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Contacts :
Secretary of U.I.S.P.P. – International Union for Prehistoric and Protohistoric Sciences
Instituto Politécnico de Tomar, Av. Dr. Cândido Madureira 13, 2300 TOMAR
Email: uispp@ipt.pt
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AESTHETICS, ETHICS AND ROCK ART CONSERVATION: HOW FAR CAN WE GO? THE CASE OF RECENT CONSERVATION TESTS CARRIED OUT IN UN-ENGRAVED OUTCROPS IN THE CÔA VALLEY, PORTUGAL

António Pedro BATARDA FERNANDES
Archaeologist; Manager of the Côa Valley Archaeological Park Conservation Program, Foz Côa, Portugal

***Abstract**: Drawing on recent conservation tests carried out in the Côa Valley, we will discuss the aesthetic and ethical limits of rock art conservation work that are reasonable. The whole outcrop, which exists in a certain context that evolves according to a natural and social timetable, is the object to be considered and conserved. This fact should lead rock art researchers, conservators and managers to engage in a long overdue discussion. Do we have the right to manipulate a total art object in a way that changes it into something else? If conservation work is prove to be reallyy necessary, should aesthetic or ethical values be sacrificed – at any cost – to the goal of preservation?*
***Key Words**: Aesthetics, rock art conservation*

***Résumé**: Considérant les récents essais de conservation effectués dans la vallée du Côa, il s'agit d'aborder les limites esthétiques et éthiques raisonnables de conservation de l'art rupestre. L'affleurement gravé entier, qui existe dans un certain contexte d'évolution social et naturel, est l'objet à considérer et à conserver. Ce fait devrait mener des chercheurs d'art rupestre et des conservateurs à s'engager dans une discussion transversale. Avons-nous le droit de manipuler un objet d'art intègre de telle manière que des changements la transforment en une autre chose? Si le travail de conservation est vraiment nécessaire, devrait – on sacrifier les valeurs esthétiques ou éthiques à tout prix au but de la conservation?*
***Mots Clés**: Esthétique, conservation de l'art rupestre*

INTRODUCTION

We wish to consider aesthetic and ethical questions related to proposed conservation work within the overall conservation problems of Côa Valley rock art. We will briefly present the conservation experiments carried out on Côa Valley Type-Rocks (outcrops without engravings but with similar weathering properties and processes at work as the engraved ones and chosen to be subjected to conservation tests), then discuss the ethical and aesthetic reasonableness of applying such techniques in the Côa Valley. Our discussion tries to include all the intrinsic qualities of the outcrops where the rock art motifs are found as well as the interactions between the engravings and their rock supports that one can establish to be present. The objective is to supply the information that can enable readers to reach their own conclusions, thus fostering debate amongst the international rock art community.

BRIEF OVERVIEW OF THE MOST PRESSING CONSERVATION PROBLEMS OF THE CÔA VALLEY ROCK ART OUTCROPS

Since elsewhere[1] we have examined the geological, geo-morphological, biological, climatic or socio-economic contexts of conservation of Côa rock art, we will only briefly illustrate the weathering dynamics that most strongly motivated the experiments carried out on the three Type-Rocks.

Nearly all the engraved schist outcrops are located on steep slopes of the geologically young valley that contains the Côa River and its tributaries. Indeed, it was the river's down-cutting process that gradually exposed the outcrops, some of which were later engraved. The mechanical instability of the slopes is the fundamental conservation problem. Due to gravity and triggered by rainwater[2] or seismic forces, this weathering process makes sediments and fragments of lesser or greater proportions roll downhill, subjecting the engraved outcrops to enormous stress and weakening their stability. Indeed the existence of the outcrops (engraved or not) at the foot of these slopes constrain their acquisition of stability.

Nearly all the identified weathering dynamics acting on the outcrops – fractures, toppling, loose blocks, etc. – (Rodrigues, 1999) originated in the instability of the slopes. These were the weathering processes that the conservation experiments tried to deal with, proposing and testing solutions that could mitigate – since we cannot arrest time – their progression.

CONSERVATION EXPERIMENTS IN THE CÔA VALLEY

While much conservation work has been done on underground rock art, direct conservation of schist open air rock art panels is a quite rare activity. Thus references

[1] See Fernandes, 2003; Fernandes, 2005 or Fernandes, 2006.

