ADAPTIVE REUSE OF NOOR MAHAL PALACE AT BAHAWALPUR: A CASE STUDY OF BALTIT FORT, GILGIT BALTISTAN, PAKISTAN

Jam Ayaz Mahmood[1], Dr. Saima Gulzar[2], Iftikhar Ali*[3], Nida Rehman[4], Mir Wali Shah[5]

Original Article

1. Associate Professor, Department of Architecture, The Islamia University of Bahawalpur, Bahawalpur.

2. Professor, School of Architecture and Planning, Lahore-Pakistan

3. Assistant Professor, Department of Architecture, Hazara University, Mansehra
*Corresponding Author Email: arch.iftikharali@hu.edu.pk

4. Lecturer, Department of Architecture, The Islamia University of Bahawalpur, Bahawalpur.

5. Assistant Professor, Department of Architecture, Hazara University, Mansehra

Abstract

Adaptive reuse of historical buildings is a common practice on a global scale for the preservation and survival of architectural heritage. Several historical buildings in Pakistan are being used for purposes other than those for which they were built. Bahawalpur City is known as the city of palaces because it is the custodian of the region's rich architectural heritage. These palaces are losing their identity and aesthetic sense due to a lack of proper repair and maintenance, except for those that are used for non-residential purposes other than residence and are in good condition with visitor appeal.The concept of this paper is based on an investigation into the practical viability of the Noor Mahal Palace in Bahawalpur after restoration and adaptive reuse. With the timeless history, architecture, and distinctive features of the interior built environment of the State Era, palaces, serve as an ideal aspiration for conservation and adaptive reuse in recent times. A case study was used as a methodology to obtain results, such as the Baltit Fort in Hunza, Gilgit Baltistan, which was restored and repurposed as a museum. The findings show that adaptive reuse is essential for improving quality, applying sustainability principles, renewing the old resource with future demands, and extending the age of a building, in addition to offering a safe and healthy environment and economic benefits. In the end, the study offers a theoretical research outline that can be used to guide decision-making for restoration and adaptive reuse projects. It also makes recommendations for significant implications for the relevant authorities.

Keywords: Adaptive-Reuse, Noor Mahal Palace, Baltit Fort, Bahawalpur City

Introduction

Adaptive Reuse of Heritage Buildings

Historically important and cultural heritage monuments serve as a point of identification for the community, establishing a sense of security and influencing social features. For reason, it is vital to make attempts to maintain meaningful stuff in the city to protect its distinctive features and to enhance the local community. Retrofitting of architectural heritage is important because it allows for the protection of significant architectural substance to the local community. The potential to contribute to the restructuring of a city's image and identity through the additional function of

architectural legacy is not just a key stimulus for the tangible regeneration of urban tissue. These are still critical features of a city's history, but their importance can be recreated and displayed in a contemporary way that is relevant to today's viewers. As a result, historical building acquires new expression and have a look at both contemporary and modem architectural values.

Significance of Adaptive Reuse of Heritage Buildings:

The idea that architectural heritage should not be considered a static piece of art, but can be reused by changing the original function of the buildings, gained traction in cultural heritage publications in the late twentieth and early twenty-first centuries (Unesco, 1976). Architectural heritage buildings have complex social and political values, which have been obvious since the 1970s, and played a significant effect (ICOMOS, 1999; ICOMOS, 2013; Declaration, 2008; Ahmad, 2006; The Venice Charter, 1964). This is related to the growing significance of intangible legacy assets, which are strongly linked to social, political, and cultural considerations (Mason, 2002; Sowińska-Heim, 2018). Changing importance from the importance of a building's substance standards to the attributes associated with an ordinary person, their interpretation of culture and heritage, and formed connections and interactions, requires a fundamental shift in thinking, the validation criteria also provide a holistic scope of architectural heritage preservation and other social factors (Committee, 2003). At all times, a historic structure's narrow location and civilizing relevance must be considered (Plevoets, 2019; Stone, 2004).

Historical Background of Noor Mahal Palace:

In Bahawalpur, Pakistan, the Noor Mahal is a palace. It was erected in 1872 in the style of an Italian chateau on neoclassical lines, just as modernity was taking hold (blog, 2022). During the British Raj, it belonged to the Nawab of the Bahawalpur princely state. There are several versions of how it was built. According to folklore, Nawab Sadiq Muhammad Khan IV had the palace built for his wife, but she only stayed for a night since she saw the surrounding burial ground from a terrace and refused to spend another night there, hence it stays unoccupied during his reign.

