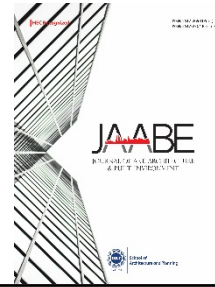




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**Title:** Assessment of Adaptive Reuse Practices of Built Heritage Situated at Mall Road, Lahore

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**DOI:** <https://doi.org/10.32350/jaabe.52.06>

**History:** Received: September 14, 2022, Revised: November 03, 2022, Accepted: December 22, 2022, Published: December 22, 2022

**Citation:** Rehman, N., Jalil, A., & Siddiq, M. (2022). Assessment of adaptive reuse practices of Built Heritage situated at Mall Road, Lahore. *Journal of Art, Architecture and Built Environment*, 5(2), 97-126. <https://doi.org/10.32350/jaabe.52.06>

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**Conflict of Interest:** Author(s) declared no conflict of interest



# Assessment of Adaptive Reuse Practices of Built Heritage Situated at Mall Road, Lahore, Pakistan

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## Abstract

Cultural heritage buildings play an effectual role in transferring cultural values to future generations as they are a significant source of sustainability in maintaining the cultural heritage. With the passage of time, these historical buildings have lost their actual character and aesthetic value. The only way to retain the position of these historical buildings is by following Adaptive Reuse as a particular method to sustain the traditional and cultural heritage of the colonial buildings situated at Mall road. This method proved to be helpful in preserving the heritage buildings when they start losing their originality. The reuse of buildings and adapting buildings for some other functions has become a growing trend now a days. As the revival of these buildings have not only minimized the construction, storage, and energy consumption by using adaptive reuse techniques, but it has also provided a sustainable ecosystem. The current research identified the need to understand the negligence factors implicated by the Adaptive Reuse practices of colonial buildings situated on Mall Road, Lahore, Pakistan. The negligence shown towards the colonial buildings identified the lacking practice which can only be recovered by incorporating reuse methods for the sustainability of built heritage. Therefore, the improvisation of factors like ignorance and lack of bylaws and policies, would lead to the achievement of productive and efficient reuse of built heritage. The current study was conducted in an urban area situated on the Mall Road, Lahore, by using both qualitative and quantitative research methodologies a mixed methodology. Through this methodology, the researcher conducted and analyzed interviews which led to some suggestions, which can be considered at micro and macro level to monitor adaptive practice of heritage buildings. There is a dire need to take effective measures through proper investigation to preserve these colonial heritage buildings.

**Keywords:** adaptive reuse, colonial buildings, cultural heritage value,

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preservation, restoration

## Introduction

Transferring cultural values to the future generation is very important and in that case heritage buildings play a very vital role. With the passage of time, cultural historical buildings have lost their actual character and aesthetic value. When these cultural historical buildings lose their originality, the best way to retain their traditional value is by following *Adaptive Reuse method*. The reuse of buildings and adapting buildings for some other functions have become a growing trend now a days. This reuse method has not only provided sustainability to the buildings but also increased the worth of colonial built heritage.

The restoration of the architectural heritage provided the community with material, cultural, and social opportunities. Decisions about adaptive reuse require a complicated set of criteria which involves location, history, historical assets, and market's present condition. Therefore, policy makers need to have a very clear idea to use the building at its best. The reuse of historic buildings with distinctive features offered long-term sustainable options for conservation (Conejos et al., [2011](#)). The adaptive reuse methods allow the conservation of buildings along with its surroundings. Without having a proper and adequate knowledge of a heritage building, its value, physical condition, and ability to conserve, the preservation of such built heritage is a very difficult task. The proposed reuse techniques and required changes would preserve and improve the cultural significance of the heritage buildings (Lewis, [2013](#)).

Creating a renew environment includes the maintenance of energy and the redefinition of old buildings. The construction of new buildings is harmful for natural resources. The destruction of old buildings and replacement of them with new structures is an easy option for planners and developers, however, these new buildings have become a huge reason for the loss of natural resources (Günçe & Mısırlısoy, [2019](#)).

The current research has attempted to highlight the absence of factors implicated in the adaptive practices of colonial buildings situated on Mall Road, Lahore, Pakistan. Thereby, it can be clearly observed that the negligence towards the reuse practices in colonial buildings is exactly related with the methods that are involved in the adaptive reuse process.

Therefore, the improvisation of these factors can lead to a productive and efficient reuse of built heritage.

Adaptive reuse technique is a process that is gradually being used to protect old buildings and even sites. The implementation of adaptive reuse practices in most of the projects results in the loss of a building's Characteristics, its Spirit, and Meaning altogether.

The aim of this study was to make people and professionals aware about the extent of adaptive reuse practices of cultural heritage with a focus on the colonial buildings situated on Mall Road, Lahore. The current research also highlights the ultimate need to enhance the cultural tourism activities in Pakistan by conserving these colonial heritage buildings as well as helping in understanding the evolving business and social needs over time. Thereby, cities are required to be shaped in order to survive in a better environment and give vitality to urban life (Hameed & Tahir, [2018](#)).

Adaptive Reuse on Mall road started after the independence of Pakistan due to the shortage of funds and limited resources in the subsequent time. These large number of existing buildings were adapted to be used for various functions other than the cause for which they were constructed. It was a haphazard process and the original character of the buildings was damaged, while making alterations to the existing buildings.

Mall road was a central business district (CBD), so there was a huge demand for its dynamic urban development. As the nature of the commercial activities continue to change the overall characteristics of Mall road, therefore, adaptation of reuse methods were the demand of the time. The adaptive reuse techniques proved to be beneficial for the development of the urban economy, while maintaining the cultural characteristics of built heritage.

### **Literature Review**

A detailed literature study was conducted through primary and secondary sources to understand the importance of this built heritage along with the identification of the factors that led to the current status of the building.

Historical buildings are important to witnesses the cultural value of a city, they often represent the history and traditions which enables us to develop an awareness about ourselves, for this there is a need to consider the best way to conserve those historical buildings.