[2] Despite the region's fairly moderate precipitation regime (Fernandes, 2005, p 15), rainwater percolation is decisive in the weathering process of the engraved outcrops.

on the subject are scarce and highlight the need to proceed with great caution. Devlet and Devlet (2002, p. 93) describe an ill-prepared intervention[3] that, in the 60's and 70's of the last century, sparked acceleration of pre-existing weathering processes as well as new unexpected ones. So we commissioned a series of preliminary conservation work experiments. Three private Portuguese stone conservation companies were invited to take part in the experiments. This option made available diverse but complementary approaches that could enhance our knowledge on the issue of conserving schist outcrops in their natural context. Each company was assigned one of the three rock art sites open to the public where they chose the engraved panel they would afterwards analyse and the Type-Rock they would later treat. In this first phase of the project we gave carte blanche to the companies in the selection of the work methodologies, techniques and materials to be used. We emphasized the need to choose the Type-Rock for its similarity to the analysed rock outcrop's weathering dynamics. The conservation experiments took place during 2004.

AESTHETIC AFFINITIES BETWEEN ROCK ART AND ITS ROCK SUPPORT

The most basic question for a conservator is *what is the object to be conserved?* Visitors to rock art also need to understand what to look at. The phenomenon of rock art taking advantage of specific characteristics of the rock outcrops is a well known and studied feature of Upper Palaeolithic (and other eras) rock art[4]. In many well documented cases, a simple incised or painted line transforms a natural form into a picture, also telling us about the artist(s) aesthetic appreciation capabilities. Such things fall in the realm of the aesthetic or idiosyncratic qualities of rock art. Not all of them may be clear to us now, nor may all those we find actually reflect prehistoric understandings. During discussion after the presentation of this paper in the Symposium in Lisbon in September 2006, Leslie Zubieta drew attention to the importance of fractures in San rock art and, later on, sent us some references on the subject. Lewis-Williams and Dowson (1989), when analysing San rock paintings in Southern Africa, found, through an ethnographic approach, that in cases when some of the paintings are apparently missing the body or the head, that part of the figure disappears into a crack. Other figures emerge from depressions on the rocks. Thus, these cracks and steps on the rocks can also be perceived as means of access to another world.

Since no ethnographic analogies can be drawn for the Côa, we can only suggest, as a more or less plausible hypothesis, a comparable importance of fractures in the Côa symbolic and aesthetic belief system, although (with the exception, perhaps, of Faia 6 – see below) in the Côa we have only a few hints of the role fractures or steps could play in that system, or the significance of cracks in identifying areas to be engraved.

Other idiosyncratic features of the (afterwards engraved or painted) outcrops determine the rock art, how it appears, the effects of weathering, and appropriate conservation measures. We will now examine such characteristics in detail because they are essential when considering direct conservation work on the rock art panels.

In Penascosa Rock 5C the line that represents the front leg of the animal is incomplete. The artist took advantage of a pre-existing fracture to complete the motif (see Fig. 10.1). Also in the Penascosa site we have Rock 6. It appears that part of the shape of the heads of the two depicted horses is given by the outcrop's outline itself (see Fig. 10.2). In Piscos Rock 1, in addition to the use of a convex area of the outcrops in order to "suggest volume to the represented scene" (Baptista, 1999, p. 120; author's translation), it is, in fact the orientation of the schist layers that delimitates the 'canvas' upon which the motif was engraved (see Fig. 10.3; see also Fig. 10.9 on 3D usage of characteristics of outcrops).

