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Conservation of Historical Heritage: The Role of Architectural Strategies

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ABSTRACT

Architectural heritage has been exposed to natural and human factors that have caused a lot of damage.This requires confronting these factors at every level through joint action that includes the preservation and protection of heritage buildings. The challenge of conservation and development is one of ¬the main ¬challengesfacing historical cities , which goes hand in hand with the advancement of conservation knowledge. The expansion of concepts related to it takes on a wider aspect. This research examines the multifaceted approaches and challenges related to maintaining the integrity of historic buildings, sites, and landscapes while adapting to modern needs and sustainable practices. The purpose of this paper is to analyze architectural strategies, providing insight into the delicate balance between conservation and adaptability in heritage conservation. For this purpose, the analytical method of pre- and post-conservation maps was used through photographs to show the effect of performance change on the preservation of the heritage value of the building. The results show that one of the essential parts of the preservation process is the reuse of the building, whereby a real or new function is given to the building to preserve, maintain, and reconfigure it in a way that preserves its originality, composition, and balance without compromising its relationship. Overall, the research concludes that the preservation of the permanence of architectural heritage can be achieved through cooperation between all values , and that the functional value significantly affects the permanence of the heritage monument.

Introduction

Historical heritage is a valuable asset that reflects the rich cultural, social, and architectural history of a region. It provides a sense of identity, connects us to our roots, and serves as a reminder of our past. However , preserving historical heritage poses significant challenges in the face of urbanization and rapid development (Okoli et al 2023). In this article, we will explore the important role of architectural strategies in preserving historical heritage. Preserving historical heritage is crucial in maintaining our connection to the past, enriching cultural heritage, and fostering a sense of national identity. With the various tools available to accomplish this task, architectural strategies play a vital role in preserving and preserving historical structures for future generations. The interplay between architecture, heritage, and historic preservation, It reveals a formal responsibility to preserve and preserve the intrinsic values that encompass our built heritage.

The importance of architectural conservation is growing, especially in modern times, where it is considered a scientific discipline (Elborombaly 2006, pp. 12-17). As the tradition of architecture is passed down through generations, it provides positive components for imagination and induction in new building and construction projects. Preservation, as Phil Wilden defines, is a struggle against decay and decay. The destruction of structures or infrastructure for a variety of reasons, usually caused by the people themselves (Bernard 2003). While the human race is part of construction, it is also the main cause of destruction for many reasons, the most important of which is negligence due to lack of awareness and interest in heritage. In addition, SunPass defines architectural preservation as the preservation of buildings and buildings and preventing them from collapsing if they are not repaired, as well as servicing parts that have been damaged in the past. It reached a more comprehensive level, it was meant as urban conservation, which is defined as the process of planning, preserving and increasing the value of a set of buildings and historical or architecturally important monuments and sites.

One of the primary functions of architectural strategies in the protection of historical heritage is to ensure the physical integrity of structures. Over time, monuments and monuments undergo natural deterioration, weathering, and industrial pollution. Architectural interventions are designed to reduce these adverse effects and protect the structural integrity of historic sites (Pfäffinger 2021). Conservation experts employ meticulous restoration techniques using traditional craftsmanship, materials, and advanced technologies to restore and stabilize iconic monuments. This approach ensures the survival of historic structures while preserving their original originality and charm. In addition, architectural strategies create a harmonious dialogue between the past and the present. Historic buildings often coexist with contemporary urban environments that require the thoughtful integration of architectural elements. The conservation process involves the use of adaptive reuse methods, in which structures They are historically repurposed for modern performances while respecting their protagonist. By skillfully integrating new design elements, architects strike a balance between preserving historical heritage and meeting the function of the present, resulting in an integrated aesthetic composition that respects the passage of time. In addition, architectural strategies contribute to sustainable development and environmental protection. Historians, often designed with features that promote natural ventilation and the consistent use of the surrounding elements, have intrinsically eco-friendly characteristics. Architects apply sustainable design principles throughout reconstruction, integrating energy-efficient systems, renewable materials, and green technologies. By transforming historic structures into a showcase for sustainable architecture, these strategies work not only to preserve our heritage but also to inspire environmentally conscious practices for future generations (Angela Moraru 2021, pp 1-9).

