## State of Conservation of the World Heritage Properties in the Asia-Pacific Region

# INDIA Ajanta Caves

## **II.1 Introduction**

Year of Inscription 1983

#### Organisation Responsible for the Report

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## **II.2 Statement of Significance**

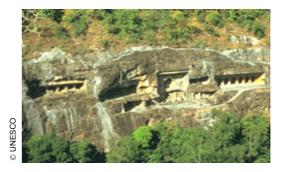
Inscription Criteria C i, ii, iii, vi

#### Statement of Significance

• Proposed as follows (new):

"The caves at Ajanta fall into two different phases with a break of nearly four centuries between them. All the caves of the earlier phase are pre-Christian in date, the earliest to be excavated being Cave 10, dating from the second century B.C. The caves of the second phase were excavated during the supremacy of the Guptas and Vakatakas. Thus the inscription of Varahadeva, the minister of the Vakataka king Harishena (c. AD. 475-500) dedicated Cave 16 to the Buddhist Sangha, while Cave 17 was the gift of a prince, a feudatory of the same king. Another inscription datable to the first half of the sixth century AD., on the pedestal of a Buddha image in the sanctum of Cave 4 states that the image was the religious gift of a person from Mathura who was the son of Abhayanandin, the owner of the monastery (viharasvami). The most vigorous period of architectural and artistic activity seems to have coincided with the second half of the fifth century and the first half of the sixth. There was a considerable decline in the creative impulse from the seventh century, though Hieun Tsang, the Chinese pilgrim, who visited India in the first half of the seventh century, has left a graphic description of the flourishing establishment here. (...)

After centuries of oblivion the caves were discovered in A.D. 1819 and since then they have occupied a unique place in the art history of the world.



The general arrangement of the caves at Ajanta, cut out of the amygdaloidal trap rock, was not preplanned, as they sprang sporadically in different periods. A terraced path of modern construction connects most of the caves, but in ancient times individual stairways linked the stream Waghora, flowing at the foot of the valley, with each cave. (...)

The work of quarrying, dressing and finishing presumably went hand in -hand as is evident from the unfinished caves bearing traces of paintings. After finishing the facade and the verandah the excavator went deep into the interior, attending first to the hall and next taking up the ante-chamber, shrine or cells as the case might be, the procedure of the excavators being the same. The complete operation speaks great delicacy, precision and carefulness on the part of the rock-excavator".

#### Status of Site Boundaries

• The demarcation line and buffer zone are adequate.

### **II.3 Statement of Authenticity/Integrity**

#### Status of Authenticity/Integrity

- No changes in authenticity/integrity.
- In future: no foreseeable changes.

## II.4 Management

#### Administrative and Management Arrangements

- Legal protection considered sufficient.
- Property management is carried at a regional level The above arrangements are considered sufficient.
- A management plan exists, but the ASI outlines periodical and long term plans and programmes for executing conservation works.
- To preserve the values in future: amendments to by-laws.

#### **Present State of Conservation**

- Various constructions and equipment for tourism and for conservation.
- Changes since inscription: no mention of SoC or of any changes.

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## Staffing and Training Needs

- 40 staff. Considered sufficient to monitor the site.
- The staff need training in conservation techniques, computer applications, photodocumentation, GPS, GIS, cartography.

#### **Financial Situation**

- Sources of funds from Central Government.
- Funding is considered as sufficient.
- \* International Assistance: JBIC Ioan for Ajanta Ellora Conservation and Tourism Development Programme.

#### Access to IT

- No computers, no email or Internet access; computers at regional office.
- No use of GIS.

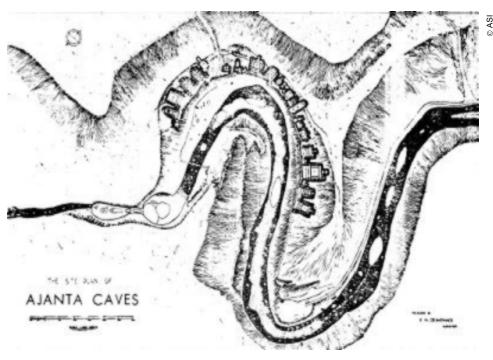
#### **Visitor Management**

- 2001: 298,810 visitors.
- Various facilities: approach road/pathway, illumination of caves, drinking water, post office, guide facilities, porter facility, books, brochures, public amenity, signage.
- Needed facilities: public information system, multimedia visualisation of paintings and CDs.
- Plan for public use: no existing plan.
- Communication WH values through: brochures and booklets, website, various cultural awareness programmes, WH day and week.
- Educational programmes: for WH events, school students are invited and get involved in educational and creative activities.
- Role of the inscription into the List of World Heritage: awareness of public, increased number of visitors, more research.

### **II.5 Factors Affecting the Property**

#### **Threats and Risks**

• Development pressures: further developmental pressure can threaten the authenticity.