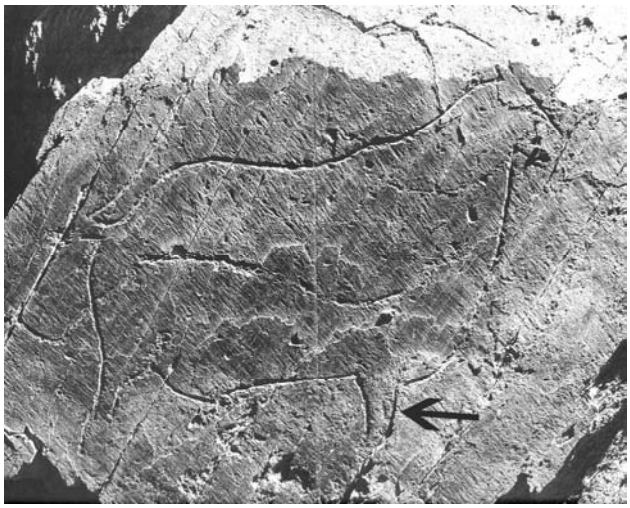

Figure 10.1. Goat motif in Penascosa Rock 5C. The arrow indicates the pre-existing fracture that was used to complete the shape of the animal's front leg. (Photo and reference: Baptista, 1999: 106-7). I owe this example to Dalila Correia

Besides the use of pre-existing suggestive forms, we also believe that the overall and particular shape of the outcrop itself was fundamental in choosing the (most) suitable surfaces and/or precise areas within these to be engraved. We have to bear in mind that the engravings were (probably) also coded symbols that are only completely meaningful within the precise Upper Palaeolithic context of production. The concentration and thus superposition

[3] Basically, the filling up of fractures with, later proved highly inappropriate, Portland cement.

[4] Since the list of references pertaining to this issue is quite an extended one, we suggest Clottes (2002) and Leroi-Gourhan (1992) for an introduction to the subject; for the Côa we recommend Baptista (1999).

Figure 10.2. Penascosa Rock 6. Notice the concentration and superposition of motifs in the upper area of the outcrop. Note as well the usage of the panel's contour to suggest part of the shape of the two depicted horses' heads. (Photo reference: Baptista, 1999: 109)

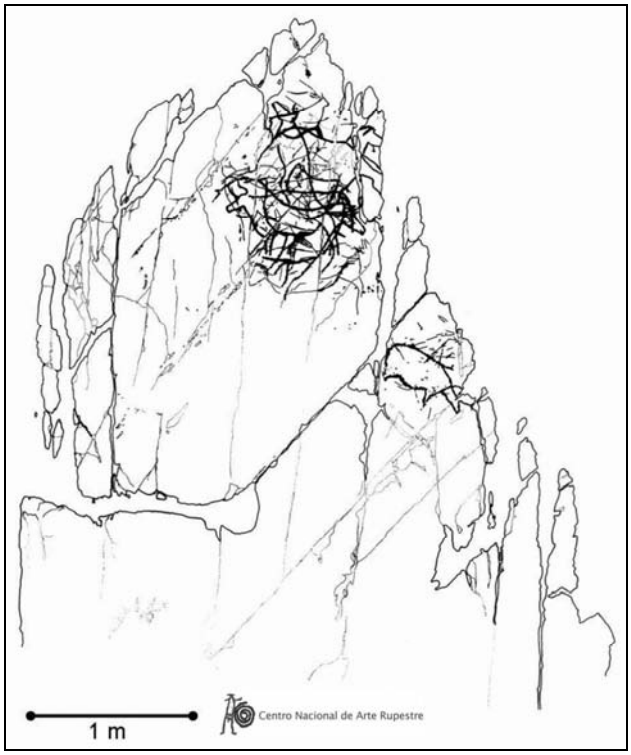

Figure 10.4. Canada do Inferno Rock 1, the first rock art panel to be discovered in the Côa Valley. Again, notice the concentration and superposition of motifs in the highest zone of the outcrop. (Reference: Baptista, 1999: 53)

Figure 10.3. The entangled horses of Ribeira de Piscos Rock 1. The way in which the schist stratification pattern defined the orientation of the composition is easily discernible. Also note the convex area in which the belly of one of the animals was shown. (Photo: António Batarda)

of motifs in specific areas of the panels, while leaving vast zones equally suited to be engraved (to the eyes of the contemporary observer) completely void of motifs, suggests strong motivations of which we are ignorant. Rock 1 from Canada do Inferno (see Fig. 10.4) and the already mentioned Rock 6 from Penascosa (see Fig. 10.2) are good examples. Yet another representative example is given by the engraved and painted aurochs' head from Faia Rock 6 that is "represented as if coming from inside the rock" (Baptista, 1999: 154; authors' translation) (see Fig. 10.5). Therefore, we believe that the idiosyncratic (and/or aesthetic) qualities of the outcrops themselves (shape, volume, texture, tone, prominent location) were decisive in the selection of the artistic object to be created. Both aesthetic and cultural explanations are necessary to elucidate why of the thousands of engravable outcrops in the Côa Valley, only a few hundreds have been carved. We are sure that chance and differential conservation alone won't fully explain the many empty panels and, moreover, the existence of heavily superimposed panels.

