

CONSERVATION OF HERITAGE PRECINCTS IN AMRITSAR: A CASE STUDY

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By

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Transforming Education Transforming India

LOVELY PROFESSIONAL UNIVERSITY, PUNJAB

2026

DECLARATION

I, hereby declared that the presented work in the thesis entitled “Conservation of Heritage Precincts in Amritsar: A Case Study” in fulfilment of degree of Doctor of Philosophy (Ph. D.) is outcome of research work carried out by me under the supervision of Dr. Raminder Kaur (Professor) in the Lovely School of Architecture and Design of Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.



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CERTIFICATE

This is to certify that the work reported in the Ph. D. thesis entitled “Conservation of Heritage Precincts in Amritsar: A Case Study” submitted in fulfillment of the requirement for the reward of degree of Doctor of Philosophy (Ph.D.) in the Lovely School of Architecture and Design is a research work carried out by Davinder Pal Singh, 41900318 is bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.



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ABSTRACT

This study investigates how public participation, community awareness, and heritage perception influence the conservation of historic precincts in the walled city of Amritsar, with a focused and detailed examination of the Heritage Precinct of Katra Ahluwalia. The precinct was selected because 132 of its 272 structures constituting 48.5% of its total built fabric retain demonstrable connections to significant historical eras, ranging from the Guru period to the British colonial phase. The study specifically concentrates on the precinct's principal commercial–residential main street, where heritage transformation pressures, material substitutions, and socio-economic changes are most visibly manifested. Moving beyond conventional fabric-oriented conservation, the research adopts a comprehensive, integrated approach that links tangible architectural characteristics with intangible cultural values, community pride, and broader socio-economic realities. Employing a mixed-method design, the study draws on data from 272 stakeholders and 10 key institutional informants, complemented by detailed architectural documentation, street-scale analyses, and craft-tradition mapping. A series of One-Way ANOVA tests were applied to seven critical heritage variables—present condition, community efforts, government efforts, street morphology, traditional repair materials, new repair materials, and community pride—revealing statistically significant relationships between community perceptions and conservation outcomes across multiple dimensions. Findings indicate that traditional materials (such as lime plaster, Nanakshahi brick, timber joinery etc.) not only strengthen architectural authenticity but also reinforce community attachment to place, whereas non-traditional repair interventions/repairs and unsympathetic alterations accelerate material decay and weaken visual coherence. The results additionally highlight notable perceptual gaps between government-led interventions and local expectations, emphasizing the need for participatory governance, transparent implementation, and precinct-specific policy mechanisms.

The study further demonstrates that intangible heritage including craft traditions, spatial rituals, seasonal practices, collective memory, forms an inseparable continuum with the

built fabric, and its erosion due to katra Ahluwalia restructuring and sustained urban pressures poses a serious threat to the precinct's historic identity and cultural significance. Synthesizing empirical evidence, architectural analysis, socio-cultural insights, and stakeholder perspectives, the research proposes a Consolidated Framework for Sustainable Heritage Conservation. This framework integrates physical conservation, community participation, governance reforms, and socio-economic strategies to address the multidimensional challenges of heritage precinct management. Representing the study's original and unique contribution, the framework offers an evidence-based, operational model tailored to the complex dynamics of Indian walled-city contexts. The study concludes with comprehensive policy recommendations aimed at revitalizing heritage precincts through strengthened awareness, capacity building, incentive mechanisms such as TDR, skill revival, and sustained institutional commitment to long-term heritage stewardship.

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CHAPTER 1

INTRODUCTION

This chapter explores the concept of heritage precincts, focusing on their historical, cultural, and architectural significance within the walled city of Amritsar. It examines the challenges posed by urbanization, inadequate planning, and limited community involvement in conserving these precincts. Highlighting research gaps, the study emphasizes the role of public participation and community awareness in conserving Amritsar's built environment, particularly in the Katra Ahluwalia precinct. Through a descriptive methodology, the chapter sets the foundation for analyzing built heritage, identifying conservation challenges, and proposing a framework integrating community engagement for sustainable heritage management.

1.1 Introduction to Chapter

Heritage precincts are significant historical, cultural, and architectural regions within historic cities that serve as living archives of a city's history. They provide a glimpse into the past and demonstrate the area's development and evolution over time. These precincts are critical in the context of accelerated urbanization, as they contribute to a city's cultural identity and continuity. However, they are often at risk of neglect, deterioration, or unsympathetic modernization.

The city's broader historical, socio-economic, and political narratives closely connect to the establishment of heritage precincts. The main streets of the precincts in historical cities often evolved into essential commercial and social centres, housing stores, markets, administrative offices, and community spaces. Various architectural trends, styles, elements, and features representing the various eras in which they were built, as well as colonization, independence, and modernization, influence the built structures, adding to the precincts' value.

