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The Sorcerer's cave in Saint-Cirq-du-Bugue (Dordogne, France): new readings. Report of the 2010 and 2011 campaigns

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EDITOR'S NOTE

With the cooperation of Marie-Dominique PINEL, Marie-Laure LATREILLE et Alice REDOU.

Introduction

- 1 The Sorcerer's cave in the village of Saint-Cirq-du-Bugue is located a few kilometres downriver from Les Eyzies village in the direction of Le Bugue, just before Bara-Bahau, the last decorated cave in the vicinity of the Vézère River (Delluc and Delluc 2009). This partially filled-in cave has been used as a troglodyte habitation like so many other caves and cliffs in the Perigord. It opens to the Southeast in a Coniacian limestone (Aujoulat 2006). The cave roughly makes a rectangle 5 to 6 m wide and 13 m long. In the deep part of the cave, the rocky floor has been lowered by more than one meter in order to permit tourists to access the space - the "trench" allows contemplating the engravings on the vault from a sufficient distance. A 0.50 m to 1.50 m wide fissure runs on the ceiling of the cave from the entrance towards the back. It certainly played a role, at a topographic level, in the ornamentation of the cave (Delluc et Delluc 1984).
- 2 The prehistoric representations were discovered on May 22nd, 1952 by Noël Brousse, then the property owner of and a cousin of the prehistorian Séverin Blanc. The cave

was classified as a Historical Monument on November 19th, 1958. Several studies were conducted: a preliminary study by A. Glory was partially published (Blanc 1955); a series of tracings by L. Dams (1980) offer a nearly exhaustive vision of the engraved lines and the bumps on the walls but must be taken with caution¹; finally a scientific and documented study carried out by B. and G. Delluc (Delluc *et al.* 1987) led to the publication of the first monograph about the cave, in the form of an article. We can also mention a climatological study carried out in the 1970s by J. Brunet and P. Vidal (1978). In 1966, casts made on April 12th and 13th by André Glory's team significantly damaged the rock surfaces and made them, in places, waterproof (Delluc *et al.* 1987 - p. 380). The Sorcerer's Cave is private property and has been open to the public since the 1970s².

A new campaign of study of the Sorcerer's cave

- 3 In 2009, one of us (RP) was called by the present owner, Jean-Max Touron, to inventory the engraved representations and check the state of the cave walls. The cave itself is not very deep and the decorated areas are close to the outside where they potentially remain at the mercy of various types of alterations. We then highlighted some erosion of the wall from alteration agents (Aujoulat 2006) as well as a few acts of vandalism³ that have harmed the integrity of the figures (see below). Thus the aim of the 2010 and 2011 campaigns was to focus first of all on the state of conservation of the engravings and on the possible threats to which they were exposed. Then, from the careful deciphering of the tracings done by B. and G. Delluc, it seemed judicious to reposition precisely the decoration with regard to the shapes of the relief and the volumes around which the representations seem to be organised. Thus, we follow the heart of the current reflection about the reading and analysis of parietal art in relation with the obvious role of the physical surroundings in the making of the drawings and the "mental landscape" of Palaeolithic people. Our final aim is to offer in the near future a digital terrain model (Malaurent *et al.* 2005) and a virtual copy in three dimensions in order to study the decoration mode of the cave and the evolution of its wall surfaces. Finally, thanks to new types of lighting and to very high definition photographs we were able to decipher and explain some unknown engravings, in general difficult to read because of an altered surface state or the necessity of choosing an especially appropriate angle of lighting to see them.
- 4 The final aims that motivated resuming the study of the Sorcerer's cave engravings were
 1. Checking the sanitary state of the walls (data that can change quickly)
 2. Determining the intensity of the damage (natural and anthropic) and their impact
 3. Positioning precisely the graphic units in the space of the cave and in relation to each other
 4. Providing new tracings - whether of new representations, with the aim of ameliorating current details or offering other readings than the ones accepted to date.
- 5 We are not pretending at this stage to have an exhaustive inventory of the engraved panels, but we wish to offer a progress report.
- 6 Three elements guided our analysis:
 1. An attempt to apprehend the technical gestures used by the Prehistoric artists
 2. The relation of these artists with the rock surface, and finally

3. The impact of modern damage that affects some engravings and influences the image the prehistorian has of these multi-millenary representations.
- 7 In the previous stage of research (Delluc *et al.* 1987), twenty-eight representations were inventoried, mostly figurative, thus described (fig. 1): 5 horses, 1 bison, 1 bovidae, 2 ibexes, 4 indeterminate animals, 4 anthropomorphs (the Sorcerer, two human heads and a schematic female figure), 9 signs, 2 isolated lines. G. Bosinski and J.-P. Duhard both recently spotted new representations. They are in the process of publishing these themselves. At the end of the 2009, 2010 and 2011 campaigns, we have discovered several new engravings (which are not all described in the present article). In what follows, the figures are not described in the order of the inventory.

Methodology: techniques applied in 2009-2010-2011

Sectorisation

- 8 For the purpose of our study, the cave was divided in sectors (figs. 2 and 5) in 2009 and the decorated rock faces subdivided into panels to clarify the description⁴.

Use of the casts

- 9 So as to spend as little time as possible inside the cave during the project, we started working on the four casts kept in the small site museum (fig. 3). These were made by R. David in the 1970s upon request of Professor H. de Lumley on the original casts of Abbot Glory (David, personal communication 16th November 2010). Therefore they are not a positive cast done on the first casting of 1966 of which quality and precision could have diminished after several castings, nor an unauthorised cast done after 1966. Their precision is thus remarkable, a fact we could check in front of the originals inside the cave. We preferred working with these casts rather than with the Glory casts kept in the Institut de Paléontologie Humaine in Paris as they were on site and readily usable. Comparing the volume of the casts with the corresponding areas in the cave confirmed that the bluish layer that covers the wall in places (fig. A⁵) corresponds to the surface on which the casting chemical was spread in 1966. Strangely, a non-engraved surface in the cave is also covered with this thin bluish layer. This may indicate the traces of a test done before the main casting to make sure the wall surface would not be endangered. The blue colour likely appeared later- no doubt if it had been visible instantaneously, the casters would have halted their work.
- 10 Working on the casts thus reduced our time of presence inside the cave and in front of the most fragile surfaces. This also allowed us to study the drawings in a more comfortable manner and to vary the lighting angle at will.

Tracing method

Figure 1 - Currently known representations in the Sorcerer's cave (after Delluc et al. 1987).

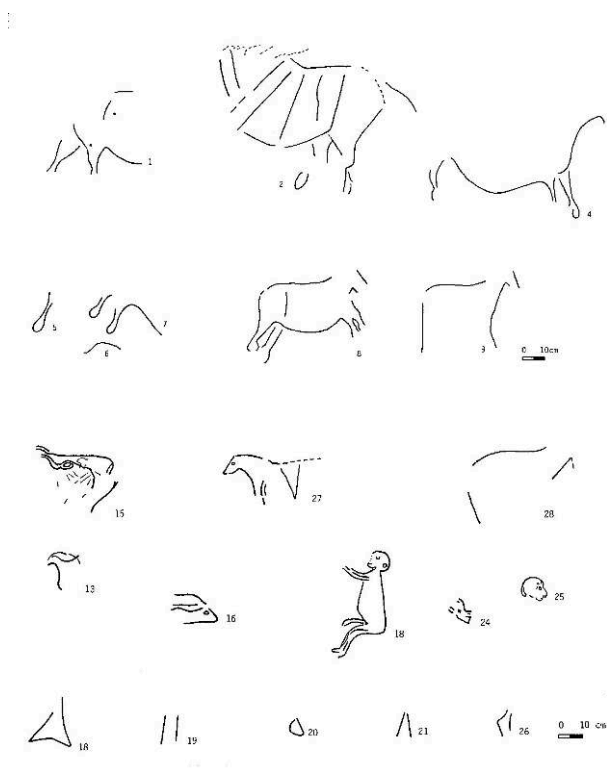


Figure 2 - General view of the cave and sectorisation (photo H. Paitier 2009).



- 11 We chose the method of tracing over photographs.
- 12 The photographic record was compiled in three separate events. The first photographs were taken on the casts. The light was rotated all around the four casts so as to underline as many engravings as possible. A photograph was taken every 30° of

minimal rotation, which gives 12 different lightings for each cast (fig. 4) and emphasises all the lines perpendicular to the axis of the artificial light.