All considered, we believe that the entire engraved panel and even the whole outcrop to which it belongs is the object of aesthetic interest, the art object. This art object should be seen as the sum of all of its intrinsic qualities further invested with aesthetic and symbolic meaning by the inscription of artistic representations. The intentional usage of specific features of rock surfaces by Palaeolithic artists seems obvious. Likewise, we feel that other more or less tangible characteristics of the outcrops (again prominent location, texture, tones and possibly the existence and position of fractures – see above, discussion

Figure 10.5. 'Emerging' aurochs head and neck in the right panel of Faia Rock 5. (Photo: António Batarda)

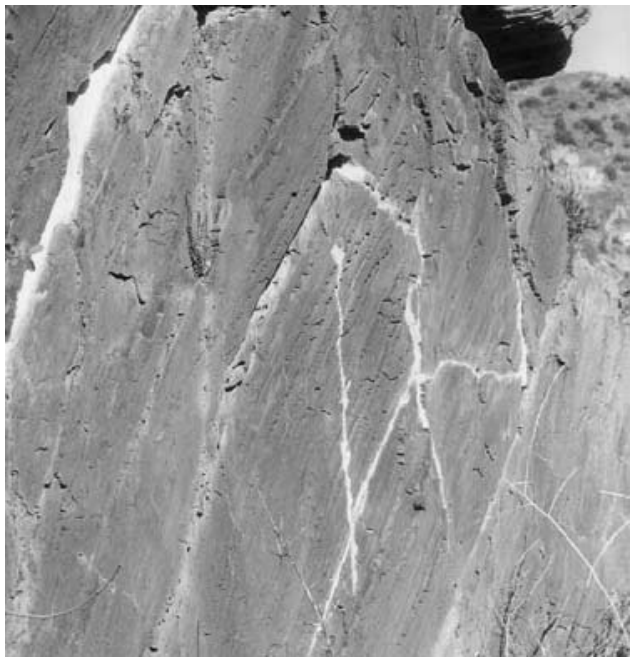

Figure 10.6. Detail of the Compósito company intervention in Canada do inferno Type-Rock. Observe the filling up of several cracks with lime mortars of different composition. (Photo: Compósito)

on the hypothetical role of fractures), were essential, in Upper Palaeolithic times, not only in the whole social and creative process behind the production of the art work but also to its aesthetic appreciation.

We believe that this is a good example for the cross/ cultural use of aesthetic models in rock art interpretation *as well as conservation.* The classification of the whole outcrop as the art object (and not only for conservation purposes) creates strong conceptual ties, between present day societies and the whole art object, and between us and the creators of the engraved artwork. That is not to say that the Côa Valley Upper Palaeolithic societies viewed the intrinsic or aesthetic qualities of outcrops in precisely the same fashion as we are suggesting. Nevertheless, as the cliché states, we will never know for sure. Since direct ethnographic information is not available for the Côa, the construction of reasonable interpretative models based on our common experience as Sapiens sapiens is a viable way to reach for rock art's significance, and decide how far can we go when trying to conserve the whole 'art object'.