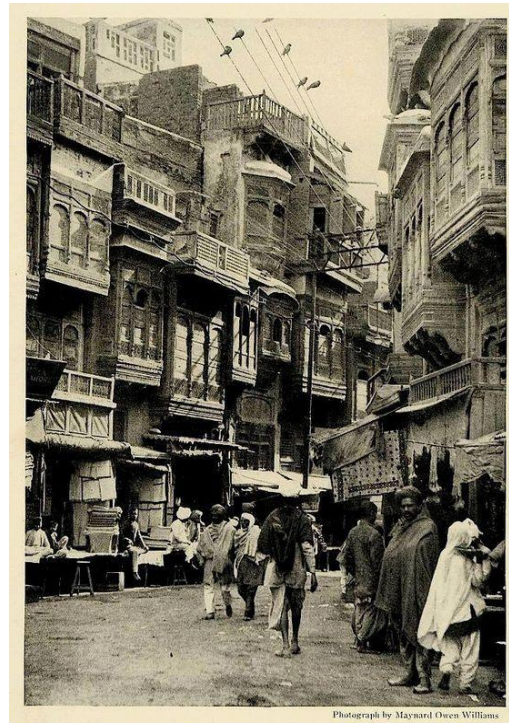
Conserving heritage precincts requires the conservation and enhancement of architectural elements and features that contribute to their unique character, such as street character, facades, and other tangibles and intangibles. Active public participation and community awareness are essential components of effective conservation, along with technical expertise. Involving local residents in the conservation process fosters a sense of ownership and responsibility, ensuring conservation initiatives align with the

community's values and priorities. The rapid pace of urbanization has a significant impact on heritage precinct conservation, leading to the demolition or alteration of historic buildings, the loss of open spaces, and changes in the traditional urban fabric. A comprehensive strategy that integrates heritage conservation with urban planning and development strategies is necessary to address these challenges.

1.2 Research Background

The built environments of walled cities contain layered histories, making the conservation of tangible and intangible elements essential for sustaining local identity and culture. Precincts act as community enclaves where residents form distinct rules, rituals, beliefs, signs, and symbols rooted in religion or tradition. Their built forms reflect the architectural heritage and cultural values of the local community, enhancing the significance of these precincts (Figure 1.1).

Figure 1.1: The traditional urban precincts (Faisal Base, Drigh Road Karachi)



Source: Maynard Owen Williams/National Geographic.1926.

Architectural heritage, particularly those rooted in living communities with extraordinary cultural richness in tangible and intangible environments, can be considered carriers of cultural continuity (Giddens, 1990). Elements other than built heritage, such as rituals and festivals, both cultural and religious, are important to

manage and sustain the built heritage. In a fast-changing urban scenario, any heritage management and conservation effort should understand the importance of public participation and community involvement for success.

The community's role in shaping and managing the environment through collective wisdom and local knowledge contributes significantly to the sustainability of neighborhoods that resist development pressures. Traditional areas where residents continue to use, inhabit, and maintain their architectural heritage remain especially relevant. However, top-down interventions have sometimes resulted in the loss of authenticity, damage to historic fabric, or the replacement of original elements with artificial ones. In contrast, many communities have informally managed their built heritage, though their contributions remain underexplored. Their sustained engagement offers valuable insights for future assessments of architectural heritage conservation and sustainable development.

Traditional precincts that have successfully resisted modernization have the best prospects for survival (Figure 1.2). It is therefore more meaningful to understand how people in these areas adapt to rapid urbanization through lived practices rather than through formal conservation rules and regulations. Such districts are marked by strong social cohesion and active community participation. Few urban areas have withstood modern construction and infrastructure pressures while preserving their inhabited heritage, making these resilient communities even more significant.

Figure 1.2: Conservation of the built heritage.



Source: Heritage Street Amritsar. Sarah Welch, 2017.

Despite the best efforts of local authorities, this problem continues to plague heritage precincts because they are unaware of these areas' unique socio-cultural characteristics and conservation needs. Although the public's informal management of heritage precincts can benefit the conservation of architectural heritage, there has been insufficient research into the extent to which the public is involved, even though their vernacular knowledge of the architecture and historical context is invaluable. Only community awareness and public involvement in defining and regulating the built environment can help historic districts achieve ecological conservation and sustainable development. As stated by the United Nations Department of Economics and Social Affairs at the 2015–2016 UN Summit, this is essential for achieving Sustainable Development Goals 11, in particular Sustainable Cities and Communities. Recognition of this potential has not led to a comprehensive evaluation. There has been limited research on historic building conservation, and none of these studies has considered the dynamic social milieu that characterizes these regions. This study aims to fill gaps in our knowledge about the role of public participation and community awareness in heritage precincts in conserving their built environment.

1.3 Research Focus: Heritage Conservation in Amritsar

Amritsar's walled city, home to the historic Golden Temple built by the fourth Guru, Ram Das Ji holds immense historical and cultural significance. Spanning 433 years, it features pedestrian-friendly, narrow, zigzag streets designed without vehicular influence, with key sites like the Town Hall exemplifying the city's heritage. As Sir Bernard Fielden (1991) stated, “A historical building is the one that gives us a sense of wonder and makes us want to know more about the people and culture. It embodies architectural, aesthetic, historical, economic, social, and political values.” Amritsar's heritage encompasses not only its physical structures but also intangible elements—local customs, trades, and traditions—that define its identity. The community, as the custodian of this heritage, must play a central role in conservation efforts. Conserving both tangible and intangible heritage is crucial, as residents' cultural values, traditions, and social practices shape the identity of these historic precincts. According to anthropologists Redfield and Singer (1956), “little traditions” reflect everyday customs and practices that shape the community's connection to its environment. Effective

conservation of the walled city thus requires public participation and community awareness to safeguard both the physical and cultural legacy of this historic area.