Figure: 01 View of Noor Mahal

The Noor Mahal is one of the most recent monuments in Punjab to be designated as an antique site. It was erected for Nawab Sir Muhammad Sadiq's house. He did not live in the palace, however, because the royals preferred not to live near a graveyard (the Basti Muluk Shah Graveyard was only a few meters away).

Later, the palace was converted into a state guest home. The Nawab also convened cabinet sessions in Noor Mahal on occasion throughout his reign. During battles, the palace was sometimes utilized as the State Court, with the Nawab addressing his courtiers and the troops. Noor Mehal is one of Bahawalpur's hidden beauties, as few people are aware of it. The palace is accessible to the public. It is currently in the army's ownership and serves as a state guest house as well as a venue for state durbars and meetings with foreign

Figure: 02 View of Noor Mahal

delegations (Ali, 2020).

Architectural Significance of Noor Mahal Palace:

Nawab Subah Sadiq the fourth, popularly known as the Shan Jahan of Bahawalpur for his love of building magnificent structures, oversaw the construction of Noor palace. The structure was created by Mr. Hennan, an Englishman who served as the state engineer. In 1872, the foundation of Noor Palace was laid. As a good omen, a map and state coins were buried in the foundation. Most of the materials and furniture in the palace were brought from England and Italy. The palace, which cost Rs. 1.2 million to build, was completed in 1875. Noor Palace is 44,600 square feet in size (4,140 m2). It includes 32 rooms, 14 of which are in the basement, as well as six verandas and five domes (Zaidi, 2020).

The design incorporates elements of the Corinthian and Islamic architectural traditions, as well as a touch of the subcontinental style. The columns, balustrade, pediments, and vaulted ceiling of Durbar Hall have a Corinthian feel to them. The five domes have an Islamic style, whereas the angular elliptical shapes have a subcontinental flair. In 1906, Nawab Muhammad Behawal Khan the fifth spent Rs. 20,000 to erect a mosque in the palace. The design is inspired by Aitchison College's Mosque. The structure was taken over by the Auqaf department when Bahawalpur State was integrated into Pakistan in 1956. The palace was leased to the army in 1971, and the army bought it for 119 million dollars in 1997. The bulding was designated a "protected monument" by Pakistan's Department of Archeology in September 2001, and it is now open to general tourists, student visits, and other interested parties. The palace is noted for its colorful, magnificent exterior composed of cut and dressed bricks, which distinguishes it as a one-of-a-kind historical structure. The usage of five domes created in the traditional form distinguishes Noor Mahal's architecture. The palace has boosted Bahawalpur's reputation among tourists, who go to the site every day to catch sight of the vintage wonder.

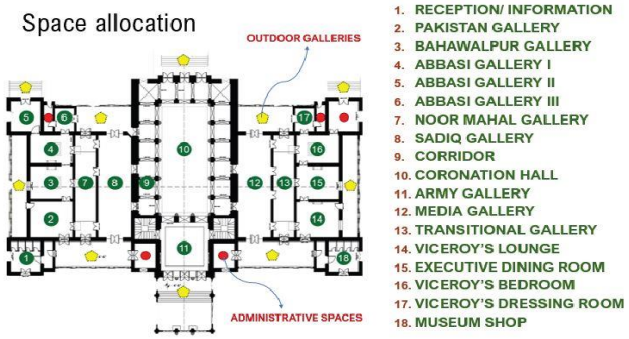

Figure: 03 Floor Plan
Source: (RIAZ, 2021)

The Noor Mahal was constructed as a large garden with a water tank and fountains. When the palace was finished, large carpets and paintings by western artists were used to embellish it. The two-story mansion featured foreign furnishings and fixtures such as chandeliers and closets, as well as a large collection of guns in its armory. Inside the palace, certain swords and muskets are on display as part of the Mughal tradition.

