Conservation of Heritage Sites in India

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Abstract: India is a country with a rich stock of heritage sites. This paper highlights the laws which are responsible for the conservation of heritage sites and monuments. These include those issued by the center and those issued by the different states. Guidelines used to declare a site as a heritage site have also been accentuated. Since India has many monuments and heritage sites, the need to conserve them has become imperative as these buildings carry archaeological, historical and artistic value. To conserve the heritage sites, different techniques are employed under the supervision of dedicated experts. However, the process of conservation and preservation of heritage sites is not just limited to scientific and engineering methods; the social dimension of conservation also needs to be addressed.

Keywords: India, stock, methods; addressed.

I. INTRODUCTION

UNESCO defines cultural heritage as" the legacy of physical artefacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations." Tangible heritage comprises of buildings of historic importance, monuments and artefacts amongst others. India ranks 5th on the list of the highest number of UNESCO World Heritage sites, which is 32. A heritage site is one through which the cultural, social and political history of a place has been preserved.

II. PROTECTION OF HERITAGE SITES IN INDIA

According to the Ancient Monuments and Archaeological Sites and Remains Act 1958, "Ancient Monument means any structure, erection or monument, or any tumulus or place of interment, 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 100 years and includes – remains of an ancient monument, site of an ancient monument, such portion of a land adjoining the ancient monument as may be required for fencing or covering in or otherwise preserving the monument and the means of access to, and convenient inspection or, an ancient monument."The protection of the heritage sites in India is overseen by the Archaeological Survey of India, which functions under the Ministry of Culture. The Ancient Monuments and Archaeological Sites and Remains Act 1958, updated as The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010 provides for the protection of heritage sites, monuments, archaeological sites, sculptures and other objects which have historical value and importance.

The conservation of ancient monuments in India can be traced from the enactment of parliamentary bills which have encapsulated the guidelines to usher in the protection of historically important sites in the country. Table 1 shows the chronology of the laws enacted to protect the cultural heritage of the country from the time of the British to the Republic of India. Apart from the center, various states too have enacted their own laws to protect the cultural heritage of the country. Table 2 depicts the list of the states and their individual laws.

Table1. Chronology of laws for protection of historic and archaeological sites in India

Act	Purpose	Year
Act XX	To protect buildings from any sort of damages, and preserve their historical and architectural value.	1863
The Indian Treasure Trove Act	Protect and preserve archaeological and historically importance treasures found accidently so as to oversee their appropriate disposal.	1878
The Ancient Monuments Preservation Act	Preservation of ancient monuments in order to curb the illegal excavations and traffic of artefacts and antiques which have archaeological, historical and artistic values.	1904
The Antiques Export Control Act	To regulate the export of antiques under a license provided by the government.	1947
The Ancient and Historical Monuments and Archaeological Sites and Remains (Declaration of National Importance) Act	Added more monuments to the list prepared under The Ancient Monuments Preservation Act of 1904 under government protection. Repealed the 1904 act.	1951
The Ancient Monuments and Archaeological Sites and Remains Act	Protection and preservation of historically and archaeologically important sites, regulation of excavations and protection of carvings, sculptures etc.	1958, Amended as The Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act in 2010
The Antiquities and Art Treasures Act	Effectively regulate the movements of antiques and art treasures. Repealed the Antiques Export Control Act of 1947.	1972

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Table 2. State wise chronology of heritage protection acts

