

Reports

Cave art without the caves

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It is over a decade since Palaeolithic parietal art was first spotted in Europe on exposed open-air surfaces — cave art without the caves. Now the major site in Portugal is threatened by the lake behind a river-dam under construction. Here is a report on what cave art outside the caves amounts to, and of the confrontations over the Côa site that were in the headlines early this year.

A series of major discoveries over the past 15 years have transformed our conception of the parietal art of the last Ice Age in Europe, confirming what had long been suspected by some researchers — that the well-known art surviving in roughly 300 caves in western Europe is unrepresentative and uncharacteristic of the period, owing its apparent predominance in the archaeological record to a taphonomic fluke. In reality we have no idea how important or frequent the decoration of caves was in Ice Age Europe, but it is extremely probable that the vast majority of that period's rock art was produced in the open air. Very few examples will have been able to survive the many millennia of weathering (unlike the caves), so that the six sites discovered so far are all the more precious. The current threat to the largest of them, in Portugal's Côa Valley, of being drowned by a dam is therefore a grievous blow to a phenomenon of which we still know almost nothing.

Open-air Palaeolithic parietal art

Since one of the original arguments against the authenticity of both the Altamira ceiling and the painted pebbles of the Azilian was that parietal art could not possibly survive from such a remote age even inside a cave (see Bahn & Vertut 1988: 23), it goes without saying that virtually nobody entertained the possibility that Ice Age depictions in the open air could have survived the millennia of weathering and erosion. There were occasional claims that

open-air figures were of Palaeolithic age — notably at Chichkino, Siberia, where hundreds of animal depictions over a distance of about 3 km include a horse and a wild bovid considered characteristic of the end of the Ice Age — but few scholars have been prepared to take them seriously. However, the series of important finds in far western Europe have finally brought the proof that Palaeolithic people did produce art in the open air. So far, none of the six known sites (FIGURE 1) has been subjected to any kind of direct dating (Bednarik 1995), though this may be possible for some in the near future: all are dated simply on the basis of the style of their pecked or engraved figures, but the same is true of the vast majority of Palaeolithic cave art. It is safe to say that if most of these figures had been found inside caves they would have been classed as Palaeolithic without hesitation. Inevitably, only engravings and peckings have survived outside the caves. Paintings were almost certainly produced outside too (indeed, some of these engravings may originally have been coloured, like Palaeolithic bas-reliefs and much portable art — see Bahn & Vertut 1988), but are most unlikely to have survived.

It is hard to say, at this early stage of the investigations, how open-air art relates to cave art — especially since there is still no consensus about the meaning of cave art after a century of study, with new caves like Cosquer and Chauvet constantly bringing surprises and modifying our knowledge. There are some

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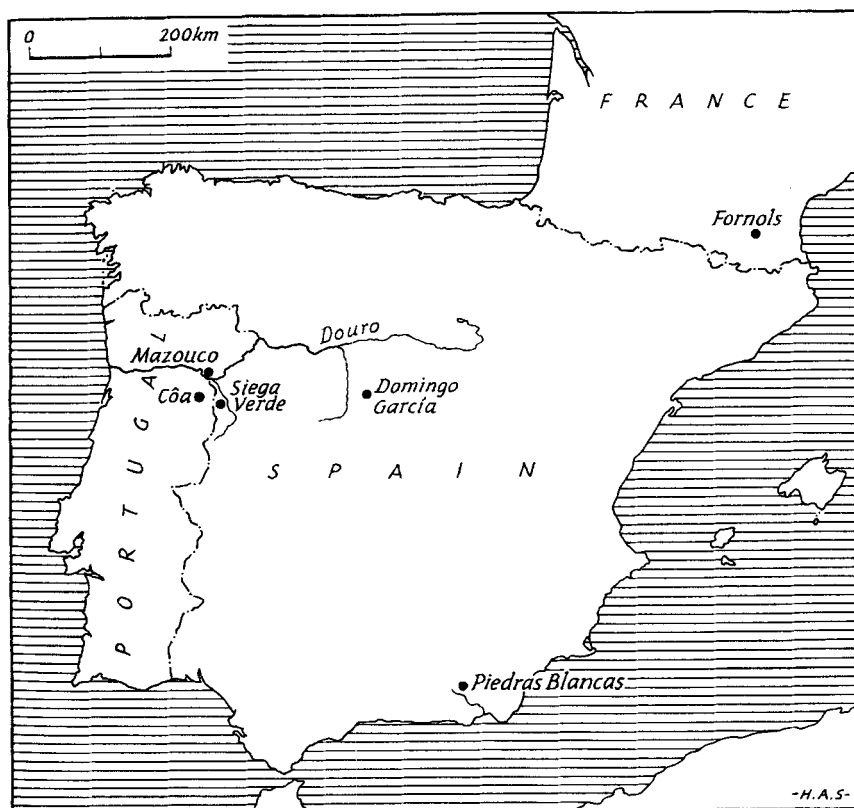