Compared with new buildings, adaptive reuse does much less damage to our environment. Therefore, field architects, engineers, and environmentalists are encouraged to reuse techniques to conserve or save energy. There are 40% of the raw materials used in construction industry every year. If all project costs are exposed, adaptive reuse will be the only reasonable way to achieve a sustainable environment (Mısırlısoy, 2019). In contrast, adaptive reuse is more complex and difficult than new buildings, because maintaining cultural integrity, more constraints and smarter thinking are required to adapt buildings to modern uses.

According to the research analysis, the old buildings on Mall Road were arranged to get the best view and ideal orientation according to sunlight, and climate. They also ensure the safety of users and provide a sustainable solution between architectural space and open space. Old buildings maintain the local identity and culture by creating a sense of belonging. (Noorzalifah Mohamed, 2016).

As compared to the new buildings, adaptive reuse method considerably causes less damage to the environment. Therefore, field architects, engineers, and environmentalists must encourage reuse techniques to be adapted in order to conserve or save energy. Every year approximately 40% of the raw materials are used in the construction industry. If all project costs are exposed, adaptive reuse would be the only reasonable way to achieve a sustainable environment (Günçe & Mısırlısoy, 2019).

In contrast, adaptive reuse is more complex and difficult than new buildings because maintaining cultural integrity requires more constraints and smarter thinking to adapt old buildings for modern uses.

Based on the analysis of the current research, the old buildings situated on Mall road were arranged to get the best view and ideal orientation according to the sunlight and climate. The safety of users was also ensured to provide a sustainable solution between architectural space and open space. Old buildings maintain the local identity and culture by creating a sense of belonging (Mohamed & Alauddin, 2016).

When any building reaches the end of its life cycle it has three options (Feilden, 2003).

- Restoration
- Adaptive Reuse

- Reconstruction

In terms of environmental cost and time constraints, refurbishment and adaptive reuse strategies proved to be core practical. The demolition of buildings consumes energy and time, which ultimately had no economic benefits (Langston, [2008](#)).

Three essential ideas are required to be considered in case of adaptive reuse of historical buildings:

- The adaptive reuse of buildings must bring new life to the old buildings and make it sustainable for the community (Lewis, [2013](#)).
- The adaptive reuse of historical buildings needs to be self-sustainable and must generate self-maintenance funds.
- Adaptive reuse projects generate funds and resources (Anwar, [2011](#)).

The Adaptive reuse projects offer political, economic, social, and cultural benefits to their environments (Itoria, [2014](#)). Similarly, the adaptive reuse technique is an effective way to achieve sustainability as it possess the ability to preserve the original and durable building materials. Adaptive reuse involves the protection and preservation of architectural heritage, as well as strategic and policy issues. Once the old structure becomes unsuitable for its functions and planning requirements, adaptive reuse becomes a good option for site reclamation (Mohamed & Alauddin, [2016](#)).

The decision making at Mall road comprised four basic levels which are as follows:

1. At the owner's level
2. At the tenant's level
3. At the governmental level
  - Federal Department of Archeology
  - Provincial Department of Archeology
  - City District Government
4. International Charters
  - UNESCO Convention
  - ICCOMOS (International Council of Monuments and Sites)
  - ICCROM (International Center for the Study of Preservation and Restoration of Cultural Property)
  - IUCN (International Union for the Conservation of Nature)

At the Mall Road, Lahore, all the above mentioned four categories are involved in the decision- making mechanism at various levels.

First law for the protection of monuments was Ancient Monument Preservation Act. In 1947 A.D, this law was adopted by the government of Pakistan. Whereas in 1968 A.D, a new law was formulated that consisted of most clauses of the ancient monument and preservation Act 1904 A.D. In 1975 A.D, Antiquity Act was formed in accordance with the constitution of 1973 A.D and in 1992 some more amendments were made in this law. In 1973 A.D, constitution archeological sites and monuments were placed on the current list of constitution. Accordingly, the provinces were also authorized to make/formulate new laws, declare buildings, and structures to be protected under this law. In accordance with Punjab, the government formed a Special Premises Ordinance in 1985 A.D and declared 244 buildings to be protected under the law Shah Din Manzil and Bawa Dinga Singh was also among those buildings (Anwar, [2011](#)).

The decision-making mechanism for adaptive reuse is different as compared to the conservation project or a project where a building is renewed. After detailed discussions and observations data was collected through a literature survey and factors were figured out (Haroun et al., [2019](#)).

Decision-making criteria (Table 1) for adaptive reuse include nature of project, project location, project goal, client's brief, architects approach, by laws, bureaucratic pressures, physical condition of the building, historical value of building, finance, social economic factors, contextual analysis, time constraints, and sustainability.

**Table 1**

*Evaluation Criteria for Assessment of Adaptive Reuse Practice of Historical Buildings*

Assessment Criteria	Sub-Criteria	Assessment Centre
Heritage Factor	Conservation and improvement of heritage significance	According to the statement of the meaning of heritage building, the proposed use retains the remaining part of the heritage structure, the original building materials, the characteristics that produce the architectural features and integrity, and the unity of functions, such as space design and architectural singularities.  Whether the intended use protects the value of intangible heritage.

Assessment Criteria	Sub-Criteria	Assessment Centre
Architectural Factor	Functional Compatibility (new function to original layout).	The degree of compatibility between the new use and the physical character of the old heritage building space. (Evaluate new features based on the original design). What are the expectations for actual implementation in order to objectively evaluate the applicability of the new features to the original layout?
	Identification of heritage character.	The proposed function did not make the local natives forget the past and the actual character and function of the building.
	The protection of the building's services and system.	The recommended usage must preserve the layout and space size.
	Building structural stability	The new users must respect the actual value of the buildings and their interrelationships. The proposed new use of the heritage buildings improves the physical structure and condition of the building.
Environmental Impact	Harmonization with land use.	The proposed new use of the property is related to land use.
	Accessibility	The degree of human-targeted accessibility of the site
Social Factor	Impact on society	The new use must be coherent with the community's ideas, and interests, which must have a positive impact on the well-being of a community.
Economic Factor	Adaptation cost	The new user must be an economical benefit to the adaptive project.

