

INDIA

Sun Temple

Konarak

II.1 Introduction

Year of Inscription 1984

Organisation Responsible for the Report

- Archaeological Survey of India, Bhubaneswar Circle
Old town Bhubaneswar - 751002, Orissa
India
Telephone: 91674-2340590
Fax: 91674-2340590
E-mail: asibbsr@ori.nic.in

II.2 Statement of Significance

Inscription Criteria C i, iii, vi

Statement of Significance

- Proposed as follows (new):
"On the east coast of India, south of the Mahanadi delta, stands the Sun Temple of Konarak, one of the magnificent architectural wonders of the world. Built during the reign of King Narasingha Deva (1238-1264) in the thirteenth century, the temple marks the highest point of excellence attained by Kalingan art.
On the sandy shore, where the rising Sun emerges from the Bay of Bengal, stands the temple, which lets the first rays of the Sun fall on the main entrance. The temple resembles a colossal chariot with 12 pairs of wheels, lavishly sculpted with symbolic motifs, and pulled by seven horses. Between the wheels, the plinth of the temple is decorated with relief such as fantastic lions, musicians, dancers and erotic couples.
The temple comprises several distinct and well organised spatial units: the vimana, or principal sanctuary, surmounted by a high tower with a sikhara, which no longer exists; the jagamohana or audience hall, which presently dominates the ruins; and the natamandir or dance hall, on a high platform, now without a roof. Several subsidiary structures are still found within the enclosed area of the rectangular wall, which is punctuated by gates and towers."

"There are 5 management related plans: for safety, environment, master plan, environment development and tourism management."

Status of Site Boundaries

- The demarcation line and buffer zone are adequate.
- The site boundaries should be revised. Buffer zone around the property extended by land acquisition for a better management of the site.



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II.3 Statement of Authenticity/Integrity

Status of Authenticity/Integrity

- Values maintained.
- No changes to the authenticity/integrity, not foreseen in the future.