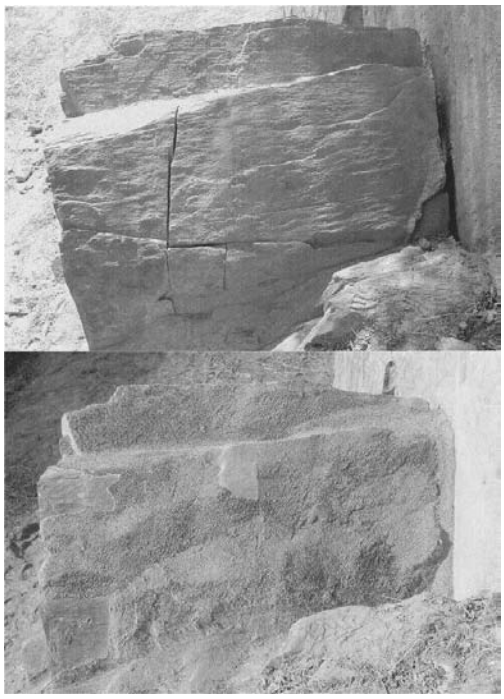

Figure 10.7. Before and after appearance of part of the Ribeira de Piscos Type-Rock treated by Nova Conservação. Notice the filling up of fractures and the coating of the top of the outcrop. (Photo: Nova Conservação)

Experiments on Type-Rocks

The experiments done by the conservation companies are very useful, not only given the primary goal of testing conservation materials and techniques, but also for visualizing how an intervention in an engraved outcrop would look and, thus, for the discussion of ethical and aesthetic issues. Figures 10.6, 10.7 and 10.8 illustrate the final appearance of the diverse experimentally conserved rocks. The most prominent feature is usually the more or less intrusive character of the interventions. Even considering that natural aging will diminish their visual impact, it is evident that the conservation experiments transformed

Figure 10.8. Penascosa Type-Rock after In Situ's treatment with indication of the zones where two distinct mortars were applied. (Photo: In Situ).

the Type-Rocks into something different from what existed (in continuous adaptation to its environment) for thousands of years.

A clearly visible feature of the experiments is the option of not disguising the interventions, trying to match the idiosyncratic characteristics (tone or texture) of the outcrops with conservation materials. This choice can be partly explained by the fact that these were just experiments. In any future hypothetical conservation of a rock art panel it will be possible (and advisable; see discussion below) to emulate original tones and textures. On the other hand, the present option results from the conscious choice to clearly show the experiments done and the changes this object underwent.

One of the experiments, executed by only one of the companies, is worth close examination. One company tested a reversing process that they called "Making time regress". Such experiment consisted in the repositioning of a piece of the Type-Rock that the toppling weathering dynamic pushed forward some 30 cms. This is an interesting exercise, although potentially highly controversial. From a conservation point of view, the repositioning of this advanced block decisively contributes for the outcrop's stability. Ethical and aesthetic questions make the case more controversial. Is it legitimate to replace toppling blocks in an intuitively determined previous position, presumably more stable, but not al all demonstrable? Wouldn't it be more beneficial to consolidate the block in the position where it is today? We could be creating an object that never existed.

The reversibility question must also be considered. Oddy and Carroll (1999) have coordinated a collection of essays that discusses and demonstrates that no conservation intervention is 100% reversible, also suggesting that reversibility is an appetising myth. Even if, after conservation, introduced materials can be completely extracted, the intervened object will no longer be the same, either conceptually or de facto, since the removal operation will definitively leave marks, even if only at a sub-centimetre level.

Specific cases of engraved outcrops

At this point, we would like to broaden the debate by trying to anticipate the impacts on engraved outcrops that might result from hypothetical future work as suggested by the proposals of the conservation companies. For instance, let's consider the case of Penascosa's rock 5A, namely the figure commonly known as the "fish engraving". This motif of Upper Palaeolithic chronology (Baptista, 1999: 104) was inscribed in a convex zone of the outcrop as a way of giving a 3D quality to the animal. As one can see in Fig. 10.9 the motif is incomplete due to the fracture of the outcrop and also by the superficial gap near the animal's head. The existence of gaps is one of the most serious weathering problems that occur at a micro-local level (Rodrigues, 1999: 15). This 'open wound' will lead to the progressive detachment of the superficial rock layer that sustains this fish image. The surface of the panel will progressively peel off. A treatment that would fill and seal the gap and the surrounding micro-fissures is reasonably urgent. This would be, without further

