits within a stalagmitic flow (Lorblanchet 1984: 494);
- 85) a horse in the Grotte des Escabasses whose painted rump partly follows a crack (Lorblanchet 1984: 508);
- 86) a horse head in Montespan. The head seems mirrored within a larger shape that forms a muzzle and mouth (Bégouën *et al.* 2009: 372, Fig. 465);
- 87) a horse in Trois-Frères, whose mane and back mirror adjacent cracks while its ear is a small fossil (Bégouën *et al.* 2009: 359, Fig. 445);
- 88-89) a red horse and black ibex at the extreme left of the "Frieze of the little horses" in Lascaux, whose ventral lines are composed of nothing more than natural folds (Bataille 1992: 82);
- 90) an ibex in Chauvet, whose head and dorsal line are formed by cracks (Clottes 2003: 72-73);
- 91-92) an ibex in a complex frieze in the Grotte des Fieux in the Lot, whose contours are largely natural. It is actually one of several animals using the same contours that fit within a large mammoth that is almost wholly natural, except for an incised

trunk and haunch segment (Lorblanchet 1984: 481). This huge proboscidian has the same disproportionate size and orientation vis-à-vis an adjacent panel containing a triangle around a natural “vaginal” slot as the Guy-Martin mammoth has to its adjacent vulvar section;

- 93) a black feline head framed within a natural ridge, a crack and a flow of white calcite (Clottes & Azéma 2005: 25, Fig. 6);
- 94) a second feline head (16 bis) framed within a crack (Clottes & Azéma 2005: 35, Fig. 17). Such isolated and naturally framed feline heads seem to be a separate but related phenomenon to the use of natural contours to delineate parts of animal bodies;
- 95) an engraved feline (n°22) in Chauvet, the bottom of whose head is simply the edge of the panel. The lines for the bottom of the neck and back also reflect nearby cracks (Clottes & Azéma 2005: 46, Fig. 26);
- 96-97) two oblique felines on a pendant formation. The Chauvet Venus and her therianthropomorphic bison consort are on the opposite face. The belly and interior of the legs of the two felines are almost completely indicated by natural topography (Clottes & Azéma 2005: 81, Fig. 52);
- 98) one more feline in Chauvet, Feline 18, whose rump above the tail is simply a natural fissure (Clottes 2003: 179; Clottes & Azéma 2005: 41, Fig. 22);
- 99) a feline in Chauvet, whose contours fit into natural ones –an early case of “mirroring” (Clottes 2003: 79);
- 100-101) two “masks” in Altamira that appear to represent bison seen full-face (Clottes & Lewis-Williams 1998: 90; Saura Ramos 1999: 48, 153-154);
- 102) an anthropomorphic full frontal face or “mask” in the Magdalenian Grotte du Colombier I, in the Ardèche, whose nose is a stalagmitic flow (Comber 1984: 619);
- 103) another head or face, this time in Vilhonneur Cave, Les Garennes, Charente, where the face is framed by relief (Clottes 2008: 73);
- 104) a disembodied zoomorphic head in Trois-Frères. This rounded wedge-shaped rock bears two red spots that turn the pointed end into a nose and mouth (Bégouën *et al.* 2009: 357, Fig. 443);
- 105) a red aurochs, which is probably Solutrean, in Covalanas Cave, Ramales de la Victoria, Cantabria, whose hump, dorsal line and rump are “married” to the edges of a wall (Clottes 2008: 172);
- 106) a bird whose breast, head, back and tail are all shown only by relief in Altxerri Cave (Clottes & Lewis-Williams 1998: 56);
- 107) a “bear” in the Grotte de Tibiran, with total dependence on natural relief to suggest much of the legs and head (Clottes 1984: 538-539);
- 108) and, finally, there are several known “men” or rather anthropomorphs painted around phallic-like projections, such as a 38cm example in Le Portel Cave in the Ariège, which may be Magdalenian (Bahn & Vertut 1997: 105). Given its bell-shaped body and the existence of numerous phallic “venuses”, it is just possible that it is female and that she is having intercourse, as it were, with a natural emanation of the wall.

And one could go on. The more exhaustive survey which I am preparing for separate publication will analyze how cave topography was used in relation to both

zoo- and anthropomorphic imagery by site, region, timeframe, and affiliations while distinguishing between:

- actual use of cave topography to create an animal's outline, and
- painted or engraved contours and other features that overlay topographic features such as edges, ridges and cracks,
- anthropogenic contours that “mirror” nearby natural features while not actually overlaying them;
- isolated framed heads such as Chauvet's two lion heads mentioned above;
- halves and heads of animals that seem to be “exiting” or “entering” cracks or voids, such as equine forequarters that seem to issue from fissures;
- and related phenomena.

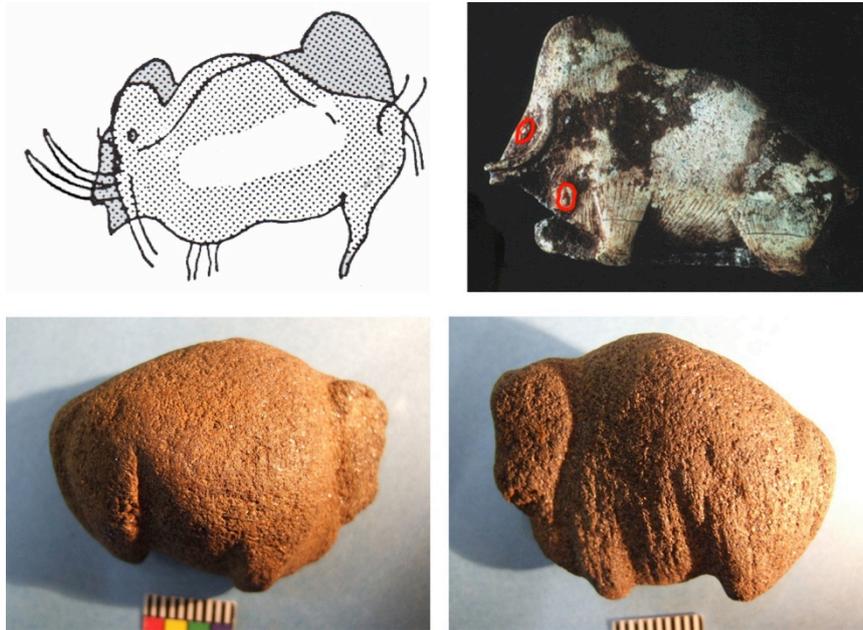
It will show how some caves and even panels represent particular cases, for example the “panneau de l'Empreinte” in Lascaux's nave, which has an unusual concentration, within the cave's imagery, of horses and bison whose anthropogenic outlines overlay or mirror natural features.

In the meantime, if one leaves out engraved plaques from Tuc d'Audoubert, which use edges for contours, and just add its relief-defined parietal imagery (bisons 11, 12, 39, 124, 145, 158, & 232 –being conservative– horse 166, plus equines 1, 180, 187, 196, which only mirror adjacent relief; two animal heads defined by eye spots [144 & 157]; and a full bear [46] implied by nothing but red eyes) then this preliminary survey of cave imagery whose contours are determined or enhanced by natural features turned up 49 bison, 21 mammoths, 15 horses, many of which just mirror relief instead of following it, 11 cervids, including megaloceroses, 7 felines, two of which are just heads, 7 frontal faces or heads, 2 of which may be bison, 3 ibex, 2 bears, an aurochs, anthropomorph, bird, and an indeterminate animal that is probably another mammoth.

What is so intriguing about this sampling, which was in no way biased towards finding animals of one kind over another whose outlines follow natural features, is that the use of such features to delineate large parts of animals –as opposed to only mirroring them– seems to have been particularly common for wisents, with most of the relevant bison imagery falling in the Magdalenian, and mammoths, starting in the Aurignacian. This concords perfectly with the idea that a bison was made using a great deal of natural relief in Ségognole 3, which has a high probability of being Magdalenian. It also fits evidence published earlier (Caldwell 2010) that these species had similar relationships with some examples of Paleolithic feminine imagery, with the use of mammoths in relation to “venuses” and vulvar signs dominating during the earlier stages of the Upper Paleolithic and in northern and central Europe, while bison seem to have increasingly filled an equivalent role in southern Europe.