Architectural strategies play an important role in preserving historical heritage by ensuring the protection, restoration, and sustainable use of historic buildings, grounds, and landscapes. Here are some of the key roles of architectural strategies in heritage conservation:

Documentation and Research: Architectural strategies involve documenting and thoroughly researching historic

structures and sites. This process involves recording architectural details, historical significance, materials used, construction techniques, and any changes or additions over time. This information helps to understand the value of heritage and informs future efforts to preserve it.

Conservation and restoration: Architectural strategies deal with the conservation and restoration of historic buildings and structures. They aim to preserve the original texture and historical character while addressing any damage, damage, or structural issues. These strategies often involve careful skills, the use of the right materials, and adherence to conservation principles to maintain authenticity.

Adaptive reuse: Adaptive reuse is an architectural strategy that involves repurposing historic buildings for modern use while maintaining their architectural and historical integrity. Architectural strategies ensure the continuous relevance and economic viability of heritage structures by adapting buildings to new functions, such as converting an old factory into a museum ora historic home into a boutique hotel.

Restoration and Retrofitting: Architectural strategies consider the restoration and retrofitting of monuments to meet contemporary standards of safety, accessibility, and sustainability. This involves integrating modern technologies and systems, such as seismic retrofits, energy-efficient upgrades, and accessibility features, while respecting heritage values and minimizing the impact on the original texture.

Planning and Design Guidelines: Architectural strategies help develop planning and design guidelines for heritage areas. These guidelines provide frameworks and standards for construction, renovation, and interventions in the historical context. They help maintain the visual harmony, scale, and consistency of materials, ensuring that new developments respect and enhance the existing heritage texture They do.

Public Engagement and Education: Architectural strategies facilitate public participation and education to raise awareness about historical heritage. They include community engagement, educational programs, and interpretive displays to foster the appreciation, understanding, and stewardship of heritage buildings and sites .

Sustainability and Environmental Considerations: Architectural strategies integrate sustainability principles into heritage conservation. They promote energy efficiency, the integration of renewable energy, water conservation, and environmentally sensitive practices. By adopting sustainable strategies, historic buildings can reduce their environmental impact while maintaining their cultural significance.

Overall, architectural strategies provide a holistic approach to preserving historical heritage, taking into account cultural, aesthetic, social, economic, and environmental dimensions . They help ensure that our built heritage exists and is relevant for future generations. The purpose of this study is therefore to help understand architectural strategies in the preservation of historical heritage. By reviewing successful case studies, identifying challenges, and making recommendations, it seeks to provide a comprehensive framework for architects, conservationists, policymakers, and stakeholders involved in the preservation of our valuable historical heritage. Through the integration of conservation and adaptation, architectural strategies can ensure the sustainable preservation of historic buildings, sites, and landscapes for future generations to enjoy them (Gad Al Rab Abdo Madkour 2019, pp 8-18).

- **Heritage building (with a distinctive architectural style)**

A heritage building is a building or facility of historical, symbolic, aesthetic, architectural, urban, or social value. It is agreed that buildings, heritage installations, or a privileged architectural style should be characterized by:

- Community Acceptance: Gaining community acceptance and positive interaction so that it can continue.
- Cultural and Social Phenomenon: An expression of physical, intellectual, or moral phenomena at a particular time.

- Continuity: Its current state allows its survival and the opportunity to confront it.

Before embarking on a conservation project, it is important to know what needs to be achieved, then come up with a strategy. The goal can be as simple as preserving a structure or just as complex as displaying it in its entirety, along with its documentation and historical context for educational and artistic purposes. This will include assessing the core values of the structure.

Since the main objective of the renovation of heritage buildings is to restore a property to its original state of function through repair or alteration while preserving historical, architectural and cultural features. This can be done by carefully considering factors such as minimizing changes in the building's defining features, differentiating the new from the old while maintaining architectural integrity, and preserving the essential character of the monument even if new additions are removed in the future (Bernard 2003).