Literature Review:

Adaptive Reuse in historical conservation does not always imply a change in a building's function. Adaptation, according to the Burra Charter, implies modifying a location to suit an existing or intended usage (Sowińska-Heim, 2018). At the same time, it is stated that such alterations should only be permitted if they have a minimal influence on the location's cultural relevance. Although not focused

Figure: 04 Interior View

exclusively on the transformation, the Venice Charter (1964), which indicates that the purpose of heritage mainly depends on social value (Committee, 2003) promotes the preservation of a building structure that does not that change the layout of the building design. In the context of the difficulties described above, the 1976 Recommendation Concerning the Safeguarding and Contemporary Role of Historic Areas offers an intriguing point of view (Warsaw-Nairobi) (Declaration, 2008). Both preservation of historic places and their incorporation into current social life are key parts of town and land development, according to this text. Such regions should be treated from the viewpoints of both significant historical and social testimonies as well as the everyday surroundings, which add a humanistic dimension to them. Later sources describe similar concepts in the 1985 Convention for the Protection of Europe's Architectural Heritage proclaimed sustain the adaptation of "Ancient Buildings to New Purposes" and the usage of heritage properties under the Ordinance Act (ICOMOS, 2011). Under the Act, if we are reusing the heritage building for another purpose. It can only be done by not disturbing the architectural, cultural, and historical integrity of the building and place. The 1987 ICOMOS Charter for the Conservation of Historic Towns and Urban Areas emphasizes to protecting old towns and places entails taking the steps necessary for the protection and the development of contemporary life (ICOMOS, 2010). This Charter contains a section with the purpose to indicates that introducing modern architectural elements or objects may potentially enrich it, as long as they do not compromise "The Integrity of Its Structural Harmony."

Figure: 05 Interior View

Figure: 06 Interior Ceiling View

The Valletta Principles for the Safeguarding and Management of Historic Cities, Towns, and Urban Areas, published in 2011, supported these beliefs. Functional changes, on the other hand, are identified as a significant threat in the document. Surprisingly, these are viewed as mostly linked to intangible asset modifications, rather than prospective interventions in the material architectural issues. The elimination of local traditions and practices may arise from the exodus of indigenous peoples, eroding a place's original character and, potentially, its identity. The new function of the building should be harmonious with the original function in the adaptive reuse of any building or space, as stated in the 2010 Charter for the Conservation of Places of Cultural Heritage Value among other things (ICOMOS, 2010). The documents described above expand and broaden the Venice Charter's approach to adaptation, focusing on intellectual and community standards but they do not always make it more accurate always.

Research Methodology: Baltit Fort, Hunza as a Case Study

Physical context and description of Baltit Fort:

The Baltit Fort of Karim Abad is in the Hunza Valley, a rural region in Pakistan's Northern Areas near the Chinese border. The Baltit Fort began as a private residence that evolved into a collection of narrow houses with limited inner pathways and low doorways, following the typology of local

residential construction. Each house contained a main room which was seven meters square and used for family living. The men's side was on one side and the women's side was on the other. The back was set off for cooking, and there was a designated place for guests. There was an area designated for animals' protection and grain storage space. In most cases fireplace was positioned in the center of the room. The hole in the roof structure was created for a small amount of natural light and a device consisting of a sophisticated wooden frame was organized to give the room a central dome on the inside as well as a drainage slope on the outside. The number of apertures and their size were controlled for both climatic protection against the cold and strong winds as well as anti-seismic reasons. It was distinguished from other houses only by its size of 1,000 square meters and aesthetic embellishments.

The main west elevation is two and three stories tall, with cantilevered timber at the roof level. The east elevation is mostly one storey, although the southwest-corner tower is four floors. Internally, there are 35 chambers connected by a maze of low passage ways at various levels, reflecting the Fort's numerous periods of construction. The Fort was organized on the left side accordingly well-ordered room array with new rooms added for new functions. The oldest rooms on the ground level, such as the quarters of the queen, storage rooms, prison, and kitchen, depict a traditional way of life. The royal family had more pleasant living quarters on the first and second floors, which were superior, had enhanced lighting, and had extra amenities. Summer was the most popular time to use these rooms. In the winter, the residents retreated to the lower levels, where the rooms were darker but warmer. The west façade was changed in the 19th century by the building of an outer layer to improve the fort's exterior military aspect and to establish unique guardrooms within the wall structure for protection around the lone entrance door. The building was updated, and its defensive role was modified in the early twentieth century with the installation of timber verandahs, greeting halls, and guestrooms, all designed to take advantage of stunning surroundings.

