

# Conservation and Management of Rock Art Sites

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ROCK ART is a precious cultural heritage of mankind. It is reported throughout the world and is widespread in India also. The rock paintings are considered as one of the fine arts practised by Early man to decorate the cave shelters. According to *Vishnudharmottara* (Illrd Khanda), the practice of painting is the chief of all arts in this world. Perhaps, prehistoric people produced it for ceremonial and other purposes which we may never fully understand and appreciate. The preservation of this art is very necessary owing to the rapid rate of destruction caused by an unaware society.

### **Damaging Agencies**

The ecological disturbances and problems of bio-deterioration are creating havoc in the preservation of rock art. Growth of micro-organisms like algae, fungi and bacteria results into dark stains. The other damaging agencies include fly marks, pigeons and lizards droppings, accumulation of dust and smoke due to alternate hydration and dehydration, oxidation of bonding material, etc. In the absence of adequate stalagmitic basaltic rocks, colour mutation due to action of waterborne chemicals, and because of constant superimposition of painted layers, it has been difficult to either preserve or date the paintings in the open rock shelters.

Threat from vandalism and tourism to the rock art sites is also noticed for many decades. The sites which have high profile. This human vandalism not only indicates lack of sensitivity and knowledge but also an alienation from the human family. The increasing pressure from tourism as well as fundamental problems of weathering and of the impact of vegetation and stock, indicate that there is an urgent need for conservation and management of Indian rock art sites.

### **Site Surveys**

The site surveys and detailed mapping should be taken up at first instance as these can provide us new knowledge including details of their condition and source of actual and potential threat to the sites. In fact, the consideration of conservational problems should be worked out by a team of experts from different concerned fields.

In some cases, detailed recording may be the only way to conserve imagery, especially where it is degraded or where sites are threatened. The contents of rock paintings being so deep and abstruse need more meticulous investigation so that more accurate data can be obtained. Therefore, high scientific and technological methods of shooting, copying, colour mapping, close shotting, drawing, etc. should be used for recording and computerising

the rock paintings.

### **Site Protection**

Several rock painting sites have been designated by the Archaeological Survey of India as the 'government protected sites'. Perhaps no unified planning can be made as these sites as they are protected dispersedly and could not be joined and protected in a large range. In order to arrange integrally, a complete protected area of the site should be located. If possible, fencing of all' major rock art sites should be taken up as it can be effective in keeping animals away from the imagery in rock shelters, because they also damage paintings by rubbing against paintings or licking them with salts from the walls. But it may produce further problems within a fenced area. It can result in buildup of heavy vegetation which might have disastrous impact upon rock paintings. Therefore, it is necessary to control vegetation growth and to prevent unnecessary fuel build-up within fenced sites.

The felling of trees must be forbidden in those protected areas where in the past decades the woods have become rare and the paintings once hidden in these woods got exposed to sunlight, wind and rain, and resulted into the quickened damage of rock paintings. It should be attempted to restore ecological environment by way of planting trees wherever woods are rare.

In the protected areas or in its vicinity, no factories should be allowed to build up, especially those discharging harmful gases and waste water, in order to stop the source of pollution and keep the environment clean.

It is encouraging to see that a few rock art site are included in the World Heritage List and converted into National Parks to protect and preserve the rock paintings as well as ecological balance of the area. At present, an attempt is being made to include Bhimbetka in the list.

Sometimes researchers themselves cause damage by sprinkling water on these figures to make them bright under reflection for study. This should be condemned and stopped at once. We should also condemn the practice of application of chalk or any such secondary thing to enhance petroglyphs because it can create the chances of damaging rock art. It may further create problems for future research, i.e., dating etc.

### **Site Restoration**

Mud-nests made by mud-wasps and birds, besides salt deposits, are some typical problems affecting most of the rock art sites. If they are removed and treated timely, the paintings can be saved from any damage.

The surface of the cliffs of different rock shelters is usually found uneven and in some cases has cracks. Water sometimes penetrates through these cracks and results into the peel off, and even fall of large wall blocks. It is advised to plug the cracks which occur in the rock paintings, and those rock

blocks which are prone to fall should be glued to the wall by filling organic high molecular material.