- 13 A second series of photographs was taken inside the cave with the help of fluorescent lighting, of separate engravings or panels. In this instance the choice of where to place the light source became much more difficult because of the layout of the cave. The combination of several images of the same figure created representations of the engravings in great detail. With varying position of the light, multitudes of lines would appear giving the impression of superimposed images which are chronologically difficult to interpret.
- 14 The third series concentrated on the Sorcerer's panel. An aluminium railing was installed on which the camera could slide. Taking this series emphasised the problem of the focusing distance. The distance to the subject must be almost the same to reduce distortions; this worked particularly well for the Sorcerer's panel but several scans were necessary depending on the distance to the cave wall. Various orientations of the light sources have shown extremely complex engravings. An added difficulty was the fact that the rock wall reflected light poorly, which forced us to take longer exposures than in other caves. Indeed, the rock is dark blue grey, blackened by soot (the cave served as a habitation at different time periods: Delluc *et al.* 1987) and by time, with flaked off areas appearing in bright orange yellow. These differences in colour and reflection made it compulsory to double each photograph (*bracketing*) in order to keep detail on the entire surface. A smaller lighting system will have to be used in the future on some figures or in some small recesses.

Surveying

- 15 On November 23rd and 24th, 2010, one of us (VP), assisted by M.-D. Pinel from the "Service Régional d'Archéologie" (SRA) of Brittany surveyed the cave and precisely recorded the position of the representations. With the authorisation of the SRA, three new fixed topographic points were put up in the entrance wall and the modern constructions as well as in the bedrock in Sector I. They were used for precise triangulation. This meticulous topography was necessary, especially for the purpose of obtaining a digital terrain model of the cave. Moreover, it allowed correcting some elements of the previous topography (figs. 5, B, C and D).

Description of the figures traced during the 2010 and 2011 campaigns

Bison n° 1

(Sector II, right wall, panel I: graphic unit 1)

- 16 The first deeply marked engraving, some anatomical parts carved in low relief, is the hind part of a bison represented in a right profile moving forward. Its length is 39 cm, and its height 23 cm. A detailed description (Delluc *et al.* 1987, p. 370) and two tracings (*ibid.*; Dams 1980) (fig. 6) have already been published.
- 17 Some medieval work – precisely four holes whose mirror can be seen on the opposite wall – significantly damaged the wall next to the figure. Only the lower left hole seems

to have avoided damaging the area. The relief and the volume of the wall have been especially used: a fissure served as an imaginary ground line; the line of the stomach is also in part materialised by a fissure, and so is the hind part. The buttock, the right hind leg and the groin are well marked; the left hind leg is in a bent position, its front part worked.. The beginning of a tail seems present, partly cut by a fissure: the Palaeolithic artist could have detached a piece of the wall, weakened by the fissure (the bison would then be unfinished), or this removal was caused by the medieval activities. The right hind leg, the stomach, the upper part of the left hind leg, the hind part and the rump show some polishing

- 18 On this first figure, some recent re-tracing with black charcoal underlined the dug-out line of the back, a natural cupmark that was turned into an eye and a flaked-off area of calcite that was turned into a forehead and a horn (fig. 6).

Figure 3 - Casts of representations 25 to 27 (top left), of Bison 15 (middle left), of representations 23 and 24 (bottom left), of the 'Sorcerer' 18 (on the right in the middle), made by R. David from Glory's 1966 casts (photo H. Paitier).



Figure 4 - Cast of the 'Sorcerer'. Plate showing the different visible engraved lines according to the direction of the light source as indicated by the red arrows (photos and photomontage H. Paitier).

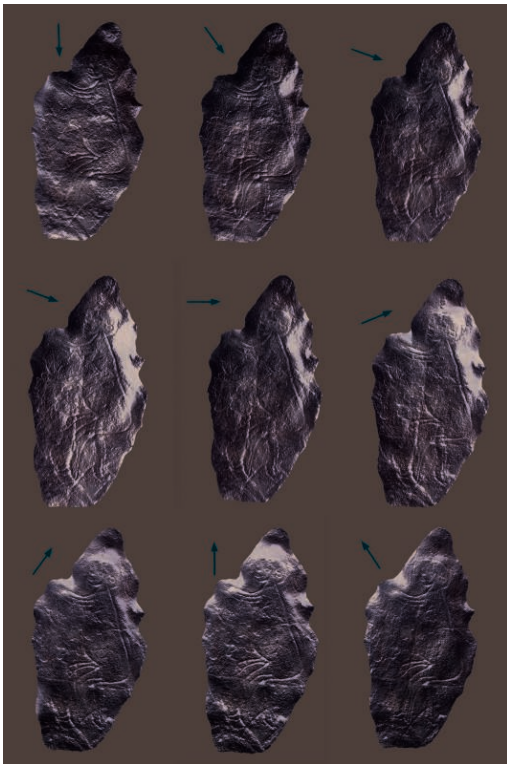
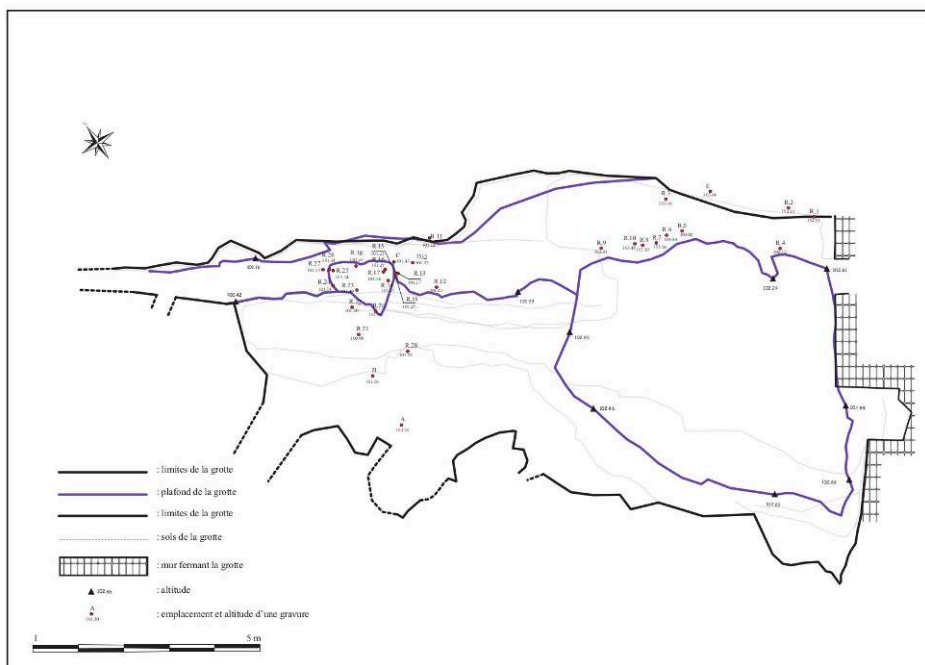


Figure 5 - Position and altitude of the representations of the Sorcerer's cave (survey V. Pommier and M.-D. Pinel).



Horse n° 2 (Sector II, right wall, panel I, graphic unit 2)

- 19 Delluc *et al.* (1987, p. 370) (fig. 7) have already offered a detailed description of this horse which is apparently sexed and oriented in a left profile. It is noted that the horse is in a conventional representation of a “canter” type of gallop (this term describes the trial run of a racing horse, Reinach 1900), that is to say with the hind legs on the ground and the proximal part of the front legs raised. The “ball-shaped” hooves are reminiscent of the convention used for horses in Lascaux (*ibid.*), although the representation of the shoulder is not specific and has previously been noted on figures of Gravettian age (such as the horse n° 15 in the Mayenne-Sciences cave: Pigeaud 2004) (fig. 7).
- 20 The shape of the relief above the withers may have suggested that a head turned back in the “*Agnus dei*” position— an idea the author of the modern damage had (the engraved lines of this horse have been retraced with a graphite pencil). A removal from anthropic origin was identified where the ear would have been. However, we were not convinced by this interpretation and we decided to solve the question by examining the drawing closely. A short time before the end of the 2011 campaign, it seemed possible to recognise the lines of a head (facing forward) under the calcite veil that obliterates the left of the wall; more thorough observations in polarised light could allow us to better view this point in the future. In the same manner, we have been wondering about the cupmarks that the body of the horse is scattered with: are they Palaeolithic or medieval? Are they the result of corrosion? Analysis of 3D profiles of the dug-out areas seems to be the obvious path to investigate and obtain clearer views.

Figure 6 - Bison 1. a. Analytic tracing (after Delluc et al. 1987). b. Tracing by Dams 1980. c. Photo H. Paitier. d. Analytic tracing. In red, modern tracings done with a charcoal crayon. In grey, medieval damage. In brown, the present-day wall (tracing by P. Bonic, CAD R. Pigeaud).