A heritage precinct is an area of historical, architectural, cultural, or aesthetic value, safeguarded by heritage laws to maintain its unique characteristics and cultural heritage. These precincts include buildings, streetscapes, landscapes, and other features that reflect the area's historical and cultural identity. They include a wide range of types, such as residential precincts that preserve neighborhood character, commercial precincts that maintain historically significant businesses, civic precincts encompassing important public buildings, industrial precincts that highlight historic industrial structures, cultural precincts defined by institutions and landmarks, and mixed-use precincts that integrate residential, commercial, and civic functions within historically significant settings.

While conserving the entire heritage precinct is essential for conserving the comprehensive historical character, architectural integrity, and cultural heritage of the area, focusing specifically on the main street can have a more immediate and significant impact. Main streets often contain key historical buildings and landmarks that embody the city's identity and heritage. Enhancing these areas can attract tourists, boost local businesses, and stimulate economic growth, which are critical for the sustainability of historic cities. Main streets also serve as cultural and social hubs, hosting events, festivals, and community activities that foster a strong sense of community and cultural continuity. By focusing conservation efforts along the main street, cities can transform these areas into living heritage corridors that provide educational experiences for residents, students, and visitors. This targeted approach allows historic cities to celebrate their heritage while adapting to contemporary needs, creating a harmonious blend of past and present. Focusing on the main street instills pride among residents, improves the city's overall image, and achieves a greater impact than attempting to conserve the entire precinct at once. It serves as a catalyst for broader conservation efforts, demonstrating the value of heritage conservation and encouraging further investment in the city's historical assets.

1.4. Tangible and Intangible Heritage of Amritsar

Amritsar's heritage embodies a synthesis of tangible and intangible dimensions that together define the city's cultural identity. The tangible dimension comprises the

physical fabric — architectural vocabulary and urban morphology — including religious structures, havelis, katras, chowks, wells, and bazaars. These built elements provide the spatial framework for cultural life, while the intangible dimension encompasses the rituals, crafts, festivals, oral traditions, community memory, and everyday practices that sustain the meaning of these spaces.

Intangible traditions depend on community involvement and intergenerational transmission, whereas tangible assets require documentation, conservation, and restoration. Without living traditions, physical structures risk becoming static relics; conversely, intangible practices lose their spatial anchors without preserved structures. Thus, the decline of one threatens the survival of the other, underscoring the interdependence between the two in sustaining Amritsar's living heritage.

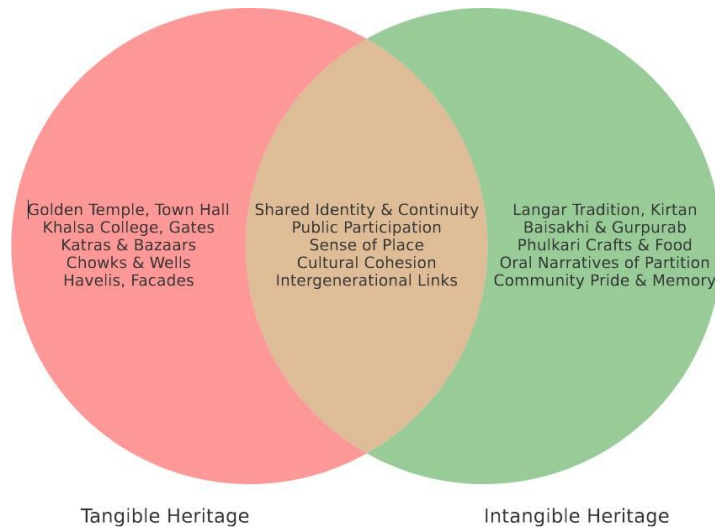
Heritage in Amritsar must therefore be interpreted as a fusion of tangible resources and intangible practices that together preserve cultural identity. The tangible environment—marked by religious structures, katras, chowks, havelis, watchtowers, wells, bazaars, and the traditional street network—illustrates the city's historical continuity (Bawa, 1977; Hosagrahar, 2008). Iconic landmarks such as the Golden Temple, Town Hall, Khalsa College, and the surviving gates serve as visual and cultural anchors, while smaller-scale features like carved balconies, Nanakshahi brick façades, and intimate chowks maintain the precincts' authentic character (Singh, 2005; Weise, 2008).

The intangible heritage dimension reflects enduring traditions and collective social values. These include market-based identities such as Katra Jaimal Singh for textiles or Guru Bazaar for jewelry; crafts like Phulkari embroidery, food culture, and metalwork; and religious practices including the daily langar and kirtan at the Golden Temple (Jain et al., 2008; UNESCO WHC, 2019). Festivals such as Baisakhi further reinforce Amritsar's identity as a living heritage city and nurture community pride (INTACH, 2016).