### Research Methodology

The current study employed a mixed methodology by considering both qualitative and quantitative data to conduct the analysis. The research was initiated by discussing available literature on the related topic. For instance, the historical evolution of Lahore city, architectural importance of Lahore, conservation of colonial buildings of Mall road, Adaptive Reuse practices of historical buildings at national and international level, significance of adaptive reuse in economical point of view, together with the available Mall road literature map, and interviews with people related to the topic were conducted.

Field investigations and documentation works were carried out to understand the current condition of the building's space planning, architectural condition, construction methods, and damage patterns, etc.

The tools that were used to conduct this whole research included AutoCAD, Microsoft word, Photoshop, and Microsoft Excel. Discussion on colonial buildings disclosed that the implementation of adaptive reuse must



be done in a better way and there should be some assessment tools to measure these methods as well. The collection of more relevant data helped to probe deeper into the facts related to the current study. Considering the sensitivity of the subject, in-depth interviews yielded valuable knowledge.

After the detailed discussions and observations, data was collected by consulting the previous literature. Moreover, the factors that access the appropriate function for the adaptive reuse of heritage buildings have been figured out in the light of literature survey. Relevant research studies for each factor in Assessment Table (1) have been analyzed and identified. Therefore, the successful/unsuccessful case studies of adaptive reuse practices of heritage buildings were analyzed in the light of defined factors. Site visits were carried out with detailed data analysis and observation. Hence, the current condition of the heritage buildings was being investigated under the defined factors.

### Case Study

Two buildings were selected for case study, which are mentioned below:

- Shah Din Manzil
- Bawa Dinga Singh Building

Rehabilitation, Revitalization, and Renovation of Mall Road in Writ Petition No. 225987/2018

**Table 2**

*Summary of Buildings on Right Side of Mall Road*

Approved	Un-Approved	No Record Found	Total
20	06	22	48

Source: Town Hall, Metropolitan office Lahore

**Table 3**

*Summary of Buildings on Left Side of Mall Road*

Approved	Un-Approved	No Record Found	Total
19	12	02	33

Source: Town Hall, Metropolitan office Lahore

The reason for selecting these two buildings was to understand the

impact of adaptive reuse techniques on heritage buildings either in a successful or challenging way. As these buildings have gone through major and minor changes during the process of adaptive reuse and the nature of the client was also in contrast. A comparative analysis of both buildings is given below:

**Table 4**

*Summary of Buildings on Left Side of the Mall Road*

<b>Comparative Analysis of Two Buildings</b>		
Project Name	Shah Din Manzil	Bawa Dinga Singh Building
Project Nature	Commercial	Residential
Project Location	Mall Road, Lahore	Mall Road, Lahore
Abutting Mall Road	Near charring cross	Near Chaman ice-cream chowk
Heritage Building	Yes	Yes
Colonial Building	Yes	Yes
Adaptive Reuse	Yes	Yes
Existing Physical Condition	Conserve to some extent	Not in a good condition

**List of Buildings, Abutting Mall Road**

*Chowk Istambol to Faisal Chowk (Charring Cross)*

**Table 5**

*List of Buildings, Abutting Mall Road for Reference*

Sr. No.	Right Side	Sr. No.	Left Side
1.	Town Hall	1.	Chemical Laboratory, Punjab University
2.	NCA College	2.	Woolin Memorial Punjab University
3.	Lahore Museum	3.	Punjab University
4.	Tolinton Market	4.	Education Department
5.	D.P. Edalji (Commercial Building)	5.	Sh. Barkat Ali (Starlet Shoes)
6.	Abdul Rehman (Commercial Building)	6.	Alfred Building (adjacent Starlet Shoes)
7.	D.C. Ramkishan (Commercial Building)	7.	Durga Daas, Devi Daas

Sr. No.	Right Side	Sr. No.	Left Side
8.	Allahabad Bank (Standard Chartered Bank)	8.	Dina Nath Kapur (National Bank)
9.	National Bank of India (NBP)	9.	Dina Nath Kapur (Bridgestone Tyre)
10.	General Post Office	10.	YMCA
11.	Lahore High Court , Lahore	11.	Sun Light (Co-Operative Bank)
12.	State Bank of Pakistan	12.	International Bank of India (Askari Bank)
13.	Rai Bahadur Ganga Raam Building (Fazal Din & Sons)	13.	Imperial Bank of India (Banking Court)
14.	Diyal Singh Mention	14.	Nursing Daas Building (Bundu Khan)
15.	15-A Baghat Shamboo Dass Shaib (KFC)	15.	E. Plomer & C
16.	West End Building	16.	Mall Mansion
17.	L. Diwan Chand (G'Five Mobile)	17.	Hayat Building
18.	Raizada Lakhpat Rai (Bank Al-Habib)	18.	Duni Chand & Sons Building (Pasha Law Associate)
19.	Balu Ram Building (Bank Islamic)	19.	Kirpa Ram (Faisal Bank Building)
20.	Bombay Motor and Cycle Works (UBL)	20.	Baldev Indra Singh
21.	Kirpa Ram Building (H. kareem Bukhsh Building)	21.	Justice Shadi Laal Building (Chaman Ice-Cream)
22.	Sh. Mumtaz Din (adjacent Sadiq Plaza)	22.	Danga Singh Building (Bata Shoes)
23.	Mumtaz-ud-Din (adjacent Sadiq Plaza)	23.	Civil & Military Gazette (adjacent Panorama)
24.	Sh. Muhammad Naqi (Naqi Market)	24.	Feroz Din & Mohd Sharif
25.	Sh. Muhammad Naqi, M.C. (Naqi Market)	25.	Piyare Laal & Sons (Panorama)
26.	Shah Din Building	26.	Ghulam Rasool Building

*Case Study-01:* Shah Din Manzil is a symbol of ideal colonial architecture. The owner, namely, Shahddin Humayun, was the first Muslim judge of the High court. Lahore, a center of educational and cultural excellence, with its typical architectural beauty has always been a landmark in the history of Pakistan. Over the years, natural elements and negligence made this building uninhabitable. Al-Falah Bank management chose to restore Shah Din Manzil to its original glory. The renovation work resulted in an amalgamation of the new and old. The new design spirit, combined

with modern construction technology and materials remind us that the fusion of old and new are seamlessly integrated and maintain their own state.