II.4 Management

Administrative and Management Arrangements

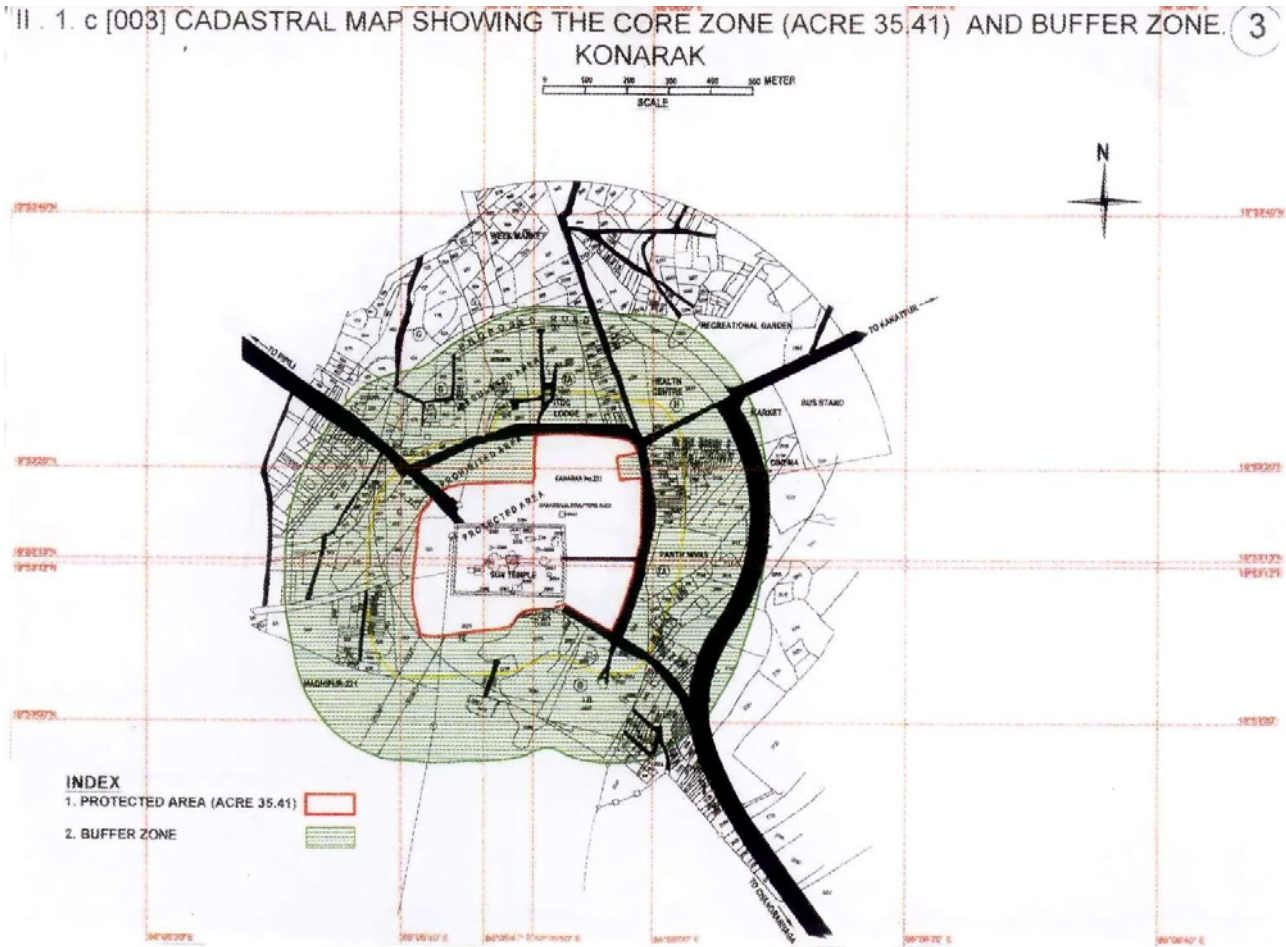
- Overall management is made at the local, regional and national levels of the ASI. The above arrangements are considered sufficient.
- The actual legal and contractual protection is sufficient. A.M.A.S.R Act, Forest Act, Konarak Development Act and notified Council Area Act.
- Management plan: There are 5 management related plans for safety, environment, master planning, environmental development and tourism management.
- To preserve the values in future: present legislative and administrative management adequate.

Present State of Conservation

- Major conservation and restoration works of the platform of the Jagamohana have been carried out and property has been stabilised.
- A comprehensive five year works programme prepared for the remaining conservation works.

Staffing and Training Needs

- Staff total number: 64. Staff sufficient to monitor the site.
- The staff need training in modern conservation techniques, scientific analysis techniques, computer applications, structural engineering, safety security techniques, surveying techniques, photographic documentation, modern drawing techniques, refresher programmes.



Map of Konarak Sun Temple showing Core (red) and Buffer (green) zones.

Financial Situation

- Sources of funds from Central Government.
- Funding is considered sufficient.
- * International Assistance: from WH Fund as follows: * (i) US\$ 20,788, Technical Co-operation, Konarak, Taj Mahal.

Access to IT

- No computers, no email or Internet access.
- No use of GIS.

Visitor Management

- Visitors number in 2001: 813,700.
- Various facilities: all basic facilities amenities.
- Needed facilities: elevator for handicapped, kiosk for tourist information, planning for amenities location, defined movement pattern of tourist, pedestrian road and electric vehicles, alternative support attraction.
- Plan for public use: development plan for surrounding areas prepared and in final stages of approval.
- Communication WH values through: WH day and WH week, awareness programmes through competitions, schemes, debates, seminars

conferences, festivals, publications, research papers.

- Educational programmes: essay, drawing, elocution competition at local school level; street drama enacted by school children.
- Role of the inscription into the List of World Heritage: increased number of visitors and researchers, awareness building activities, seminars, etc.

II.5 Factors Affecting the Property

Threats and Risks

- Development pressure: modernisation and urban growth affects the environment of the monument.
- Environment pressure: deforestation due to cyclones and human activities, saline breeze and sand blasting, vehicular movements, micro-biological growth.
- Natural disasters: flood and cyclones.
- Tourism pressure: 40% increase in number of tourists.
- Local population growth.