An interactive system best captures the interrelationship between tangible and intangible heritage (Figure 1.3). Built structures provide the setting for social and cultural practices, while rituals, crafts, and occupations impart meaning and continuity to those spaces. Chowks remain centers for communal gatherings, bazaars and katras sustain traditional trades, and domestic havelis foster family traditions, culinary

practices, and storytelling. Together, these interwoven elements establish a shared sense of place where the built environment and community practices are inseparable (UNESCO, 2011, UNESCO WHC, 2019).

Figure 1.3: Tangible and Intangible Heritage in Amritsar



Source: Author.

1.5. Introduction to Amritsar

Amritsar, one of India's oldest cities, holds deep historical and cultural significance as the center of Sikh faith and culture. Founded by Sri Guru Ram Dass Ji in 1577 AD, it later evolved through the Misl period (1665–1802) before Maharaja Ranjit Singh fortified it in 1802 with a defensive wall (Figure 1.5) and fourteen gates (Figure 1.6), consolidating its urban form. According to the 2011 Census, Amritsar's population was 1,183,705, with a density of 8,314 persons per square kilometre—rising to 740 persons per hectare within the densely populated walled city. Serving as the city's central business district, the walled city accommodates twenty-two specialty markets that exhibit a distinctive blend of architectural styles.

Bungas, educational institutions, forts, and religious structures such as the Harmandir Sahib (Golden Temple) represent Sikh architecture in Amritsar. Maharaja Ranjit Singh's initiatives—including the city's fortifications, the construction of katras, bazaars, gardens, havelis, and more than two hundred watchtowers—defined the city's physical identity. The creation of the Harmandir Sahib and its sacred tank with the

surrounding parikarma played a pivotal role in shaping Amritsar's spiritual core and enduring architectural heritage.

Figure 1.4: Watch tower of Amritsar.



Source: -Wikipedia, Photographer: Craddock, George, circa 1914.

Figure 1.5: 1 of the 14 gates of Amritsar.



Source: HT, Conservation work at Hathi Gate, 2019.

During British rule, Amritsar expanded northward. The Town Hall, Hall Bazaar, and Hall Gate within the city's fortifications date back to this period and attest to the British Empire's physical dominance (Figure 1.4). British influence is evident in the city's transport, communication, post and telegraph, banking, printing press, and professional training institutions, with the construction of Khalsa College in 1892. Following the

division of the Indian subcontinent and Punjab, Amritsar emerged as a popular choice among new residents.

The city's rapid growth and development were unplanned and inefficient due to population and development pressure, and, more importantly, unplanned city growth disrupted both the inner and outer areas of the city. Still, residential areas were hit hard. Intensification of built area, land use, material choice, and encroachment on open spaces in the city's core threaten built heritage.

Figure 1.6: Location of 14 gates of wall city of Amritsar



Source: HRIDAY, Volume 1, 2016.

1.6 Statement of the Problem

Heritage conservation within Amritsar's walled city precincts represents a complex challenge that intertwines historical, social, economic, and urban planning factors. Despite Amritsar's rich historical background and cultural significance, there is a

noticeable gap in the research on conservation of the built heritage in the precincts of Amritsar and informal Heritage conservation strategies. This study seeks to bridge this gap by examining Amritsar's built heritage in the precincts and the social factors that influence conservation and development public participation and community awareness. The primary problem in the heritage conservation of the precincts in the walled city of Amritsar is the lack of effective and inclusive conservation strategies that integrate informal heritage management systems. Several interrelated factors influence this issue.

- **Historical Factors:** Inadequate conservation efforts and a lack of recognition of their historical value lead to the neglect or poor maintenance of many historical sites in Amritsar. Unregulated development and modernization efforts have led to the alteration or destruction of historically significant structures, compromising the city's cultural heritage.
- **Social Factors:** There is a lack of active involvement and participation from the local community in heritage conservation efforts. The community's role and traditional knowledge in conserving heritage are often overlooked. Conservation strategies sometimes fail to respect and incorporate the cultural practices and traditions of the local community, leading to resistance and non-cooperation.
- **Economic Factors:** Limited financial resources and funding for conservation projects hinder the effective conservation of heritage sites. The increasing focus on tourism development can lead to commercialization, which may compromise the authenticity and integrity of heritage sites.
- **Urban Planning Factors:** Urban planning initiatives often prioritize modern development over heritage conservation, leading to the encroachment and degradation of historical precincts. There is a need for integrated urban planning that balances development needs with heritage conservation.
- **Community Awareness:** There is a significant lack of awareness among residents and stakeholders about the importance of heritage conservation and the benefits it can bring to the community. Insufficient educational and awareness programs are aimed at promoting heritage conservation among the local population.

- **Public Participation:** Public participation in heritage conservation is minimal, leading to decisions that do not reflect the community's needs and preferences. Stakeholders, including residents, conservationists, and government authorities, lack effective platforms for dialogue and collaboration.
- **Government Policies:** Existing government policies may not adequately address the specific needs and challenges of heritage conservation in walled cities. Even where policies exist, there are often significant challenges to their effective implementation and enforcement.