On May 4, 1906, the Bank building (Shah Din Manzil) was bought by "Saith the Mal, and was renamed as "GOVALIAR Building". On April 12, 1911, the building was sold to "Mr. Ram Chand. In 1912, "Justice Mian Muhammad Shah Din" purchased the building. He rebuilt the property and kept it as "Shah Din Manzil". In 1999, conservation of Shah Din Manzil was approved by his highness "Sheikh Nahayan Mabarak" AL-Nahayan. On September 1<sup>st</sup> 2004, Restoration of Shah Din Manzil got completed. Whereas on September 5, 2004 inauguration of the restored Shah din Building took place.

### **Assessment of Adaptive Reuse Practice of Shah Din Manzil W.R.T the Following Given Criteria**

#### ***Heritage Factor***

- Protection and Enhancement Heritage Significance

The first and foremost step in any renovation project is to learn about the importance of heritage site by determining its heritage factor, the spatial and physical character of the heritage building, and the strengths and weaknesses of the site (Figure 1 and 2). While evaluating the adaptive reuse of any building the understanding of heritage value is very important.

#### **Figure 2**

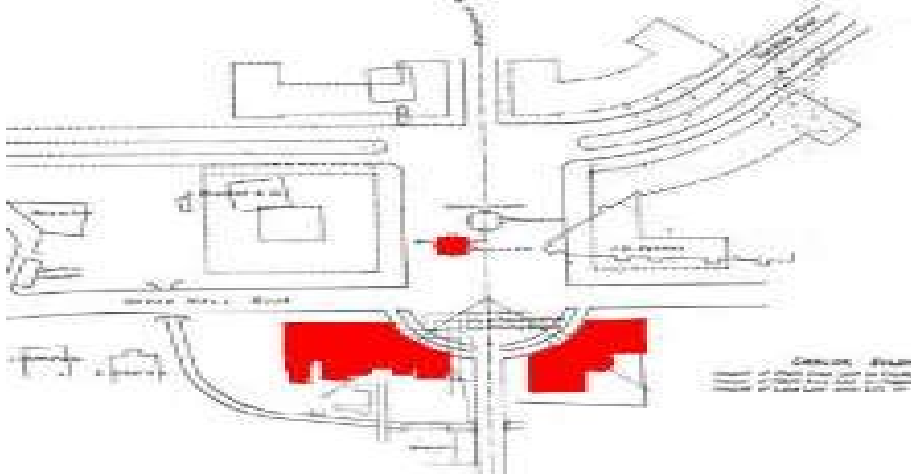
*White.Marble Pavilion Installed in The Charing Cross, Lahore*



Source: Aijazuddin F.S.; Lahore Recollected: An Album

**Figure 3**

*Improvement Plan of the Charing Cross, Lahore by Basil M. Sullivan (1914)*



Source: Author & Communication & Works Dept. Govt. of Punjab, Lahore

The heritage importance of a building is limited to its architectural elements and the relationship between the building space and its environment. The building is built on neoclassical design. Traditional features include symmetry, balance, and simple geometric shapes. Symmetry and balance are important in ancient Greek and Roman architecture that inspired Palladianism. The front façade conforms to the neoclassical theme and uses ionic columns on the façade.

### ***Architectural Value***

In this criterion the important objectives to be evaluated are as follows:

- The degree of compatibility between the new function
- The impact of changes on building stability
- The respectability of the building's original features

The important point to be considered, while reusing the heritage buildings is the structural stability of the building, whereas major architectural interventions must be aligned with the physical stability of the building as well. The modified form of the building enhanced the structural stability, and feasibility which ultimately leads to the enhancement of the structural condition of the new building.

### Figure 3

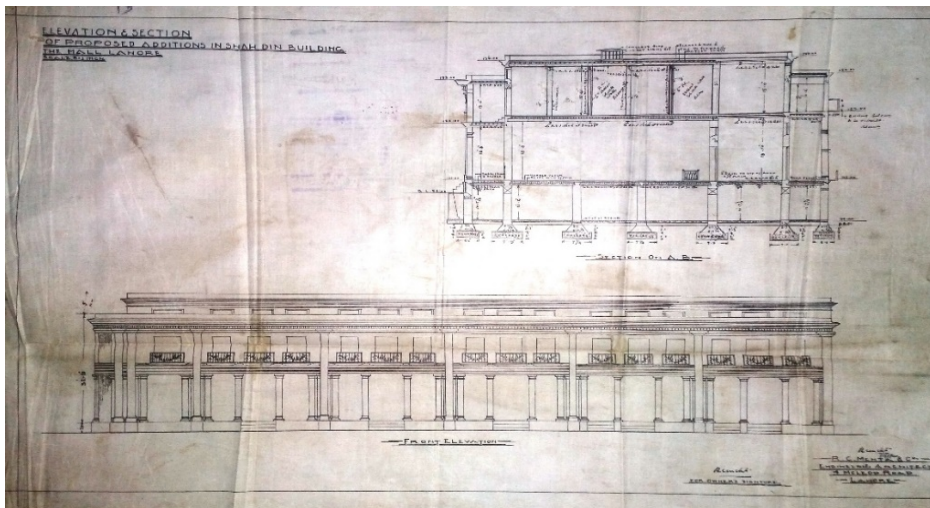
*Shah Din Manzil, Before Renovation*



In case of Shah Din Manzil (Figure 3, 4 and 5), the adaptive reuse of the building was carried out under the by-laws of the heritage buildings. The exterior of the building was conserved in order to preserve the heritage fabric, while intervention was done in the interior of the building.