The so-called “bison-women” on the ceiling of Pech-Merle are typical of a related phenomenon, since several have such long proboscises, that they can just as easily be read as transforming into mammoths as wisents. This difficulty of interpretation recalls a dispute over a bas-relief in mid-Magdalenian Abri Reverdit between Marcel Castanet, who interpreted it as a wisent, and Henri Breuil, who read it as a mammoth, before being won over to Castanet's interpretation and illustrating it as a bison (personal communication from Isabelle Castanet, citing correspondence between her great-grandfather and Breuil). Ironically, though, nearly contempo-

aneous examples of indisputable composite bison-mammoths suggest that both of the original interpretations may have been correct.



**Fig. 7.** Composite bison-mammoths. **Top left:** A composite being with signs of mammoth and bison heads (Breuil's bisons 18, right, & 19, left) at each end of a common trunk. Font-de-Gaume. (After Daubisse et al. 1994: 12.) **Top Right:** Bison-mammoth spear-thrower with a "mammoth" eye above and "bison" eye below a crescent that serves both as tusk and horn. Grotte de Canecaude, Aude, Laboratoire de la Préhistoire, Carcassonne. (After Gély & Azéma 2005: 105, Fig. 74.) **Bottom:** A single zoomorphic figurine that reads both as a bison (left) and mammoth (right). The author is participating in the description of the assemblage from the Upper Paleolithic site near Cambrai, which has only been reported in a cursory fashion until now, most notably in *Archeologia* (March 1992). (*Lecocq collection.*)

Several such bison-mammoths exist in Font-de-Gaume, which has not received a book-length analysis since 1910 (Capitan *et al.* 1910), making such composite imagery a major unexplored theme of the cave. In the cavern's main gallery, the cranial and dorsal humps of an engraved and scraped mammoth are hidden within a red bison's dorsal mounds (bison n°4) (Paillet 1999, Fig. 114). The same is true of the top line of bison n°3, except that the composite creature has a mammoth's head and a wisent's hindquarters extending beyond the mammoth's (Paillet 1999, Fig. 113). The same interlocking cephalo-dorsal lines of the two species are seen again in bison n°2. The central "bison" (n°43) in the *Cabinet des Bisons*, whose "horns" can just as easily be read as tusks and whose cranial hump looks like that of a mammoth, also plays on similarities between the two species. Again, in the final diverticulum, "bison" n°51 has a mammoth's high cranium and ocular bump –and an inner image that resembles either an anthropomorph (Daubisse *et al.* 1994: 2) or a proboscidian skull with odd digitated tusk/arms (Paillet 1999, Fig. 153, 155). But one might be tempted to dismiss both the visual puns of the high, mammoth-like, cephalic mounds of so many bison (n°2, 3, 4, 14, 21, 35, 37, 41, 43, 51), and interlocking cephalo-dorsal lines as being unrelated super-impositions, despite the fact that the choice to overlay one species precisely upon the other was so consistent and intentional, if it were not for the cave's Rosetta Stone –an incontestable composite being with mammoth and bison heads at each end of a common trunk (Fig. 7 TL) (Paillet 1999, Fig. 109b).

Elsewhere, a spear-thrower (Fig. 7 TR) from the Grotte de Canecau in Aude can be read as both a mammoth and bison, with both an upper eye, which turns the crescent beneath it into a tusk, and lower eye, beside the front leg, that transforms the same crescent into a bison's overhead horn. The common theme of all these examples, which, with the exception of Pech-Merle, are Solutrean to mid-Magdalenian, is that they were created to be read first one way, then another, like figure-ground or, to put it zoomorphically, the duck-rabbit illusion, and thus as intentional syntheses between the two armor-headed herbivores.

If the observation that mammoths and bison often had a relationship to each other and to female imagery during the European Upper Paleolithic is correct, it may not be surprising to find these huge herbivores treated in the same way as each other and somewhat differently from other animals in the use of parietal topography. Other species such as horses, which are more common in Paleolithic cave art than bison or mammoths, amounting to 27% of the animals represented in Spain and southwestern France (Bénard 2007b: 59), appear to be severely under-represented in the sampling of animals that use natural contours directly –although the forequarters of horses, aurochs, bison, and other animals sometimes appear to issue from fissures (Bégouën & Clottes 1984: 411; Gausson 1984: 228; Clottes 2003: 88, 211; Raux 2004)– yet another phenomenon. If there is some truth to this preliminary observation that mammoths, and increasingly bison as well, account for an inexplicably large percentage of animals represented by natural contours, then it must have some explanation in Paleolithic beliefs in some periods and regions concerning the relationship of each species with the rock in caves that animals cross and cohabit with, but also seem to sometimes enter and exit. Wisents and mammoths seem to have been more inextricably bound with the rock itself in some traditions than species whose outlines are not determined as often by the natural relief –perhaps because the latter were often seen as being on the membrane or interface between two dimensions, instead of behind it, a theme explored by Pascal Raux in conjunction with horses (Raux 2004).

Returning to Ségognole 3, once the sinuous, anthropogenically deepened and regularized groove was seen as the bison's rear, truly completing it, it also became obvious how life-like the wisent would have appeared if it had been painted with pigments that might have been abraded away on this ridge of the cave floor. The shift from grey to the left of the caudal incision to tan to the right (Fig. 1, 4R) is so abrupt and consistent that it may be the last vestige of such coloration.

Seeing how the proposed bison formed the ridge was also reminiscent of the unusual representation of the stag and indeterminate quadruped on the axial ridge on the floor of Ségognole 4 next door. Returning to my original questions, the placement of the 2 quadrupeds –which has seemed unique until now– may mean that their maker was still aware of a huge sculpture of a quadruped on a similar floor ridge of Ségognole 3, linking the adjacent caves thematically just as strongly as the fact that they each have a motif that can be interpreted as a vulva. The most striking commonality of all, though, is the fact that each of the three adjacent caves have engravings of pairs of small quadrupeds –horses in Ségognole 3 and deer in Ségognole 4 and 5. Such couples are so rare in the Massif de Fontainebleau that a series of 3 pairs alone argues that at least some aspects of Ségognole 3 were seen by makers of the animals next door, inspiring them to engrave similar pairings in their own styles.

Finally, a visit on a rainy day led to the solution to a mystery that I was not even aware existed: the origin of the isolated crack that formed the vaginal slit. In a telling example of how long it takes to fathom the simplest implications of some images – especially when they trick one by seeming too obvious– I was slow to realize that the central gully should not be there at all, since it is not connected, on the surface, to the drainage system of cracks above and there is no surface source for water to erode it. Laurent Valois was in the cave’s low-ceilinged upper chamber holding a huge plastic sheet in place as I traced the enlarged ensemble from the lower chamber (Fig. 6 B), when he noticed water dripping from the ceiling and running into a natural basin on the opposite side of the partition from the vulva and horses. The pathway of this rivulet was obviously old since it had eroded a channel. I examined the oddity and realized that the basin wasn’t filling, even though its bottom seemed solid. The water was simply disappearing as it sank into the porous rock. And then it hit me: The vulva on the other side of the partition was leaking water, especially from its central slit, moistening the whole pubic triangle! The vulva’s 3 fissures represented the surfacing of flaws that carried water through the wall. The appearance of moisture on the “genitals” long after wet weather may have seemed as much a miracle in its time as religious images that leak tears or oil in ours. It also added a new reason for both the original interest in the vulvar zone by Paleolithic people and the probability that the cave kept its significance into the following cultural period, adding yet another reason that might explain the presence of the art ensembles next door.

### 3. Similarities between the broadened frieze and one in Guy-Martin Cave

As was suggested in the list of animals that hug natural contours, Ségognole 3’s broadened frieze has striking compositional and thematic resemblances to one in the Guy-Martin cave network at Lussac-les-Châteaux in the Vienne. The ensemble was found in 1990 by several members of the Poitevin Spéléo-Club and the author who described it, Jean Airvaux (1998, 2001). Unlike Ségognole 3, which is too small to have any deposits, Guy-Martin is well dated –both by its bone, stone and artistic assemblages, which are all attributable to the mid-Magdalenian, and by a carbon date of  $14\,240 \pm 85$  uncal BP (Orsay 3780). This places it close in time to a carbon date of  $14\,160$  uncal BP (GrN 1913; Airvaux 2001: 139) for the habitation phase when the frieze in the Abri Bourdois at the nearby Roc-aux-Sorciers was sculpted. The panoramic frieze in the latter site is centered on a famous bas-relief known as the “Three graces” (section III in Jean Airvaux’s division, 2001: 154-159), which shows exactly the same part’s of a woman’s anatomy as Ségognole 3 –the belly, pubic triangle, and thighs.