The research problem can be summarized as to “The extent to which public participation, community awareness, and heritage management regulations contribute to the conservation of the architectural heritage of the precincts of the historical city of Amritsar has to be examined”.

1.7. Heritage Framework Context

International doctrines, national laws, and city-level initiatives regulate heritage conservation in Indian historic cities. These programs establish values, control change, and increase public engagement and community knowledge in Amritsar's walled city.

The Venice Charter (1964) set standards for authenticity and fabric protection, the Nara Document (1994) expanded authenticity to include cultural and social aspects, the Burra Charter (2013) stressed values-based management and community involvement, and the UNESCO Historic Urban Landscape (HUL) approach (2011) combined heritage with sustainable urban development and participatory governance. These theories help this study find the right balance between authenticity, setting, and community involvement. Indian laws include the AMASR Act of 1958 (amended in 2010), which makes 100 m prohibited and 200 m regulated zones around nationally protected monuments; the Punjab State Act of 1964, which allows state-level listing and protection; and the INTACH Charter of 2004 (updated in 2014), which emphasizes inventories, traditional skills, and community action for unprotected heritage. These make a mix of strict rules and more relaxed, community-based conservation practices that are important to Amritsar's culture.

National programs like the JNNURM Heritage Toolkit (2005–2014) and HRIDAY (2015) made heritage a part of city planning by connecting it to infrastructure, identity,

and jobs. They also gave examples of how to govern precinct-level projects like the Town Hall–Golden Temple corridor.

1.8. Brief summary of literature studies:

Many studies of historic cities concentrate on elements including heritage, way of life, streetscape and space, land use, hazards, community engagement, place spirit, and place identity. Here is a quick summary of a few of these elements.

In his research on Hyderabad, Naidu (1990) focuses on the walled city's physical environment problems, such as blocked sewers, inadequate sanitation, a lack of green space for kids, and many more. The study highlights how crucial streets are as areas for social interaction and play.

Row housing, mixed land use, and building names are described by Siddiqi (2000). Because the bottom level is used for stores and the higher floors are used for housing, the Lucknow mohallas encourage social interaction and security.

According to Hosagrahar (2008), Karnataka cities' constructed heritage includes temples, villages, lakes, ghats, street patterns, town plan, social structure, festivals, and rituals. The report identifies a number of problems that ancient towns face, such as modernization, squatting, encroachments, economic development and change, more tourism, and a decline in public areas. The incompatibility of modern buildings in terms of both appearance and functionality is another significant issue. Participatory planning is lacking because of the recent catastrophic developments in the residential and commercial sectors.

Weise (2008), who has studied the history of Darjeeling, claims that the town's natural and architectural heritage has been harmed over time. The report emphasizes the town's ongoing character change, the replacement of old buildings with concrete ones, and the resulting loss of streetscapes, public areas, and involvement.

Both tangible and intangible assets from Nashik are included (Jain, Kulkarni, Arora, Sonawane, and Munjal, 2008). The research finds that the existing absence of robust historical management, listing, heritage regulations, planning, and design requirements is causing the city's character to deteriorate. Overcrowding, encroachments, ill-placed electric poles and wires, deteriorating buildings, poor solid waste management, drainage concerns, and new development are among the problems plaguing the town's historic

heart, the findings show. Furthermore, the general people does not actively participate in conservation initiatives.

Abdi and Namin (2008) cover the significance of spatial planning in Iranian city development plans in “Spatial Planning as an Approach to Achieve Sustainable Development in Historic Cities.” The study's review of secondary sources revealed a lack of economic, social, and environmental concerns as well as a lack of community engagement in conservation initiatives. To recognize and preserve the place's essence and emphasize its importance, UNESCO and ICOMOS advise using an integrated approach.

According to Dun and Docter's (1993) study paper, "The Urban Heritage as a Cultural, Social, and Economic Asset" of the Netherlands' historic towns highlights the distinctive features of historic cities and emphasizes the need for a master plan to preserve their uniqueness. According to the report, the public, management, legislation, and municipalities are important participants in this endeavor. The primary findings of the study indicate that historic towns are at risk from factors including deteriorating historic urban fabric, new building in key regions, and increasing traffic. Based on observations and secondary sources, the study suggests more financing and public support to further historic conservation.

Few researches examining Punjab's physical and intangible legacy have focused on its metropolitan districts. These studies examine the historical background and its effects on the local populace, despite the fact that Amritsar has been the focus of inquiry.

Bawa (1977) describes the gates, katras, and bazaars of Amritsar. The study found that streets and bazaars are named based on caste, occupation, or the presence of trees.

Prof. Singh (2005) explains in this paper Conservation of Architectural Heritage: Enabling Laws that while legislation pertaining to conservation is undoubtedly important, other elements like strict enforcement, political will, public awareness, and involvement are just as important for heritage conservation. Several studies have emphasized the effectiveness of PPP models in heritage management. Research by Yung and Chan (2012) highlighted how adaptive reuse through PPPs can achieve sustainable outcomes by aligning conservation goals with economic viability. Similarly, Akshaya and Srivastava (2021) examined PPP

frameworks in the Indian context, demonstrating their potential to balance public responsibility and private investment in conserving historic precincts.

