

ROCK ART – HERITAGE @ RISK!

Rock art is a global phenomenon. It is probably the most widespread testimony of the existence of prehistoric humans. In Professor Anati's world report on Rock Art for ICOMOS in the early 1980s, he states that it is represented in all continents and in all climatic zones except for in the true arctic areas.

In that way, it expresses, regardless of its artistic qualities, the capability of humans to adapt to all kinds of geographical and environmental conditions. Therefore, it also constitutes one of the most valuable cultural heritage categories of humanity. Consequently, rock art is a form of cultural heritage that deserves special attention in regard to its preservation. By conserving rock art, we not only save the images for the future, we also preserve the reflections of ancient beliefs, traditions and rituals and hand them on to future generations.

However, regardless of all efforts that have been made, and are continuously being made, in many countries throughout the world, rock art is very vulnerable and under almost constant threat to disappear entirely. Even under "normal conditions", many sites are lost due to deterioration caused by climatic factors such as heat and freezing. This deterioration is in many instances "enhanced" by human effects of which the most obvious and widespread is environmental pollution such as acid rain and related circumstances. Yet another threat, and a most dangerous one, is modern landscape planning for infrastructure and various construction purposes such as road-building, industrial development etc. This growing modern threat to rock art was dealt with by Dr Clottes of France in the middle of the 1990s in an ICOMOS report of the World Heritage Rock Art sites.

The threat from infrastructure can be exemplified by the current situation in two of the most prominent World Heritage sites with rock art: the Rock Carvings of Tanum in Sweden and those of Valcamonica in Italy. These two sites represent the artistic peak of European Bronze Age culture. The rock carvings in Tanum have been the focus of research for more than two centuries. The Swedish National Heritage Board has been engaged in several projects over the years. In recent years, there has been a marked shift in the focus of research from interpretation to documentation and conservation. Not that interpretation as a theme has become less interesting, on the contrary. But since the basis of interpretation is based on the images, the engravings have to be preserved or at least documented before they vanish.

This is reflected in the Air Pollution Project of the National Heritage Board that was carried out between 1988-1996. The results from the analyses of the effects of environmental pollution that were undertaken, indicated that almost 75% of the rock art sites were suffering from negative effects. Although the task of recording the damage is not yet complete, we have already learnt from analysis of the data that have been collected, that some of the rock art masterpieces in Tanum will already disappear in our lifetime.

That is one of the reasons why the National Heritage Board has decided to start the Rock Art Care project co-financed by the European Commission as a part of the Raphael programme.

The full name of the project, Rock Care – Tanum Laboratory of Cultural Heritage, indicates the focus of the work that aims at the following objectives:

- To arrange seminars and meetings so that the Rock Care project can use the help of a network of international expertise.
- To develop new methods for the presentation of rock-engravings and to improve access to the sites in Tanum.
- To produce further methods for protection against environmental destruction and deterioration.
- To develop new methods for documentation and to make an effort for comparable results between different countries.

Since the beginning of the project in November 1998, the need for protection of the sites and panels of the World Heritage Area in Tanum has increased further. The reason for this is the fact that the area is at this very moment threatened with permanent division by a four-lane road, of which one alternative is planned to cut right through the heart of the site. Although this alternative has been rejected by the regional culture heritage authorities, it is still the Road Agency main planning alternative. If implemented, this alternative might mean that Tanum is put on the World Heritage in Danger List, as a consequence of its negative effect on the landscape. The continuous use of the landscape was one of the fundamental values for accepting the Tanum rock engravings on the World Heritage List.

To prevent those negative impacts, the present writer and the president of ICOMOS SWEDEN initiated a public debate in the newspapers, and on radio and television. Public opinion in favour of stopping the motorway is increasing. The Swedish National Heritage Board has produced a video "The Rock Carvings of Tanum – World Heritage at Risk" presenting this priceless cultural heritage. At present, discussions are taking place trying to re-evaluate the situation and the two alternatives. The matter was brought to the agenda of the meeting of the World Heritage Bureau in Paris in July. The Swedish Government will make the final decision of the road alternative in the late autumn this year.