The Roc-aux-Sorciers is pertinent for other reasons as well. First because the “Three graces” section also contains two bison, one under the “venus” on the right and the other split by her (Fig. 8 L). This bison with its hindquarters to her left and head to her right is a relic of the frieze’s original focus on wisents, of which there were at least seven (Airvaux 2001: 153). Even though the partial woman is super-imposed on the earlier bison, the makers of the frieze’s second stage were careful not to efface the wisent’s head and rump, and positioned the woman so as to fully preserve another bison below.

Even though four ibex were added during the second stage to the next section to the right (IV) (Fig. 8R), the two relics of its original composition are a bison head at lower left and vulva, thighs and pelvic line at lower right, proving that the frieze’s first iteration was already focused on wisents and the generative part of women’s bodies.

Finally, several small heads, including one seen full-face directly above the “Graces”, occupy a zone above the panorama and at its extreme lower right, where the face of an anthropomorph faces that of a feline to the right of a second “smiling” human profile. These heads around the top and periphery of a frieze centered on vulvar symbols are similar to ones found in the same general compositional positions in the Guy-Martin panel.



**Fig. 8. III (Left).** The “Three graces” section of the frieze in the Abri Bourdois at Roc-aux-Sorciers, Angles-sur-L’Anglin. Note the small, possibly anthropomorphic head seen full-face directly above the “Graces” as well as the bison at bottom and second bison split by the female anthropomorph on the right. **IV (Right).** Two relics of the original composition of Section IV of the Abri Bourdois frieze are a bison head at lower left and vulva, thighs and pelvic line at lower right. (After Airvaux 2001: 159, Fig. 136.)

The Guy-Martin panel represents an intermediary level of graphic richness between the panorama at the Roc-aux-Sorciers and the simpler frieze in Ségognole 3, but its compositional structure practically duplicates that of the broadened panel in the much smaller Seine-et-Marne cave –except that the vulvar component is on the right, while the disproportionately huge armor-headed herbivore –in this case a mammoth– is on the left (Fig. 9). Although calcite deposited since the Guy-Martin mammoth engraving was made has obscured some of its incisions, it is certain that the contours of the mammoth’s cranial bump, neck depression, dorsal hump, back in front of the rump, ribcage, and rear legs are mainly defined by relief (Airvaux 2001: 127, 132-133). The pincer at the end of its trunk even folds perfectly around a natural contour. So, even though this mammoth is so precise in such anatomical details as the anal or vulvar flaps and the nails on its front feet, it is so reliant on natural form that it becomes largely invisible in the wrong lighting. This was equally true for the Salle de Mammoths in the Grotte du Cheval at Arcy-sur-Cure where a change of lighting led to the discovery of a new mammoth in a chamber known for a finely engraved vulva, whose lines, once again, follow those of a protuberance (Baffier & Girard 1998: 35-37).

Like the Ségognole bison, which it resembles so closely in its reliance on and inspiration by natural relief, the Guy-Martin mammoth also faces away from the vulvar zone, but this may be of little importance, since Paleolithic artists often seem to have been inspired by suggestive and, to them, certainly spiritually enriched features in the rock –more than rigid preconceptions of how to arrange images. Since the relief underlying both the bison and mammoth can only be read as such animals

in one direction, form probably dictated the orientation of the animals –as Clottes and Lewis-Williams have suggested (1998)– more than ideological strictures.



**Fig. 9.** The Guy-Martin panel consists of two sections: a disproportionately huge armor-headed herbivore –in this case a mammoth– on the left, and a vulvar section on the right. (After Airvaux 2001: 127, Fig. 115).

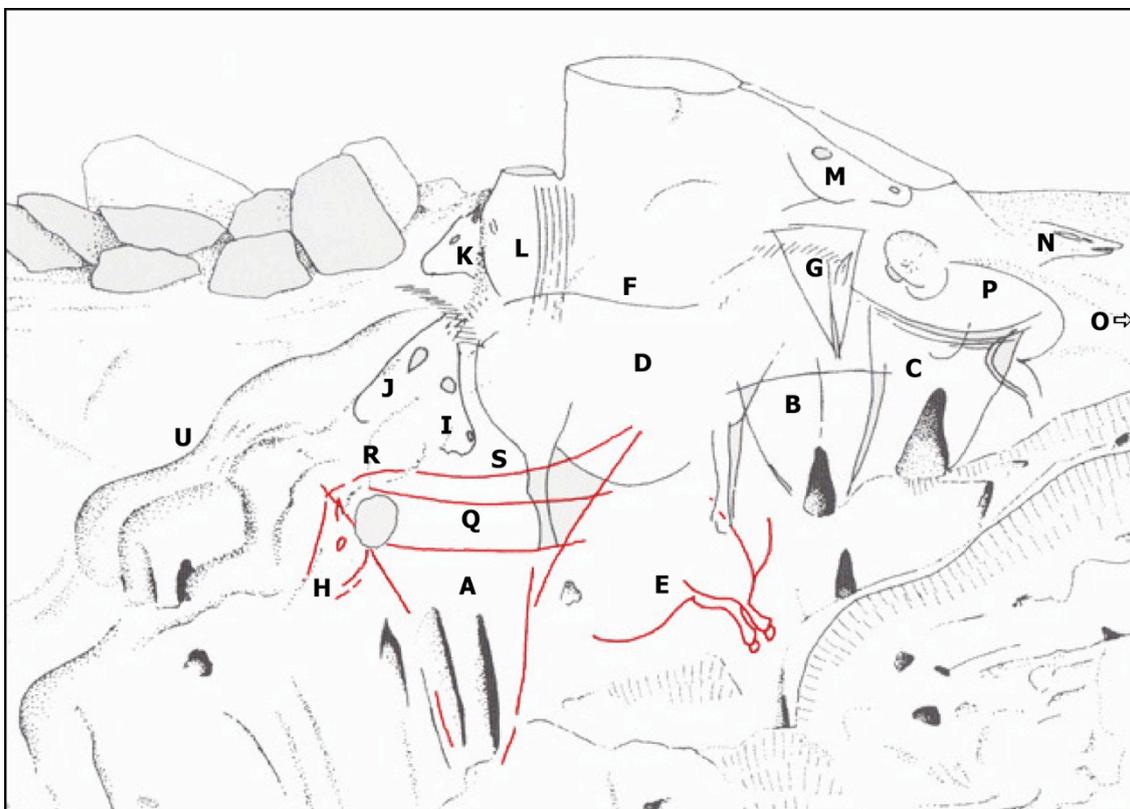
But there is nothing contradictory between the idea that the engravers “saw” anthropomorphic and zoomorphic beings in rock forms and the idea that they were attracted to places where the suggestions fell into patterns that reflected beliefs. Seen in this light, some aspects of the structuralists’ “mythograms” may be compatible with ideas concerning the inspiration provided by cave topography proposed by Lewis-Williams and Clottes.

It is in the repetitions of such simple and relatively homogeneous compositions as the friezes under consideration that the validity of this suggestion can be most easily tested.

The vulvar zone on the right of the Guy-Martin ensemble reveals another parallel with the one in the Ile-de-France. Again the vulvas were fully apparent as suggestive natural forms. In the case of Guy-Martin, a few light incisions illustrating pubic triangles were added around three of the natural “vaginal” cavities (Fig. 10 A-C) to fix the impression left by a larger number of similar cavities in the flowstone. Drawing the comparison still tighter, the vulvar zone in the Vienne also has two adjacent horses (D-E). Like the ones in the Seine-et-Marne, both are lightly incised and are in no way suggested by relief. But that is not all: at first glance, the lower one also seems to be partial –being little more, apparently, than a belly and hind legs (E). Similarly, Alain Bénard’s meticulous examination of the more eroded equine in Ségognole 3 led him to conclude that it had never represented more than half an animal (Bénard 2007b: 23, 27-29).

The more complete horse at Guy-Martin (D) is as finely incised as the larger one in the Seine-et-Marne cave but has a body that is as plump or gravid as the Ségognole horse’s is long. This impression of stockiness is enhanced by a strange feature –a dorsal line (F) that floats separately above its natural level instead of continuing the line of the rump, as if parts of the horse were floating apart or were in different dimensions.