- **Approach to the conservation process**

Buildings deteriorate over time due to various factors such as aging, weathering, and use deterioration. As the extent of a building's wear and tear is determined by construction, materials, and service, repair approaches may change depending on the culture and technology of the building. The main goal of restoration and conservation of heritage buildings that are comparable around the world is to preserve and preserve the original builder's works for current and future generations.

It is very important to identify the architectural style of the existing building, whether the project requires remodeling, restoration, addition, remodeling, or simply changing the materials. The character of a building is characterized by its features and details. Roofs, overhangs, doors, porches, windows, railings, artwork, and decorations are all examples of such elements. These elements should be considered as the transformation of buildings due to new uses and ownership because they can be an essential part of the historical character of the building.

International organizations and conservation experts emphasize the fundamental importance of documentation for the identification, protection, and management of cultural heritage (Orbasli 2011). Thorough documentation is the first step to preserving buildings and structures of architectural or historical value (Al-Qais 2011, pp 89-90). Middle Eastern governments often face enormous challenges related to the projected goals to protect their respective natural and cultural heritage. Political instability, socio-economic transformations, and overall global changes are putting pressure on the region's ability to invest in funds to protect and preserve heritage sites in the region for future generations.

- **International Conventions and Agreements on the Preservation of Architectural Heritage**

At the international level, there is agreement on the status of continuity in heritage content because of its important necessity in the sustainability of societies. Therefore, firstly, it is necessary to identify the technical resources mentioned in defining and codifying the foundations of heritage and the need for preservation, which are often "charters, conventions, and laws".

Then, the development of concepts, theories and objectives related to heritage conservation in accordance with the most famous international conventions and agreements in parallel with the historical sequence of their publication is discussed in order to arrive at a new perspective on the concept of heritage protection in the 21st century (Shaheen 2002).

Table 1: The most important objectives and resolutions adopted by international charters and conventions related to the preservation of architectural heritage.

International Conventions and Agreements	Goals and decisions regarding the preservation of architectural heritage
Athens Charter of 1931	All disciplines must be involved in the preservation of architectural history.
Charter of the United Nations, 1945	Supporting international cooperation in the protection of heritage.
The Hague Convention of 1954	Great interest in architectural, artistic, historical, and religious monuments and works of art
Venice Charter of 1964	Preserving the Archaeological Character of Buildings and What Exists Inside Them

Italian Charter for Restoration, 1974	Note that all works of art from any period have been holistic
The 1972 Paris Convention	Conservation of cultural and natural heritage as significant archaeological architectural monuments.
European Charter for the Architectural Heritage of 1975	The importance of transmitting the architectural heritage to future generations in its initial state

Different perspectives on the conservation and restoration of heritage monuments have emerged throughout history. However, most theories emphasize the preservation of a heritage monument with minimal intervention when necessary (Bernard 2003). The main purpose of each of the conventions and agreements is to become a mandatory program for application in the signatory countries, i.e., those international conventions become laws within those countries.

With a brief overview of the most important objectives affirmed in international charters and agreements on heritage, a clear evolution in the concept of World Heritage is evident, beginning with the characters of the heritage and all its cultural, aesthetic and social values. However, it should be made clear that these international conventions represent the theoretical aspects that need to be applied and through which they can be appliedTo be able to find solutions to the problems facing the heritage while highlighting the goals and decisions related to the conservation of architecture.

- **Value Assessment**

All actions related to architectural heritage require a value assessment. As Fielden points out, the first step is to describe the purpose of the conservation project (Al-Qais 2011, pp 89-90). The next step is to determine the "values" in the object, monument, or place that constitutes the cultural asset in question, and prioritize these values. The main messages of the object will be respected and preserved to this extent. Values are divided into three categories: "emotional," "cultural," and "use" values (Bernard 2003).

Functional value is crucial when considering a building repair or renovation, especially for newer structures. Building surveyors can make a significant contribution to this field.