FIGURE 1. Locations of open-air Palaeolithic art.

similarities — the recognizable figures are primarily adult animals drawn in profile, with stylistic traits that correspond to those of known portable and cave art; they are dominated by horses and bovinds; there are 'signs' and apparently abstract motifs; and the art seems to cluster in 'panels' (i.e. separate rocks). By virtue of its location, the open-air art appears inherently less mysterious or magical than the art in deep caves, but of course this is no guide to its meaning, since we know from ethnography that open-air art can be enormously powerful, religious or taboo, just as it can also be simply decorative or narrative.

The first discovery, three animal figures, including a fine horse, 62 cm long and 37.5 cm high, was made in 1981 on a rock-face on the right bank of the Albuquerra, a little tributary of the river Douro, at Mazouco in north-east Portugal, at an altitude of 210 m above sea-level (Jorge *et al.* 1981; 1982; Jorge 1987; Jorge *et al.* 1981/2); they had survived thanks to a position which protected them from the

elements. They were hammered out, though the marks were subsequently scored into continuous lines. Since its discovery, the horse has been badly damaged by chalking, scoring and painting. Its style has been attributed to the early Magdalenian.

Around the same time, at Domingo García, Segovia (Spain), the figure of a horse, almost a metre in length, was found hammered into a rocky outcrop, 960 m above sea-level (Martín & Moure 1981; de Balbín & Moure 1988); a schematic engraving of a different style and period is superimposed on its outline. Since then, a closer examination of this rock and other rocks in the region (some up to 15 km away) as well as a removal of lichens has revealed at least 115 figures, 82 of them at Domingo García; most are fine engravings, and there are hundreds of unidentified lines (Ripoll & Muncio 1992, 1994; Ripoll *et al.* 1994). Stylistically, most of the figures have been ascribed to the end of the Solutrean and to the early Magdalenian. They are dominated by horses, but cervids and