Structures, Materials, Technology, Construction, and Current State:

A pegged timber frame serves as the primary structural feature. Longitudinal squared timber tie beams run the length of the wall face, both inside and out. Scarf-jointed timber is used where it does not span the needed length and is designed to withstand tensile strains.

Timber cribbage work can be found at corner locations and where internal cross walls form a "T" junction with the exterior wall. Square timbers are pegged together and erected as columns up the full height of the wall. Soil and small stone are carelessly deposited in as stiff slurry from a higher point in the wall to fill the inside of the timber frame. The wall faces are built in random stonework and solid brickwork in between the longitudinal timbers, both externally and internally, using a soil mortar. Seismic hazards are inextricably linked to timber construction. Its principal benefit is that it allows a wall to endure tensional stresses both in the plane of the wall and across it. It's also a great solution for allowing large vertical differential motions in materials that are generally only able to withstand compression loads.

In addition, most of the rooms were built as single-story constructions. The lower walls and foundations had been overburdened by the second and third-story expansions. This was done without always considering the basement rooms' structural framework. The upper-level walls, for example, were misaligned to the lower-level walls. While this contributed to the creation of larger chambers in which important international guests could be welcomed and entertained, it also resulted in structural deformations.

Some of the sections have used soil brick infill as a replacement in the north and rear elevations. Because the bricks were mostly found in open areas, they severely deteriorated. The materials had fallen out of the panels in several places. All the soil mortars had deteriorated and were frequently missing.

Discussion and Conclusions

The process of relating the adaptative reuse of heritage buildings might be viewed as complying with existing inclinations such as sustainable development principles and the development of cities that are pleasant to people and ecosystems, with equal attention on the reuse of already developed areas. The economic restoration of the area is a desirable experience associated with the adaptive reuse practice of old buildings. The capacity of heritage conservation has been expanded to include culturally and socially significant structures and architectural areas as well as facts of great worldwide historical, aesthetic, or scientific worth or a sizeable age. As a result, excluding all protected cultural buildings and sites from daily city life would result in a form of a central hub of huge cities. Adaptive reuse of heritage buildings like palaces suits well with the revitalization statement, combining assumes of heritage preservation with the utilization of accessible sense of resources, and their adaptation to modern requirements, marketing, and revenue needs.

Adaptive reuse of such old palaces provides an incredible chance to reconnect with old buildings and structures, to revitalize this cultural heritage and its importance. However, this process made must be carefully examined. Adaptive reuse removes the disintegration of urban space and the breach of its historical pattern by clarifying the new social, and economic purpose as well as cultural importance. Regardless of the function adopted the process of revival and adaptive reuse of large post-residential structures must be combined with a credible, potential, and comprehensive reflection on the city and the procedures, alterations, and what is happening in it, as well as their influence on architectural and community - based planning, as well as the social changes they cause.

In many situations, introducing a new use inside existing spaces is the only way to rescue the palace weakening architectural legacy and thereby preserve its identity and architectural continuity for the next generations. However, the place's and historical structures' too much aesthetics, which are largely under attack in addressing contemporary needs, may result in a loss of historical value and importance. When the features and the aesthetic of space are significantly altered, the former artifacts become more of a visual indication than true evidence of the past and a carrier of communal identity. The validity and the proposed change create an obvious tension due to simply losing the original utilization of spaces and their function results in new framework and meanings. At the same time, the uses of a different other purpose modified to contemporary requirements provide it with a new purpose.

Recommendations

Restoration and reuse of forts and palaces are by their very nature complex enterprises, as evidenced by the experience of the Baltit fort. The size of the investment in terms of human resources, time, and money necessitates a high level of professionalism – as well as creativity in terms of possible reuse functions. It is therefore critical to reaching an agreement with local communities and their representatives, ensuring that staff recruitment, capacity development, and skill and expertise acquisition occur following the project's opportunities and that the nature and consequences of the reuse are agreed upon in advance. Adaptive reuse must generate enough

revenue over time to enable everyday operations to become self-sustaining. as well as a reserve for maintenance and repairs to be built up.

It should also be considered as a catalyst for related projects and activities, resulting in benefits such as outreach, employment, improved business prospects, and skill development, among others. This method allows for the formation of responsible local institutions, as well as the development of necessary capacity, community support, and credibility, allowing them to eventually become responsible participants in the operation of a restored building. Given the diversity of local contexts, site conditions, and local capacities, each location is distinct, necessitating institutions tailored to the communities and circumstances.

