

INDIA

Elephanta Caves

II.1 Introduction

Year of Inscription 1987

Organisation Responsible for the Report

- Government of India
Archaeological Survey of India (ASI)
Aurangabad Circle, Bibi-Ka-Maqbara
Aurangabad, Maharashtra 431004
India

II.2 Statement of Significance

Inscription Criteria C i, iii

Statement of Significance

- Proposed as follows:
“Among the two hills on the island, the western and the eastern have altogether five rock-cut caves in the former and the latter has a brick stupa on the top of it with two caves and a few rock-cut cisterns. One of the caves on the eastern hill is unfinished and the other is a plain excavation
“The most important among the caves in the western hill is the great Cave 1 which measures 39 metres from its front entrance to the back. In plan the cave closely resembles Dumar Lena cave at Ellora. The main body of the cave, excluding the porticos on the three open sides and the back aisle, is 27 square metres and is supported by rows of six columns each. The most striking of the sculptures is the famous colossal Trimurti at the back of the cave facing the entrance. It is a colossal bust of the three forms of Siva, the *aghora*, turbulent and fearsome; *tatpurusha*, benign and meditative; and *vamadeva*, mild, pleasing and lovable. On each side of the Trimurti recess is a pilaster in front of which stand gigantic dwarapalas or doorkeepers.
“There are also beautiful sculptured compartments in this cave such as those depicting *ardhanari* (representing the unified form of Siva and Parvati); *kalyanasundaramurti* (the marriage of Siva and Parvati); *andhakasuravadamurti* (Siva killing the demon Andhaka); *nataraja* (dancing Siva) Demon King Ravana shaking the mountain Kailasa, the abode of Lord Siva.”



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Status of Site Boundaries

- Borders and buffer zone of the property are considered adequate. (The property is located on an island, the whole of which is protected.)

II.3 Statement of Authenticity/Integrity

Status of Authenticity/Integrity

- The World Heritage value is considered to have been well-maintained, in spite of the need to carry out structural repairs in the caves in order to ensure the stability of the rock face.