Counteractive Plans

- Not really an emergency plan: documentation completed and equipment to combat the emergency.
- Master plan prepared: stop to unplanned urban growth.
- Improvements needed: a full time agency to co-ordinate all governmental organisations and NGOs.
- Impact of factors: since the cyclone of 1999, deforestation has deteriorated the monument due to saline breeze factor and sand blasting.
- Measures adopted or planned: for saline blasting, paper pulp treatment: tree saplings planted to protect the monument.

II.6 Monitoring

Monitoring Arrangements

- No real monitoring system, but monitoring measures.
- Planned: no.
- Partners: national and local partners.
- Foreseen improvements: an expert committee is suggested.

Monitoring Indicators

- Indicators for monitoring: statistics on saline effects, measurements in the quantum of sand from tourists, tell-tale glass for vertical cracks, water level monitoring, 5 year perspective plan for preservation.

II.7 Conclusions and Recommended Actions

Conclusions and Proposed Actions

- Values: retained and status-quo maintained.
- Management and factors affecting property: management of property by the ASI; buffer zone by Konarak administrations.
- Future actions: 5 year prospective plan for conservation and maintenance ready for execution, comprehensive tourist-friendly development plan for buffer zone, in final stages.
- Timetable for the implementation of the Plans: 5 years.

* State of Conservation Reports

1997 Committee WHC-97/CONF.208//8BRev - The monsoon rains of 1996 and 1997 caused sand-fill and the surrounding foundation, of the Sun Temple, to subside seriously. Loose stones already begun to fall into the hollow interior of the Temple, previously supported by the sand-fill. International experts pointed to the risk of the Temple structure caving in unless immediate conservation measures were undertaken. Cracks in various parts of the stone walls, triggered by gradual rusting of iron clamps supporting the Temple walls caused by the sea breeze, led to stone fragments falling off.

This gradual deterioration and the structural instability, prompted the Government to make a request in September 1997 for emergency assistance to conduct a structural study to identify appropriate emergency conservation measures. The Government has plans to nominate this site on the List of World Heritage in Danger.

"The Committee requests the Government of India to report on the findings of the structural study at the 22nd session of the Bureau in June/July 1998. Furthermore, it requests the Government to keep the Secretariat informed in the meantime to enable UNESCO to mobilize additional international co-operation to ascertain the present condition of the property to undertake corrective measures as required."

1998 Bureau WHC-98/CONF.201//3B - A report on the structural stability study being undertaken has not yet been received by the Secretariat. "The Bureau requests the Secretariat to assist the State Party to ensure that the report on the structural stability study on the Sun Temple of Konarak be ready in time for examination by the 22nd extraordinary session of the Bureau."

1999 Bureau WHC-99/CONF.204//5 - Since May 1998, the WH Centre has received information concerning the continued deterioration of the stone structures at the Sun Temple of Konarak. "The Bureau expresses serious concern and requests the Government to take urgent measures to halt the deterioration of the stone structures. The Bureau requests the WH Centre to urgently field a mission to (a) prepare a report on state of conservation and the adequacy of conservation measures in place; (b) recommend, if necessary, additional measures needed for the conservation; and (c) assist the Government in submitting information concerning the structural study.

(continued on page 36)

* State of Conservation Reports (continued)

The Bureau requests the WH Centre to submit a report of the mission for review and invites the Government to clarify whether or not it intends to nominate this site for inscription on the List of World Heritage in Danger.”

2002 Bureau WHC-2002/CONF.201/11Rev - The report from the State Party on the progress made in developing the Plan and on the measures taken in favour of the conservation and development of this site has not been submitted to date. “The Bureau reiterates its previous requests to the State Party to report on the progress made in developing the Plan and on the measures taken in favour of conservation and development of Konarak.

The Bureau encourages the authorities to submit an international assistance request for elaborating a Comprehensive Management Plan to mitigate potential threats by illegal encroachment and ad-hoc construction in the surrounding areas.