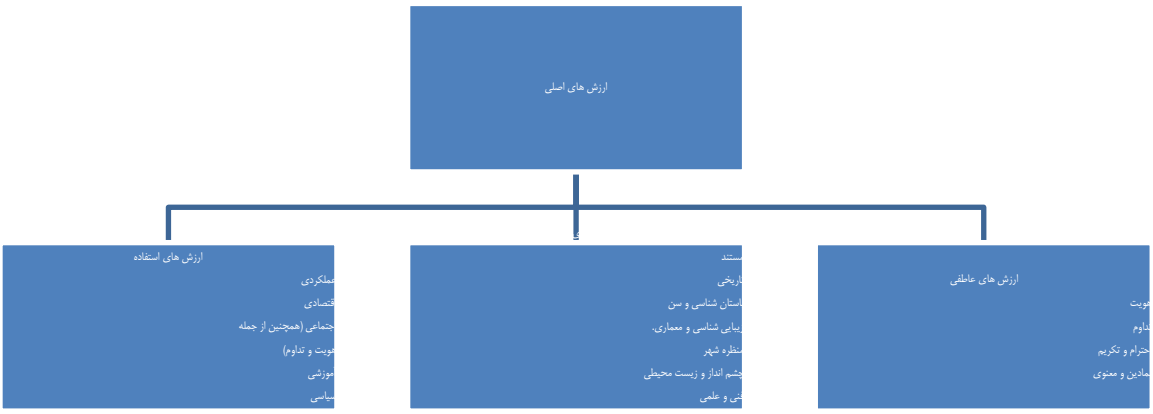


Figure 1: Core and subsidiary values and resolutions endorsed by international charters and conventions related to the preservation of architectural heritage (Source: Researchers based on (Bernard 2003)).

1- Research Methodology

The research method is based on a deductive-analytical study to understand the principles and

concepts involved in the preservation of heritage environments and the role of architectural strategies in them. The disciplinary area of interest is historical heritage, for this reason, content-based analysis was used and previous case studies conducted in the subject by different authors were reviewed.

A) Case Study:

Previous researchers have used the induction method for three different types of heritage buildings using an analytical approach that includes graphical analysis. The method of analysis is to detect the value of the function based on the changes in case studies.

After discussing the theoretical steps of preserving architectural buildings, a practical study is carried out. Three heritage protected buildings have been selected as case studies. The criteria are based on a comprehensive variety of functional changes (same function, slight change in function, different performance). They were designed by the same architects (Foster and partners), renovated on the same scale and in the same time period. Analysis of each case study with general information on The building case, brief history, and dates related to construction and renovation begins. In addition, the strengths and weaknesses of the projects are highlighted. The examples are as follows:

- Reichstag Building / New German Parliament
- British Museum
- Anambra Verses

1) Reichstag Building / New German Parliament

Between 1884 and 1894 the Reichstag was built. During the time of the German Empire and the Weimar Republic, it was the seat of the parliament. The structure was severely destroyed during World War II. It has been repaired and rebuilt since 1994. The Reichstag now serves as the seat of the German Federal Parliament (Schulz 2000).

The physical characteristics of a building reflect its historical character (i.e., shapes , forms, materials, colors, size, height, ambience, etc.). The mass of historic buildings usually changes with new additions. As a result, the old and the new must go hand in hand. One of the techniques for preserving historical character is to move the new addition back from the front wall screen to make the non-historical aspect less visible.

The creation of the new German parliament by the Reichstag was merely the last chapter in the building's long, complex and controversial history. It is neither entirely new nor merely a restored monument. It is a combination of old and new. The priority of the work was linked to three main principles: in terms of its construction, its transformation to meet the demands of a functioning modern parliament, second, taking into account historical links, And third, it was eco-friendly design. . The first principle related to the client's functional needs is the German Bundestag (Figure 2).