Plan of Ajanta Caves

#### **Counteractive Plans**

- No emergency plan.
- Actions: the ASI has the authority to tackle any problem, however no resources are available to tackle large scale disasters. If such a situation arises, a collaborative strategy is adopted in partnership with the State Government.
- Improvements needed: site information system at the foothill, pre-recorded cultural texts for tourists, brochures, booklets and guidebooks.
- Impacts of natural factors (rainfalls and leakages), insect activity and uncontrolled tourist behaviour are decreasing.
- Measures adopted or planned: attempts to educate the masses, monitoring by installation of modern gadgets for proper and effective management.

#### **II.6 Monitoring**

#### **Monitoring Arrangements**

- Daily basis monitoring.
- Foreseen improvements: scientific innovative applications, such as GPS and GIS for better site management.

#### **Monitoring Indicators**

- Photo recording and systematic record archiving.
- Telltale glasses, fixed, but no formal indicators yet.

# *II.7 Conclusions and Recommended Actions*

#### **Conclusions and Proposed Actions**

- Values: unchanged.
- Management and factors affecting property: the management set-up of ASI effectively monitors the

### \* State of Conservation Reports

factors affecting the site which are kept well under control.

- Future actions: the adopted monitoring system recordings will be analysed to formulate future actions in the property's interest.
- Timetable for the implementation of the Plans: as required.

1997 Bureau WHC-97/CONF.204//2B - no buffer zones. The ASI suggested a radius of 5 km surrounding Ajanta as a green belt. Entrances to Ajanta cave have sun-screen curtains to prevent direct sunlight from damaging the wall paintings. Fumigation for insect eradication within all Ajanta caves and PVA treatment on the wall paintings are being conducted. New grid doors and windows are being installed as preventive measures against entry of bats and birds. Investigation concerning the sources of water seepage has been carried out and an expert meeting will be held in 1998. Currently cracks are being filled with cement but other options need to be found. Regulations permit entry to 40 visitors in each wall-painting cave at a time. However, there is no visitor-control and approximately 100 people enter each caves at once. Factors that affect sites are; (i) tree roots above the caves create cracks and increase water seepage, which leads to wall painting and sculpture damage and eventual structural instability; (ii) humidity increase caused by uncontrolled numbers of visitors which leads to fungus growth, attracting insects and eventually bats; (iii) inadequate security encourages vandalism and theft. Inadequate illumination at Ajanta could lead to irreversible long-term damage of wall paintings. Phase I of the Ajanta-Ellora Development Plan, will be completed within 1997, upon which evaluation will be conducted before Phase II is implemented. Reforestation of the Ajanta area within this plan could lead to ecological changes and possible insect population increase.

In view of the information provided by the Secretariat, the Bureau recommended a study be made on the means of vegetation control and selection of species to be planted to prevent soil erosion. The Bureau also requested the concerned authorities to implement visitor control measures and to keep the Committee informed of the developments of the OECF Ajanta-Ellora Development Plan and conservation plans at Elephanta."

2001 Committee WHC-2001/CONF.208//10 - In May 2001, information on restoration of sculptures within Ajanta Caves using cement mortar, recognized to negatively impact upon the sculptures and painted walls of the property. The Centre requested the authorities to provide clarification concerning this unfavourable conservation practice. During a mission in July 2001, the following actions were being taken: Unstable slopes confined to the cave portals and adjacent inter-cave slopes which bound them are being carefully examined and preventive conservation measures are being planned and implemented. Site-presentation enhancement measures undertaken to increase the quality of visitor experience and to decrease negative tourism activity impact. Request for a reactive monitoring mission by an international wall painting expert to enable the national conservation experts to consider various conservation measures following international standards for long-term protection and presented to the Bureau at its 25<sup>th</sup> extraordinary session. Finally, the Centre is assisting the ASI in the organization of a conservation and management workshop to be undertaken in early 2002. The objective of the workshop is to review and integrate the various tourism and site-enhancement development plans into a comprehensive conservation and development plan.

2002 Bureau WHC-2002/CONF.201/11Rev - WH Centre organized a reactive monitoring mission by an international mural painting expert between 1-9 December 2001. This mission noted the following main threats facing the wall paintings: - infiltration of rainwater into the caves; - minor cracks on carved surfaces - flaking of the paint layer; - infestation of bats and insects within the caves. The UNESCO expert recommended that the authorities consider: - revising present methods for stabilizing and cleaning the wall painting surfaces; - testing of new and alternative methods on small wall painting surfaces; - continuous monitoring of the microclimate conditions in; - enhancing documentation and archival material to evaluate changing conditions of the wall painting material; - conserving further, the unique natural setting of the Ajanta and Ellora Caves by following the concept of minimal intervention with the historically established environment and giving preference to conservation solutions which involve minimal changes. Finally, noting certain weaknesses within the institutional framework the UNESCO mission recommended that co-operation be enhanced between the complementary ASI branches to enhance the long-term protection and conservation of the two sites. At the time of the preparation of this working document, the WH Centre was continuing consultations with the Indian authorities to mobilize international technical co-operation for following up on the recommendations of the UNESCO mural painting expert.