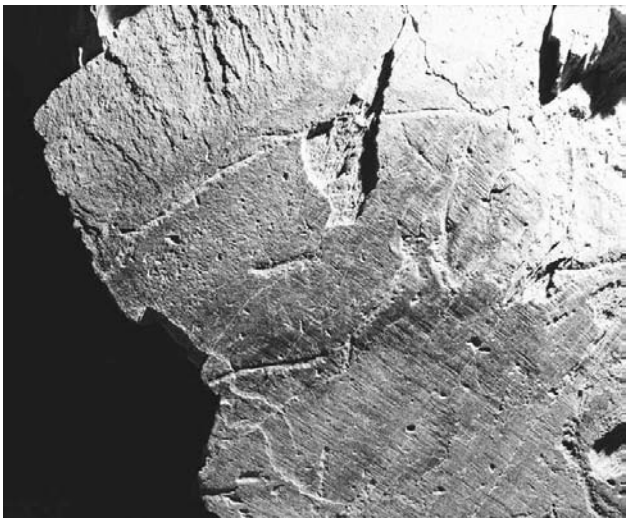

Figure 10.9. Area of Rock 5A in Penascosa with the fish motif. Note the gap that caused the loss of part of the carved motif. (Photo and reference: Baptista, 1999: 104)

aesthetic or ethical considerations, a programme of conservation that could solve or attenuate the gap's weathering evolution. So, taking into to account aesthetics and ethics, is it legitimate to completely fill the gap and to 'standardise' the whole panel's surface? In that case, should we attempt to 'complete' the fish motif? We don't think so. The most balanced intervention would be to seal, at a sub-centimetre level and in the interface between superficial engraved layer and the deepest area of the gap, all the existent micro-fissures. On the other hand, and in both cases, should the used sealing material try to emulate, to the best extent possible, the surface's qualities, or, on the contrary, should the intervention be highly noticeable so that one can see the changes and that this art object is not exactly the one that had existed previously?

There are two main schools of thought in the field of conservation of archaeological objects and structures regarding the issue (see, for instance, Pye, 2001: 145). Without trying to add much to this debate, and generally speaking, we think that in restoring or conserving archaeological structures or objects, it is advisable to clearly mark everything that is new, added to a given object. However, (Côa) rock art is neither an archaeological structure nor an archaeological object *lato sensu*, so the approach to this question should also be unique and the option should fall towards discreet and unobtrusive interventions.

Let's now examine the case of Rock 24 of Ribeira de Piscos. This outcrop, due to the quality and rarity of its motifs (several anthropomorphs and three aurochs in profile but with heads in full frontal perspective [see Fig.10.10] besides other motifs), is one of the most significant panels in this site and even in the Côa. As one can see in Fig. 10.10, this is a heavily eroded outcrop in a delicate state of conservation. Different oriented fractures traverse the whole 'massif' causing major instability. It is

