

ROCK ART AT RISK

The rock art heritage is still at risk. Although new sites are discovered continuously, just as many or more are constantly endangered or destroyed.

In the Near East, an important area of rock art has been transformed into a field for the military training of armoured troops. Most of the rock surfaces have been run over by tanks. Unfortunately this will not be the last case where the much fragile cultural heritage of rock art is destroyed by human activity – whether deliberately or not. Once a site is lost we also lose the memory of its creators, the unknown people without writing – the loss is forever and the rock art can never be replaced. Rock art is as old as modern humans, *Homo Sapiens Sapiens*, who started to express myths and beliefs some 40,000 years ago. Prehistoric paintings and engravings have thus been the world's most widespread form of cultural heritage. Such art has already been reported from over 120 countries around the world, and most certainly a large number of hitherto forgotten or unknown sites await discovery in other countries. Unfortunately, many sites are undergoing processes of deterioration. They have always been exposed to the continuous destructive forces of nature. The power of those forces has now been exacerbated by human actions, resulting in acid rain and global warming – phenomena that will only aggravate the degradation processes.

However, the biggest negative human impact on rock art stems from industrial and economic activities and organised actions to develop society, notably the infrastructure planning. Recently, a rock-art site in the Draï Valley, Morocco, was partly destroyed through the quarrying of rocks for building purposes. In Ningxia, China, an area of rock art has been crossed by a new road, which has destroyed several engraved surfaces depicting Neolithic images some 5000 years old. The construction of a dam and bridges is endangering important concentrations of prehistoric rock art in the Guadiana/Alqueva area in Spain and Portugal.

Landscape and Context

These growing threats do not only impact the rock surfaces and images as such. They can also cause irreparable damage to the landscape and context of the rock-art sites. At the World Heritage site with magnificent Bronze Age rock engravings in Tanum, Sweden, the proposed extension of a new motorway does not physically affect a single rock-art panel. However, its impact on the cultural landscape, created from more than 8000 years of continuous human activity, could cause irremediable damage to the visual and structural integrity of the rock art. The introduction of a huge, linear mega-element in an otherwise naturally hilly and undulating landscape would obscure the setting of the art and compromise the potential to grasp some of the still remaining views and concepts of its Bronze Age creator. In Valcamonica in Italy, deep wounds have been cut in the lower valleys of the beautiful Alp landscape by the ongoing construction of the new road. The rock art is still there and the images as beautiful and imaginative as before, but the setting of the panels have been changed in a negative sense. Therefore, the first priority advocated by CAR (Comité International d'Art Rupestre) is that rock art should be preserved in its original environment. When this is not the case, the message conveyed by the images also runs the risk of being lost and of no longer being able to be interpreted. The loss of these non-material

and intangible aspects of the art might also in that sense endanger the art itself.

Consequently, the measure to cut out rock-art panels in order to save them from being destroyed is never recommended by CAR. If it is still applied, in some inevitable cases, one must be aware of the fact that this rock art has been ripped out of its original context and thus becomes a type of relic, albeit one that of course can still be worthwhile preserving as a piece of art. When rock-art panels are cut loose from the bedrock and brought to a safer environment there are requirements for future care and preservation. Most conservation institutions and museums are located in big cities, and because the environment in cities can be much polluted and the air quality is often less than in the countryside, this relocation may pose new threats to the rock art. Therefore, if such actions have to be taken it is vital to place the object in a suitable climatic environment.

The Alqueva Dam, Portugal

At Alqueva in Alentejo in Portugal, a huge dam is drowning a major concentration of Neolithic and Calcolithic rock art. The decision to build the dam was taken more than 20 years ago; now it is being constructed and financed by massive support from the EU. The rock-art panels are in general situated in the middle of the now dry river. Consequently a layer of river sediment buries most of them, the varying thickness and hardness of which presents a considerable obstacle to the documentation process. Regardless of this obstacle, the team have found some really fascinating rock art. The vast majority of images are anthropomorphic, whose closest parallels are those at Monte Bego in France and at Valcamonica in Italy that are similarly dated to the Late Neolithic-Calcolithic periods. There are also some coniforms and horn-shaped images. Some of the Alqueva recordings display high levels of artistry and technical skills. The documentation involves meticulously recorded plastic tracings and high-quality photographs, including shots taken in the night using artificial light.