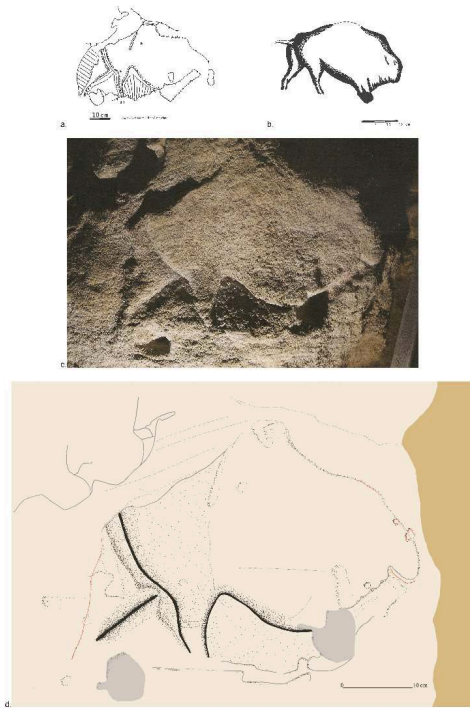
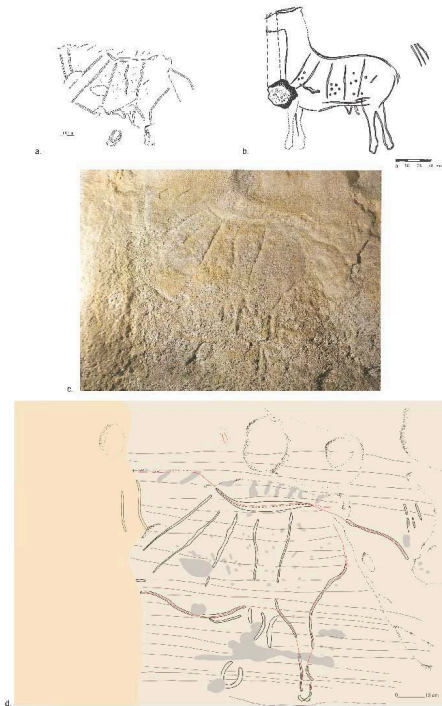


Figure 7 - Horse 2. a. Analytic tracing (after Delluc et al. 1987). b. Tracing by Dams 1980. c. Photo H. Paitier. d. Analytic tracing. In grey, removals of material from undetermined time period. Brown lines: grain of the stone. Red lines: modern tracings in charcoal crayon (tracing and CAD R. Pigeaud).



Horse n° 8 (Sector II, left wall, panel IV, graphic unit 8)

- 21 Horse n° 8 has been studied by B. and G. Delluc (Delluc *et al.* 1987, p. 374) (fig. 8). The equine is on the left wall of the large diaclase that forms sector II, about 2.7 m above the present-day floor level for the bottom of the figure, on a rocky overhang with a nearly vertical surface. It is turning toward the right (the back of the cave) and is 50 cm long by 27 cm high. It is located between two deep holes resulting from apparently medieval activities (fig. 9)
- 22 The outline of the horse is a low relief fashioned in the “raised relief⁶⁷” technique (Garcia 1989), also known in Roc-de Sers (Charente) and in Cap-Blanc (Dordogne) (Bourdier 2009-2010). This technique neatly brings out the legs, the line of the stomach, the hindquarters and part of the line of back, with a line between 8 and 20 mm deep. The entire lower part of the animal was made by pitting out the contour in relief. As B. and G. Delluc (1987) noticed, the pitting impacts on this part are still clearly visible as the bottom of the lowered surface has not been smoothed. Resulting cupmarks are visible, notably on the stomach line that is well rounded. It is made of a line dug out by pitting and 1.5 to 2 cm wide; in places, impacts are visible as short lines, 1 to 2 mm wide, that seem to indicate the use of a rather fine and pointed tool, possibly a burin. The authors also indicated that the obtained line had an enlarged recti-curvilinear section, sometimes with a flat or double bottom.

- 23 The four legs are represented in a bi-angular oblique perspective (or semi-twisted perspective), in extension, in a sort of “flying gallop” (Reinach 1900, p. 218) with the intention of indicating movement. The legs are rather small, short and thin with regard to the overall proportions of the figure. For the hind legs, the external edge is represented whole and is continued by the hindquarters. Its finer part is fashioned by rather abrupt digging but the depth of the dug out line diminishes slowly toward the line of the stomach or the top of the hindquarters. The cranial side of the leg is represented detached of the hind leg as well as the rest of the body of the animal. A blank has been left between the top of the leg and the line of the stomach to suggest perspective – a method notably found in Lascaux cave (Dordogne) and Chauvet (Ardèche). It has been marked out by an abrupt dug out area all around it.
- 24 The extremities of the legs are rounded. The front legs are represented in a less realistic manner than the hind ones: they are nearly in a frontal view, one next to the other, separated by a roughly 3 cm wide dug out surface. The front right leg is shorter than the left one, which can also be seen as a means to create perspective and accentuate movement. The nature of the relief is such that it prevents from tracing a longer limb as the rocky overhang simply stops. However, the mastery of the artist seems so great that we can assume his/her intention to make the representation precisely on this spot, with the possible resulting anatomical aberrations. The front right leg seems to enlarge toward the bottom, possibly to suggest the hoof.
- 25 Representation of a flying gallop, portrayal of short and small limbs, a blank left at the top of the hind leg (Delluc *et al.* 1987, p. 374), and a well rounded stomach: all these graphic conventions were also adopted by the artists who painted and engraved the horses in Lascaux cave (*ibid.*, p. 374). These details suggest in our opinion that connections existed between the art of both caves, only thirty kilometres away from each other.
- 26 At the level of the hindquarters, some very finely engraved long lines, nearly vertical, are visible at the bottom of the incised area. They could indicate a tail even if visually the eye cannot help seeing one instead in the brownish parts that remain in relief just at the back of the animal. However, the area to the left of this surface is damaged with some fresh-looking and non-patinated fine lines that appear to be modern; preventing any definitive reading of this anatomical part. Looking at the top of the hindquarters one can notice a blank between the top of the incised surface that demarcates the thigh and the beginning of the line of the back: the line is interrupted in this area (fig. 9). Then the line starts again at the top of the hindquarters, marked by a rather deep depression (1 to 1.5 cm) under a slight overhang of the wall. The line is interrupted again, and then proceeds up to the neck. This part of the tracing has a very different appearance from the one of the stomach: the surface appears smoothed, or “brushed” and has very few asperities or remnants of brownish relief which are the remains of the original rock surface.
- 27 One has to be careful with part of the line that has been recently re-traced with a finger, or with a graphite pencil and a pointed object, making this area very difficult to read today. However, it appears that these re-tracings did not deeply affect the surface nor create any deep relief; their author appears to have wanted to underline the parts which were not visible enough in his/her opinion, possibly with the intention to make the figures easier to read from the ground. Thus a head was entirely added: nowadays one can see the line of the mane and of the back, an ear, the re-drawn forehead, the

clearly marked contour of the end of the nose and the beginning line of the chest (fig. E). These lines are sometimes finely engraved, or sometimes wider, as if drawn with a finger or stick⁸. All are clearly modern, which is discernible by their light colour. As was noted by B. and G. Delluc (*ibid.*, p. 374), the only trace left by Prehistoric people in the area of the head was a deep hollow at the likely location of the forehead, on the left side of which the “new” line of the forehead is now visible. In association with the effect of the relief on the wall, this hollow was sufficient to suggest the head of the horse without a detailed mane.

- 28 However, other traces that are still visible in front of the chest of the animal allow consideration of another possibility: that the horse originally had its head lowered toward the front. Indeed a subvertical deep line, nearly straight, is visible in front of the figure. Up to date this line has been associated with horse n° 9 as part of its hind leg. Toward the bottom of this line, a few centimetres before the crest of the rocky overhang, we can see starting from its edge toward the left, a lowering of the wall which creates the rounded end of a muzzle – a line that then continues to form the chin and the neck. The shaping of the edges appear well under a well positioned light source as does the lowering of the surface between the front leg of the horse and its head, with a line that underlines these tracings. We can add that the subvertical deep line is probably not associated with this head as the resulting proportions would be aberrant. A lighter line, oblique and very fine, could potentially be the forehead. However as B. and G. Delluc remarked (*ibid.*, p. 374), one has to be extremely careful with this surface, as it is covered with coalescent cupmarks which could evoke anthropic traces (fig. E). The front of the horse is in a damaged area that prevents the joining of the two parts and confirmation of this hypothesis, even if the overall proportions make it believable. Another explanation would be that it is the remnants of a figure that was represented before the horse n° 8, or again that the figure was corrected at some point.
- 29 Other existing traces (see below) indicate a first stage of working the wall before the making of horse n° 8. This figure has been called “dappled” by B. and G. Delluc (*ibid.*, p. 374) because of the aspect of the body surface that shows alternating dark and light stains. They seem to result from the various rock surface alterations; four of them are perfectly circular cupmarks (up to 1 cm deep) that appear to be of anthropic origin. Five vertical to subvertical lines are visible on the coat of the animal; they are rather wide (0.6 to 1.2 cm), and unequal in length. The one on the left is the most pronounced together with a finer line at the level of the shoulder. They are spread inside the body but none touches its contour lines. These lines are reminiscent of the ones visible on the “striped” horse n° 2, also deeply engraved in the same sector of the cave on the opposite wall. One can also notice a 3 to 4 mm wide engraved line, roughly parallel to the stomach line inside the animal, which starts from the junction of the hind leg and stomach line up to the beginning of the first foreleg. Finally, a deeply engraved line is visible on the hindquarters with its right edge lower than its left one. It does not fit with any anatomical detail or any of the usual graphic conventions, which led us to examine closely the wall immediately around it. We found other finer lines that appear to form the head of another animal, probably not a horse in our opinion because of its round and compact shape (fig. 9); it may be the remains of a previous representation made before horse n° 8 and practically totally erased by it, which leads us to think that two successive stages of decoration of the wall occurred in this part of the cave. Finally,

other fine engravings visible at the hindquarters and near the horse head appear to be modern.