Act	State	Year
Victoria Memorial Act	West Bengal	1903
Orissa Ancient Monuments and Preservation Act	Orissa	1956
Assam Ancient Monuments and Archaeological Sites and Remains Act, 1959	Assam	1959
Andhra Pradesh ancient & historical monuments & arch sites & remains rules 1960	Andhra Pradesh	1960
Rajasthan Monuments, Archaeological Sites and Antiquities Act	Rajasthan	1961
Karnataka archaeology monuments sites act 1961 (2)	Karnataka	1961
Assam ancient monuments and records rules 1964	Assam	1964
Punjab ancient & historical monuments and arch sites & remains act 1964	Punjab	1964
The Madhya Pradesh Ancient Monuments and Archaeological Sites and Remains Act	Madhya Pradesh	1964
The Mysore Ancient and Historical Monuments And Archaeological Sites rules 1965	Karnataka	1965
Tamil Nadu Ancient Monuments and Archaeological Sites and Remains Act	Tamil Nadu	1966
Rajasthan monuments arch site & ant Act rules 1968	Rajasthan	1968
Himachal Pradesh Archaeology monuments sites act 1976	Himachal Pradesh	1976
Bihar Ancient Monuments and Archaeological Sites Remains and Art Treasures Act, 1976	Bihar	1976
The Goa, daman and Diu Ancient Monuments and Archaeological Sites and Remains Act, 1978	Goa, Daman & Diu	1978
Arunachal Pradesh Ancient Monuments, Archaeological Sites and Remains Preservation Act, 1990	Arunachal Pradesh	1990
Hampi World Heritage Area Management Authority Act	Karnataka	2002
Delhi Ancient and Historical Monuments and Archaeological Sites and Remains Act	Delhi	2004

III. LISTING BUILDINGS AS HERITAGE SITES

The government and its different bodies which are associated with the conservation of heritage sites must first identify which sites can actually be considered as heritage sites. This is a process which requires combined efforts between the government agencies and the academic fraternity particularly fields like history, archaeology and anthropology. The Central Public Works Department has issued guidelines to determine whether a building can be a heritage site. The department has highlighted three points for the consideration.

Historic Significance: The building under consideration should have a relevant connection with certain events, persons, socio-political happenings and technology of the past. The building should hold artistic, architectural and archaeological importance.

*Historic Integrity***:** The building must have certain characteristics from the time it gained significance preserved.

Historic Context: The building should highlight the evidence of certain historical contexts. It basically should be able to give certain information about the past.

The listing done by the Central Public Works Department happens in two stages, viz,

Background Research: It is vital to gather information about the prospect heritage site before declaring it as one. The background research will help to understand the historical site holistically. The required information can be obtained from libraries, universities, archives, museums and other government publications like gazettes. It is imperative to include experts and scholars in the process so as to get the guidance required to understand the particular site in its various contexts.

Fieldwork: Physically inspection of sites is necessary to generate the reports declaring sites as a place of heritage. To explore the site, maps need to be constructed. Maps available through municipal or other government bodies can also be helpful. Fieldwork can also involve establishing dialogue with the residents of the property, village panchayat members and other locals, through whom more information about the property can be obtained. Inspections can reveal the physical attributes and characteristics of the sites such as architectural style, design, construction period etc. All information collected from the fieldwork.

Needs to be transcribed and photography plays a vital role in helping to document the site.

IV. DETERIORATION OF HERITAGE SITES

There are several factors which lead to the deterioration of heritage sites. It is now a conceived notion that heritage sites must exist permanently and therefore, the decision to protect such sites from detriments is a task which is diligently undertaken. The factors responsible for the deterioration of the heritage sites can be divided into Natural and Anthropogenic causes.
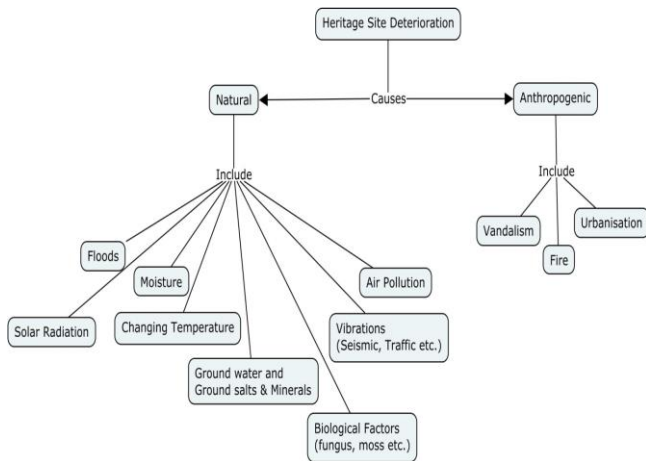
Fig 1. Heritage Site Deterioration

Figure 1 explains the causes of the deterioration of heritage sites. Both natural and anthropogenic causes are responsible for the deterioration. Fire is considered to be a man-made agent of deterioration due to reasons like electric short circuit, improper burning of material etc.