### Figure 4

*Shah Din Manzil, Side Elevation Before Renovation at 1914*



Source: Town Hall (Metropolitan Office) Lahore 2020



**Figure 5**  
*Shah Din Manzil, After Renovation*



New modern interior planning was carried out by the architectural consultant (Ar. Ahmed Mukhtar, personal communication) (Figure 6 and 7). The dome, constructed on the top of the roof gives the building a new and modified outlook, which was not a much appreciated approach. After receiving criticism for constructing a dome in the center, its mirror image was shifted from Mason Hall to the opposite side of the road (Figure 8 and 9).

**Figure 6**  
*Shah Din Manzil, Before Renovation*



**Figure 7**  
*Shah Din Manzil, Existing (Sep, 2021)*



Source: Al –Imam Enterprise’s office, Lahore

**Figure 8**  
*Shah Din Manzil, Original Architectural Elements Before Renovation*



Source: Al –Imam Enterprise’s office, Lahore



- Doric Columns (Greco-Roman standards)
- Types of Arches (Two Point, Three Centered or Bracket Handle)
- Gothic Architecture
- Wooden ceiling
- Balcones
- Architectural motifs (Khan et al., [2013](#)).

### Figure 9

*Interior of Shah Din Manzil After Renovation by Al- Imam Enterprises*



Source: Al –Imam Enterprise’s office, Lahore

### *Environmental Value*

- Congruity with the land use
- Accessibility

The location of the Shah din Manzil is accessible by all primary and secondary roads. The building directly overlooks the Charing Cross, which raises the value of the site. As Mall road is considered to be a commercial hub for many activates, therefore, the new function of the building is harmony along with land use which is used as a commercial building (Naz & Ashraf, [2008](#)).

*Case Study-02:* Bawa Dinga Singh ji was a rich man who lived in Lahore. In 1927, the building Bawa Dinga Singh was built by Rai Bahadur

Dinga Singh. The restoration of this building was a project which led to the protection of other old buildings in Lahore too.

Bawa Dinga Singh was a rich timber merchant. In the 1920s, Spedding sold Kashmir hardwoods throughout the Indus Valley, possibly as far as Karachi, Mumbai. In 1926, the file work of Bawa Dinga Singh building was submitted to the Bakhshi Harbhajan Das B.A. In this work, the approval drawings of Bawa Dinga Singh buildings were submitted along with the site plan. The Building was completed in 1927 by kishor Chand, who was an Indian architect at A.M.I.E chand. In January 1957, the compound wall of civil and military qazette and bawa dinga singh building (Figure 10) was ordered to be demolished for the construction of service road by the authorities. Compound wall was under the legal land of client. After the partition, the building was owned by some private client (Khawaja Brothers) however, the heritage building did not receive any respect.

### Figure 10

*Bawa Dinga Singh Building, Mall Road Lahore*



In 2014, in cooperation with the municipality, the Punjab provincial government approved a proposal to protect the exterior walls of four historic buildings in the shopping center. According to the Punjab Special Places Ordinance of 1985, a total of 169 buildings in the city were declared as special places.

**Table 6**  
*Renovation of Heritage Buildings on Mall Road, Lahore*

Sr. no	Buildings names	Restored/ Not restored
1	Shah Din Manzil	Restored (Exterior fabric, 2014)
2	Ghulam Rasool Building	Restored(Exterior fabric, 2014)
3	Bawa Dinga Singh Building	Restored(Exterior fabric, 2014)
4	Ahmad Mansion	Restored(Exterior fabric, 2014)
5	Dayal Singh Mansion	Not restored ( were in decent shape)
6	Sir Ganga Ram building	Not restored ( were in decent shape)
7	General Insurance building	Not restored ( were in decent shape)

**Figure 11**  
*Before and After Renovation Picture of Bawa Dinga Singh*



Source: Google website

### **Evaluation of Bawa Dinga Singh Building, Adaptive Reuse with Respect to the Following Criteria**

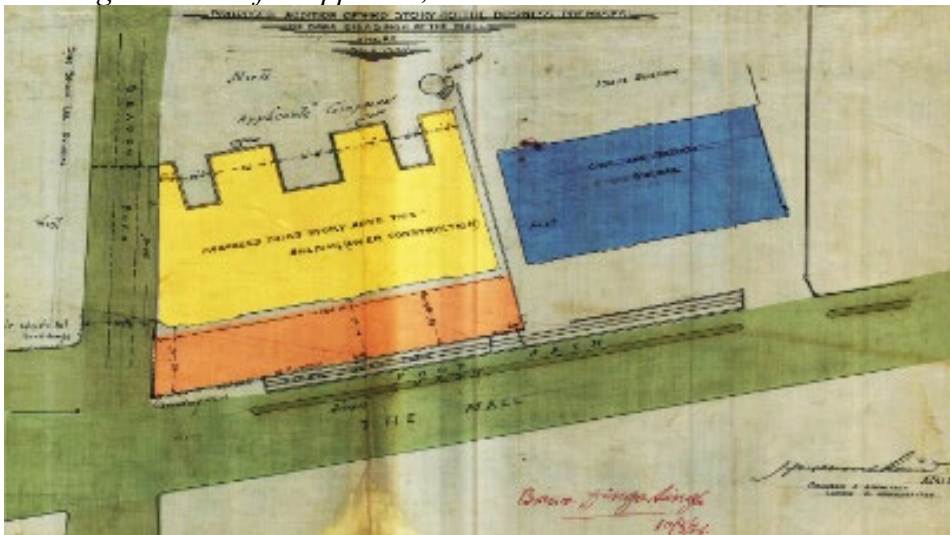
#### ***Heritage Value***

According to the importance of colonial buildings we should considered the following points, whether the proposed use conserve the heritage value, the original building character and the features that produce heritage integrity to the building.