Figure 8 - Horse 8 and animal 9. Line 10. a. Analytic tracing (after Delluc et al. 1987). b. Tracing by Dams 1980.

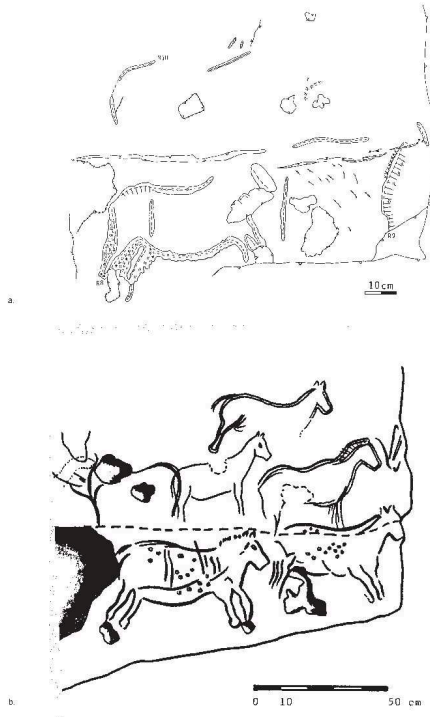
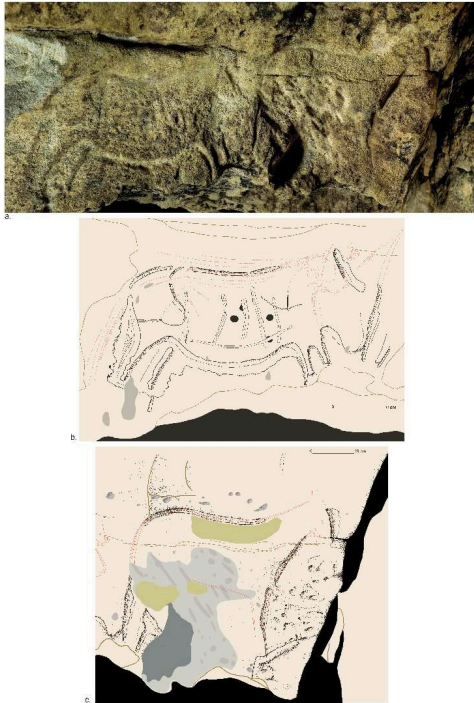


Figure 9 - a. Photograph of horse 8 (on the left) and animal 9 (on the right) (photo H. Paitier). b. Horse 8. Analytic tracing. The red lines indicate modern transformations (rounded abrasing as if a brush was used to clean the rock surface or erase traces, or linear abrasing or engraving, to trace a new head with its tuft and neck) (tracing E. Bougard). c. Undetermined animal 9. Analytic tracing. In grey: removals of material from undetermined time period. Brown lines: grain of the stone. Red lines: modern tracings. In yellow: recent torn-off areas (tracing by E. Bougard, CAD R. Pigeaud).



Indeterminate animal n° 9 (Sector II, left wall, panel IV, graphic unit 9)

- 30 This figure has been called “horse n° 9” in previous studies (*ibid*, p. 374). It is located about 2.7 m above the current floor level, on a rocky overhang with a nearly vertical surface, on the right of horse n° 8 (see above). It is also depicted in right profile, and fits in a 45 cm long by 41 cm high rectangle. The techniques used are low-relief sculpture and engraving (deep to fine). The previous study (*ibid.*, p. 374) concluded by tracing four large lines forming the contours of what was subsequently interpreted as a horse, an animal L. Dams (1980) also saw (figs. 8 and 9). These four main lines depict the incomplete contour: on the left a 16 cm long vertical line, represents the tail or bottom of the hind leg; after a blank, a well-marked line, 29 cm long from one end to the other, starting from the top of the thigh and indicating the hindquarters and back up to the beginning of the mane; the head is marked by a simple subvertical line, 8 cm long, 1 to 2.5 cm wide and 1.5 cm deep at the forehead; finally the chest and the edge of the front leg are represented by what appears at first glance to be a single 32.5 cm long line, subvertical and slightly curved, starting from the top of the neck.
- 31 The new tracing done in 2011 allowed completion of the previous observations by clarifying some details (fig. 9). Thus, the straight vertical line mentioned above is irregular in width (0.5 to 2 cm) but the bottom of the line is completely straight and fine, which indicates the use of a pointed tool to make it. It stops at the edge of the

rock. The surface immediately to its right shows traces of working on about 10 centimetres which were not noted in the previous studies: a subvertical line 5 cm long and 1 cm wide, whose extremity reaches the edge of the rocky overhang. This is situated approximately 3 cm away from the previous line whose upper part connects with a hollowed out surface (2 to 3 cm high by 7 cm wide, 1.2 cm deep) itself interrupted by a medieval hole. These elements can be interpreted as representing a thin leg that widens at the top forming the beginning line of a stomach and thigh. There is no junction visible anymore with the top of the line on its left, which can be interpreted as a long and thin tail. On the lower part on the right, new lines were also spotted, clearly visible when lit from the left only. The edge of the worked relief is indicated by a 4 cm long subvertical dug out line that starts from the edge of the overhang and continues on the right, in a 12 cm long and 1.5 to 2 cm wide subhorizontal relief (fig. 10).

- 32 The combination of these new elements in the lower part of the figure evoke, in our opinion, the lower part of the body of a bison with small legs and massive body, with a well-marked dewlap indicated by a nearly horizontal line – of the Font-de-Gaume type for example. With this idea in mind we re-examined the entirety of the lines. At the assumed place of the head, we could not see any definitive traces of human alteration, even if the overall volume of the surface evokes a bison. The present-day back line could correspond to that of a bison, unless the original line of the back was lower, in the area which is today destroyed. It is possible the line described as the forehead of “horse n° 9” could also be the front of the hump. Besides, as the edge of the rocky overhang has been used, the integration of natural relief cannot be excluded.
- 33 However, the line forming the front of the breast does pose a problem in this interpretation – it cuts deeply into the figure and cannot be interpreted as a horn or any other anatomical detail. This line is made of three distinct parts. At the top, the wall was sculpted, as the external edge of the line has been lowered by nearly 2 cm in places. This resulted in a straight and abrupt trace that widens and lowers softly in the lower part and emphasises this section of the body; then the line stops briefly while the eye makes a connection towards the bottom. The rest of the line continues and becomes wider (about 1 cm) with less abrupt edges; a more finely engraved line continues it toward the bottom and cuts into the relief shape (of the possible bison dewlap).
- 34 Just like other figures in the cave, animal n° 9 has been damaged by the medieval troglodyte inhabitants who dug a large beam hole in its middle, destroying the central part of the animal with pick axes. More recently, it has been retraced or completed, after the study carried out by B. and G. Delluc (*op. cit.* Delluc *et al.*), with a pencil, a pointed object, a finger or with a rounded-ended stick. Thus the bottom of the line is not visible anymore around the lower parts of the “bison.”
- 35 We suggest to see on this wall two successive stages of ornamentation with an initial bison figure later re-worked into another herbivore (cervid or ibex). We do not think this figure represents a horse, especially by comparison with horse n° 8 next to it (see above). Horse n° 8 was fashioned in a very different style (impression of movement, anatomical details, less effort in rendering the volume) although some similarities do exist like the head simply being suggested by the line of the forehead. It is unfortunately impossible to prove how recently these figures were made – an essential condition to the previous remark. Nevertheless we can note that both representations

appear to make a panel and follow each other without overlapping, a possible sign we have indeed a discrete composition. We can recall that we also spotted traces corresponding to an earlier stage of creation of horse n° 8 (see above). Therefore a re-working of the entirety of this part of the wall cannot be excluded.

Figure 10 - Undetermined animal 9: detail photograph of the head outlined in white (photo H. Paitier, CAD A. Redou).