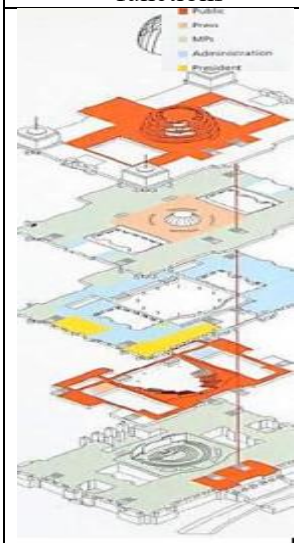
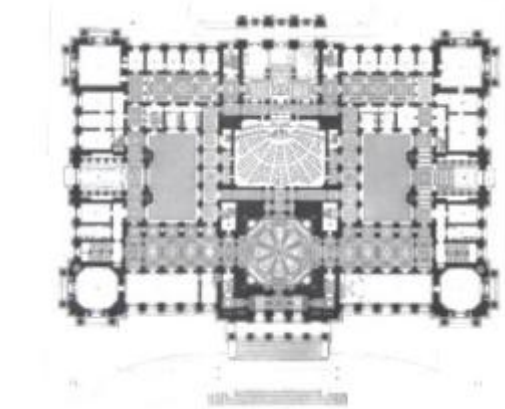
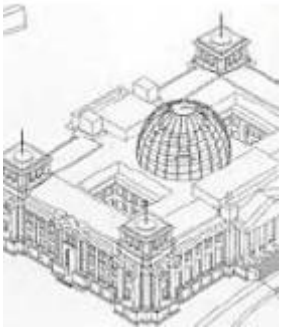
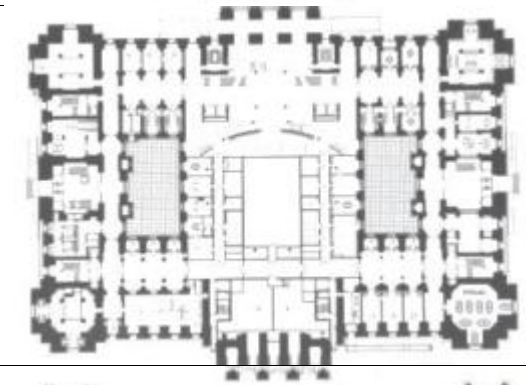
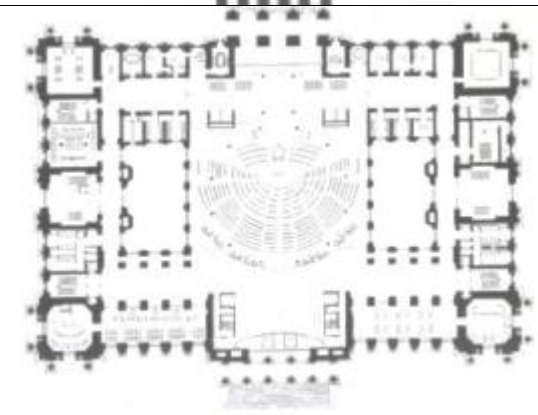
A distribution of functions	Plans	Years
		1894
		1971
		1999

Figure 2: Details of the architecture and function of the Reichstag/New German Parliament building (Schulz 2000).

2) British Museum

The British Museum was founded in 1753 and first opened to the public in 1759. It was the world's first national museum to encompass all branches of human knowledge and welcomed visitors from all over the world. It was built in 1852 using cutting-edge technology, including concrete floors, a cast iron frame filled with London brick, and Portland stone in the front layer of the building (Foster 2001).

Designers often use techniques such as replicating historical features and using similar materials and colors for new additions. However, if there is no visual contrast between what is old and what is today, imitating a style and designing a complete architecture will not maintain historical relevance and integrity.

The redesign of the Grand Palace allowed for a re-viewing of the previously hidden area and made it accessible to the public, as well as two new exhibition spaces. (Table 2 and Figure 3).