Following are major recommendations based on the findings for forming a framework of understanding for the restoration and adaptive reuse of these palaces in Bahawalpur. Three key criteria for the execution of policies addressing the restoration and adaptive reuse of these ancient structures were identified based on the findings of the heritage survey and the opinions of the local community and specialists.

1. The most important part of the restoration or adaptive reuse of the palaces is to consider the geographical dimension of these ancient sites. These historic structures are inextricably linked to the urban environment. The urban functional component, as well as the cultural and historical qualities associated with the location, must all be considered. The recognition of this territorial dimension is contingent on greater coordination between policies governing heritage building preservation and territorial initiatives for urban contexts. For heritage restoration and conservation, this coordination between public and private actors for infrastructure construction is deemed necessary.

2. Heritage sites throughout the world are thought to be witnesses to the past-present link. There is a generally accepted global plan for the development of historic structures that is focused on the preservation of heritage values and enhancement of distinctiveness to contribute to the strengthening social connectedness. With tourism marketing, the goal is to protect social connections as well as economic viability. This necessitates the formulation of an economic and social development strategy. Awareness initiatives for uptown society, diminutive enterprises, craftsmen, and further actions must be promoted to achieve this change. The events must be planned to accommodate people of different social, ethnic, and religious backgrounds. These historic palaces' remarkable cultural image, as well as the special potentials derived from their past, can be utilized to establish economic strategies for the city of Lahore. As a result, strengthening mutual collaboration among relevant national and municipal authorities, non-governmental organizations, and the local community and heritage conservation and restoration strategy is critical.

3. Strengthening the public institutions that contribute to the creation of restoration and adaptive reuse policies requires a proper operating framework. Economic and societal expansion programs must be guided by a long-term following vision that is obvious, consistent in addition to widely accepted. The participation of lawful local authorities is a critical component for successful implementation in this framework. These authorities should oversee overseeing conservation, restoration, and development initiatives in a coordinated manner.

References

Ahmad, Y. J. I. j. o. h. s. (2006). The scope and definitions of heritage: from tangible to intangible. 12(3), 292-300.

Committee, I. i. (2003). ICOMOS Charter—Principles for the analysis, conservation and structural restoration of architectural heritage. Paper presented at the Proceedings of the ICOMOS 14th General Assembly and Scientific Symposium, Victoria Falls, Zimbabwe.

Declaration, Q. (2008). Québec Declaration on the Preservation of the Spirit of the Place. In: Québec: ICOMOS.

ICOMOS, A. J. A. I. (2013). The Australia ICOMOS charter for places of cultural significance (Burra Charter).

ICOMOS, A. J. I., Australia. (1999). Charter for the conservation of places of cultural significance (The Burra charter).

ICOMOS, N. Z. J. I. A., New Zealand. (2010). ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage Value.

ICOMOS, U. J. P., as adopted by the 17th ICOMOS General Assembly. (2011). The Valletta principles for the safeguarding and management of historic cities, towns and urban areas.

Mason, R. J. A. t. v. o. c. h. (2002). Assessing values in conservation planning: methodological issues and choices. 1, 5-30.

Plevoets, B., & Van Cleempoel, K. (2019). Adaptive reuse of the built heritage: Concepts and cases of an emerging discipline: Routledge.

Sowińska-Heim, J. (2018). Transformacje i redefinicje. Adaptacja dziedzictwa architektonicznego do nowej funkcji a zachowanie ciągłości historycznej miejsca: Wydawnictwo Uniwersytetu Łódzkiego.

Stone, S. (2004). Rereadings: interior architecture and the design principles of remodelling existing buildings: RIBA Enterprises.

blog, Z. (2022). *Noor Mahal: The Magnificent Palace of Lights in Bahawalpur*. zameen.com. https://www.zameen.com/blog/noor-mahal-bahawalpur.html

Zaidi, S. (2020, September 8). The Mesmerizing Noor Mahal. *Architectural Times*.

Ali, S. (2020, October 16). Majestic Noor Mahal. *The news International*.

RIAZ, M. A. (2021, January 5). Preservation and Development of Noor Mahal Museum. *Hilal*.