The main difference, though, is that a fully anthropogenic illustration of a vulva occupies the space where one would expect to find the horse's muzzle (G). The substitution looks intentional with, one, the triangle mimicking the head, and, two, the vaginal slit suggesting the horse's mouth. If the replacement of the vulva was meaningful, it may indicate something about the role of horses in such ensembles.



**Fig. 10.** Detail of the vulvar section of the Guy-Martin panel with letters (A-U) that are used in this article's analysis. The "cubist" horse of the Guy-Martin vulvar panel, whose contrasting compositional units are seen here in red, is made up of 3 distinct types of elements: a figurative head and lower hindquarters, a schematic neck and upper torso composed of a trapezium, and the natural ready-made forelegs formed by the same two ridges (delineated by incisions) on either side of a vertical slit as the ones that form the "labia" of the bottom-most vulva. (After Airvaux 2001: 127, Fig. 115.)

The rest of the imagery on the Vienne panel seems to represent an elaboration on the panel's themes that may illustrate the extended significance of both this complex frieze and Ségognole's somewhat simpler one. Around the top and sides of the zone where the most complete horse is centered over the partial horse and group of vulvas, in a space corresponding to their shared belly or womb, are an effusion of 6 or 7 half or fully realized heads (H-O). In four cases, these heads follow relief so closely that they seem to bubble from the rock. Three of the larger set of heads can be read as ibexes because of the concavity of the profile of their muzzles near the eyes (I, K, M). The most abstract head, with the suggestion of hair and an eye on a barrel-shaped projection in the stone directly above the more complete horse's rump, may be anthropomorphic (L) –unless it is the rump, with a tail composed of vertical incisions, of an animal that is seen from behind as it turns its head (K) to the left. There also seem to be at least three clear equine heads: the lowest animal head on the left of vulva A (H), which we will come back to in a moment; another, just above it (J), which represents the left half of a Janus whose right face (I) seems, at first, to be

an ibex; and, finally, an almost complete horse drawn on the ledge behind the panel on the right (O). Finally, this halo of partial beings above and around the central horses and lower vulvas contains an anthropomorph (P), which appears to be a baby, hovering directly above a vulva on the right (C), with its head bowed towards the vulvar head (G) of the more complete horse (D).

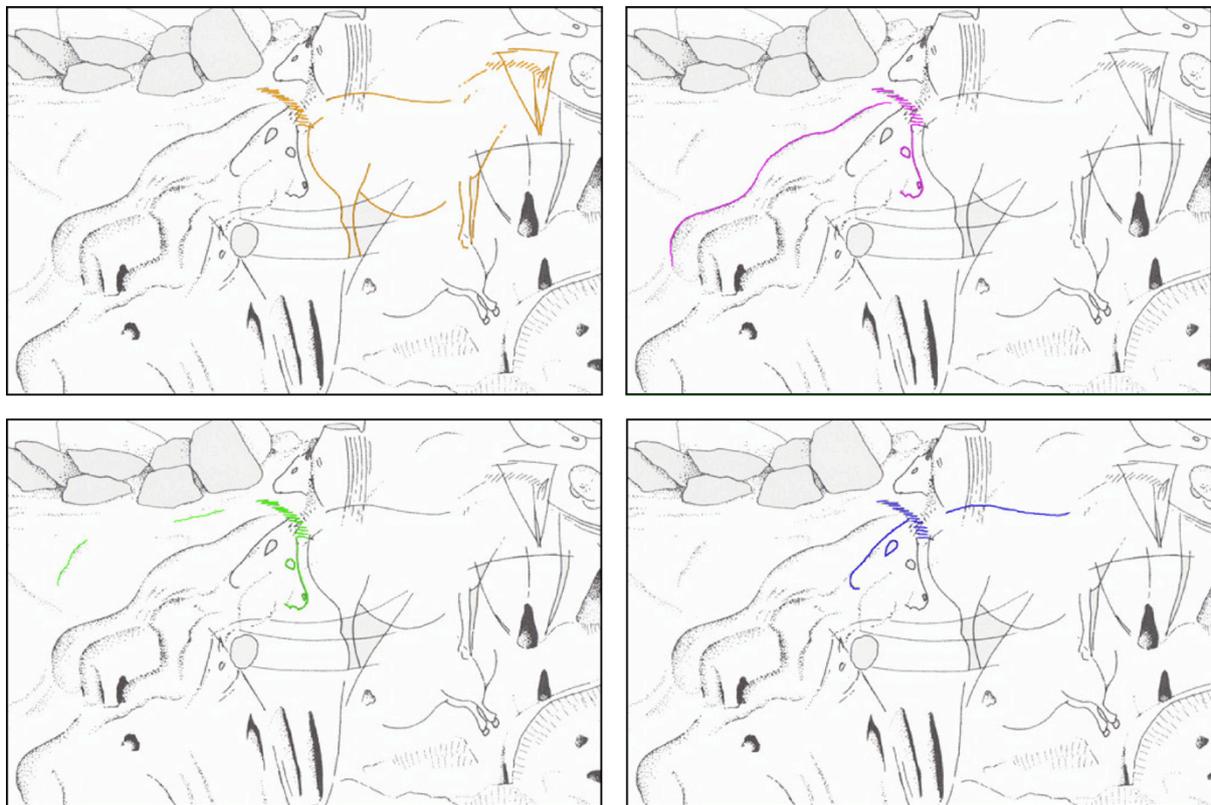
But this is only the beginning of the information that compositional analysis can reveal about this panel. For the heads are not entirely disembodied, as it were.

Let us start with the lowest of the animal heads –the small horse’s head affixed to the left side of an incised trapezium (Q) that forms the upper part of the pubic area of the largest vulva (A). Looking more closely, one realizes that the head actually has a dorsal line announced by a short curved incision (R), forming the top of its neck, that is continued after a gap by a line that sweeps to the right (S) towards the peak of the incision that forms the right side of the pubic zone for the “vaginal slit” below. The trapezium (Q) just below the dorsal line accentuates the impression of a schematicized trunk, with the ridges on either side of the “vaginal slit” in vulva A now being readable as the horse’s front legs. All of a sudden, the forequarters of this horse, which we now know has both realistic (H) and abstract (A, Q) sections, becomes the front of the fat belly, hind legs and rump (E) between the vulvas to the right –making an extended equine (Fig. 10 in red) whose segments float near each other and form an intimate visual pun with one of the vulvas (A). This is one of the most perfect illustrations of the Cubist method of decomposing elements and treating them differently in separate but adjacent planes and would have been perfectly recognizable to Picasso, Braque or Juan Gris.

But two questions leap to mind. First, are there other clear examples for the use of vulvas in place of legs? The answer is yes –in the Grotte de Saint-Cirq du Bugue, which bears stylistic, iconographic and even probable temporal similarities to Roc-aux-Sorciers, Abri Reverdit, Guy-Martin and Ségognole 3. On the ceiling, near its famous anthropomorph, vulvar triangles and bison heads, is a horse whose two sets of legs are illustrated in precisely the same way as the Guy-Martin composite horse – each set being a vulva split in the middle by a vaginal slit (Fig. 14L). At Font-de-Gaume, with its Solutrean assemblage and Magdalenian stylistic attribution, the same conceit seems to have been used for the front legs of a black bison with red horns in the lower part of the right wall just before the junction with the lateral gallery.

The second question that comes to mind about the Guy-Martin “Cubist” horse is whether the rest of the composition supports such an anachronistic comparison with modern art? Let us move up to the set of heads just above the small horse’s, the horse-ibex Janus (I-J). The “ibex” head (I) with its concave nasal profile is surmounted by a tapering crescent of transverse oblique lines (T) that is positioned to be read simultaneously in four ways: one, as the lifted tail of the upper and most naturalistic horse, whose rump it touches at precisely the right spot (Fig. 11 orange); two, as the backward-facing, furrowed horn of the head with a concave nasal profile, confirming one’s initial impression that it might be an ibex (Fig. 11 purple); and, three, as the erect, forward-facing mane of the same profile, transforming the ibex into a classic Paleolithic equine (Fig. 11 green). This reading of the crescent as a mane is confirmed by its similarity with the mane of the most complete horse (Fig. 10 D). So this half of the Janus (I) now has its own double identity, which is further suggested by two potential dorsal lines formed almost entirely by natural relief. The first, and most obvious, is a contour (U) that slants down towards the mammoth’s tail and looks

like the steep slope of a male ibex's back. The other is fainter but established by the curve of the mane (T), forming the shallower slope of an equine dorsal line (Fig. 11 green).