The documentation process also included the so-called polychrome method where the panels are cleaned and covered with white colour (made-up of water and chalk-powder). This method was originally developed by Professor Anati of the Centro Camuno di Studi Preistorici in Valcamonica, Italy, where it was in use for many years. The method gives very good recording results and is completely harmless to the rock surface. All the same, it has been recommended by CAR to abandon it due to scientific and ethical reasons. The application of paint on the rock surface might in some cases affect remaining dateable substrates. Further, the covering of the surface can be considered to be a rather extensive measure that should be avoided in respect of the original intention of the monument.

Regarding the question of whether it would be possible and better to cut out the rock-art panels and move them to a museum's park, instead of leaving them in situ under a protective cover of water, I respond that I would prefer the latter solution. This is due to the fact that the rock-art panels will still be there after the dam has been abandoned in some hundred years time.

The conclusions and recommended actions to protect the rock art at Alqueva were issued to the Portuguese government in September 2001. They noted that the rescue archaeology work per-

formed by IPA and CNART in connection with the Alqueva dam project in Portugal and Spain have been in good accordance with contemporary international standards, with the exception of the use of the so-called polychrome method. However, additional time would have been needed to allow complementary documentation with modern high-tech methods. Recording using such methods were tested but never fully applied to the site. Following the basic principle above, CAR did not recommend a solution where the rock-art panels were to be cut loose and relocated in a museum or similar institution. CAR did recommend that the Portuguese government and other bodies responsible for the dam building project reconsider and re-analyse the need of the dam. Further, CAR recommended a one-year moratorium to allow this process and to allow complementary investigations of the rock art. Although the intervention report was positively received, at least partly, by the Portuguese government, no initiatives for further communication and co-operation with CAR have been registered to this day (August 2002). This negative response also includes the recommendation to take the utmost measures to secure the future preservation of the rock-art panels in situ. This solution would have also included the need for meticulous analysis and recording of the quality and present state of the rock surfaces, including a mapping of the damage. In recent years, the EU-project RockCare of the National Heritage Board of Sweden has developed suitable methods for such work, including laser scanning and the moiré technique. The method was tested at three rock-art sites in different environments in the summer of 2001. The sites are situated in Tanum, Valcamonica and Foz Coa. The results are very promising.

This case also highlights the need for cross-border and cross-organisational co-operation. Because the rock-art sites in Alqueva-Guadiana most probably belong to the same prehistoric tradition, CAR recommended that the recording work in Portugal and Spain be co-ordinated. This was never officially realised, even though many contacts were initiated on the local level. CAR offered help with expert advice and practical support on documentation and techniques. But these offers were never considered in reality. Numerous contacts took place with representatives of UISPP and IFRAO. But no mutual actions were realised. CAR generally supports all such initiatives but the Alqueva case has clearly shown the difficulties to perform common actions. The difficulties in this case seem to mostly have originated from the previous political and personal conflicts in connection with the World Heritage listing of the rock art of Foz Coa in the late 1990s. This conflict is still ongoing, and one has to conclude that it has to a very high degree hindered the possibilities of protecting and preserving the Alqueva rock art. Further, the actions against the dam were initiated much too late and generally aimed at the wrong target. In this case, the right target would have been the European Union and the responsible Portuguese and Spanish authorities – and not, as was the case, the Portuguese National Rock Art Documentation Centre – CNART in Foz Coa. Although personal interests – the human factor – never can be fully eliminated, it is a sad but obvious conclusion that it has affected this case in an extremely negative way. Regardless, CAR is still willing to invite representatives of organisations such as UISPP and IFRAO to take part when possible in common actions as described above.