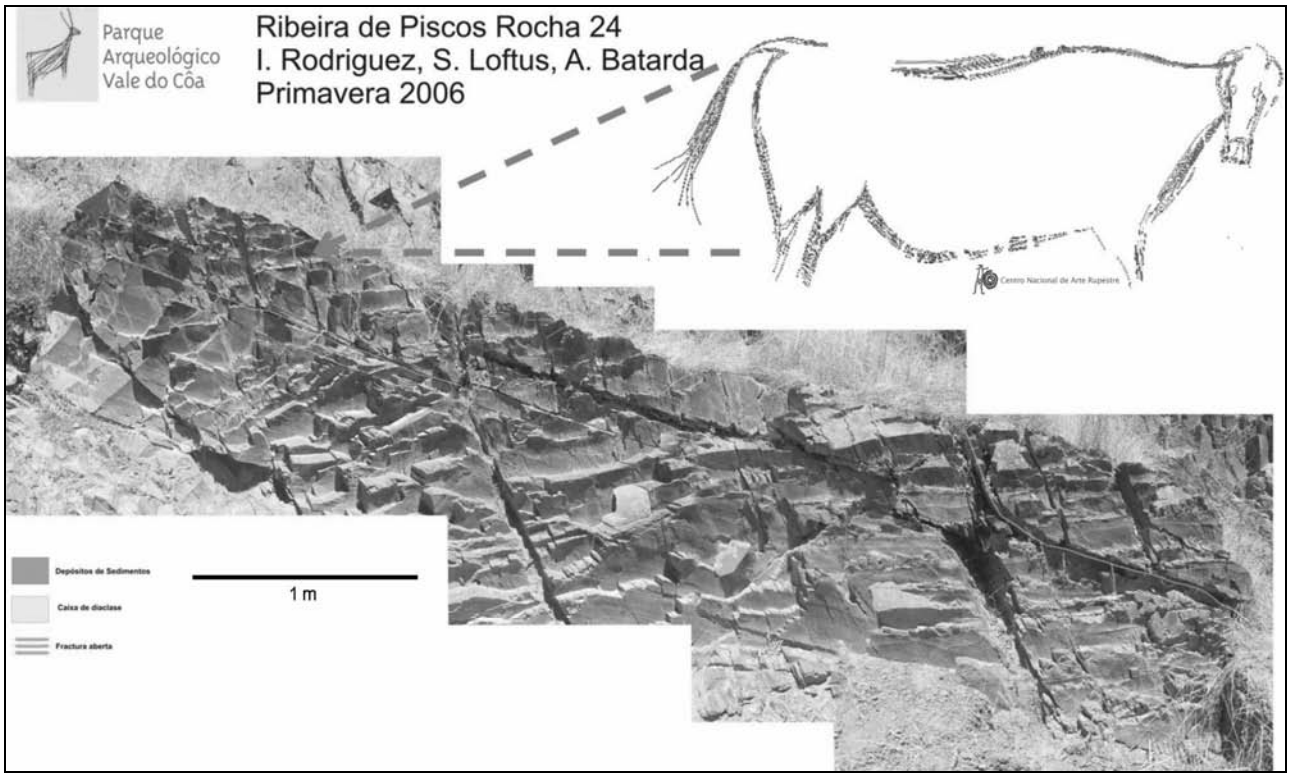

Figure 10.10. Rock 24 of Ribeira de Piscos delicate state of conservation. One of the interesting depictions of aurochs is included in the Figure. (Reference: Baptista, 2003: 15)

even possible to observe some relatively minor loosened blocks kept in place only by their own weight. Conservation of this outcrop seems urgent. Nevertheless, because of the extension and complexity of the active weathering, conservation will always be quite intrusive. According to the conservation proposals of the companies that participated in the pilot tests, it would be necessary to seal all the existing fractures. Such an intervention would imply a radical change in the appearance and shape of this outcrop. Even if the tones and textures of the rock could be matched with the materials used, truth is that we would be completely altering the whole art object. If in the case of the fish panel the situation is quite specific and applicable only to a few motifs and engravings, Rock 24 eloquently exemplifies the complex aesthetic and ethical issues of the majority of hypothetical future conservation work in the Côa.

Furthermore, when considering conservation work of highly fractured outcrops, Piscos' Rock 24 illustrates the aesthetic and ethical issues relating to the possible importance of fractures for the Upper Palaeolithic engravers. Conservation work proposals recommend the filling up and sealing off of the cracks. So the question is whether to grant that, in the Côa, fractures themselves play a role in the rock art – and hence do no conservation work on the cracks – thus allowing them to continue to play their part in the weathering process – or whether to ignore the issue and proceed with conservation work that possibly might 'desecrate' the art.

DISCUSSION: AESTHETIC AND ETHICAL LIMITS TO CONSERVATION INTERVENTIONS IN CÔA VALLEY ROCK ART

Taking into account what we have classified as the idiosyncratic – or aesthetic – qualities of the total art object it is now relevant to pose a series of questions that can help to define the limits of interventions in the conservation of Côa Valley engraved outcrops as well as other open air rock art sites of similar characteristics. The art object to be conserved has been in existence for several thousands of years embedded in a specific natural (but also humanly perceived and modified) environment undergoing quite slow (in human time!) geomorphologic evolution. Do we have the right to alter this object transforming it into something else? On one hand, the landscape geomorphologic evolution is *the* natural but destructive evolution of the environment where the engraved outcrops are located. Doing nothing will surely lead to the relentless physical disappearance of the rock art panels. Nevertheless, zero intervention – and consequently letting the art outcrops 'die' in their own due 'natural' time – could be a valid (non) intervention philosophy. However, the *in situ* preservation of the rock art panels was fundamental in the establishment of the Côa Valley Archaeological Park's general program: management, *conservation* and public enjoyment of the rock art and its setting (Zilhão, 1998). Thus we are talking of the preservation, as a whole, of the existing *genius loci*. To define what that spirit can be in the Côa Valley, it is crucial to understand the idiosyncratic relations between outcrop and rock art motifs, motifs and landscape that we began to uncover above.