**Fig. 11.** One crescent of oblique lines with 4 readings. The same crescent forms: **Top left (orange):** The up-raised tail of the horse with a vulvar head. **Top right (purple):** The backward horn of an ibex, whose back is formed by natural relief. **Bottom left (green):** The mane of a horse, whose dorsal line also consists of natural relief. **Bottom right (blue):** The forward horn of an auroch, which shares its dorsal line with the orange horse (A), but in reverse. (All after Airvaux 2001: 127, Fig. 115.)

Next, let's turn to the left side (Fig. 10 J) of the Janus, which has a convexity near the eye, suggesting a horse at first. But if one reads the crescent of transverse lines (T) now as a forward-facing horn, the face becomes that of an aurochs (Fig. 11 blue) –an impression that finally explains the strangeness of the most complete and organic horse's (Fig. 10 D) raised or floating dorsal line (F), because the mound over that horse's rear legs now reads perfectly as the hump behind the aurochs' head (Fig. 11 blue). The single graphic element of the tapering crescent (T) turns out to be two forms of horn, a mane and a tail (Fig. 11): four things at once and the interactive key to reading the surrounding imagery! Again and again, forms are doubled and shifted between planes in this panel, whether it is the mammoth that was formed partly by humans and partly by nature, or a horse whose use of natural contours to form its front legs is disguised by the fact that its segments are partly "figurative", for the head and hindquarters, partly "abstract", for the trapezium trunk, and partly natural where its forelegs form a visual pun with a vulva.

Finally, Jean Airvaux, who was the first person to describe the Guy-Martin panel, called the part of the vulvar zone where three vulvas are grouped (B, C, G) on the right the "obstetric' fresco" (Airvaux 2001: 134-137) –basing his analysis on an

earlier physiological one of the “Three graces” of the Roc-aux-Sorciers by Jean-Pierre Duhard (1992). In Airvaux’s eyes, there are only three vulvas on the whole panel, the two on the right with complementing incisions (B-C) and the one above that supplants the horse’s head (G) –although he does not note the latter’s odd position relative to the horse. He also does not count the fourth incised vulva (A) that simultaneously forms the front legs of the extended, natural and abstract horse to the left of this grouping, nor any cavities that are not complemented by incisions. But his analysis brings up interesting points about the vulvas that he did recognize and address.

First, a number of incisions forming the vaginal slit of the “horse-head” vulva (G) extend beyond the bottom, suggesting to Airvaux a menstrual flow. The anthropogenically modified section of Ségognole 3’s “vaginal” crack extends below its triangle in the same manner, and is even prolonged by an extension in the form of a natural crack running into the floor –between the legs, one might note, of any viewer. Completing the parallel, the vulva’s right groove even has a reddish-brown concretionary discoloration at the bottom (figs. 3 & 4L), making Airvaux’s and, indirectly, Duhard’s, menstrual analysis applicable to the Seine-et-Marne vulva as well.

Jean Airvaux compares the horse-head vulva (G), with its suggestion of a menstrual flow, to a painted stalagmitic concretion in Font-de-Gaume and a stalagmitic formation that is highly suggestive of a naked woman with a head, breasts, belly, vulva, and thighs in the large cave at Arcy-sur-Cure, whose thigh and chest were painted with red ochre (Baffier & Girard 1998: 96). Bédeilhac has another stalagmitic anthropomorph that could be added to this list in a somewhat partitioned space with a hearth and modified stalagmitic “phallus” on the wall. The only three modifications to Bédeilhac’s readymade “feminine” anthropomorph are a small incised circle at top that seems to serve as a head, an incision that delineates shoulders, and red ochre in the “crotch”. Airvaux thinks that the ochre above the “legs” of such stalagmitic anthropomorphs illustrates menstruation.

My only reservations concerning this interpretation are, one, that vulvas also emit blood during labor, not to mention amniotic fluid and the placenta, and, two, that red ochre on the belly and thighs does not necessarily illustrate blood. All the same, his physiological approach seems warranted because female genitalia are associated with red emissions during menstruation and birthing.

Moving downwards, Airvaux interprets the vulva with a natural vaginal cavity (B) differently from the “horse-head” vulva (G) directly above it. In his view, vertical incisions above cavity B might represent the line of pigment that forms on the belly of some pregnant women. Moving to the right, where his “third” vulva (C) shares a lateral line with vulva B, he continues his physiological analysis by insisting on the “largely open” state of the natural cavity, which forms this vulva’s vaginal opening. This, he feels, imitates a woman’s distended labia immediately after giving birth. The “baby” (P) directly above this “post-birthing” vulva clinches the argument for him. One must admit that the juxtaposition of the anthropomorph, which is shown in a crouched or fetal position, does suggest that the vulvar zone as a whole is associated with giving birth, although Airvaux’s failure to recognize a fourth incised vulva (A), which forms the abstract horse’s front legs, leaves his reading of just three physiological stages looking a bit forced.

Next, Airvaux reads the “Three graces” of the Roc-aux-Sorciers in the same way as Duhard. The one on the left represents a woman before pregnancy; the central one, with a swollen abdomen, is pregnant; and the one on the right represents the

post-partum “depressed” condition of a woman’s body. Airvaux, who is a remarkably inquisitive and bold prehistorian, assigns each of the three females with a reference, M1 through M3, starting from the left, which he feels can be used to define metonymical types in the transformative sequences of what he calls the “myth of Lussac-Angles” (Airvaux 1998: 511-519). He then applies these same references to animals, making the pre-pregnant M1 state, for example, embrace a male ibex following a female one at Angles-sur-l’Anglin and the stallion mounted on a mare at Chaire-à-Calvin (Airvaux 1998: 518) –which, in passing, reminds me of a horse seen super-imposed above another one in the Abri Reverdit. Similarly, Airvaux extends the sequence to newborns, whose suspected images are classed under M4. It will be interesting to see how he applies this method to the full Guy-Martin panel, since his initial publications only focused in any depth on the mammoth and three of the vulvas, rather than the arrangement, relationships or significance of the smaller animals.

The Ségognole frieze has only one vulva and therefore does not lend itself to a literal before-during-and-after reading of pregnancy, whether with three or four vulvar images. But its monumental size, naturalism, and the fact that the viewer must face it in a small rounded space that can hold two people at most, placing the viewer(s) between the thighs as well as inside an enwombing space, means that the makers played with notions of interiority and exteriority. The same may be said of all vulvar symbols inside caves, but the impression is especially forceful here. The result is that the Ségognole panel might roll all three (or four?) phases into a single image: the menstrual phase by the long dripping vaginal slit, the gravid phase with a being in a womb –who is none other than the beholder– and the post-partum phase of delivery by the fact that one departs by either of two visible and practical exits.

What kinds of beliefs could have required the play between a woman’s interior and exterior amid animals shown with such different conventions at Ségognole 3 or the shifts in perspective, disguises, and complexity seen to a greater extent at Guy-Martin, whose composition is strikingly similar to that of Cubism? One that required *phased recognitions*. One with layer upon layer of significance. One that required a vernacular of three aesthetic choices –figurative realism, the suggestion of natural forms, and abstraction– incorporated into a whole. Cubism in its modern manifestation does not reflect a culture that believes that life’s events should be explained by simultaneous storylines in the same way that animist cultures explain events both overtly and by the agency of spirits –but it reflects a culture awakening to various types of relativism. Relativism is most commonly associated with the recognitions of Einsteinian physics, but it was just as strongly incarnated in William James’ analyses of phantom limb syndrome and the moments when one becomes aware of “other simultaneously existing consciousnesses” in oneself (James 1890) or of Freud’s later theories about the subconscious.