These studies collectively establish a global foundation for understanding how collaborative governance and financial partnerships can enhance conservation efforts in the walled city of Amritsar. Recent research in India highlights the close connection between public engagement, perception, and the success of urban heritage conservation. For instance, Pati (2023) shows through his study of Varanasi that community perceptions of large-scale heritage interventions often determine their outcomes, emphasizing the importance of participatory frameworks. Similarly, Routh (2024) examines the implementation of Heritage Transfer of Development Rights (TDR) in Ahmedabad and concludes that community willingness to conserve is shaped by awareness of policy instruments and trust in administrative execution. Jaipur's 2019 World Heritage Site designation further reinforces the significance of "living heritage" by integrating traditional marketplaces, artisan networks, and cultural activities within formal management systems.

Taken together, these studies demonstrate that physical restoration and regulatory mechanisms alone are insufficient for effective conservation. Ensuring authenticity and sustainability requires community engagement, participatory methods, and recognition of intangible heritage—an approach consistent with the UNESCO Historic Urban Landscape (2011) paradigm, which integrates socioeconomic development, urban resilience, participatory planning, and historical management.

The reviewed literature also reveals a strong relationship between the character of historic precincts and the lifestyle of their residents. Most available studies on Amritsar's walled city, however, rely heavily on secondary data and provide limited empirical insights into everyday life, heritage precinct dynamics, socioeconomic factors, stakeholder awareness, and community participation. Considering this, research on Amritsar must adopt this perspective to develop a comprehensive understanding of its living heritage and conservation needs.

1.9. Linkage of Tangible and Intangible Dimensions

Heritage within Amritsar's walled city extends beyond its buildings, streets, and it encompasses collective memory, social identity, and enduring traditions. This study

therefore, interprets the physical condition of the built fabric in relation to the cultural values and practices that sustain it. Civic participation, artisanship, and community pride are treated as integral components of the conservation process rather than peripheral social attributes. This integrative perspective ensures that measurable architectural observations are viewed through the lens of living culture, reflecting how tangible and intangible elements together preserve the city's continuity and spirit. The approach aligns with the UNESCO Historic Urban Landscape (2011) framework and the INTACH Charter (2014) on integrated heritage management.

1.10. Problem Identification

The loss of character in precincts within heritage city of Amritsar is a complex and multifaceted issue, influenced by various factors that impact the cultural, historical, and architectural identity of these areas. Here are some key reasons why precincts may be losing their character and the associated value in the heritage city of Amritsar.

- **Urbanization and Modernization:** Urbanization frequently results in rapid development, with an emphasis on contemporary infrastructure and conveniences. The demolition or alteration of older structures may compromise the precinct's historical character.
- **Lack of Comprehensive Urban Planning:** Inadequate zoning regulations and other forms of poor urban planning can lead to development in a disorganized fashion that disregards the need to conserve historic districts. The loss of character can occur when there is not a thorough plan to balance development with conservation goals.
- **Commercialization and Gentrification:** The conversion of historic structures into commercial establishments may result in a change in the area's character, compromising its historical integrity. There is a risk that gentrification initiatives may bring in more people that are affluent.
- **Population Pressure and Changing Demographics:** Increased Need for Housing: The inevitable rise in housing demand is one consequence of urbanization. As a result, new developments may supplant older structures within precincts, changing the area's demographic and cultural make-up.

- **Lack of Heritage Conservation Policies:** Historic structures can be at risk due to ineffective policies, such as weak enforcement of existing regulations or a complete lack of such policies. Without adequate safeguards, new developments may alter or even destroy these buildings.
- **Neglect and decay:** Neglect and lack of maintenance can eventually destroy historic buildings. These structures risk decay and the loss of their unique character unless someone makes an effort to keep them in good repair.
- **Conflict between Development and Conservation Goals:** Conservation of cultural artifacts may need to be prioritized over developmental objectives. Decision-makers may prioritize economic development and progress over the conservation of the city's heritage character.
- **Lack of Community Engagement:** Advocacy for the conservation of heritage precincts may be lacking if local communities are not actively involved and made aware of the issue. To encourage people to take pride in and care for cultural assets, community involvement is essential.
- **Economic Pressures and Land Use Changes:** Focus on Economic Development
Economic pressures may drive decisions to prioritize new, commercially viable developments over efforts to conserve historical character. Shifts in land use may lead to the demolition of historic buildings and their replacement with modern structures that fail to maintain the area's distinctive identity.
- **Tourism Impact:** Unsustainable tourism practices can harm the unique character of historic districts. Overcrowding, insensitive tourist development, and disregard for local built structures often undermine the value the place.

Urbanization, inadequate planning, commercialization, demographic shifts, weak conservation policies, and economic pressures drive the loss of character in Amritsar's heritage precincts. Rapid development often prioritizes modern infrastructure, leading to the alteration or demolition of historic structures. Poor zoning and planning overlook conservation, while commercialization and gentrification shift the area's cultural fabric. Population growth and housing demands add pressure, with economic priorities frequently overshadowing conservation efforts.