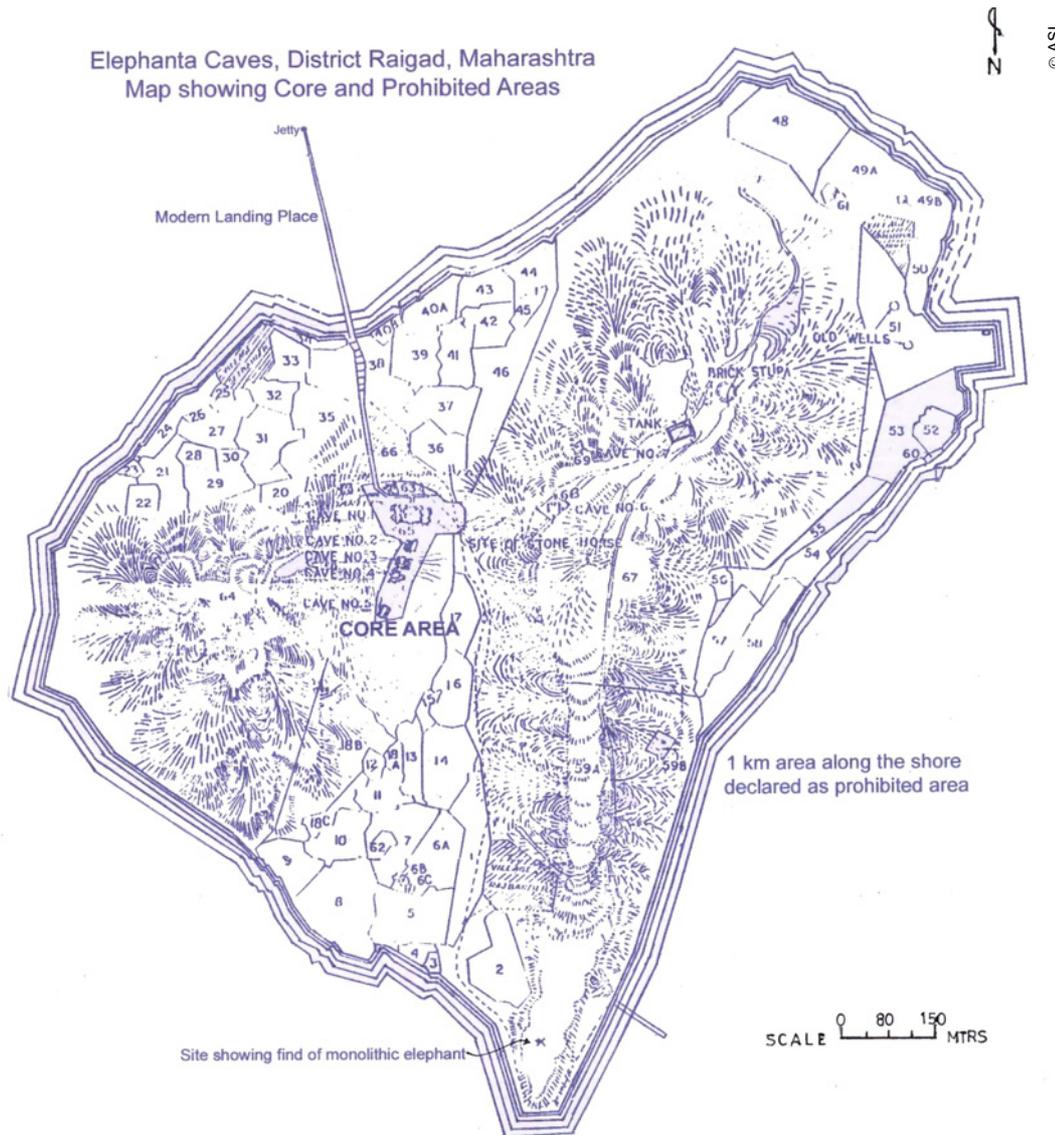
II.4 Management

Administrative and Management Arrangements

- The basic legislation protecting the site is the Ancient Monuments and Archaeological Sites and Remains Act of 1958 and Rules (1959.)
- Also applicable is the Elephanta Island (Protected Monument) Rules of 1957 which prohibits mining, quarrying, blasting, excavation and other operations nearby the monument.
- In 1972, the Antiquities and Art Treasures Act was promulgated with its Rules in 1973.
- In 1985, a Notification was issued declaring the entire island and an area 1 km from the shore as a “a prohibited area.”
- There also exist a series of Maharashtra State Government environmental acts protecting the site, as well as the 1966 Regional and Town Planning Act and the 1995 Heritage Regulations for Greater Bombay.
- Within this legal framework the Archaeological Survey of India (Aurangabad Circle) maintains and manages the property. (See enclosed report for a complete list of all applicable legislation.)

Present State of Conservation

- Recent conservation work has been undertaken to stabilize the rock face, and to support the cave structures where pillars had fallen. The cave floors have also been consolidated.
- The parapet wall surrounding the site has been repaired.



Map of Elephanta Caves showing Core and Prohibited Area

- Visitor facilities at the site have recently been upgraded, including toilet facilities, construction of railings, pathways and a flight of steps leading to the caves from the jetty.
- The on-site custodian's facilities have been upgraded and a building converted into an on-site museum.
- A conservation plan exists. The present state of conservation is considered good.

Staffing and Training Needs

- There are 7 full time regular staff of the ASI working on site, assisted by 12 private contractual workers.

- Staffing levels are judged sufficient, but staff needs additional professional training on recent advances in conservation techniques, archaeology, photo-documentation, photogrammetry, GIS and other modern and computer-aided applications relevant to site management

Financial Situation

- Current levels of funding are considered adequate to maintain and manage the property.
- * International Assistance from WHF: none.