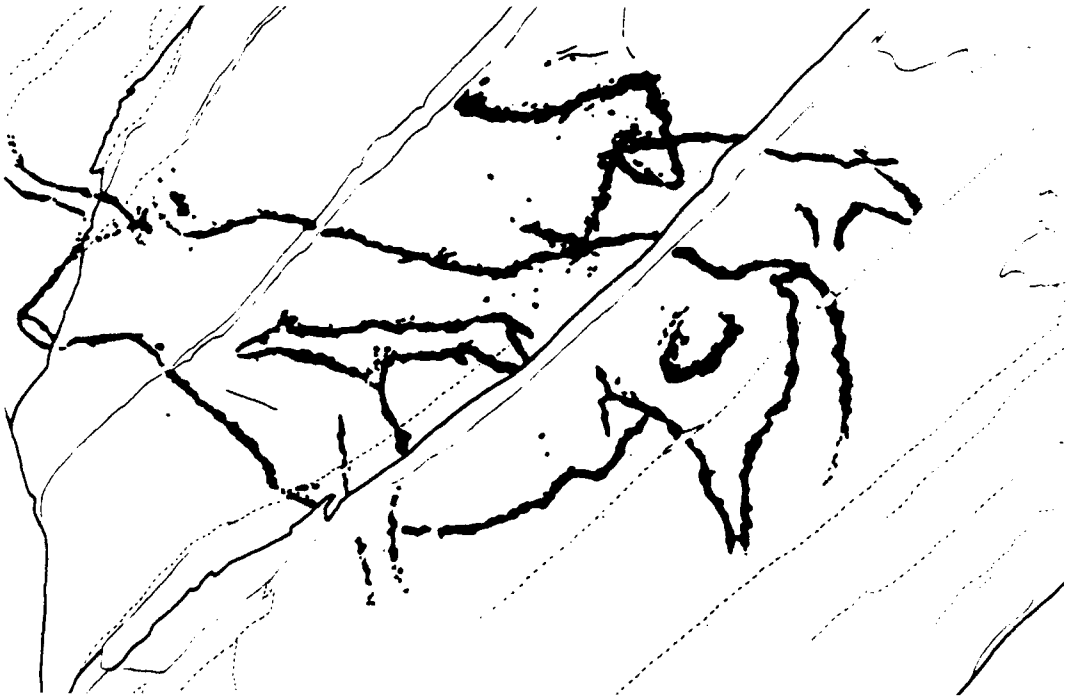


FIGURE 2. Siega Verde, panel 29. The largest figure, an aurochs, is about 1 m long. (After de Balbín Behrmann & Alcolea González 1994.)

caprids are also well represented. Bovids are comparatively rare.

A series of fine incisions were found in 1983 at Fornols-Haut, Campôme, in the eastern French Pyrenees, on a huge block of schist located at an altitude of 750 m on a mountainside (Abelanet 1985; Sacchi 1987; Sacchi, Abelanet & Brulé 1987; 1988; Sacchi *et al.* 1988a; 1988b; Bahn 1985). The rock has been greatly weathered by wind; because the eastern face is sheltered, its engravings, although eroded, are clearly visible. The face is covered in engravings, drawn in all directions, and comprising about 10 small animals — none complete — as well as signs and zigzags. The finest figures include the head of an isard (Pyrenean chamois), 7.5 cm high, and that of an ibex. Stylistically they seem to belong to the Magdalenian.

More recently, two further sites of the same nature were found in Spain. In Almería, an area previously bereft of Palaeolithic art, a horse figure was discovered at Piedras Blancas (Martínez García 1986/7; 1992). Situated on an inclined block, at an altitude of 1400 m near the town of Escúllar, the horse is made with

multiple deeply incised lines. Stylistically it has been ascribed to the final Gravettian or the Solutrean, through comparisons with engraved plaquettes from the cave of Parpalló. In view of developments at Domingo García, it is likely that more figures will eventually be found in the vicinity.

This is certainly what has occurred at Siega Verde, near Ciudad Rodrigo, Spain, about 60 km south of Mazouco. Here, in rocks along the left bank of the river Agueda (another tributary of the Douro), what were first thought to be a few hammered-out figures, discovered in 1989, have turned out to be a minimum of 540 pecked and incised images; most are located within a 1300-m stretch, 75% concentrated within 400 m (de Balbín *et al.* 1991; de Balbín & Alcolea 1994). No less than half of the identifiable figures are horses, with bovids and cervids in second place (FIGURE 2). Like the other sites of the region, the style has been attributed to the final Solutrean/early Magdalenian.