Around 1900, Western eyes were also opened to the varying and abstract elements underlying naturalism, a revolution begun by Cézanne. Ironically, Breuil’s validation of Altamira in 1902 amplified Cézanne’s experiments by making some artists realize that there were European precedents for great works of art that used a wider range of compositional techniques to show the existence of multiple realities than Western art as they had known it, fusing schematization, an emphasis on planes, and even naturalistic details into aesthetic wholes. Within three years Georges Braque, Maurice de Vlaminck, André Derain, Guillaume Apollinaire and Pablo Picasso, who remarked on how Paleolithic artists would place “un bison” on “la

bosselure d'une caverne" and kept replicas of the Lespugue Venus in both her more "Cubist" broken state and restored condition (Bahn 2005), had begun collecting tribal art (Le Fur 2006), which used comparable but portable and affordable aesthetic approaches, to widen their aesthetic lexicon. The cultural relativism that had already found footholds in the West with the 19<sup>th</sup> century fashions for Egyptian and Japanese art came into full flower, leading to a style that speaks of radically shifting but concordant perspectives –an approach that drew inspiration from animistic imagery.

So, whether we call it Cubism or not, the Guy-Martin and similar Paleolithic ensembles quite naturally use a startlingly similar set of compositional techniques and choices. In their case, they probably did so because of the need to seize the attention of each new generation with surprises and an initiatory sequence in order to convey information with survival value with high fidelity, and, two, because, of beliefs that animals and humans sometimes transformed into one another and perhaps even in and out of rock, moving between different levels of perception.

But getting back to the parallels between Guy-Martin and Ségognole 3, which are so essential here, both panels seem to have been inspired by the natural suggestion of a large armor-headed herbivore beside at least one vulva. In both cases these impressions were then enhanced with a minimum of anthropogenic marking. And, in both cases, an apparently partial and nearly complete horse were added to the vulvar half of the diptych by fine incisions that did not reflect relief. The only deeply significant difference in the organization of the two panels is the effusion of small partial beings around the top and sides of Guy-Martin's vulvar zone, suggesting further associations for both panels.

## Conclusion

But one thing is for sure. Female imagery plays such a rich and essential part in these mnemonic arrays that one must assume that women were seen as playing essential roles in the relationships between humans and animals. I have suggested elsewhere that pregnancy was associated with both human births –a truism, which is none-the-less supported by the apparent baby in the Guy-Martin frieze– and the generation of animals (Caldwell 2009a, 2010) –something also confirmed in the Vienne panel by the halo of heads (Fig. 10 H-O) adjacent to the vulvas (Fig. 10 A-C, G). Heads, it is worth noting, are the first part of any baby, human or animal, to be seen. If women were perceived as being essential for maintaining even animal life for so long, this was probably because there were powerful economic forces in cold-weather hunter-gatherer economies (Caldwell 2010) –or, perhaps I should say, "hunter-sewer" economies– that provided incentives for the recognition and incorporation of women as essential partners in the Paleolithic world-view –with women being seen as a fundamental pillar in a social and ideological triad with men and animals. Even a triad is certainly a simplification since a Paleolithic person probably would never have lumped together the more emblematic species but would have viewed them as each participating in a symbolic and ritual cosmogony or balanced environment –which could be called a cosmological "ecology". Some of these themes were examined in more depth in an article for the Barbier-Mueller Museum, which laid out the fundamentals of what I dubbed the "Prey-Mother" hypothesis (Caldwell 2010), but it is worth revisiting some of the underlying economic and iconographic evidence for such an interpretation of many examples of Paleolithic feminine imagery in light of the readings which have been given here to the Guy-Martin and Ségognole friezes.

The hypothesis is partly based on a re-interpretation of several iconic works of early art, including the pregnant figure with a herbivore's head and woman's pregnant body who is "umbilically" linked to a horse in an engraving that was found in a hearth at Étioilles (Fig. 13R). Its Magdalenian date, stylistic similarities to the Ségognole horse, and proximity to the frieze in the same department of France, the Seine-et-Marne, have already made this engraving highly relevant to this analysis. But the fact that the engraving involves an umbilical link between the pregnancy of a therianthropomorph and an animal, both of whom are performing the same action of ejecting lines from their mouths, also makes it fundamental to the proposal concerning "prey mothers" (Caldwell 2009a, 2010).

Another "woman" who lent support to the "prey-mother" hypothesis was the "Reindeer woman" (la Femme au renne) from Laugerie-Basse (Fig. 12 L & R), who has animal rather than human legs, with both forward and backward-facing joints corresponding to a herbivore's stifles and hocks (Fig. 12L; Caldwell 2009a, 2010). That and the fur covering the birth-giving lower part of her body (Fig. 12L), which is identical to that on the large herbivore above her, suggest that parts of the "woman" are becoming animal-like as she approaches birthing. Her accurately drawn and deeply incised pregnancy is also faithfully reflected by two finely incised "outer" hoops (Fig. 12L; Caldwell 2009a, 2010) that balloon supernaturally large emanations or pulsations of the pregnancy towards the male animal above.



**Fig. 12.** The "Reindeer woman" (la Femme au renne) from Laugerie-Basse, with both forward and backward-facing leg joints (left in blue) corresponding to a herbivore's stifles and hocks, fur covering the birth-giving lower part of her body (left in purple), and two finely incised extra dimensions (left in orange), which echo the more heavily incised realistic curve of her pregnancy. The suspected head of a baby, which is composed of a semi-circle of fine cross-hatches (right in blue), rests within the bubble formed by the extra "pregnancies" above the "woman's" belly. The two lines arching over the pregnancy also contain a snake (right in orange) with an incised snout and eyes, whose tail issues umbilically from the "woman's" vulva. The back of the probable snake's head may be evidenced by slight shifts in the ballooning lines over the belly while its snout actually touches the circular pattern that looks like a baby's head. A "stream" of 4 parallel slanting lines descends from the herbivore's penal sheath to the back of the snake's head. Could this imagery, at one level, illustrate the oldest known "rainbow serpent" and inseminating rain?

Its species, though, is debatable. Henri Lhote argued on the basis of a possibly related, but non-contiguous fragment, which he thought had a segment of the animal's dorsal line, that the complete engraving had indeed shown a reindeer (Lhote 1967). But a comparison of the legs, ventral line, and even, to be generous, the "dorsal line" on the other fragment –that are all that survive of the animal– to those of a moving bison in Muybridge's stop-action photos (1957) suggests that André Leroi-Gourhan may have been correct after all in identifying the herbivore as a wisent (1965).

Regardless of whether the herbivore is a bison or reindeer, both of which have “armored” heads and were symbolically important herbivores, the engraving also seems to contain two more features that were probably only intended to be seen secondarily –for example, after initiation. The first is a possible baby (Fig. 12R), which may not have been noticed since the Paleolithic. The suspected head, which is composed of a semi-circle of fine cross-hatches, rests within the bubble formed by the extra “supernatural pregnancies” above the “woman’s” swollen belly.

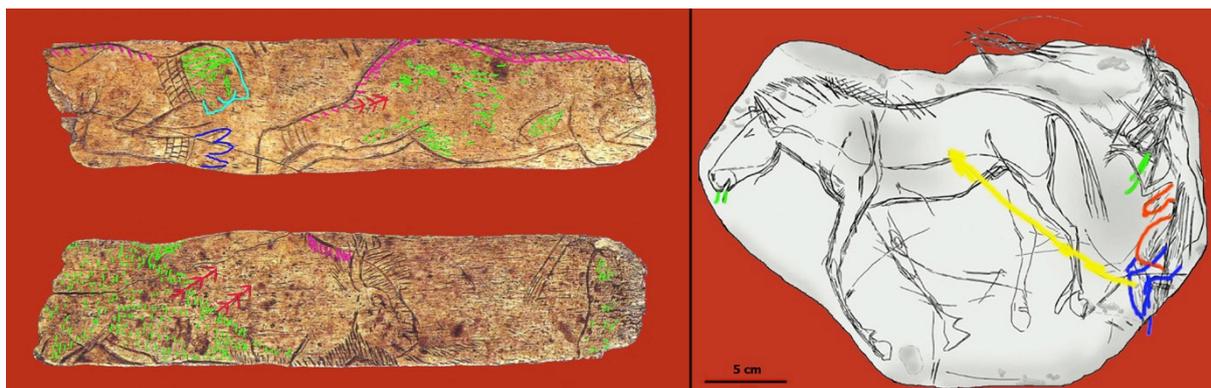
The two lines arching over the pregnancy contain their own discrete secondary feature –an apparent eyed snake whose tail issues umbilically from the woman’s vulva (Fig. 12R). The back of the probable snake’s head is indicated by slight shifts in the ballooning lines over the belly while its snout and mouth actually touch the circular pattern that looks suspiciously like a baby’s head.