Group of representations n° 25 to 27 (Sector III, left wall, panel VIII, graphic units 25 to 27)

- 36 Located on a subvertical rocky pendant on the left wall of the diacalse, this composition fits into a 50 cm long by 15 cm high rectangle. The diacalse itself stretches toward the depths of the cave on the right side, shortly after the Sorcerer's panel. The limestone wall is degraded, and partially covered with thin clay deposits in places and marked by gypsum deposits in others. These gypsum deposits horizontally frame the engraved figures whether neatly in defined punctuations on the wall, or more vaguely. On the right, the gypsum covering the bottom of the composition is more intense. A flaked-off area, 8 cm in its larger diagonal and 5 mm thick, also damaged the rock surface on this part of the panel
- 37 Representation 25, 10 cm long by 10 cm high, described by B. and G. Delluc as a "human head with a bestialised face" (fig. 11), is partially formed by a concavity of the wall (*ibid.* p. 385).
- 38 The drawing, poorly visible during the first tracings, was originally "done with an extremely fine line;" unfortunately, the lines have recently been re-traced with a pointed tool, making them much more visible. The modern tool ate into the partially

gypsum-covered rock, exposing the underlying clay layer once more. The re-tracings do not exemplify much precision or skill. Indeed, the contour of the profile has been rendered by sub rectilinear line segments, that cross over slightly at their extremities and that do not always respect the lines of the original drawing. From the top of the forehead to the glabella (where the extremity of the new drawing shows particles torn from the rock), the curve was ignored and the two points were joined by a straight line. Likewise, the eye, initially rounded, appears today as almond-shaped as the upper left corner has not been retraced. Some new lines, none over 1 cm long, were noted: they were done while re-tracing the drawing by a person who extended the Palaeolithic lines or ignored them. They are found at the basis of the back of the skull, near the nose (where a mouth could possibly have been) or again at the back of the eye. The drawings that are uniquely Palaeolithic remain residual.

- 39 Under representation 26, described below, B. and G. Delluc identified, and we concur, a “female or rather gynoid outline, turned toward the right” (Schematic Female Figure or SFF according to their terminology; Delluc et Delluc 1995). This figure is 2.8 cm long and 5.5 cm high, in geometric style and has also been quite deeply re-traced. The modern editor slightly crossed the lines he drew at the level of the junction between the line of the back and the curve of the buttock.
- 40 B. and G. Delluc described representation 27, as 35 cm long and 15 cm high, and “a likely forequarter of a horse [...] turned to the left” (Delluc *et al.* 1987, p. 388). After a new reading of this figure, it seems to us that this horse is more complete as the lines of the back and stomach are engraved as well as the beginning of a hind leg. The line of the back, which follows the shapes of the relief, is most marked above a flaked-off area by two parallel lines. At the saddle area, interpretation has been impaired by an entanglement of converging large or finer lines, in such a way that it is difficult to describe precisely the position of the back line. The line of the belly was already strongly suggested by the natural relief; on the left extremity of the hollow, fine anthropic lines continue, thus integrating, in our opinion, this relief into the prehistoric drawing. Today this line is less visible because of the gypsum deposit.
- 41 The neck, part of the back line, the head, the eye, the chest and the beginning of the front legs, as well as a possible ear, have been re-traced by a fine and deep line. Clay particles indicative of this retracing are still visible at the level of the ear. For the mouth, possibly to accentuate the curve, two parallel modern incisions are visible. Furthermore, the forger was apparently mistaken on the chest depicting “ogive-shaped and trident-shaped lines that evoked [...] a clumsy rendering of the shoulder and the forelimb” according to the interpretation of B. and G. Delluc (*ibid.*), as he/ she also re-traced their edges in such a way that the modern observer does not immediately catch the overall appearance of the horse. As for the “ogive-shaped lines”, their central line is vertical and crosses very slightly with the left branch: it could suggest the central part of a vulva; these lines do evoke a representation of a pubis – a slightly concave thin line connects the lateral branches 8 cm away from their junction.
- 42 The much degraded wall surface, the deposits of clay and gypsum (which are not a surface alteration), and the alveolar nature of the limestone do not facilitate the reading of the lines’ endings. Several of the segments composing the panel do seem to continue beyond the lines recently re-traced. It is notably the case of the forelimbs of the horse (anatomical reality: drawing of the limbs and/or of the muscle?); of its forehead (existence of another underlying engraving, too damaged or that we have not

been able to decipher yet?); of the possible engraved vulva or again of the two lines making the shape of the *gynoid figure* (straight towards the top for the left line, curved toward the bottom of the right one, see Bosinski 2011). We do consider these drawings as anthropic but they are much altered and their reading is only possible with a particularly low-angled daylight type of lighting.

- 43 Finally, a similar lighting shows many fine incisions organised in bundles on the left of the panel – one of them oriented Southwest/Northeast, intersecting with a bestialised human profile in its lower part. The other is lesser in density and subhorizontal. It stretches from the base of the rock pendant (below the human profile) up to the junction of the horse stomach line with the upper edge of the gypsum covered area. In the central part, these fine lines appear unorganised, without preferential orientation. It was not possible to read them. Moreover, some lines starting from the bestialised head seem to continue on the back of the rock pendant – an area we will need to decipher carefully in the future. We also note that the drawings continue on the other side of the rock pendant and that we will have to devise a system (with mirrors?) to be able to decipher this side, difficult to access at present because of the narrowness of the passage and the fragility of the wall (fig. 11c).

The Sorcerer's panel: new reading of representation n° 18 (Sector IV, vault, panel IX, graphic unit 18)

- 44 This very complex panel stretches over a large vault. We have given priority for the moment to the tracing of the strip of rock that includes representations 14 to 18, following the inventory of B. and G. Delluc (Delluc *et al.* 1987). We have concentrated on deciphering the numerous lines, with the help of the cast (fig. 3). Some of the lines are difficult to read, thanks to the progression of the gypsum cover that hides and damages the wall surface as well as the acts of vandalism.. As for the flaked off areas that leave a yellow trace, the comparison with the cast that keeps negative imprints of them and with old photographs shows that they are ancient and have not progressed. At this level at least the wall has not changed. We will only consider here representation 18 and we will publish later the full study of the panel after doing the detailed tracing.
- 45 The anthropomorph nicknamed the Sorcerer led to extensive press coverage (fig. 12). At first thought to be a feline by the first discoverers (Blanc 1955), it was then interpreted as an ithyphallic human, an interpretation strengthened by the similar figure from Sous-Grand-Lac cave (Dordogne). For Abbot Glory, the Sorcerer was even a shaman, holding in his hands a “Spirit bag” (Glory 1964). J.-P. Duhard has refused the interpretation as an anthropomorph especially because of the anatomically aberrant position of the penis (Duhard 1995). J. Airvaux, putting forward the large head and the foetal position of the figure, recently offered a reading as the representation of a newborn, the phallus being the umbilical cord (Airvaux, personal communication). As for us, the comparison of the three existing tracings with the wall never stopped attracting our attention, even if just from the multitude of inventoried lines that seem to appear or disappear anarchically. From a technological point of view, this seemed aberrant, as the wearing down of the wall could not explain everything. We felt the lines had been traced without taking the gesture of the artist into account. Therefore we decided to make again a precise tracing, following the beginning of the lines and looking for logic and chronology in the gestures.

- 46 Furthermore, we were troubled by two details: the position of the penis and the bent position of the body. Remembering this figure was firstly mistaken for a feline, we wondered if we did not have a quadruped transformed into an anthropomorph. The penis would then what had previously been considered a limb. Indeed, the eye, accustomed to the traditional reading, would not seek beyond this explanation comforted by the by the configuration of the rock. For we must never forget that we are under a vault: it could have been viewed from multiple perspectives through time (fig. 13, F, G).
- 47 Two more elements troubled us:
1. The present-day reading of the face, depending on a flake on the wall that would have been used to finish the drawing of the profile always seemed suspect. A long practice of decorated caves and of making tracings taught us that, if utilisations of relief do exist, they must be considered only as a last resort: the argument that the drawing is finished by a fissure or by the rocky edge or the flake must be favoured only if no other line is visible. Now, this is not the case here (fig. 13).
 2. We are in front of a surface area much disrupted by a succession of niches and rock pendants. Up to date the Sorcerer's panel seemed to have been conceived as a well delimited space. Now, close observation of the wall shows that the drawings continue beyond the rock strip in a very narrow area. To trace this area, we will have to create a system of mirrors that will allow reading and taking photographs which we then will have to be straightened (fig. H).
- 48 Let us consider first the state of the wall. As it is possible to see on representation 32, the deposits of gypsum are mostly concentrated on the edges and crests. From old photographs, they do not seem to have changed much. Observing them more closely shows that they are eating into the external layer of the rock rendering it extremely fragile (fig. 14).
- 49 Another element: the flaked off areas of wall, in yellow (fig. 14). Comparison with the casts (on which their profile can be seen) shows that they have not changed since 1966, except for some small areas. They are mostly seen on the main relief of this rocky strip which has a profile resembling an upside-down boat hull. This means, in our opinion, that this part of the wall, the lowest, was closer to the infill of the cave and must have suffered from rubbing. On the contrary, the higher part was not in contact with the infill and probably remained out of reach and protected.
- 50 Moreover, their connection with the engraved lines is very interesting. For example, one can note that the line of the stomach is jammed between two flaked-off areas and that in most parts the "ghost" of the line can be seen inside the flake. This means not only that the engraved line was deep, but that the loss of surface did not happen suddenly but over time or following a superficial flaking-off. Two exceptions, however: the deep flaking-offs, without lines, located at the base of the penis and at the level of the left knee. Here it seems that the wall was damaged by a blunt object, just as it happened for the eye of the well-known "lioness" of Combarelles I.
- 51 As for the modern damages (figs. 14 and I), they are of two types: projections of clay, resulting in our view, from elbow or shoulder strokes by tactless visitors and re-tracings of lines (pencil). Highly visible as darker, these can be seen on the anthropomorph, the ibex 16 and the bison 15. For the latter, only the nostril, the muzzle and the arch of the eyebrow were re-drawn. For the ibex, the contour of the eye was re-drawn, making it rounder. But the anthropomorph has suffered most: the