The most recent discovery — first made public in October 1994 — has occurred in the



FIGURE 3. *Two horses with overlapping heads, Muxagata, Côa Valley.*

Côa valley in northeast Portugal, yet another tributary of the Douro. Here, the pecked figures and engravings — at least 150 of them, on schist blocks spread over about 13 km — are of horses, ibex and, especially, of aurochs (wild oxen); they measure from 15 cm to over 2 m in size. From their style, it has been estimated that they are probably Solutrean (Clottes 1995), though in fact it is extremely likely that several phases of Palaeolithic and perhaps even Epipalaeolithic artistic activity are represented. They include some very fine images, particularly two large horses with overlapping heads (FIGURE 3). The vast majority of known figures are the visible, pecked examples, but the area also seems to contain quantities of exceedingly fine, small, almost invisible engravings similar to those of Fornols.

The Vila Nova de Foz Côa dam and the Côa figures

Some of the Côa figures have been under 3 m of water for the past 12 years, since the Pocinho dam was built 2 km away; fluctuations in water-level have exposed them several times during that period, so that they are still more or less accessible. Yet a new factor now threatens to destroy them completely. A new hydro-electric dam, that of Vila Nova de Foz Côa, is planned for the valley, and work began on it in September 1994 (FIGURE 4). By the time it is completed in 1998, the engravings will be ir-

revocably lost under 100 m of water; they may already be totally inaccessible by August this year.

If the art had only just been discovered, it would be unfortunate. But since its existence has been known since 1992, and kept secret, a scandal has erupted within the world of Portuguese archaeology, industry and politics. The President of Portugal, Dr Mario Soares, who visited the engravings earlier this year, has been asked to intervene personally in an affair that may lead to the cancellation of this very costly engineering project.

The company building the dam, EDP (Electricidade de Portugal), commissioned an environmental impact report for the region in 1989; its archaeological aspect was carried out by archaeologist Sande Lemos, who spotted some important Copper Age paintings in rock-shelters (the most important group in northern Portugal), and a couple of Roman villas of exceptional interest. He recommended that intensive archaeological prospection should take place. The EDP published this report in 1991, but despite Lemos' insistence that the region contained an 'archaeological patrimony of exceptional interest', the company claims that the study revealed a few things of archaeological value but nothing to indicate huge significance.

In March 1993, IPPAR (The Instituto Português do Património Arquitectónico e



FIGURE 4. *Aurochs* engraving in foreground, *Côa* dam-works in background.

Arqueológico, funded by the Ministry of Culture) sent in a team, financed by the EDP and led by a young archaeologist, Nelson Rebanda. It has emerged that, although the art's existence was officially announced by IPPAR on 19 November 1994, after the main body of submerged engravings was spotted — by which time work on the new dam had been under way for two months — they and the EDP knew well over a year before about 10 engraved figures on rocks that have never been submerged (in fact a video of them was made in 1993), yet said absolutely nothing publicly. Portugal's top archaeologists and rock art specialists were kept completely in the dark, until two Portuguese members of IFRAO (The International Federation of Rock Art Organisations), Mila Simões de Abreu and Ludwig Jaffe, learned of the site and informed their colleagues. The reasons for this long silence are unclear, and suspicions abound as to the motives behind it.

IPPAR — which claims it intended to undertake an adequate recording and publication — has been called incompetent and irresponsible by some archaeological researchers and professors for its years of bureaucratic inertia; there have been declarations that the organisation no longer has any moral or scientific authority, and even talk of putting it in court for crimes against the country's heritage. Others have referred to a 'scandalous concealment' and accused Rebanda of trying to keep the en-

gravings a secret so that he could publish the definitive book on 'his' site after it had been drowned — in other words, of putting his self-interest and personal glory before the risk of the site's irrevocable destruction (Bednarik 1994); it was Rebanda who, as a student, had reported the existence of Mazouco to his professors in Porto (Jorge *et al.* 1981: 11), and, apparently slighted because they received all the kudos for this find, he was determined not to let the same thing happen again (Bednarik 1994).