V. NEED FOR CONSERVATION OF HERITAGE SITES

Menon (2014) has identified 6 points to highlight the status of conservation of the heritage sites in the country. These have been summarized below.

1. The national and state level authorities only hold a limited number of heritage sites under their jurisdiction and conservation efforts. Lack of required manpower is a major hindrance to ensure the long-term survival of heritage sites which are under the jurisdiction of the national and state authorities.
2. The private sector in India is involved only in the aesthetic maintenances of the heritage sites. The issue of safety regarding the heritage sites largely lies unaddressed as required engineers are not available to be a part of projects.
3. Conservation and preservation of heritage sites in India requires engineers' inputs from interdisciplinary perspectives.
4. Cohesion of modern engineering methods and traditional engineering methods is lacking. This has been identified as a major hindrance to the conservation efforts.
5. Post-disaster management work of heritage sites is done in terms of general repairs and is usually for specific purposes. Importance should be given to pre-disaster management of the heritage sites.
6. Since India's stock of heritage sites is large, adequate and skilled manpower is lacking to address the conservation issues at hand.

VI. CONSERVATION TECHNOQUES USED

The conservation of heritage monuments is done by the Archaeological Survey of India under the Ministry of Culture. There are two main techniques which are used to restore monuments to their aesthetic, cultural and historic value. These techniques include Structural Conservation and Chemical Preservation.

Structural Conservation: Although the ancient monuments have stood the test of time, not all of them are as strong as they were. Over the course of decades or centuries, the monuments incur significant loss in their structural integrity. Many monuments are often rendered in a weakened state. This may be due to the weakening of the foundation pillars, weakening of columns, ceilings, etc. Vegetation, mostly weed is also found growing over older buildings. Water seepage is another problem which renders older buildings weak. Structural conservation involves making the foundation of the building strong again. Reinforcement work is carried out on foundations to restore the core part of the building. This also helps the monuments to become resistant to natural disaster such as floods and quakes. Repairs are also done on other parts of the building which includes ceilings, walls etc. Removing unnecessary vegetation from the premises also helps to contribute to the aesthetic value of the monument.

Chemical Preservation: Chemical preservation helps to protect the monuments from agents such as organic and inorganic gases like sulphuric acid, nitric acid and carbon monoxide. Chemical preservation also helps to eliminate moss, algae and lichens which grow on the monuments. Wood is cleaned with the help of some pesticides like Xylophene and DDT amongst others. The cleaning of terracotta objects and stone is done with the help of mixtures of mortar, slaked lime and brick dust.

Awareness Programs: The government has understood the criticality of spreading awareness regarding conservation of the different heritage sites in the country, and for this purpose, many events, seminars and workshops are organized pan India, where the knowledge about the ancient monuments, their historical and archaeological importance is shared with the participants to supplement the monuments conservation drive. Some of the actions which are encouraged include preventing the sites from being vandalized. Since the conservation process requires major efforts from experts, government agencies, monetary aid and significant time;

The imperativeness of the conservation process must be communicated to people and thus community participation is encouraged.

VII. CONCLUSION

The first step in conservation projects is to understand what the failures and weaknesses of the buildings are. This helps to create a logistically stratified operation which can further lead to the success of the conservation projects. Efforts should be made to include the maximum number of heritage sites to the list of protected monuments in the country. For this purpose, identification of potential heritage sites needs to be undertaken.

The different agencies involved in the conservation process are lacking the necessary skilled manpower to make the conservation process a success. Efforts should be made to train and recruit suitable personnel required for the job. Since conserving the monuments requires paramount expertise, which can be developed through field experience, newer talent should be encouraged to be a part of the conservation projects.

The awareness programs and drives are supplementary to the structural conservation and chemical preservation of heritage monuments. Serious efforts, resources and time are put into the conservation projects but public role too is vital. Structural and chemical conservation efforts will be rendered void if the monuments are going to lie in vandalized states.

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