The same threat caused by the development of infrastructure is posed to the rock engravings of Valcamonica in Italy. This World Heritage Site is situated in a narrow valley of the Dolomites, through which runs one of the main roads leading to the ski resorts in Italy and Austria. The standard of this road is now being upgraded. This will have a major impact on the landscape and the rock engravings. The landscape is already negatively affected by numerous electric power-lines, some of considerable size. Not very much attention has been paid to this problem by the Italian authorities. The natural topography of the area limits the possibility of finding solutions that do not affect the landscape in a negative way. Tunnels might be the only possible solution in this respect. A fundamental problem is that the rock engravings of Valcamonica do not constitute one single connected area, but are made up of several small and scattered ones. This fact has a negative effect on both conservation and on infrastructure planning. It originates from the fact that Valcamonica was incorporated into the World Heritage List in the 1970s. At that time the modern view of landscapes as consisting of an overall system including cultural and natural elements had not yet been developed.

Problems of rock art conservation are not only connected with World Heritage sites. These sites can be said to be easier to protect because of their global status, regardless of the threats

discussed above. The situation for the many more common sites and areas is often more troublesome. In some countries, there is a whole suite of problems connected with the conservation and management of rock art. These include a series of factors ranging from negative effects of infrastructure development to a lack of legislation and financial resources. This is illustrated by the situation in Russia that is described as follows:

The Centre for the Conservation of Historic-Cultural Heritage in Irkutsk (Siberia) should be mentioned for Russia as the organisation, which commenced a rock art conservation project along with their area of responsibility for extensive recording, and an inventory of rock art sites. This started in 1987 at rock art sites of the Upper Lena River and in 1992 it commenced for the Lake Baikal area. Experts in rock art, conservation, biology, and geology work together in the Rock Care team. A management strategy was developed based on international experience in the field of rock art conservation. Nevertheless, its adaptation to local circumstances and the analysis of the results, received after the first years of the project's implementation, revealed the following problems:

1. In the 1960s to 1980s, industrial development caused the main rock art deterioration. This disintegration of the limestone cliff with engravings at the Lake Baikal shore might result from a change to the water level caused by the construction of a hydro-power station. In the 1990s, there was a reduction in the general impact of industrial development due to the economic recession, but already existing problems continued.
2. Political changes brought the problem of a revision to the legislation and its effectiveness for heritage management.
3. The ongoing existence of vandalism of the rock art, that can only be overcome with an improvement to legislation and public awareness (publications on rock art and promotion of adequate information).

4. Required conservation, methodologies and monitoring can be provided by the Rock Care team but the long term conservation project lacks adequate funding.
5. Rock Care project needs informational support (introduction to internationally approved standards and expertise) and financial support.

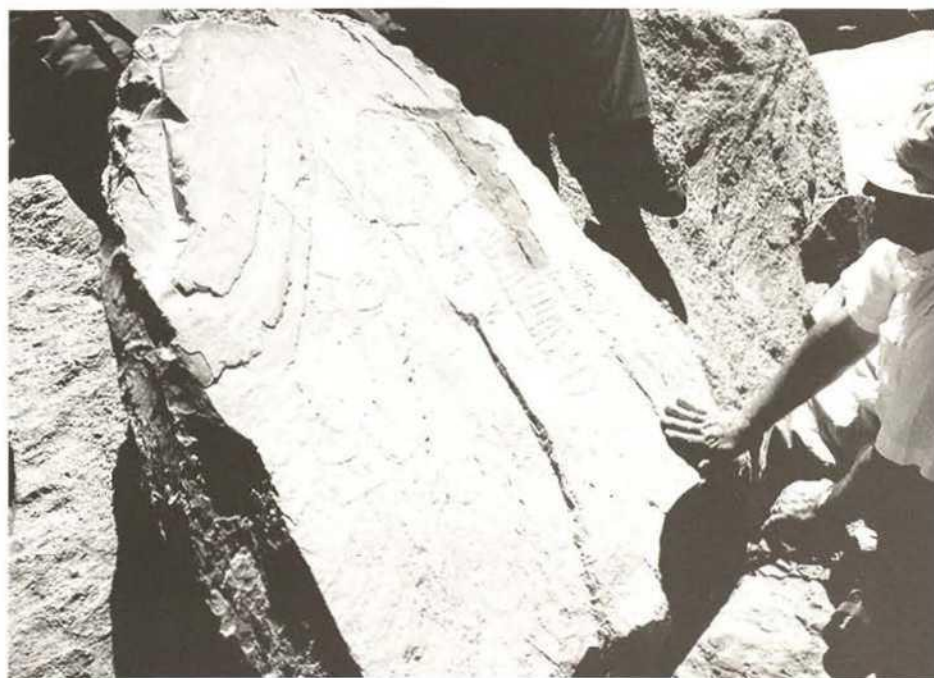
The situation in Russia can be summarised as follows:

The professional community recognises the following problems in the rock art management:

- a lack of legislation and activity of heritage protection organisations
- the need for introduction of the internationally approved standards and expertise
- an increase of public awareness: popularisation of rock art as an integral part of cultural heritage
- development of ethics and strategies in rock art protection

This summary of the situation in Russia is applicable to many other areas and sites in the world.

The ICOMOS International Scientific Committee on Rock Art – CAR recognises these problems and the urgent need for counteractions. Several immediate measures are planned to enhance co-operation, the spread of expertise and the development of long-term strategies. A first step is to produce a global report on the state of rock art based on reports and interventions by the active members: *Entering 2000 – the State of Rock Art*. The report will be presented at the Annual Valcamonica Symposium in November this year. The committee has started work to set up a web page connected with the ICOMOS server and open to the public in order to inform about its activities and to encourage co-operation among members. Further, it has initiated the development of a charter for rock art research and management including ethical rules. Another important issue to deal with is the management of sites open to the public. Due to a lack of accurate documentation and adequate information for visitors,



Casting of original engraving at Mont Bego, France, in authentic setting. Original is kept under safe indoor conditions.

opening up site for visitors might turn out to be a counterproductive step. An example is the habit of infilling engravings with red paint to make them more visible to visitors, a frequent use in Scandinavia. If done with inadequate skill, this method can “deform” the engraved images and therefore also degrade the visitor experience. Further, it can destroy substrates on the rock surface that are possible to date. Thus, competent specialists should apply the method only with the uttermost caution.

The Committee considers it to be most important not to deliberately invite visitors to sites that have not been secured in terms of their documentation and preservation. It is recommended that the basic procedure always be the following:

1. Survey of area and documentation of panels using appropriate techniques and methods.
2. Inventory and mapping of damage and signs of erosion, exfoliation and cracks etc.
3. Application of adequate conservation methods. (If the site is in great need of such treatment, it should not be opened to the public!)
4. Construction of wooden walkways, signposts and production of interpretation maps, folders etc. (Walkways and signposts should be constructed in harmony with the requirements of the site, in order not to disturb the landscape and the visitor experience. If the site belongs to a certain group of people like the indigenous population, it is a fundamental prerequisite that they are invited and consulted at every step of this process).

5. Opening of the site or panel to the public (This measure should always be preceded by a close analysis of the “carrying capacity” of the site that should never be exceeded.)

An alternative to opening a site to the public is to leave the actual site or panel in its natural setting undisturbed by visitors and instead present it to the public in the form of copies made by casts, as is the case of Mont Bego in France. However, since taking casts implies the use of certain chemical substances that might prove to be harmful to the bedrock, a safer method might be to use enhanced photographs or similar images. In order to eliminate the negative elements of casts, it is advisable to use other non-tactile/physical methods for copying, such as a laser-scanner. Such an application based on the use of an easily movable, high-speed laser-scanner for field documentation is being developed in the Rock Care Project of the Swedish National Heritage Board.

The use of protective coverings based on geo-textile materials is another important and less expensive method that has been developed in the EU Interregproject “Rock Carvings in the Borderlands”, a joint Swedish-Norwegian project. The coverings can be easily applied and removed when necessary. Their main use is to reduce the oscillation of temperature, and especially their passage through zero degrees. This will minimise the length of time below freezing and prevent exfoliation and other sorts of deterioration. This will considerably prolong the life of some of the panels. Full-scale testing has been taking place in Sweden for a couple of years, and this year an evaluation of the results will be made.