Table 2 - British Museum

Later	Ago	Settings

Foster & Partners	Sir Robert Smirk	Architect
92000	75000	Floor Area(m2)
National Museum & Library	Museum of Natural History	Current Use
Magnificent glass + maternal ceiling	Concrete+Cast Iron Brick	Materials

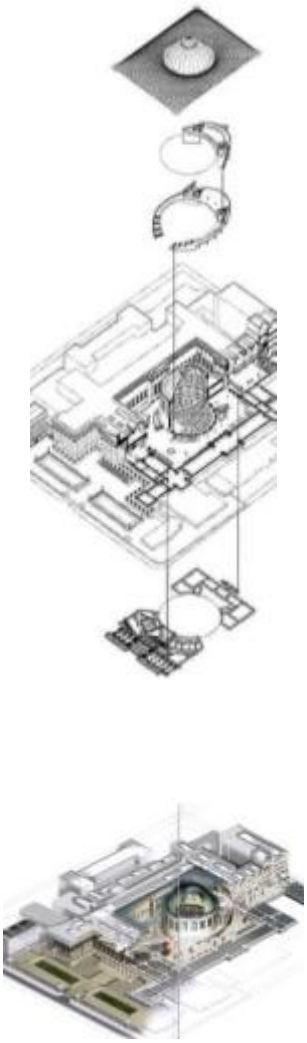
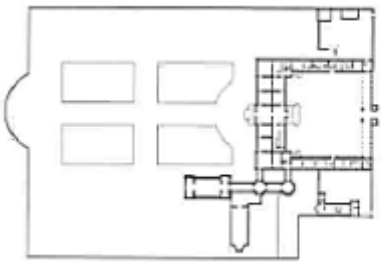
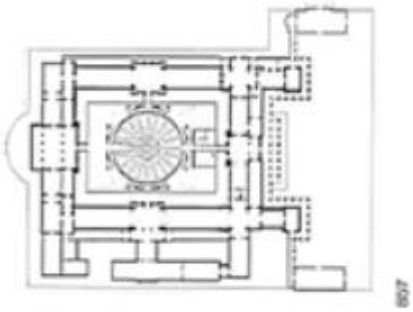
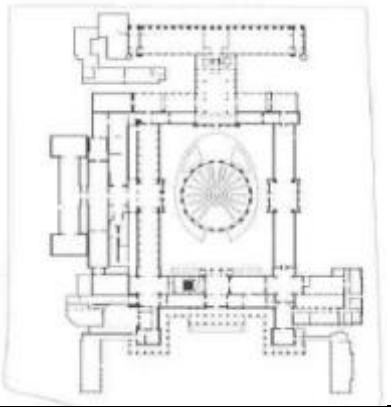
A distribution of functions	Plans	Years
		1753
		1857
		2000

Figure 3 - Building Performance Details of the British Museum (Foster 2001).

3) Anambra State:

Anambra State has several buildings and structures with a great historical heritage, the preservation of such historical facilities is of utmost importance for the perpetuation of his historical heritage for future generations to appreciate and enjoy. Some of the historical heritage of the Anambra people and culture before the evolution of civilization can be seen below and as

such must be preserved with the utmost essence (Figures 4 and 5).

Figure 4 - Historical Space. Herbert M. Cole 1973

Figure 5- The Impact of Protecting Historical Heritage Source: google.com

2- Results & Discussion

The results of the case studies showed:

- It is possible to achieve the suitability of the new use of buildings and the needs and requirements of that function .
- A new function can add new values, such as political, historical, or social, that must meet the demands of the new building.
- The ratio of the rotating elements changes with the expansion of the building (vertical or horizontal), which is one of the critical elements for the building's efficiency.
- Buildings that exhibit a high level of durability have responded strongly to new demands in terms of environmental, historical, and modern functions.
- Some materials, such as stainless steel and glass, will increase the durability and then durability of the building's value.

- As long as the building responds to the new functional and environmental needs, the amount of parts added or removed will not have much of an impact.

In the case of adding or removing an element or redesigning the main element in a way that is consistent with the content, texture and heritage concept of the building, all formal aspects of the building should be studied. This will help to establish a seamless relationship between the historical events of the building and to the extent possible from the introduction Other elements help because they affect the value of the building's original heritage. The durability of a monument depends on the extent to which it can meet the current and future needs of the community, maintain the balance of form and value system in the urban landscape, and improve its ability to achieve economic and environmental success through the occupation of buildings (Shaheen 2002).