vandal has accentuated the contour of the right eye - the “ear” in the traditional interpretation - as well as the forehead and the arch of the eyebrow of the left eye, thus creating a new head that has nothing to do anymore with the old one. He/she also deepened the flaked-off area to accentuate the effect of the face, thus making obvious the use of the relief.

- 52 Fortunately, the cast has allowed us to find again the original drawing. Thus we did a new tracing, from which we offer another reading of the anthropomorph. First of all, as B. and G. Delluc already noted (1987), it has no “hair;” the lines located at the back of the head are finer and probably belong to another figure that we will study in the near future.

Figure 11 - Head 25, gynoid representation 26 and horse 27. a. Analytic tracing (after Delluc et al. 1987). b. Tracing by Dams 1980. c. Photomontage H. Paitier. d. Analytic tracing: the black dotted lines show sketches of tracings. In red, the modern tracing. In grey dots, the limits of the gypsum deposits (tracing by F. Berrouet).

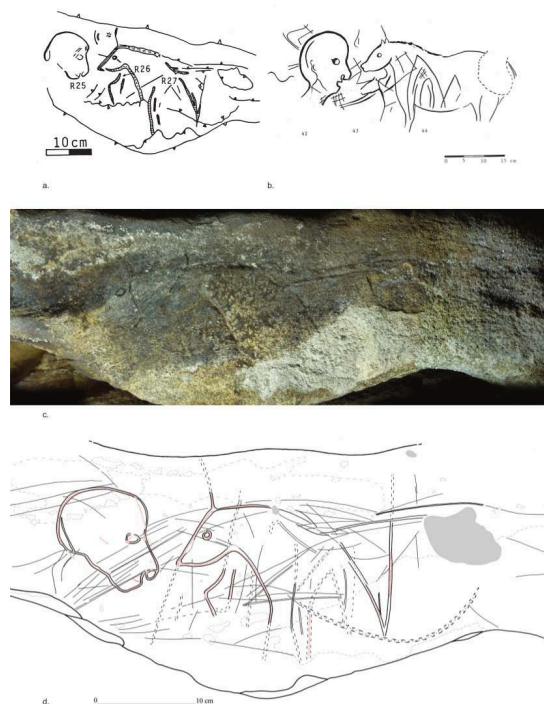


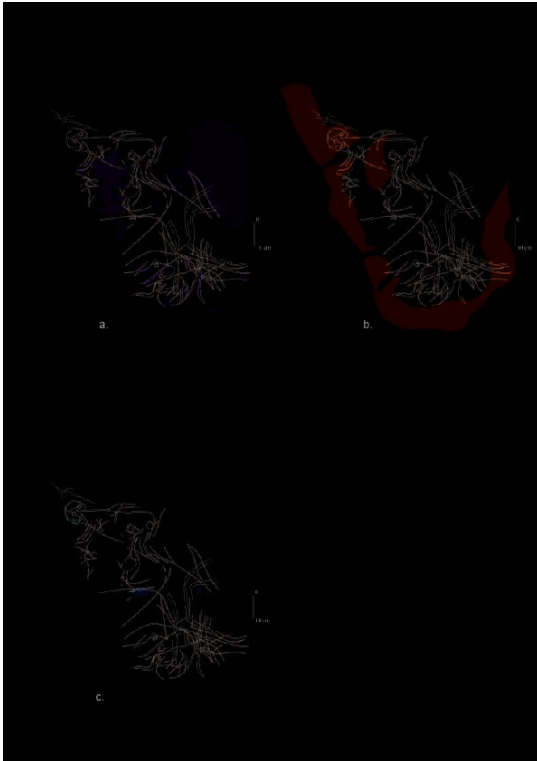
Figure 12 - Panel of the 'Sorcerer'. a. First tracing of the 'Sorcerer' by André Glory (after Blanc 1955). b. Tracing by Dams 1980. c. Analytic tracing (after Delluc et al. 1987).



Figure 13 - a. First reconstituted strip of the panel of the 'Sorcerer' (photos and photomontage H. Paitier). b. Analytic tracing of the panel of the 'Sorcerer'. The relief elements are in grey (tracing by R. Pigeaud, with the collaboration of F. Berrouet and E. Bougard).



Figure 14 - Panel of the 'Sorcerer'. Analytic tracing. a. In yellow, torn-off areas of the wall. b. In blue, the limits of the gypsum deposits. c. Modern damage: in red, the new tracings; in brown, the traces of clay projections (blows with elbow or shoulder) (tracing by R. Pigeaud, with the collaboration of F. Berrouet and E. Bougard).



53 For the head:

- three lines remain, above the eyes and between them as well as above the jaw, which could belong to another figure or again could be construction lines;
- we don't have one eye and one ear, but in reality two eyes, as is suggested by the similarity of the drawings and their identical volumes; this means, in our opinion, that the anthropomorph has the head drawn in a frontal view, as many other anthropomorphs represented as masks, "sorcerers" or "ghosts" in Palaeolithic art.
- the presence of a drawing in front of the head confirms this hypothesis: it closes the contour and cuts into this notorious flaked-off area that has been commonly interpreted as a profile utilising a natural shape. According to us, although it seems to have existed before the drawing, this flaked-off area was not used by the prehistoric artist. The anthropomorph does have its head in full-frontal view. Moreover this is also coherent with the whole of the known corpus of human figures, such as the "horned God" of the Trois-Frères cave (Ariège) for example.

- 54 Another new interpretation: we have long been intrigued by the rounded shape on the lower belly of the anthropomorph. A further examination showed it was a ball-shaped hoof, from the left hind leg of a horse, whose other leg is seen slightly lower, partly covered by the drawing of the left buttock of the Sorcerer. Starting from this, it was possible to find again the drawing of this equine, represented in a left profile, in a bi-angular oblique perspective, in a dynamic attitude (fig. 15). Today it is partly covered by the anthropomorph and the bison, and appears deformed on the tracing as it is located in a deep recess of the vault.

- 55 Thanks to the study of the superimpositions, we were able to reconstitute the various steps of the making of the anthropomorph, using the equine (fig. 15). In particular, the phallus and the left leg of the anthropomorph have been traced from the right hind leg of the horse (fig. 16).
- 56 This discovery does emphasise a real stratigraphy of the drawings in the cave, especially in this area.

Figure 15 - Panel of the 'Sorcerer'. a. b. c. d. Synthetic tracings showing the different steps of the making of the anthropomorph, established from studying the superposition of the engravings. e. Synthetic tracing showing the traced lines of horse E (tracings by R. Pigeaud, with the collaboration of F. Berrouet and E. Bougard)

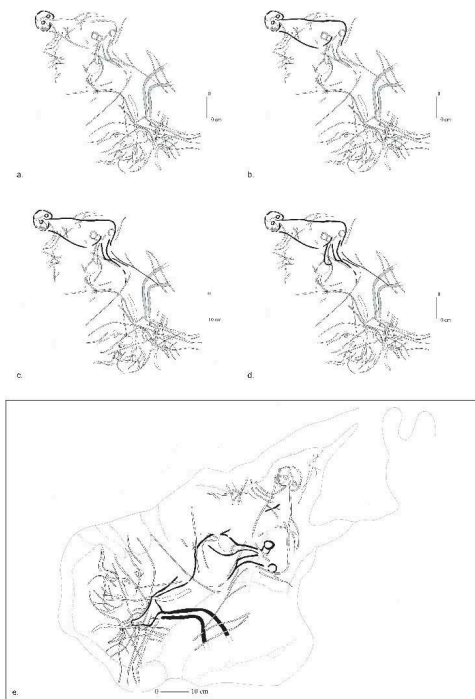


Figure 16 - Panel of the 'Sorcerer'. Detail of the phallus showing the two round-shaped hooves (photo H. Paitier).

