Digitization of Cultural Heritage in India

(Ministry of Culture)

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"It shall be the Duty of Every Citizen of India to Value and Preserve the Rich Heritage of Our Composite Culture"

— Constitution of India

Introduction

India is one of the largest repositories of tangible heritage, with monuments, sites, and antiquities spanning from prehistoric times to the colonial era. While various organizations like the ASI, State Archaeology Departments, and INTACH have documented parts of this heritage, much remains scattered or undocumented. The absence of a unified database makes research, conservation, and management challenging. To address this, the **National Mission on Monuments and Antiquities** (**NMMA**) was launched to systematically document and digitize built heritage, sites, and antiquities. Through standardized documentation, training programs, and public awareness, NMMA aims to create a comprehensive national database, ensuring the preservation of India's rich cultural legacy.

National Mission on Monuments and Antiquities (NMMA)

Established in **2007**, the NMMA is responsible for the **digitization** and **documentation** of India's built heritage and antiquities. It has made significant progress in compiling national registers for monuments and antiquities.

Achievements of NMMA:

- **Digitization of Antiquities:** 12,34,937 antiquities have been digitized, including 4,46,068 from ASI Museums/Circles/Branches and 7,88,869 from other institutions.
- Built Heritage & Sites: 11,406 sites and monuments have been documented.
- **Budget Allocation:** Rs. 20 lakh were allocated for NMMA in the FY 2024-25.

Objectives of NMMA:

- Documenting and creating a national database of built heritage, monuments, and antiquities for better management and research.
- Ensuring uniform documentation of antiquities across central, state, private institutions, and universities.
- Raising awareness about cultural heritage preservation.
- Providing training and capacity building for state departments, local bodies, museums, NGOs, and universities.
- Enhancing collaboration between the Archaeological Survey of India (ASI), state departments, and other stakeholders.
- Publication and Research

Ancient Monuments and Archaeological Sites and Remains Act 1958

The Ancient Monuments and Archaeological Sites and Remains Act 1958 (AMASR Act 1958) was enacted by the Parliament with an aim "to provide for the preservation of ancient and historical monuments and archaeological sites and remains of national importance, for the regulation of archaeological excavations and for the protection of sculptures, carvings, and other like objects.





As per the **AMASR Act 1958**, the following are the **definitions** of ancient monuments:

"Ancient monument" means any structure, erection, or monument, or any tumulus or place of internment, or any cave, rock sculpture, inscription, or monolith, which is of historical, archaeological, or artistic interest and which has been in existence for not less than one hundred years, and includes:

- The remains of an ancient monument
- The site of an ancient monument
- Such portion of land adjoining the site of an ancient monument as may be required for fencing, covering, or otherwise preserving such monument
- The means of access to, and convenient inspection of, an ancient monument

The scope of documentation of Built Heritage by the **National Mission on Monuments and Antiquities** (**NMMA**) has been enhanced by defining any structure that belongs to the **pre-independence period**, and the **year 1950 has been considered as the cut-off date** keeping in view of historical importance.

Antiquity & Art treasure







As per the Antiquities and Art Treasures Act, 1972, the following are the definitions of antiquity and art treasure:

- (a) "antiquity" includes
- i) Any coin, sculpture, painting, epigraph, or artistic/craftsmanship work.
- (ii) Any object detached from a building or cave.
- (iii) Any item reflecting science, art, literature, religion, customs, or politics of bygone eras.
- (iv) Any historically significant object.

- (v) Any item declared an antiquity by the Central Government, existing for at least 100 years.
- (b) any manuscript, record, or other document which is of scientific, historical, literary, or aesthetic value and which has been in existence for not less than seventy-five years;
- (c) "art treasure" means any human work of art, not being an antiquity, declared by the Central Government by notification in the Official Gazette, to be an art treasure for the purposes of this Act having regard to its artistic or aesthetic value.

Digitization Guidelines

To create a national digital database, NMMA has set standards for uniform documentation:

- Photographs of built heritage/sites (from secondary sources) should be in uncompressed TIFF format (300 dpi resolution).
- Antiquities should be photographed in uncompressed TIFF (300 dpi). If taken in NEF/RAW format, they must be converted to TIFF without alterations.
- **Miniature paintings** can be either photographed or scanned in **TIFF** (300 dpi) with a suitable background.
- All documentation should be stored in MS Excel format with separate sheets for each antiquity, heritage site, or built structure.
- **Photographs should be included** in the documentation sheet and also stored separately as master images.

Indian Heritage in Digital Space (IHDS) Research

The IHDS initiative focuses on utilizing modern digital technologies to preserve and share India's heritage beyond mere documentation. It aims to create immersive experiences and analytical tools for scholars and the general public.

Objectives of IHDS:

- 1. Promoting research in digital heritage technologies with an emphasis on Indian cultural assets.
- 2. Developing a crowdsourcing framework to engage the public in building digital heritage collections.
- 3. Establishing a storage, curation, and distribution mechanism for multimedia heritage resources to support interdisciplinary research.

The Role of Digital Technologies in Heritage Preservation

Digital tools such as 3D scanning, virtual reality, computer vision, and artificial intelligence have transformed heritage preservation. These technologies allow for:

- The creation of high-resolution digital archives of manuscripts, monuments, and artifacts.
- Virtual reconstructions of lost or damaged heritage structures.
- Interactive experiences for education and tourism.
- Enhanced research capabilities for historians, architects, and scientists.

Conclusion

The digitization and documentation of India's cultural heritage are crucial for its preservation and accessibility. The **National Mission on Monuments and Antiquities (NMMA)** plays a vital role in this effort by standardizing records, training stakeholders, and promoting public awareness. By leveraging technology and collaboration, NMMA ensures that India's vast heritage is systematically documented, protected, and made available for research and education. A unified and comprehensive database will not only aid in conservation but also strengthen cultural identity for future generations.

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