The Bawa Dinga Singh building (Figure 10, 11 and 12) was not preserved by utilizing original construction materials, instead only the main elevation was repaired and the side elevation on Beadon Road was ignored. The interior of the building was completely disregarded by the authorities because the building's owner was unwilling to restore it and it was losing its Historical significance.

**Figure 12**

*Site Plan of Bawa Dinga Singh Building on Mall Road, Lahore Original Drawing Submitted for Approval, 1926*



Source: Town Hall (Metropolitan Office), Lahore

### ***Architectural Value***

In this criteria the main objectives to be evaluated are as follows:

- The compatibility of the new function with the original layout.
- The impact of interventions on building stability.
- The respectability of the building's original features.

The primary principle which proposed reuse techniques in order to renew the old buildings follows the level of compatibility of the new function along with the original layout. Bawa Dinga Singh building was approved as a residential three-storey building on Mall road, Lahore. The



ground floor was used for shops and offices, whereas the other two floors were used for residential purposes.

The character of the heritage building along with the physical features is among the visual aspects of the building (Figure 13). The main objective to preserve a heritage building directly means to respect the heritage of a country and its antiquity by doing fewer interventions and restoring the original physical features of the building.

### Figure 13

#### *Impact of Interventions on Building Interior*



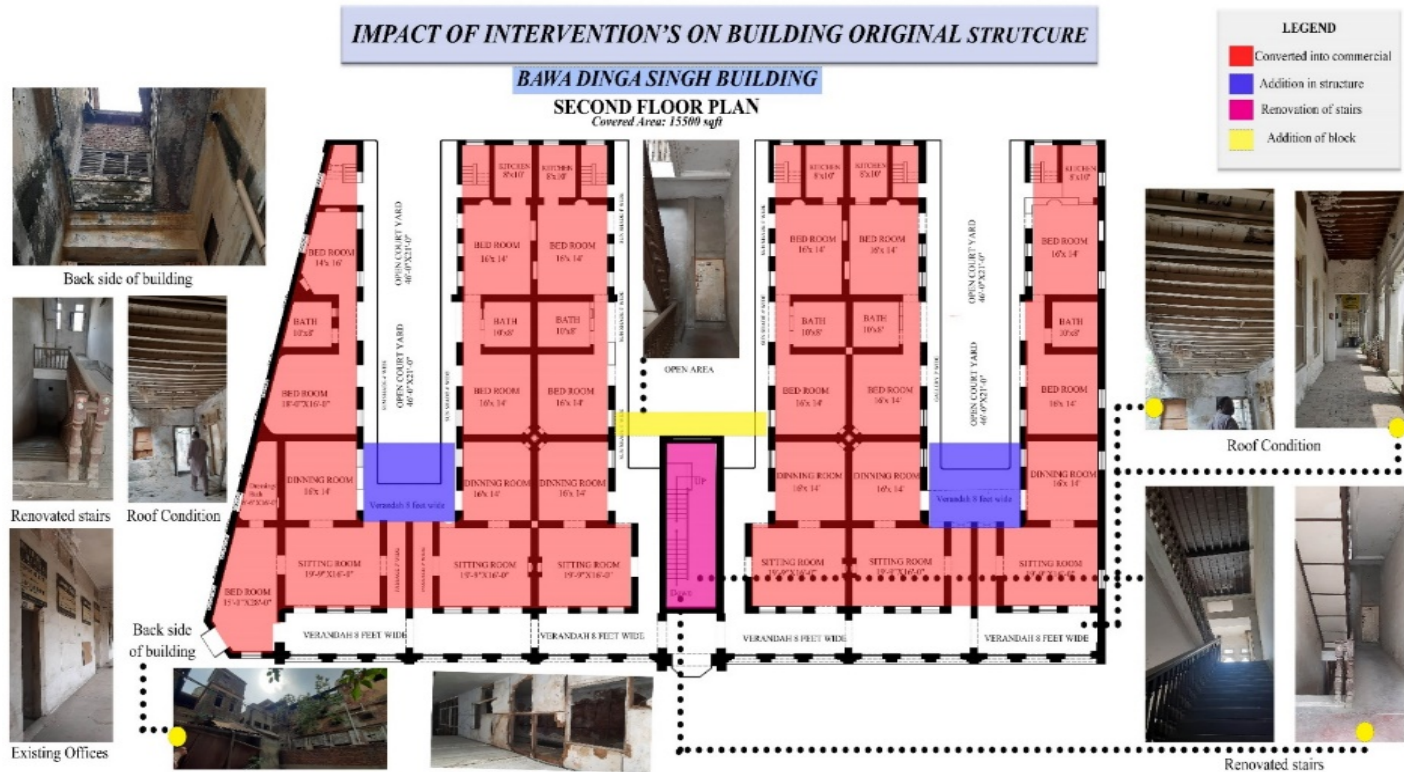






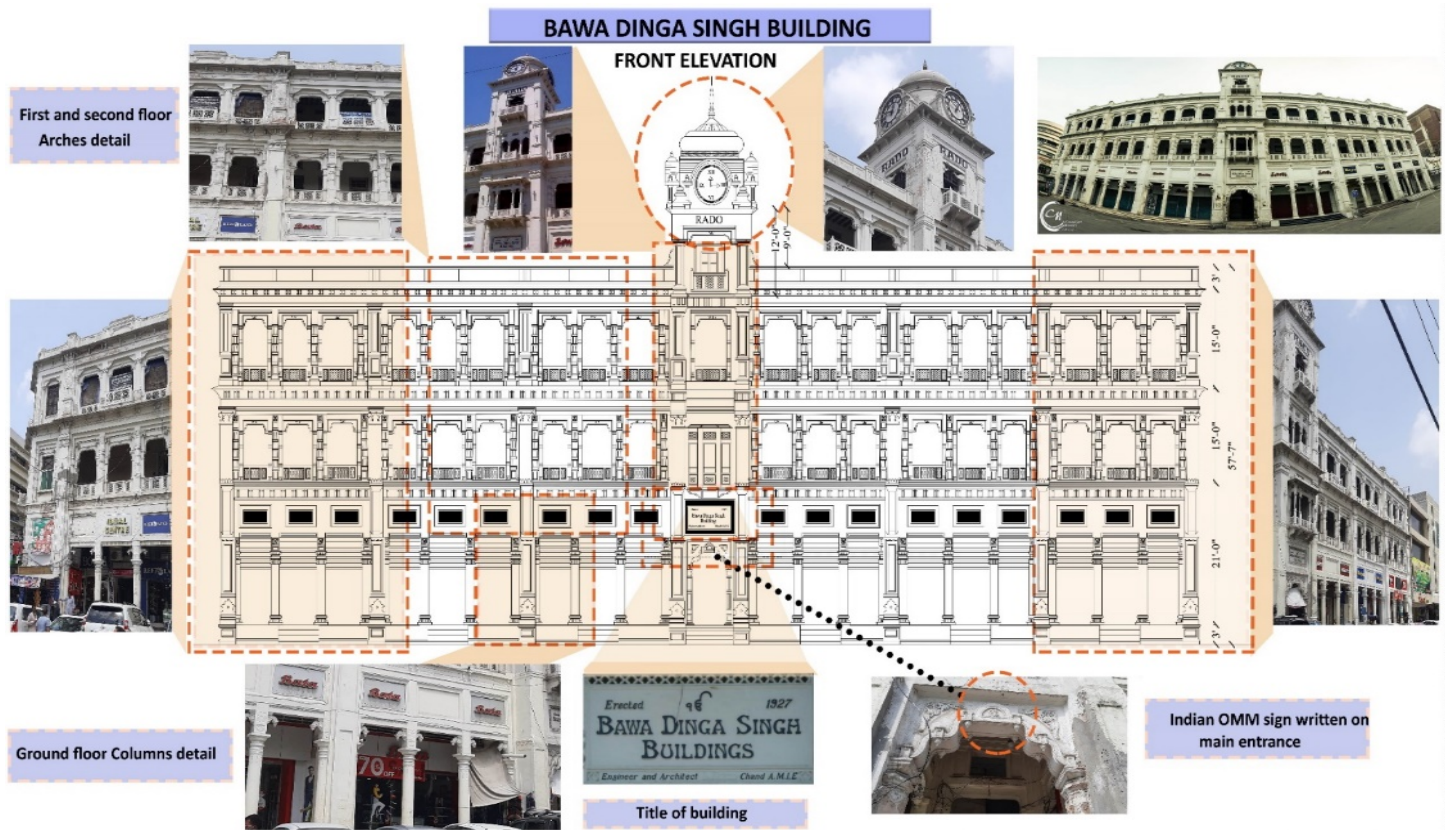
Figure 16

Second Floor Plan of Bawa Dinga Singh





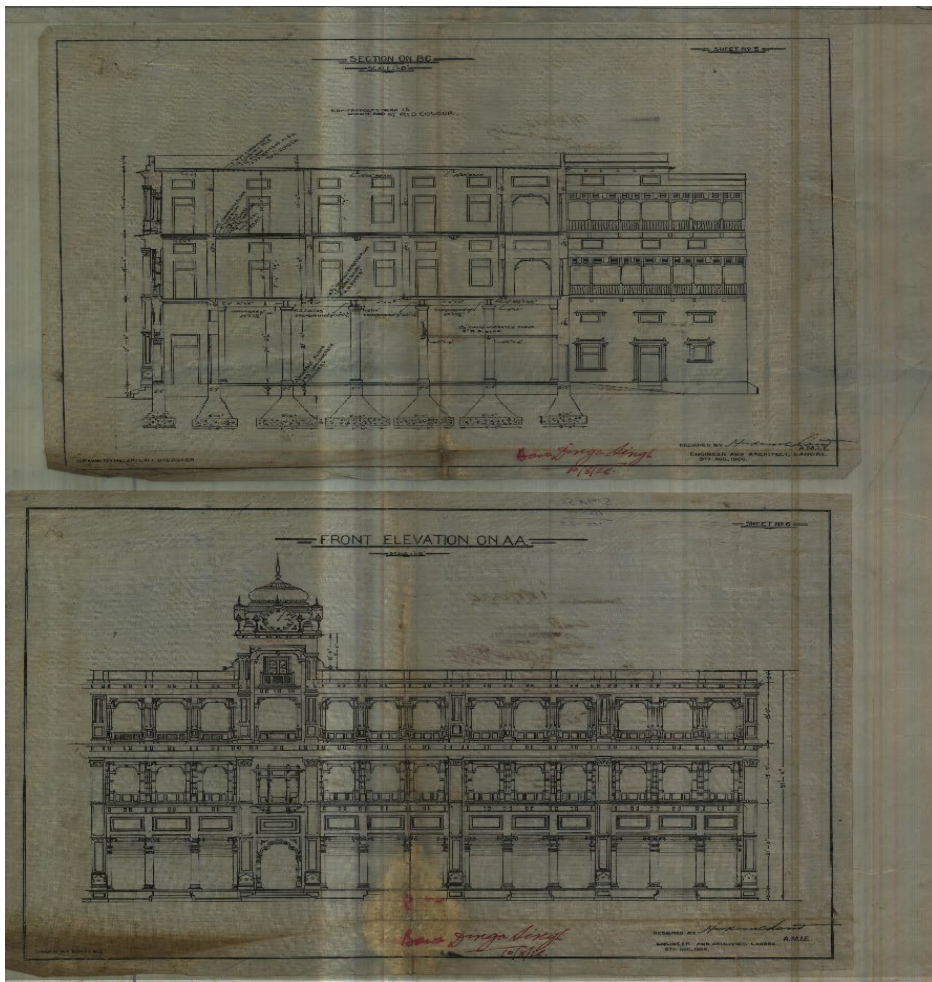
**Figure 17**  
*Front Elevation of Bawa Dinga Singh*



Bawa Dinga Singh building (Figure 14-18) is one of the most glorious heritage buildings in Lahore. The exterior of the building was conserved by the local government, however, the interior became a victim of the authorities' negligency. The original physical features of the building were not conserved, however, the main staircase was conserved. Whereas fireplace, wooden columns, roof main balconies, and other architectural features were fully ignored.