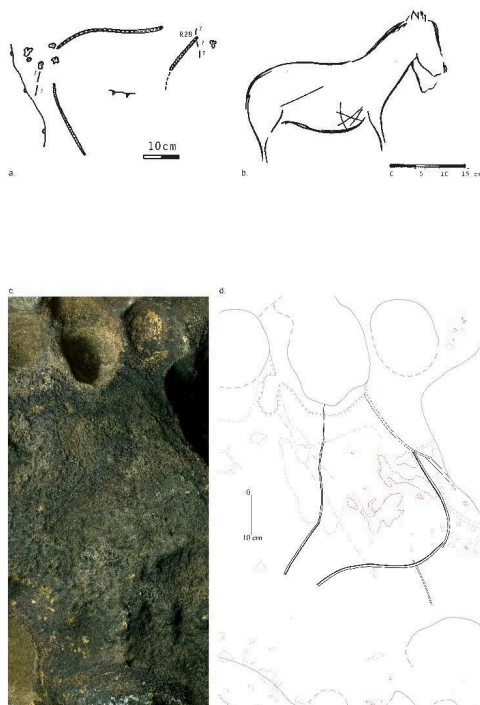


Graphic unit n° 28 (Sector VI, vault, panel XIII)

- 57 On the ceiling of the chamber, just above the left edge of the trench looking toward the back of the cave, B. and G. Delluc noticed some lines they described as a “fragmentary animal” (*ibid*, p. 388), composed of the back, the beginning of the chest and the possible long contour of a thigh (fig. 17). These anthropic lines, 3 to 5 mm wide, are on a rather plane surface, significantly damaged, partly flaked-off at the centre of the composition. It bears the remains of a clayey deposit as well as diffuse gypsum layers (but with some more intense efflorescence, some even being a few millimetre thick) .It is framed by natural concavities; the bottom of the lines are covered by a thin dark clayey layer cracked by desiccation. In places, notably at the level of the limestone rims at the periphery of the domes on the vault, deeper incisions can correspond to the bottoms of initially larger lines whose edges have disappeared today.
- 58 Thanks to new lighting and to a metallic scaffolding allowing closer proximity with the ceiling, we were able to read the line described as the chest by B. and G. Delluc. It continues on both sides of a flaked-off area and connects with the edge of the sub circular opening of a concavity; the line previously interpreted as the thigh also connects with this concavity. The curve making the junction between the line of the back and the line of the thigh, although damaged and diminished, does exist in our view. At this level, several possibly engraved lines are visible, whether to mark the curve, whether because other representations, figurative or not, that we have not been able to decipher for the moment. A 14 cm long segment is perpendicular to the back line described by B. and G. Delluc, and intersects slightly with it. Numerous coalescent cupmarks align and could be taken as lines if one is not careful in their interpretation.

- 59 This composition (55 cm in its longest dimension) evokes, in our view, a schematic female representation (SFF: Delluc and Delluc 1995) in left profile, by pivoting the initial reading orientation by 90° anti-clockwise. The curved line thus makes the line of the back, the buttock and the start of the leg, while a sub rectilinear line suggest the front part, slightly bent at the junction between the torso line and the top of the leg. One of the concavities toward which these two main lines converge could have been included as a natural relief shape (head?) by the Palaeolithic artist – but we have not noticed any anthropic drawing in it.

Figure 17 - Representation 28, previously interpreted as an animal figuration. a. Analytic tracing (after Delluc et al. 1987), published with the inventory number 32. b. Tracing by Dams 1980, initially published back to front. c. Photo taken from another angle. Another reading is then possible (photo H. Paitier). d. Representation 28, interpreted as a schematic female figure, whose head could be figured by a concavity. The red dots indicate the limits of the gypsum deposits, the black dots the probable tracings (tracing by F. Berrouet and E. Bougard).



Conclusion

- 60 Starting over the study of a decorated cave after prehistorians reputed for their professionalism and the seriousness of their works is an ambitious program during which one needs to remain humble while being impartial and considerate to the slightest trace that could lead to a new reading of a figure. Altogether, we have not met major objections to the reviewed and corrected descriptions we are offering: on the one hand because a number of alterations are due to the acts of vandalism noticed on some engraved panels; on the other because a consensus is usually agreed upon in front of a differently lit wall, or even simply seen from a new angle (the scaffolding set up parallel to the vault allowed seeing the engravings as never before). The arguments focused on the figure of the Sorcerer, an emblematic anthropomorphic figure of the

cave for which we not only offered a new interpretation of the head, but also added the superimposition with the representation of an equine. We are ready to submit our reading to our colleagues, some of whom have already backed us into a corner. New photographs as well as the tracing of the presently non accessible areas will allow us, we hope, to close the argument.

61 Thus our knowledge of the Sorcerer's cave progresses, made easier by a new precise topography of the site allowing us to locate representations and wall alterations, whether anthropic or natural. The study of the removals of sediment allows advanced debates on the position of the infill before the reopening and the works in the cave in modern times (see Delluc *et al.* 1987 for the chronology). As for the discovery of new engravings, or the precision of some details of the tracings done by our predecessors, they show that the graphic potential of the cave is not exhausted. Three sequences are perceptible:

1. Strong relief sculptures close to the low-relief technique;
2. Deep engravings, as on the Sorcerer's panel with at least two different stages; and
3. Finer engravings.

62 A relative chronology that of course needs to be refined...

63 Nearly fifty years after the discovery of the Sorcerer's cave and twenty-five years after the last serious systematic study of the engravings by B. and G. Delluc, considering with a new eye this parietal art of the Perigord has been a very interesting choice. It has allowed us to apply today's approach of prehistory in order to try and comprehend the decorated wall. This stage is the outcome of the pioneering work that succeeded each other there. The speleological explorations of Bernard Mortureux and the sharpened look of Séverin Blanc and Henri Breuil, in the middle of the past century, made the first discoveries possible. The tracing work led by André Glory, followed by the partial casts of the panels in 1966 specified many details and constituted the beginning of the attention to the conservation of the walls (even if the operation left traces). Finally, the nearly exhaustive tracings done by B. and G. Delluc in 1982 made the chronological attribution of the engravings possible, while the organisation as an articulated composition around a male figure together with animals or animal segments, as well as geometric drawings was being perceived little by little. The materials and processes at the disposal of prehistorians are changing rapidly, photography techniques are improving while the use of cold light systems permit an exceptional reading of the parietal micro-relief. Meanwhile in the lab, it is possible to make photographic assemblies on the computer, to back from a detail of the wall or to encompass in one glance the whole panel, to pivot figures to better understand them. Furthermore, the unfortunate damage that we were bitterly able to observe on some engravings, probably done shortly before the disappearance of the former owner, Ernest Paluzanno and the purchase of the cave by the present owner, remind us more than ever of the extreme fragility of a subterranean environment that survived through centuries but that we still need to preserve permanently.

This article is dedicated to the memory of Norbert AUJOLAT

The authors would like to greet the colleagues and specialists that visited the site during the 2010-2011 November-December campaigns: J. Airvaux, J. Audoin, Norbert Aujoulat (†), D.

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BIBLIOGRAPHY

AUJOULAT N. 2006 – *Art pariétal et milieu naturel*. Mémoire d'Habilitation à diriger des recherches soutenu le 19 avril 2006 à l'Université Bordeaux 1.

BLANC S. 1955 – Une nouvelle grotte ornée près des Eyzies. La grotte Noël Brousse à Saint-Cirq. In : Collectif, *Congrès préhistorique de France*, compte rendu de la XIV^e session, Strasbourg-Metz 1953, éditions de la SPF, p. 178-182.

BOSINSKI G. avec la collaboration de BRUNEL E., CHAUVET J.-M. et R. PIGEAUD. 2011 – *Femmes sans tête. Une icône culturelle dans l'art européen de la fin de l'époque glaciaire*. Paris : Errance, 232 p.

BOURDIER C. 2009-2010 – Histoires de bisons et de chevaux : regard sur l'évolution de la frise pariétale de Cap-Blanc (Marquay, Dordogne) à travers l'analyse du panneau de l'alcôve. *Paleo*, n° 21, p. 17-38.

BRUNET J., VIDAL P. 1978 – Grotte Sous-le-Roc de Saint-Cirq-du-Bugue (Dordogne). Étude des conditions climatiques. Intervention. Conservation. *Spéleo-Dordogne*, n° 66, p. 2-10.

CLOTTE J. 1998 – *Voyage en Préhistoire. L'art des cavernes et des abris, de la découverte à l'interprétation*. Paris : éd. La maison des roches, 479 p.