Additional Threats

Another important issue in connection with risks are the various heritage conservation and management activities performed around the world. Even though all such actions stem from positive



Bronze Age rock engraving at Hede in Kville, Sweden with partly damaged rock surface. (Photo: Catarina Bertilsson, RockCare)



Paleolithic rock engraving at Penascosas in Foz Coa, Portugal. Rock surface is heavily damaged from exfoliation and cracks. (Photo: Catarina Bertilsson, RockCare)

Mesolithic rock painting in rock shelter at La Sarga in Valencia, Spain. Rock surfaces is deteriorated from exfoliation. (Photo: Catarina Bertilsson, RockCare)





Stone Age rock painting at Astuvansalmi in Ristiina, Finland. Exfoliation of rock surface is caused by humidity affected by thawing and freezing. (Photo: Catarina Bertilsson, RockCare)

initiatives, they may have negative results. One obvious risk is posed by the ever-growing cultural tourism. When carefully planned and controlled it encourages education about and protection of rock art. Out of control and negatively performed it can contribute to rapid and severe wearing-down of panels and sites. In this sense, the presentation of sites to the general public can often become a crucial issue. Similarly, many images have become less visible through the course of time because of overgrowing mosses, lichens and algae. If cleaning is required, it is essential that it be done in a harmless way without the use of dangerous chemical substances. However, many examples of the opposite are known, particularly in connection with the painting in Southern Africa where cleaning has counteracted its purpose in changing the original colours and making the images less visible (see also the Zimbabwe report in *Heritage at Risk 2001–2002*).

A related phenomenon, but less unequivocal, is known from the Kimberley area, Australia, where a group of Aborigines have renewed the habit of repainting on rock surfaces with prehistoric paintings. Whether these people may or may not have the right to re-use the same surfaces for making new paintings is the object of a rhetorical debate among archaeologists, anthropologists and administrators. Regardless of the outcome of that debate, it is a sad fact that millenary underlying pictures run a constant risk of being destroyed – although most of them are not even documented. These images also contain the testimony of human beliefs and concepts, which we might lose forever.

The thousands of sites that today are not yet documented may not survive. Therefore, a high priority task is to make records with all possible techniques and available resources. Even if a site is lost, and many will certainly be so, the records of the images can remain accessible for the future. Made in a systematic way with closely studied methods, this will prolong the life of the rock art although lose some of its original intangible content. Since rock art has been recorded for many centuries, specific traditions of documentation have evolved such as tracings and rubbings. It is, therefore, vital to connect to these traditions in order to preserve and re-use the information contained in the old documents. In recent years various high-tech equipment and applications have created hitherto unknown prospects within this field of research. In the RockCare project of the Swedish Heritage Board, within the framework of the Culture 2000 programme of the European Union, some useful innovative concepts have been developed. Detailed information can be found at: www.w-heritage.org/rock-careweb

Documenting is the only way to assure that these important records of our past are not lost. This is the main goal of the World Archives of Rock Art (WARA). Already in this inventory, at the Centro Camuno di Studi Preistorici, Camonica Valley, Italy (email: ccspreist@tin.it) there are over 200,000 photographic documents, many recording rock-art sites that have changed since the original photographs were taken. The WARA Project started a few years ago, with an assignment by UNESCO for a feasibility study. It started by reorganising the photographic archives collected over the course of 50 years. It already includes the largest world documentation of prehistoric rock art. It expanded with the assistance of voluntary work and with sporadic contributions from UNESCO, CIPSH (Conseil International de la Philosophie et des Sciences Humaines), and the Cultural Relations Department of the Italian Ministry of Foreign Affairs. It is now being further developed and refined through co-operation with the Swedish RockCare project.

Conclusion

Recent information calls for action to prevent the destruction of one of Australia's most prominent rock art areas at Dampier, Western Australia, through exploitation due to industrial development (see discussion in the Australian National Committee report this volume). The destruction of the heritage of rock art makes less noise than the destruction of the Buddha statues of Afghanistan, which received a broad coverage in the press, when they were

blown up. But it was too late and nothing could be done to save them. Such events should be prevented and can be prevented. Pieces of a patrimony that preserve the roots of human history are being lost every day. Therefore, CAR urges positive action before it is too late. Rock art mirrors ancient ideas, beliefs and myths, thus, it is a priceless interface with our past.

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Iron Age rock engraving at Valcamonica in Italy. Rock surface is partly heavily eroded.
(Photo: Gerhard Milstreu, RockCare)