**Figure 18**

*Original Building Plans of Bawa Dinga Singh Building, 1927*



Source: Metropolitan Corporation Office, Lahore

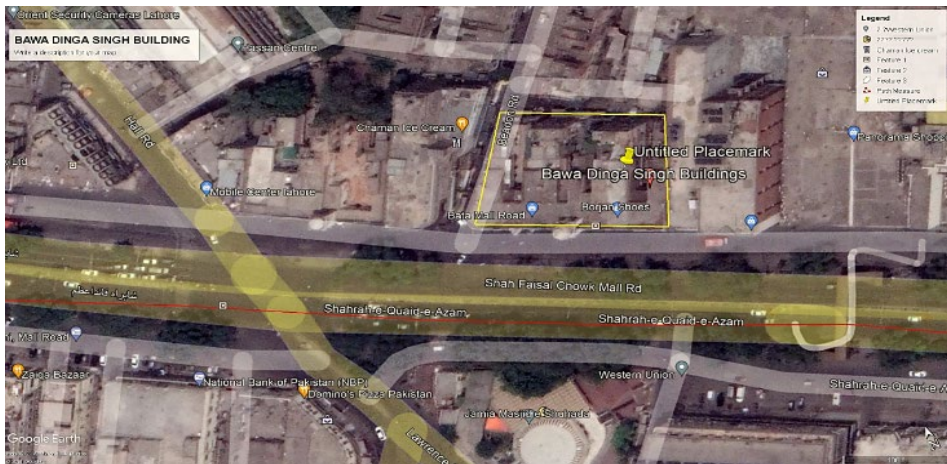
## Environmental Value

- Congruity with the land use
- Accessibility

Bawa Dinga Singh is situated on the main Mall road in Lahore, which is registered as a heritage site as most of the colonial buildings are still present on Mall road. The location of the Bawa Dinga Singh, the heritage building site is accessible by main Mall Road (Figure 19). As Mall Road is considered to be a commercial hub for many activities, therefore, the new function of the building is harmony along with its usage as a commercial building.

**Figure 19**

*Bawa Dinga Singh Building Accessibility from Major and Minor Roads*



Source: Google Earth

## Comparative Analysis of Both Buildings on the Bases of Interviews and Findings

### Shah Din Manzil

1. The project clearly violates the clause# 5 of the *Punjab Special Premises Ordinance, 1985. (Prohibition of destruction etc. of Special Premises, No alteration in or renovation, demolition or re-erection of such portion of a special premises, as is visible from outside the prior permission in writing of the Government or a Committee.)*
2. Exterior heritage value of the building was conserved.

3. The dome constructed on the top of the building provides it a very unique and new outlook that stands out.
4. Repairing leads to a fusion of old and new designs which looks elegant.
5. Entirely new interior building structure was proposed on modern theme.
6. Some field architects did not appreciate the idea of adaptive reuse of Shah Din Manzil however, still considered it good as compared to the adaptive reuse of other buildings situated on Mall road, Lahore.

### **Bawa Dinga Singh Building**

1. The project clearly violates the clause# 5 of the *Punjab Special Premises Ordinance, 1985* .(*Prohibition of destruction etc. of Special Premises, No alteration in or renovation, demolition or re-erection of such portion of a special premises as is visible from outside the prior permission in writing of the Government or a Committee.*)
2. The exterior of the building was conserved to some extent but the same old materials were not being used.
3. Interior condition of the building was fully ignored by the authorities.
4. Sub structures were added without any approval.
5. Building new function was not compatible with the building layout/ old function.
6. No proper bylaws were followed during adaptive reuse of building.
7. Architectural value and heritage value were still completely ignored.

### **Conclusion**

As far as the protection of buildings is concerned, adaptive reuse is a complicated method. Firstly, the building must continue to stand, secondly economic factors usually require it to continue to be used, and thirdly it must resist the influence of the climate. The adaptive reuse of historical buildings need to be well planned to avoid any problem that may cause damage to the cultural character, economy, social, commercial needs of the site, and the environment. However, in the case of Lahore (a historic city), there are no proper guidelines to play a beneficial role in the adaptive reuse of historic buildings due to lack of awareness, weak literature review, no proper documentation, no implementation of bylaws, community awareness.



In the case of Shah Din Manzil and Bawa Dinga Singh building, laws were not followed and they also violated article 5 and 7 of “The Special Premises Act 1985”. The proper documentation and survey of buildings must be done by a team of experts and professionals before and after the adaptive reuse of historical buildings. No proper bylaws are available for the adaptive reuse of historical buildings.

### Recommendations

Proper documentation of historical buildings should be done including their detailed drawing work, structural strength, infrastructure, deterioration, historical impact, and unique character, before and after the adaptive reuse project. There should be proper building laws which should be prepared for the adaptive reuse project of historical buildings for any category.

Buildings must be divided into different categories according to their use, such as public buildings, commercial buildings, and educational buildings. This would help the decision-makers effectively determine the future of architecture.

The regulations for the adaptive reuse of historical buildings should be linked to the regulations of Mall Road, and its benefits must meet the cultural and economic needs of the community. Regular maintenance of historical buildings is an important aspect to increase their vitality and reduce the threat of the losing cultural heritage of colonial buildings.

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