A number of Socialist members of parliament have demanded that a parliamentary commission must investigate the affair, and some have visited the site to see for themselves. A report by a team of specialists from UNESCO who visited the area in early February 1995 has insisted on the world-class importance of the engravings, and urged that work on the dam be halted, at least temporarily, so that an extensive and intensive archaeological study can be carried out. President Soares has received letters from rock-art specialists in France, Italy, Britain and America, urging him to intervene to ensure the rescue of the engravings. Pedro Santana Lopes, the Secretary of State for Culture, has guaranteed that 'everything will be done' to save the art, but it is not yet clear what can or will be done — whether the waters will be lowered for a study to take place, or the fragile and fissured engraved rocks will be re-



FIGURE 5. Vila Nova de Foz Côa, town hall, 3 February 1995 — world's first rock-art demo!

moved, which runs the risk of destroying them. All of these options are very expensive; the simplest choice, that of abandoning the dam project, may also be the cheapest since only a fraction of its funding has so far been used.

Major engineering projects of this type often involve conflicts of interest — a huge amount of money has already been spent, and the dam is providing temporary employment for 600 construction workers. But there are, and always have been, strong reasons to question its very existence. The EDP may have commissioned an impact study; but their dam will inundate 900 ha of soil that is absolutely ideal for the production of vines for port, a crucial industry in Portugal, and will alter the microclimate of a far wider area. Currently, what was once a beautiful and tranquil valley is already disfigured with deep and hideous wounds, and there are dynamite explosions every day: there will soon be an irreversible ecological and cultural calamity.

Moreover, Nuno Ribeiro da Silva, an ex-Secretary of State for Energy, declares that the dam is not needed for energy, and that those who defend it are ignorant or charlatans. While in power — less than five years ago — he consistently rejected this project because the potential electricity production was not worth the loss of the optimal lands for port production. The new archaeological factor merely confirms his view, and he has been particularly outspo-

ken in denouncing the project as a stupid mistake by Portugal's dominant technocracy, influenced by engineers who are obsessed with building big dams. He claims that, in Portugal, studies of environmental impact merely serve to legitimize options that have already been taken *'a priori'*.

The immediate solution, demanded by archaeologists and specialists within Portugal and beyond, as well as by some Portuguese politicians and by the UNESCO report, is for an independent international commission of experts to be assembled to examine this unique body of ancient art, and advise on how best to investigate, record and safeguard it for the future, as part of humanity's heritage. If it can be preserved *in situ*, by abandoning the dam, it is probable that tens of thousands of tourists will visit the site and hence contribute enormously to the area's economic growth.

At the time of writing, late April 1995, it remains to be seen what the outcome of this extraordinary dilemma will be: work continues on the dam, and the government seems determined to remove some engravings and let the rest drown. However, there is tremendous local support for preserving the engravings *in situ*, not least among the youngsters from the local high school in Vila Nova de Foz Côa, who have collected almost a million signatures on a petition, have produced T-shirts and stickers, and on 3 February carried out what was

probably the world's first rock-art demonstration (FIGURE 5), marching on the town hall, with banners, chants and songs in an effort to stop the dam and save their heritage.

Their campaign deserves whole-hearted support, since it would be an unthinkable tragedy to lose the Cõa engravings before anything whatsoever has been learned about their archaeological context. We also know very little about their distribution; untold quantities of pecked figures and, especially, of small fine engravings doubtless remain to be found in this valley and in other valleys of the region which

are also threatened by future dam projects. We only know of six open-air sites of this kind, and three of them (Mazouco, Fornols and Piedras Blancas) comprise single figures or rock-faces. Our extremely limited knowledge of this newly discovered phenomenon really rests only on the other three: Domingo García and Siega Verde are being studied in exemplary fashion, with the latter probably destined to become an archaeological park. It is to be hoped that the Cõa Valley can also be studied, rather than drowned, so that we can learn more about 'normal' Palaeolithic art.

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