1.11. Absence of Framework for public participation and community awareness

The absence of a community-level heritage management framework and limited exploration of informal heritage conservation issues can contribute to challenges in conserving and safeguarding cultural heritage. Here are some implications and potential reasons for these gaps:

- **Lack of Community Engagement:** The local community is typically actively involved and engaged in a community-level framework for managing heritage. People in the community might not care about conserving their history unless there is a structure like this in place.
- **Inadequate Recognition of Informal Practices:** Informal heritage conservation practices, such as traditional conservation techniques passed down through generations, often lack official recognition or documentation. As a result, formal conservation efforts and valuable community practices can become disconnected.
- **Limited Resources and Capacity:** Formal heritage management frameworks may be difficult to create and sustain in communities that do not have the necessary institutional or financial resources. This can lead to a lack of organization or the use of informal methods to conserve cultural heritage.
- **Top-Down Approaches:** If heritage conservation primarily relies on top-down methods without community involvement, local knowledge and practices, which are essential for conserving cultural identity—may go untapped.
- **Rapid Urbanization and Development:** Communities may struggle to hold on to their history as they adapt to rapid urbanization and development, particularly in the absence of formal frameworks to direct development in a manner that values and incorporates cultural assets.
- **Policy Gaps and Weak Enforcement:** Insufficient enforcement mechanisms or a lack of heritage conservation policies may not adequately safeguard informal practices. Without the support of laws and regulations, communities may find it difficult to protect their history.
- **Lack of Documentation:** If informal heritage conservation practices are not adequately recorded, it may be difficult to transmit information to subsequent

generations or share them with broader audiences. The absence of documentation may impede attempts to formally incorporate these practices into larger conservation strategies.

- **Cultural Change and Globalization:** Modernization and globalization may bring about cultural shifts that undervalue efforts to conserve cultural traditions. In order for conservation efforts to be relevant and effective, communities may have to change the way they do things.

“The absence of incentive-based mechanisms such as Transfer of Development Rights (TDR), tax rebates, and façade grants has limited property owners’ willingness to participate in heritage conservation within Amritsar’s walled city.”

Within these overlapping challenges, the most critical outcome is the progressive disappearance of historic structures across Amritsar’s walled city precincts. Over recent decades, traditional houses, havelis, and katra façades have been replaced by concrete commercial buildings due to rising land values, fragmented ownership, limited maintenance incentives, and a shortage of traditional craftsmanship. Weak enforcement of heritage regulations and partial listing of assets further permit unmonitored redevelopment. Consequently, heritage loss in Amritsar has become not only a physical process but also a socio-economic and cultural transformation. These conditions highlight the absence of a community-based heritage management framework that links local participation, informal conservation practices, and formal policy mechanisms. To safeguard both tangible and intangible heritage, an integrated strategy combining physical restoration, public engagement, and cultural continuity is essential for sustaining the city’s historic character.

1.12. Research Gaps in Existing Studies of Urban Heritage:

Although several studies describe the architectural richness of Amritsar’s walled city, the existing literature does not adequately examine the specific factors that influence the conservation of its historic structures. Most available work highlights the visible deterioration of the built environment but does not explore how public participation, community awareness, and socio-economic pressures shape conservation outcomes. These omissions create a significant research gap in understanding why the city’s cultural legacy remains vulnerable to demolition and inappropriate alterations.

1.12.1 Lack of Public Participation

Limited Involvement in Decision-Making: Existing studies rarely analyse the involvement of local communities in heritage-related decisions. Residents and stakeholders, despite their direct connection to the historic environment, are seldom included in the academic evaluation of conservation processes. This represents a gap because the literature does not investigate how community values, preferences, or expectations influence conservation responses or contribute to the loss of historic structures.

Absence of Collaborative Platforms: Research does not adequately address the absence of structured platforms for dialogue among authorities, planners, and the public. The lack of attention to these collaborative mechanisms in the literature creates a gap in understanding how inclusive deliberation could support more sustainable conservation strategies, particularly in dense historic precincts such as Amritsar.

Resistance to Top-Down Approaches: Most scholarly work documents institutional approaches but does not evaluate how top-down conservation models shape community attitudes or resistance. The literature therefore overlooks an important dimension: the need for conservation models informed by local insight and autonomy. This omission limits the development of participatory, community-responsive conservation frameworks.

1.12.2 Lack of Community Awareness

Insufficient Heritage Awareness: Existing research does not comprehensively assess heritage awareness among residents of the walled city. Without examining the level of understanding or appreciation for the area's cultural significance, the literature leaves a gap in explaining community disengagement from conservation efforts and the declining support for protecting historic structures.

Educational Deficiencies: Studies rarely investigate the limited presence of heritage education in Amritsar or its influence on conservation behaviour. This gap constrains understanding of how structured awareness programmes could strengthen stewardship and reinforce cultural identity within the historic precinct.

Cultural Disconnect: The literature does not explore how younger generations experience cultural disconnect due to modernization and lifestyle changes. This absence

leaves unexplored how weakened cultural links affect long-term continuity, community attachment, and support for conservation initiatives.