The process of preserving buildings with architectural heritage continues to depend on documentation and rigorous registration processes based on all international schools and charters, and without them, preservation is somewhat distorted, both conceptually and practically. As in the process of preserving heritage monuments, we focus on preserving and using them in a way that enhances the value of heritage through appropriate use and at the same time that the value of heritage is enhanced. It does not diminish, it retains its original architectural characteristics.

As for the function of the building, its importance in the preservation of heritage buildings is the importance of restoration, registration and maintenance, and this should be examined for each building separately and according to its current situation.

It is clear that there are different perspectives on the adaptive reuse of heritage buildings, whether by maintaining the same function of the building, making minor changes, or having a different function, however the scope of conservation should be at a holistic level, not at a level. Only a precise level, as its success depends on its ability to meet the current and future needs of the community and its ability to continue to occupy the building functionally.

As a result, architectural strategies play an important role in preserving historical heritage. Their significant contribution includes preserving physical integrity, creating a harmonious relationship between the past and present, public education, and promoting sustainable development. By recognizing and implementing these strategies, we can ensure the permanence of our historical heritage , thereby enriching our cultural heritage and fostering a collective understanding of the importance of our built environments.

Preserving historical heritage through architectural strategies requires a forward-looking approach that takes into account the evolving needs of society while protecting the authenticity and importance of cultural assets. Here are some upcoming recommendations for effective preservation of historical heritage:

1) Adaptive Reuse and Sustainable Design: Adopt adaptive reuse practices that repurpose historic buildings for sustainable uses, such as converting old factories into green spaces or incorporating renewable energy systems into heritage structures. This approach ensures the long-term sustainability of historic sites while reducing their environmental impact.
2) Technology Integration : Use digital technologies, such as 3D scanning, virtual and augmented reality, and digital mapping to promote the protection and documentation of historical heritage.This allows for detailed digital reconstruction, virtual tours, and immersive experiences that educate and engage visitors.
3) Community Engagement and Participatory Design: The participation of local communities and stakeholders in planning and decision-making processes related to heritage conservation. Active participation, ideas and their cultural contributions to create a sense of ownership and promote sustainable heritage management.
4) Disaster preparedness: Implement measures to protect historic assets from natural disasters, the impacts of climate change, and other potential threats. This includes

adaptation strategies, such as flood-resistant design, fire protection, and climate-responsive systems.

5) Conservation and Conservation Plans: Develop comprehensive conservation and conservation plans that outline regular inspections, conservation plans, and conservation interventions. This ensures continuous monitoring and timely interventions to address any deterioration and mitigate the risks of heritage structures.
6) Education and awareness programs: Implementing educational programs and awareness campaigns to engage the public, raise awareness about the importance of historical heritage, and promote responsible heritage tourism.This fosters a sense of stewardship and encourages sustainable practices among visitors and the local community
7) Collaboration and Partnership: Foster collaboration between architectural professionals, cultural heritage organizations, government agencies, and local communities. Strengthen partnerships to share knowledge, expertise, and resources, and promote collective responsibility in preserving historical heritage.
8) Funding and incentives: Support increased funding and incentives for historic heritage conservation projects. This can include grants, tax incentives, and public-private partnerships to support the financial sustainability of heritage conservation efforts.
9) Conservation Law and Policy: Support strong laws and policy frameworks that prioritize and protect historic heritage. Develop clear guidelines and standards for the conservation, adaptive reuse, and maintenance of historic buildings and sites.
10) International Cooperation: Strengthen international cooperation, knowledge exchange, and capacity-building initiatives to learn from successful heritage conservation strategies around the world . Participate in joint efforts to leverage global expertise and resources to preserve historical heritage.

3- Conclusions and Suggestions

Therefore, according to the strategies based on this research, we suggest that for the restoration of historical monuments, it should be noted that the form, shape and main material of the building should be preserved and the least interventions in the building should be done under the supervision of a specialized team of architects, archaeologists, building experts, mechanics and electricians, experts in the field of conservation, and before starting the conservation process, all design values should be thoroughly reviewed and analyzed.

By adopting these future recommendations, architectural strategies can effectively preserve historical heritage while ensuring its relevance, longevity, and cultural significance for future generations.

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