The proposed umbilical serpent within the pregnancy’s larger-than-life dimensions may be associated, like umbilical cords in many cultures, with humanity’s original connections and ineluctable separations. Finally, a “stream” of 4 largely parallel lines extends from the tip of the overhead herbivore’s penial sheath to the point on the upper arch that corresponds to the back of the snake’s head. The graphic unit obviously represents one or more of the literal projections from such a sheath; in other words, urination, insemination or an erect phallus. But a complementary interpretation is suggested both by the fact that arched snakes are equated with the parallel arches of rainbows from Angola (among the Chokwe) to Australia and the resemblance of the 4 slanting lines to distant rain.

If this reading is correct, then the imagery reflected beliefs, which at one of their deepest levels, encompassed the earth, sky and weather in between, making this possibly the oldest known image to include references to celestial phenomena. So, at the heart of this polysemic image, involving literal births, supernatural transformations, cycles of life and death, and perhaps even references to the sky, probably lies a belief that women had the capacity to generate and intercede among humans, their prey and aspects of the larger world –making them the sex that spiritually controlled the life cycle and food supply.

A third work that relates both to the prey-mother hypothesis and the associations of vulvas with bison seen at the Roc-aux-Sorciers and Ségognole is a partial wand from Isturitz (Fig. 13L), showing two women on one side and two bison going the opposite way on the other (Bahn & Vertut 1997: 173, Fig. 11.2). Harpoon-like marks on the intact woman and bison link them. If one borrows the thinking behind many Inuit sequences, these identical women and bison may represent movement, with a single woman entering a bison state that circles back on the opposite side of the wand and vice-versa in perpetual transformation. If so, the woman is crawling through a tunnel or birth canal represented by the wand itself –as she comes and goes from the animal world (Raux 2004: 210; Caldwell 2010).

But the “women” on the Isturitz wand have three more traits that seem to have gone un-noticed since the Paleolithic: first, both of the figures have oblique incisions running along their spines –imitating the treatment of the bison’s obliquely incised mane behind the horns. In what may be a coincidence, the same pattern is seen in illustrations of dorsal fins and on some Magdalenian harpoons that were probably used on both terrestrial and aquatic prey.



**Fig. 13.** Left: The partial wand from Isturitz. The hatch marks representing hair on the headless “woman’s” breast and leg (green) are the same as the hair on the bison’s belly & hindquarters. Both the intact bison’s chest and headless “woman’s” leg are marked with barbed signs resembling Magdalenian harpoons (red). The oblique incisions running along the backs of the two “women” imitate the bison’s obliquely incised mane (purple). The three digits on the only complete “human” arm resemble an ungulate’s cloven hoof with its vestigial third digit (dark blue) more than a human hand. The female therianthropomorph’s head is also zoomorphic (light blue) and looks like the profiles of many felines in Paleolithic art. The hair distribution (green) on the “woman’s” head accentuates her head’s resemblance with a feline’s. Is this a woman progressing around the wand into a bestial state and then back around to her human condition in perpetual transformation as both hunter and prey? Right: The pregnant therianthropomorph in this engraving from Étioilles seems to be “umbilically” linked to the horse. Found in a hearth. Étioilles, Essonne. Incised limestone. 12 300 BP. Approx. weight 3 kilos. (After Taborin *et al.* 2001.)

The Isturitz “woman’s” second unusual trait is a series of short incisions representing hair. Although the more complete female figure has them on her breast, torso, fore-thigh, and pubic zone, they are identical to ones on the less complete female’s scalp and on the belly of the better-preserved bison, confirming that the incisions are hair. Third, the “woman’s” hand has three digits, with the top two, which are closer together and thicker than the bottom one, looking like a cloven hoof with a third narrower digit below them –just like the vestigial third digit found above and behind a herbivore’s hoof. The hoof-like hand, dorsal manes, hairy female bodies, and somewhat zoomorphic, perhaps even feline profile of the surviving “woman’s” head all remind one of the “Femme au renne’s” body hair and hocks, and suggests that these female representations from Isturitz illustrate one or more female therianthropomorphs who have some of the same animal traits as the large armor-headed herbivore seen on the opposite side of the wand!

Even though the Saint-Cirq anthropomorph, mentioned above, has usually been interpreted as masculine and even as a “sorcier”, it may provide yet another point of comparison, since it appears to have two rear incisions –an inner curved one, corresponding to human buttocks, and an outer angular one, corresponding to a bovine’s hindquarters and tail (Fig. 14R). The figure’s legs are equally strange, since they are divided into heavily incised, short upper segments that can be interpreted as ending in hooves, and lightly incised, strangely elongated lower segments, which continue beyond the hoof-knees and end far below in pointed human feet. The figure seems to have both bovine and human legs! Finally, the “phallus” can also be read as an umbilical cord –either attached to a baby’s belly (the figure is in the same fetal crouch as the anthropomorph at Guy-Martin) or, with equal likelihood, into a woman’s crotch while giving birth, complementing the figure’s plump belly. The being thus becomes another female therianthropomorph around the time of birthing –just like the Femme au renne from Laugerie-Basse and the Étioilles figure umbilically linked to a horse.



**Fig. 14. Left:** A horse, facing right, whose two sets of legs are vulvas split in the middle by a vaginal slit. Grotte de Saint-Cirq-du-Bugue. (Caldwell). **Right:** The Saint-Cirq anthropomorph appears to have two rear incisions –an inner curved one, comparable to human buttocks, and an outer angular one at right, corresponding to a bovine’s hindquarters and tail. The “phallus” may also be read as an umbilical cord attached to a newborn’s belly or dangling from a woman’s birth canal. The legs may be read either as being long, in which case they end in the pointed human feet at bottom right, or as short and ending at the human’s knees, below which the incision grows lighter. In the latter case, they become herbivore legs. (Photo D. Caldwell.)

Such details in Paleolithic art are in keeping with women’s known roles in cold-weather “hunter-sewer” economies in a circumpolar zone extending from the Yenisey River in north central Siberia to Greenland –embracing the only region where cold-weather subsistence systems based on hunting and the intensive production of seamed clothing have existed without geographic or temporal interruptions since the Eurasian Paleolithic.

Frequently, one of these female roles is to increase the chance of a hunter’s success by supernaturally providing him with animal qualities. Several polar cultures believe wives do this while sewing their husbands’ weatherproof clothing and camouflage by synthesizing the powers of the species whose hides compose the garments, thereby imbuing their husbands with animal qualities needed for success (Chaussonnet 1988: 212-213). Another common role is for wives to enter trances in which they “become” their husbands’ prey and lull it into coming within range (Rousselot *et al.* 1988: 171). A third is to reconcile hunters with animals they have killed by “feeding” dead animals like honored guests (Rousselot *et al.* 1988: 171) and inviting them upon their “departure” to return where they came from as new, living creatures. “Whale-wives” among the Maritime Koryaks (Serov 1988: 254-255), for example, do this by supernaturally initiating the regeneration of harpooned whales. All three roles involve beliefs in a woman’s maternal capacity not only to give birth to humans but also to morph into, control and generate the largest and most socially and symbolically important prey species.

Even as far back as the Chauvet Venus and her consubstantial therianthro-

morphic consort, who shares a leg with her while its bison head rests on or in her womb, there is evidence that large “armor-headed” herbivores –mammoth in the north and usually bison in the south– often filled the roles of the largest and most socially and symbolically important prey species and were associated with vulvas and gravid “women” who have zoomorphic traits and connections –through umbilical lines or identical markings– to animals (Caldwell 2010). A classic example to add to my previously published instances (Caldwell 2010) is a vulva modeled among bas-relief bison in a clay bank in Bédeilhac Cave in the Ariège (Bahn & Vertut 1997: 110) –an example that shows the same construction of a large armor-headed herbivore beside a vulva seen at Guy-Martin, abri Bourdois and, of course, Ségognole 3. Depending on the representation, the female elements can be variously interpreted as having animal-doubles, animal-husbands or animal-progeny. Surprisingly, all three roles are consistent with such ethnographically observed customs as the “whale-wife-mothers”.