Access to IT

- On-site no PCs are available and there is no Internet access. However, in the Aurangabad Office of the ASI, there are 4 PCs as well as Internet access.
- There is no GIS system for the site, although this has been requested as a management tools.

- The ASI maintains a website for public information about all heritage sites in India. www.asi.nic.in

Visitor Management

- Visitor statistics are kept for the site based on arrivals by boat at the jetty. This is a highly reliable statistical measure. In the 12-month period between 2001-2002 there were a total of 277,250 domestic visitors and 14,065 international visitors, for an average of nearly 25,000 visitors per month.
- Public information brochures are available on site. On various occasions (World Heritage Day 18 April; World Heritage Week 19-25 November) special events are held on site. An annual traditional dance festival is particularly popular and attracts many visitors.
- With such a high level of visitors, especially domestic visitors, present visitor facilities are considered inadequate. In particular, there is need for more interpretive material: signage and multimedia visualization.
- There is also a need for a public address system to better manage the crowds at the jetty.
- No visitor management or public use plan exists for the site, although the need for one – which would incorporate visitor management with the conservation need of the site -- is acknowledged

"There is daily monitoring of both structural and chemical conservation of the site by the on-site staff."

II.5 Factors Affecting the Property

Threats and Risks

- The greatest threat to the property comes from development pressures, due to the fact that the property is located in the middle of Mumbai harbour.
- Overly aggressive development of mass tourism facilities on the island.
- Population growth in the communities resident on the island.
- Industrial growth of the sea port facilities in the vicinity of the island.
- There is no risk preparedness plan for the property, and it is considered beyond the capacity of the management agency to cope with major disasters such as: earthquakes, cyclones, or terrorist threats, although these are acknowledged as potential threats to the property.

Counteractive Plans

- To deal with urgent contingencies, communication and collaboration between the ASI, on-site staff and other responsible government departments is sought.
- Public information and awareness raising campaigns are envisaged to lessen the impact of mass tourism on the island.
- Monitoring of the environmental impact of tourists on the cave and island environments is also foreseen.
- Increased maintenance of the rock to prevent water leakages into the caves is also foreseen.
- However, at the present time the state of conservation of the site is considered satisfactory with the most serious threats "under control and decreasing."

II.6 Monitoring

Monitoring Arrangements

- There is daily monitoring of both structural and chemical conservation of the site by the on-site staff

Monitoring Indicators

- Monitoring indicators used included: (i) visual inspection (for cracks, rock falls, etc.); (ii) monitoring of relative humidity inside and outside of the caves; (iii) monitoring of the air pollution levels on the island (iv) monitoring of temperature variations between the interior and exterior of the caves; (v) monitoring of rainfall.

II.7 Conclusions and Recommended Actions

Conclusions and Proposed Actions

- There is a need to better manage mass domestic tourism at the site, in particular through better information.
- There is a need to introduce modern techniques of archaeological site conservation and management, and to train on-site staff in their application.
- There is a need of co-ordination with other government agencies to plan for the eventuality of a major natural or human disaster at the site, and to master possible consequences.

* State of Conservation Reports

1997 Bureau WHC-97/CONF.204//2B - Currently, no buffer zones exist for Ajanta and Ellora. The Archaeological Survey of India (ASI) has suggested that a radius of 5 km surrounding Ajanta be designated as a Green Belt to be administered by the Ministry of Forestry and the ASI. A radius of 1 km around the Elephanta island is a protected zone under the Ministry of Environment's and the ASI's custody as well as the 300 sq m surrounding the caves. Removal of bats, vegetation and fungus was completed in one of the 34 Ellora caves recently and programmes for carrying out similar work in other caves are being developed. The ASI is awaiting a geological survey report of Elephanta to consider future conservation measures.

Factors that affect all three sites are; (i) tree roots above the caves create cracks and increase water seepage into the caves, which leads to wall painting and sculpture damage and eventual structural instability; (ii) humidity increase within the caves 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, supported by a Japanese OECF loan, 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.

The Bureau recommended that 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.