Some cliffs are almost perpendicular to the ground, having no projections in the upper part and in such cases paintings often suffered from rain, weathering and erosion. To keep off rain etc., roofs can be put up as soon as possible for this part of rock painting. The erosion of rock painting may also be stopped by making small water drains.

Because of hot climate, damp air and strong sunlight in most parts of India, the colour of rock paintings has faded. The paintings which are covered by aqueous carbonate are believed to preserve their original colour. Similar method of spray transparent chemical membrane on the exposed paintings may help in preserving the rock paintings. However, these measures should be tested on a small scale under the direction of experts concerning the field.

### **Visitor's Management**

The biggest threat to the rock painting seems to be from the increasing number of visitors. This necessitate a careful consideration of visitor's management. Restricted access combined with guided tours can prove beneficial for the protection of rock art as well as for the education of visitors. Visitors can be controlled less intrusively by the use of, firstly, structures which physically guide rock pictures and, secondly, well by researched and carefully presented information. It is generally seen that sites giving the appearance of being actively managed are less likely to be vandalised.

Besides, audio-visual aids which include leaflets, placed at the sites or at the nearby visitor's centres, can provide information and enhance protection. More informative signs, especially those interpreting imagery paintings, are appreciated by visitors.

It is necessary to provide a general educational programme for the public to develop an awareness of the responsibility towards preservation of our cultural heritage. This goal may be achieved by organising exhibitions, lectures with colour slides, video films and group discussions with the public. It will also require personal involvement of rock art researchers.

Similarly, a simple sign providing the site name, prescribing the code of behaviour and listing penalties for offence against the law can also prove beneficial.

The visitors book too can half monitor visitation impact and contribute significantly to the site protection.

### **Conclusion**

Appropriate visitor management can reduce the chances of vandalism, obviate inadvertent damage to rock art, lessen the impact of visitation upon site environs, and enhance visitor appreciation of rock imagery. But his alone will not do much. The provisions for policing/ monitoring of sites or exclusion of visitation, and the will of the relevant government authority to exercise its

legal powers, must be invoked to effectively manage the sites and combat vandalism. In India, there are already legislations for the protection of cultural heritage sites but they need to be implemented strictly. If necessary, they should be modified or made tough enough to fulfil the desired goal.

Besides, insecticidal treatment for preservation of this primitive art for posterity seems to be an ultimate need of the archaeologists with the cooperation of research laboratories. At present, certain preservatives are used in different parts of the world to check moisture and rain water adversely affecting the rock paintings. It is imperative for scientists to evolve suitable preservatives and measures to protect the rock paintings of different climatic zones of India. Due to climatic factors the rock paintings have a distinct seasonal life of their own and that is yet to be studied. The variation in the visibility of the figures is an important point since it influences the recording and interpretation of a panel. The study of mechanisms of the exchange between the rock and the external environment from geological, climatological and hydrological viewpoints, in order to explain the present state of the painted wall and its evolution in future needs our immediate attention. Even pigment analysis is equally useful for conservation studies to detect salt traces, etc.

The National Research Laboratory for Conservation, Indian National Trust for Art and Cultural Heritage (NRLC, INTACH), Archaeological Survey of India and State Archaeological Departments can play an important role for taking extensive protective measures to save rock paintings. These departments should be equipped with special staff having expertise in the field, and also be provided with special funds to achieve this goal. It is time to realise and meet our responsibility for preservation and further study of rock art as being an important part of our proud cultural heritage. In conservation techniques we may have the benefit of experience of specialists of other countries. Regarding this, the IGNCA has already initiated a joint venture with France for the study and conservation of rock art, started in the year 1993. The study at present is going on in the right direction.

## References

1. Agrawal, a.p. (Ed.). 1989. *Wall Painting of India-A Historical Perspective*. INTACH Conservation Centre, Lucknow.
2. Godwin, Luke. 1992. Carve your name with pride? Visitor behaviour of Blacks Palace art site complex, Central Queensland Highlands. *Rock Art Research*: 9(2).
3. Kumar, G. 1990. New dimensions in purakala study. *Purakala*: 1(1).
4. Morwood, M.J. & Kaiser Glass, Y. 1991. The use of graffiti in the monitoring of community attitude towards aboriginal rock art. *Rock Art Research*: 8(2).
5. Ward, Graeme K. 1993. Conservation of rock imagery in Australia: Funding support, protection projects and related research. *Rock Art Research*: 10(1).