Together, the complex imagery of the friezes we have examined suggests that such layered beliefs concerning the relationship between women’s pregnancies and the animal world were still flourishing during the Magdalenian. For twenty thousand years, the most durable expression of religious belief known, which certainly found many different expressions over vast distances and long stretches of time, seems to have been largely inspired by women’s ability to enter dangerous transcendental states while generating life, and the idea that female mediation, equating a naked woman, birth and coitus with her transcendence into and power over symbolically important prey, placed women or “prey-mothers” at the crux of beliefs with huge implications in terms of economics, survival and social cohesion.

Returning to Ségognole 3, the proposed bison also fits Paleolithic associations elsewhere of bison, horse and sexual imagery that were observed by Annette Laming-Emperaire (1962) and André Leroi-Gourhan (1965), so, although this may be the first known example of a bison in the Massif de Fontainebleau or even the Ile-de-France, it actually makes perfect sense. Furthermore, if Ségognole 3 does, in fact, contain the proposed bison sculpture, it would permit the cavity’s art to be dated to the Paleolithic with certainty for the first time.

Even though I’ve been to the site many times since and tried to find some other reading that can account for the deepened fissure, flaking, pecking, polishing, and signage, nothing seems as reasonable to me as this new interpretation, meaning that there could truly be an almost life-size sculpture of a bison –composed of natural relief, a partially chipped contour, pecked and polished musculature, and a deeply chiseled, incised, and smoothed caudal incision– sprawled in a cave in the Seine-et-Marne. If I’m right and a bison does indeed lie within the feminized grotto, then the association fits other associations of large armor-headed herbivores –usually mammoths in the north and bison, reindeer, aurochs or mammoths in the south– with the life-giving portion of a woman’s body.

Unlike the only previous study of Ségognole 3, which prudently focused on checking known features for further details, this paper has focused on a process that began from a sense of unease. Instead of reconfirming a consensus, it has posed a series of embarrassing questions. While it does not pretend to have found all the answers, it has advanced a series of new hypotheses and observations, including the following:

- 1) Evidence that a sculpture of a bison exists in Ségognole 3. Of equal importance, it has shown how the animal was overlooked because of the failure to apply the same artistic conventions of the vulva –figurative realism, monumentality,

and the use of natural forms— to the 52cm long incision, which is identical in its manufacture. If correct, the bison, which gives the impression of being life-size in the small chamber, is the first Paleolithic sculpture of an animal ever reported in the Ile-de-France.

2) Evidence that bison and mammoths were often treated differently from other animals vis-à-vis rock surfaces. If correct, this evidence indicates a new distinction among animals in European Paleolithic art, with major implications for the future development of Paleolithic art studies in Western Europe.

3) Evidence that vulvar imagery also made frequent use of relief.

4) A new reading of the art in Gouy Cave, which makes it the pivotal site in the evolution of the region's late Magdalenian art towards the Mesolithic art of the Ile-de-France and Massif de Fontainebleau in particular.

5) Evidence of a marked compositional similarity between the broadened Ségognole frieze and one of the closest ones both geographically and temporally, the Guy-Martin Cave panel. The fact that such close Paleolithic friezes seem to share the same structure makes the proposed bison, horse, and vulva ensemble in Ségognole 3 all the more likely.

6) An entirely new reading of the Guy-Martin panel, linking it to imagery in the Abri Bourdois, Saint-Cirq, Font-de-Gaume, Abri Reverdit, and Ségognole 3 and showing how its surprisingly “modern” compositional techniques may have suited Paleolithic needs.

7) New readings of the vulvar horse and anthropomorph at Saint-Cirq.

8) Further evidence for the “prey-mother” hypothesis, including a new, extended analysis of the Isturitz engraving, proposing that the “women” are actually therianthropomorphs, and of the “Femme au renne” from Laugerie-Basse, proposing the existence of a snake and baby. These novel readings comfort some of the interpretations of the northern French friezes.

9) And, lastly, a reaffirmation of the utility of critical tools such as compositional analysis that are usually associated with art criticism rather than science.

After reading this article's first iteration, one of the few people who is as familiar with Ségognole 3 as myself, Laurent Valois, advised me to hammer in two things about the bison—one of them being so original that I urged him to state his views in a complementary article. He asked me to simply incorporate his insights into this paper, while waiting.

First, he felt that one must insist upon the fact that the bison is not likely to be seen at first because of the cavity's small size, which makes it hard to perceive such a huge animal—a fact exacerbated by the natural tendency to orient oneself towards the vulvar section. This makes the animal obscure unless one has worked ones way through an intellectual process. He believes the maker engraved the rear incision to affirm his recognition of the bison's presence and that the bison can only be seen again after asking oneself questions which reflect the maker's mental process. To put it in Valois' own words: “The bison is not, properly speaking, a representation of a bison, resulting from the work of an artist. The artist is not there to ‘produce’ or ‘create’ an image, but to have the *vision* of something which is already there, independently of all human intervention. He sees the bison, then he marks the caudal groove to indicate that he has seen the animal. It is quite particular in its approach, and completely coherent if one thinks of the first point, which was that the bison does

not lend itself to being seen in an overt manner when one is in the cavity because of the lack of remove.”

Secondly, Mr. Valois pointed out something that never occurred to me: namely, that the vaginal incision and bison’s rear incision at Ségognole are visual homonyms. At first glance, they look the same and could be given similar graphic and even symbolic value. Just as one leads, instantaneously, to the recognition of the vulva, the other leads ineluctably to the recognition of the bison. Furthermore –it occurs to me– the rear incision represents the part of a female wisent associated with giving birth. To continue again in Laurent Valois’ own words: “If one abstracts the two vertical grooves from the vulva and bison, of which they are compositional elements, one can see them as examples of the same sign or symbol, whereas in reality the significance that each leads to –a vaginal slit in one case, the tail of a herbivore in the other– is different. As the caudal groove can also be interpreted as the contour of a haunch, this single particularly elementary sign acquires at least three distinct semiological values, whose symbolic significance must have been considerable. This suggests that we are in the presence of a particularly minimalist art in terms of the means used to achieve its effects, but one which is also particularly dense in meaning because it considers the rocky medium as already being filled with the contents that the artist bears witness to.”

Another person who has studied the cave in depth –as we have seen– is Alain Bénard, whose meticulous monograph provided a methodical description of the previously recognized part of the frieze, exploring important details such as proof that the engravings took place before hardening of the rock surface during the Holocene (Bénard 2007b: 10, 13), confirming their authenticity, and the differences between the proportions of real horses and their movement and that of Ségognole, which makes the image, statistically, non-realistic (*Ibid.*: 37-40). As a painter, of course, I did not see the engraving in quite the same way. From an art critic’s perspective, it can be argued that the “impressionism” of some of the Lascaux horses gives them a greater sense of vitality and movement than would measured realism. Despite noticing the differences in proportion, I was more impressed by the naturalism of fine details like the hocks and organic line.

But my difference in perspective went further, since I’m used to standing in front of images –and I do not think it matters whether they are a year or ten thousand years old or carved by a BaKongo naganga or a Magdalenian sculptor– and trying to ask the questions of all innocents who fall under an image’s spell. This will never resurrect the nuances intended by vanished makers, but it does focus on the common artistic process of the uninitiated –something most makers are aware of and try to manipulate through compositional techniques and other factors– opening a narrow window that the tools of art analysis, informed by as much knowledge of all related subjects, including ethnographic observations, as possible, can begin to exploit. Max Raphael’s critical analyses of Paleolithic art while in exile in New York during the Second World War staked out this position long ago (Raphaël 1945) and were so influential that they set the stage for efforts by such structuralists as Laming-Emperaire and Leroi-Gourhan to tease significance out of the œuvre with statistical tools, but it is still worth re-affirming. In rock art research, two equally powerful analytical methods must braid around each other like the proverbial snakes –art criticism and scientific methodology– in order to gain leverage from each other’s strengths to climb the staff.

So despite the fact that this remarkably life-like representation of a bison, with a vulva made in the same manner, and horses made in an entirely different one, only became obvious because of the type of compositional analysis usually applied by art critics, it has resulted in the first hypothesis that makes sense of the ensemble under study in terms of incorporating and explaining all the graphic elements, eliminating the disparity of the cavity's iconography with known parallels, and confirming the suspected date. Applying Occam's razor, the fact that this reading satisfies so many criteria makes it all the more likely that it is both artistically and scientifically justified – showing once again how an aesthetic and compositional approach can produce significant results even when the representations in question are thousands of years old.

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