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CONSERVATIONAL TECHNIQUES OF CULTURAL HERITAGE USED IN MODERN ERA – JAIVILAS PALACE, GWALIOR (M.P)

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ABSTRACT

The Jaivilas palace, museum was precious heritage we have and the architectural style attracts people because of Italic, Corinthian and Tuscan style. Conservational techniques used in cultural heritage involves protection and restoration it means trying to keep or maintain your property in original condition as long as we can. In architecture the strength of a building is important.

So, the walls and structure of our heritage was stronger than comparing with present time and in future we aim to add more prospective to it.

KEY WORDS- Conservation, Architecture, Factors, Damages, Culture, Heritage.

INTRODUCTION

In recent years, cultural heritage become an increasingly frequent feature– and source–of global friction. An integral dimension of living cultural traditions and a resource for collective memory and community identity, heritage has become a key component of international affairs, as the subject of stewardship, safeguarding, conservation and repatriation. Heritage is at the centre of an array of legal, economic, political, military and humanitarian efforts to manage conflict, often involving contested tangible or intangible property, globally circulating goods and services, or digital content. In the context of its enhanced international profile, more effective collaboration among key stakeholders regularly engaged with cultural heritage conservation is of particular importance.

The **Jai Vilas Mahal**, also known as the **Jai Vilas Palace**, is a 19th century palace in Gwalior,

m.p. India. In 1874 it was established by Scindias, the way they were use too conserve their heritage ,art ,museum show their love for their belongings.

CRITERIA OF LISTING

Historic significance , integrity and context.Historic significance is the importance of a property to the history, architecture, archaeology, engineering or culture of a community, region or nation.

In selecting a building, particular attention should be paid to the following :

- Association with events, activities or patterns
- Association with important persons
- Distinctive physical characteristics of design, construction or form, representing work of a master

The existence of heritage in our environment has indeed provoked the belief that people came from somewhere and this offers the people the self-confidence to face the future.

Heritage largely defines the identity of a society and it is passed down from one generation to another. In order to pass on to future generations what is currently identified as being of cultural significance today, we must imbibe good conservation practices especially for the heritage buildings in order to prevent them from deterioration and extend the life and basic functions of these buildings.

NATURAL FACTORS

- Flood
- Biological Factors
- Moisture
- Rainstorm
- Ground salts and water
- Windstorm
- Air Pollutant
- Solar Radiation
- Temperature
- Vibration

Social Factors: • Fire

Damages Description and Preventive Conservations

Moisture

Moisture is the main agent causes deterioration of heritage buildings. In any for it can be found-solid, liquid or vapour form and in the atmosphere it was commonly found.

Ground salts and water

Decay in porous building materials soluble salts were responsible for that. The nature of salts may not predictable .

Windstorm

Wind causes internal and external damage to the structures and materials by loading. Windstorm damaged roofs as a major threat to structures. Mostly the damage caused by the heavy and strong wind concerned the roof coverage.

Air Pollution

The most destructive forms of air pollution is acid rain . When acid rain falls on heritage buildings on roof , structure or marble, a reaction takes place known as corrosive effects abruptly. They dissolves the material, leading to permanent damage on buildings.

Solar Radiation

When sunlight falls on the surface of buildings and the change of temperature causes damage to the buildings the atomic radiations was not good for stones , paints or the roofs of the buildings.

Vibrations

It surrounds us, for nature provides its own sources such as earthquakes, windstomes and ocean waves. Common sources of vibration (including road

and rail traffic, sonic boom, construction vibrations, blasting and earthquakes).

Transmission:

Waves that made on the source of outward propagate the ground. When rock transmit vibration the amplitudes made and the high frequency of the waves are dangerous for buildings integrity.

Receiver:

When vibrations enter into the building through the foundation, they amplify by factors of propagation.

Seismic Effects on Historic Buildings:

The vulnerability of heritage buildings should not be overlooked when the seismic disturbance occurs.

Fire

Fire is the dangerous factor that affect the heritage buildings. The Uncontrolled fire causes abrupt disturbance and it also can damage the whole building in seconds.

Conservation & Preservation Techniques

Structural Conservation

Chemical Preservation

Cracking - indicates movement within the wall.

Straining - indicates excessive dampness.

Crumbling - indicates moisture penetration due to poor brick or to sand-blasting.

Paint Blistering - indicates moisture trapped behind paint.

Mortar Cracking - indicates cement mortar is too hard and is popping out in freeze-thaw cycles

Cleaning

Cleaning masonry or trying to remove dirt the paint may damage. The masonry have been cleaned or repainted. Cleaning methods include the following:

Water

Cleaning masonry by water was the easiest, simplest and safest way. When water-cleaning, gets that the walls were watertight and mortar and joints are noise, the minimum amount of water is required, and there are 2 to 5 weeks of dry weather before frost. The different techniques are as follows: Hand-scrubbing, Spraying, PressureWashing .

Chemical

Chemicals were basically are used to remove paint. It destroy the surface of masonry. The different cleaners are as follows:

Acid - usually (HFI), is mixed in a maximum concentration of 5%, preferably 1%-3%. Acid should not be used as a cleanser for limestone, marble or sandstone.

Alkali - can be used on acid-sensitive masonry such as limestone, marble and glazed brick.

Paint removers - are often the only means of removing paint. Reaction with the masonry can vary, therefore a test patch should be conducted first

CONCLUSION

The techniques used to prevent heritage buildings and the problems it has to face for survive for longer period. We can use these techniques so that we can make the modern architecture more strength and increase the life of our buildings.