CONCLUSION

Summing it up, we must consider that the object to be conserved is not only the engraved areas but the totality of the outcrops. This is a fundamental assumption in planning and implementing conservation interventions if we also want to preserve the *in situ* aesthetic qualities (as ethereal as some might be) that provide depth and body to this ancient art. The artist's use of the 'organic' Côa schist outcrops sealed a pact between rock support and engraved artistic motif. The whole end result is the (rock art) *art object* that we admire and try to conserve today. To consider one without the other is to amputate a 'natural' art of its full meaning and an eloquent evidence of the human bond with (and dependence on) the landscape or natural environment that surrounds and moulds us but that we also aim to mark, delimitate and trim. The experiments, together with the reflections on the idiosyncratic characteristics of the engraved outcrops, demonstrate the unavoidability of a case by case approach when considering the implementation of conservation work. The first issue to analyse is the inevitability of conservation on the rock art object. Considering that conservation intervenetions are potentially intrusive or even harmful to their authenticity and even (quite paradoxically) their integrity as an *art object*, but that if nothing is done, panels will be lost, the decision to proceed (or not) with conservation actions is not an easy one to take. Taking into account the non reversible characteristics of conservation work will further complicate the decision making process. However, considering these questions is not *per se* completely obligatory before carrying out conservation work on engraved outcrops. The Côa Valley Archaeological Park is obviously in a delicate position. A zero intervention policy would let panels weather and disappear thus resulting in the impoverishment of the rock art heritage. On the other hand, conservation work might have, in greater or lesser degrees, the negative consequences we have been mentioning. In all, we believe that it is still early to begin conservation work and, ideally, more tests and studies should be done. Even if some panels present themselves to the empirical observer as quite eroded and in an unstable position, the great majority actually are rather stable. We believe that we have the necessary time to try to answer all appropriate questions, be they aesthetic or ethical, technical or geotechnical, in the best way possible.

Conservation work on rock art has an artificial nature[5] and may cause loss of authenticity to the art object. That is

[5] It can be nevertheless argued, in accordance with Ingold's 'quest' for the redefinition of humans as beings that dwell within nature rather than 'above' it (2000), that all human actions are completely natural and do

why we posed the question whether it would be legitimate to act on these objects. However, this might be a misleading question. The outcrops are not immutable monoliths as they possess environmentally adaptative qualities. If an Upper Palaeolithic artistic gesture sealed a pact between rock art motif and outcrop, that alliance did not produce an immutable significant assembly, the resulting art object[6]. We believe that these questions must be faced clearly, using fundamental principles to set up the extensive consideration that should be undertaken to establish criteria for future conservation work. Decisions on the technical, ethical and aesthetic issues must take responsibility for the predictable, and to a certain extent the unforeseeable, consequences of conservation work on the Côa Valley engraved outcrops. From the moment it is decided to carry out conservation we must be conscious that the rock art object will be changed forever and that nothing that we can do afterwards will revert it to the original (nevertheless adaptative) state in which it was found.

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not imply, as Western anthropocentric technological now global society tends to see it, the transformation of nature "through the imposition of non-natural, human design" thus resulting in the replacing of "the natural environment with one which is (…) *artificial*" (Ingold, 2000, p. 215, italics in original; see also p. 174).

[6] It might be appropriate, since it can be applied to the adaptive quality of the rock art object, and also in the evolutionary social process by which we apprehend it, to quote how Ingold (2000) sums, through Reason's words, his analysis of landscape as, basically, a human tool to understand (and place ourselves in) nature and (on) its motion:

"Landscapes change (…). The landscape is a polyrhythmic composition of processes whose pulse varies from the erratic flutter of leaves to the measured drift and clash of tectonic plates. Relative to human span, the view before us seems composed of fleeting, ephemeral effects which create a patina of transience on apparently stable forms." (Reason, quoted in Ingold, 2000; p. 201)