CLOTTE J., GARCIA M.-A., GUICHARNAUD R., LAUTIER J., LORBLANCHET M., ROUZAUD F., VIALOU A. et D. 1981 – Vrais et faux bisons de Mayrière-Supérieure (Bruniquel, Tarn-et-Garonne) : problèmes d'observation et de méthode. *BSPF*, t. 78, n° 3, p. 71-74 (rééd. Clottes 1998, p. 66-71).

COULSON D., CAMPBELL A., CLOTTE J. 2011 – Pas vraiment des faux, mais... *International Newsletter On Rock Art*, n° 61, p. 26-29.

DAMS L. 1980 – *L'art pariétal de la grotte du Roc Saint-Cirq*. BAR International Series, 79, Oxford, 149 p.

DAMS L. et DAMS M. 1979 – La grotte de Mayrière-Supérieure à Bruniquel (Tarn-et-Garonne). *Bull. Soc. Roy. Belge Anthropol. Préhist.*, 90, p. 85-98.

DELLUC B. et DELLUC G. 1984 – Grotte de Saint-Cirq. In ; Collectif, *L'Art des Cavernes. Atlas des grottes ornées paléolithiques françaises*, Ministère de la Culture, Imprimerie Nationale, p. 210-213.

DELLUC B., DELLUC G., GUICHARD F. 1987 – La grotte ornée de Saint-Cirq (Dordogne). *BSPF*, t. 84, n° 10-12, Hommage de la SPF à André Leroi-Gourhan, p. 364-393.

DELLUC B. et DELLUC G. 1995 – Les figures féminines schématiques du Périgord. *L'Anthropologie*, 99, p. 236-257.

DELLUC B. et DELLUC G. 2009 – Les découvertes d'art pariétal en Dordogne depuis un demi-siècle (1947-2000). *Spelunca*, mémoires n° 34, p. 33-64.

DUHARD J.-P. 1995 – *Réalisme de l'image masculine paléolithique*. Grenoble : éd. Jérôme Millon, 256 p.

- GARCIA M.-A. 1989 – La sculpture pariétale préhistorique. Technologie et terminologie. In : Collectif, *La sculpture rupestre en France (de la Préhistoire à nos jours)*, Actes du colloque de Brantôme, 14 août 1988, *Société Historique et Archéologique du Périgord*, supplément au bulletin, t. CXVI, p. 17-24.
- GLORY A. 1964 – L'énigme de l'art quaternaire peut-elle être résolue par la théorie du culte des Ongones ? *Revue des Sciences religieuses*, 4 (oct.), p. 337-388.
- LE QUELLEC J.-L. 2004 – Notice « Galop volant ». In : Collectif (dir. D. Vialou), *La Préhistoire. Histoire et dictionnaire*, coll. « Bouquins », éd. Robert Laffont, p. 662.
- MALAURENT Ph., BRUNET J., LACANETTE D., CALTAGIRONE J.-P. 2005 – Apport de la modélisation numérique à la compréhension de l'état des parois de grottes préhistoriques. Premiers résultats à Lascaux. *Préhistoire, art et sociétés*, t. LX, p. 53-59.
- PIGEAUD R. 1999 – Autour du Cap-Blanc : quelques remarques sur la « forme-cheval ». *L'Anthropologie*, 103 (4), p. 569-616.
- PIGEAUD R. 2004 (avec la collaboration de M. Bouchard et E. Laval) – La grotte ornée Mayenne-Sciences (Thorigné-en-Charnie, Mayenne) : un exemple d'art pariétal d'époque gravettienne en France septentrionale. *Gallia Préhistoire*, 46, p. 1-154.
- REINACH S. 1900 – La représentation du galop dans l'art ancien et moderne (première partie). *Revue Archéologique*, III^{ème} série, t. XXXVI, janvier-juin, p. 216-251, 46 fig., 1 tabl.
- SAUVET G. 1988 – La communication graphique paléolithique (de l'analyse quantitative d'un corpus de données à son interprétation sémiologique). *L'Anthropologie*, t. 92, n° 1, p. 3-15.
- TOSELLO G. 1995 – Traces et simulacre en art préhistorique : éloge et critique de la reconstitution. *Cahier Art et Science*, n° 2, Publication de l'Université Bordeaux 1, p. 83-95.
- TYMULA S. 2002 – *L'art solutréen du Roc de Sers (Charente)*. Documents d'Archéologie Française, 91, Ministère de la Culture et de la Communication, Ministère de la Recherche, CNRS, Paris : éd. de la Maison des Sciences de l'Homme, 288 p.

NOTES

1. This author has often been blamed for a lack of rigor and a capacity to inflate unwisely the numbers of the inventories (Clottes *et al.* 1981; Clottes 1998; Dams and Dams 1979), a fact we were able to check in the Mayenne-Sciences (Mayenne, France), Nerja and La Pileta (Andalusia, Spain) caves as well as in the Sorcerer's. L. Dams has often interpreted natural relief and mistaken them for Palaeolithic drawings. Even so, we decided, in opposition of B. and G. Delluc (1987, note 6, p. 393), to take her tracings into account exactly because she traces everything on the rock wall without discriminating; this can help us spotting lines before deciding on a final designation.
2. Site Internet : www.grottedusorcier.com
3. We are using this term, already seen several times in the present work, with purpose as operating on a rock wall classified as a Historical Monument and registered as a UNESCO World Heritage site is an offence, whatever the original intentions of the person may be. See about this Coulson *et al.* 2011.
4. We will recall here that a panel is, according to the definition of G. Sauvet (1988, p. 5) a “plastic body of work (painting, engraving, sculpture, modelage) identifiable by its physical limits”. These limits are fissures or the limits of the relief.
5. The figures numbered from A to J are additional figures only offered in the online version of the article.

6. Semi-plane relief in S. Tymula's terminology (Tymula 2002).

7. This historical expression has been used in the case of horses "represented with straight [legs], stretched parallel two by two toward the front and the back, which gives the impression the animal does not touch the floor (although the latter is never represented)" (Le Quellec 2004). Therefore a sort of optical illusion that has become a descriptive term used by prehistorians and of which S. Reinach (1900) gave the definition: the horse is thus "completely detached from the floor [...], the hooves turned toward the outside, their bases being more or less vertical compared to the ground line, instead of merging with it"; thus the horse appears "very close to the ground, instead of being further from it than in the other speeds".

8. The Coniacian limestone is easy to work once ridden of its upper layer (Tosello 1995; Pigeaud 1999).

ABSTRACTS

Two main reasons have led us to start again the study of the Sorcerer's cave in Saint-Cirq-du-Bugue (Dordogne): first of all the real progress existing in recent years in the means available for the study of prehistoric parietal art, which had not been applied to the site; and secondly the discovery of vandalism on some of the art, which needed to be assessed precisely. The new campaign of tracings, as well as the attention given to understanding the making of the engravings in connection with the underground relief shapes allowed a better apprehension of the artists' environment at the time of the making of the works of art, together with a more precise idea of the gestures and techniques used. Furthermore, during our first campaign in the autumn 2010, we were able to carry out a full topographic coverage of the cave associated with a precise sizing of all the engravings, in view of the future making of a digital site model. On most of the engravings studied up to date, it was possible to precise some of the ancient lines, to identify the position of the modern lines and to record the effects of the degradation agents associated to a rock support that is especially fragile in places. The main figure of the cave, the human ithyphallic figure, was newly interpreted (especially its head), which allowed us to underline the engraving of an equine whose back leg is partially superimposed to the engraving of the Sorcerer's sex. The new engraving of a horse, up to date unnoticed, was also discovered. Finally, in the course of our investigations, it appeared essential to study the whole of the engravings as belonging to one composition stretched around a large fissure on the vault - showing how important the natural shapes of the rock surfaces are in the organisation of the representations - as well as to rethink the making of the decoration as the superimposition of drawings from different time periods.

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AUTHORS

ROMAIN PIGEAUD

Auteur correspondant. Responsable d'opération - UMR 7194 du CNRS, département de préhistoire du Muséum national d'Histoire naturelle, Institut de Paléontologie Humaine, 1 rue René Panhard, 75013 Paris - romain.pigeaud@wanadoo.fr

FLORIAN BERROUET

29 rue Dongaitz anaiak, 64122 Urrugne - florian.berrouet@gmail.com

ESTELLE BOUGARD

Le Maillet, 24580 Fleurac - ebougard@live.com

HERVÉ PAITIER

Inrap Grand Ouest, 37 rue du Bignon, CS 67737, 35577 Cesson-Sévigné cedex - herve-pierre.paitier@inrap.fr

VINCENT POMMIER

Inrap Grand Ouest, 37 rue du Bignon, CS 67737, 35577 Cesson-Sévigné cedex - vincent.pommier@inrap.fr

PASCAL BONIC

Équipe spéléologique de l'ouest - martineetpascal@orange.fr