1.12.3 Socio-Economic Factors

Economic Pressures on Residents: Although economic constraints are mentioned in general studies, research does not evaluate how these pressures influence decisions to demolish or significantly modify historic structures. This gap prevents a nuanced understanding of the relationship between livelihood needs and heritage conservation in the walled city.

Funding Limitations: Existing literature does not sufficiently examine how inadequate funding affects the scope, quality, and sustainability of conservation projects. As a result, the impact of financial constraints on inappropriate repair materials or neglected structures remains underexplored.

Tourism's Impact: While tourism is widely discussed, studies do not analyse its specific effects on authenticity, architectural modification, or commercialization in Amritsar's historic core. This oversight leaves unexplained how tourism-driven changes reshape the character of the precinct.

Urban Development Pressures: Research does not address how rapid urbanization and infrastructure demands compete with heritage protection. The gap lies in the lack of examination of regulatory prioritisation and the consequences of new developments on the survival of historic structures.

Most studies emphasize physical degradation but do not examine broader cultural, social, or urban dynamics that influence conservation effectiveness. The significance of intangible heritage—such as ceremonial practices, artisanal traditions, and generational cultural continuity—remains insufficiently analysed in relation to tangible conservation outcomes. This creates a gap in understanding how intangible values reinforce or weaken precinct authenticity.

The literature also does not evaluate community-based conservation models, focusing instead on institutional frameworks that overlook local perspectives. Similarly, there is limited discussion of heritage education, structured outreach, or awareness-building strategies, despite their importance for sustaining conservation efforts. Finally, research does not investigate the cumulative interactions between commercialization, tourism

pressures, financial constraints, policy deficiencies, and weak enforcement mechanisms. This gap restricts comprehensive insight into how these interconnected factors influence the long-term conservation challenges of Amritsar's historic centre.

1.13 Hypothesis

Heritage conservation in Amritsar's walled city cannot be achieved through physical restoration alone; it requires measurable levels of public participation and community awareness as interdependent components influencing conservation outcomes and long-term sustainability.

Sub-Hypotheses

H₁ – Socio-Physical Correlation: Improved physical condition of heritage structures, supported by effective community participation and governmental initiatives, is positively associated with stronger community opinion toward conservation.

H₂ – Material Integrity and Awareness: Preference for traditional repair materials and higher levels of community pride and awareness jointly enhance support for heritage conservation and sense of cultural identity.

H₃ – Contextual Constraint (Qualitative): Socio-economic pressures—such as commercialization, tourism, and housing demand—negatively influence public participation and community awareness, indirectly reducing conservation effectiveness.

1.14 Research Questions

The study aims to learn more about the aforementioned areas of interest through predetermined research topics.

1. Why are the heritage structures in precincts being pulled down?
2. Is lack of public participation and awareness are the main reason for the changes?

1.15 Research Objectives

The objective of this work aims to establish a framework for conservation of heritage precincts of Amritsar.

1. To understand the heritage built character and features of built heritage in the walled city of Amritsar
2. To identify the factors responsible for the changes in character of heritage precincts in Amritsar

3. To analyse how public participation and awareness can contribute for the conservation of historic precincts
4. To provide recommendations for a policy framework that incorporates public participation in conservation

The precincts' heritage can be conserved using existing techniques, while new avenues for economic development can be opened up through the proper utilization of these historical structures, which can boost employment, revive the craft tradition, and stimulate tourism in Amritsar.

1.16 Scope of the Research

The study focuses on the identification and thorough documentation of a historic precinct, particularly the main road leading to the Golden Temple within the walled city of Amritsar, emphasizing architectural features, façade treatments, styles, and construction techniques along Katra Ahluwalia's principal thoroughfare. It includes the structural assessment and conservation analysis of notable buildings, monuments, sacred places, and traditional urban elements.

The scope includes the examination of the historical development and cultural significance of Amritsar's heritage sites, documenting their transformation over time. Attention is also given to the socio-cultural and economic dimensions of the communities residing in these areas, recognizing their traditions, historical memory, and cultural identity as essential to the conservation initiative.

A key component is evaluating the impact of public participation, and community awareness on conservation outcomes, ensuring that conservation strategies are technically sound and socially supported. The research examines the effects of urbanization, commercial pressure, and tourism on the conservation of built heritage within the walled city. The study investigates several interrelated factors—community awareness, public participation, socio-economic conditions, government initiatives, traditional materials, and community pride—as crucial in shaping conservation outcomes. These elements are analysed through surveys, statistical methods, and case studies in the following chapters. Within the broader framework of sustainable heritage management, complementary tools such as heritage zoning, Transfer of Development Rights, Adaptive reuse, Community incentives, Public–Private Partnerships, and

heritage tourism initiatives are discussed conceptually, supporting but not forming the primary analytical focus of the research.

1.17 Limitations of the Research

This study, despite its broad scope, carries certain limitations arising from methodological, contextual, and generalization factors, which define the boundaries within which the findings should be interpreted. The geographic scope is restricted to Amritsar's walled city, with primary focus on Katra Ahluwalia. While the findings provide valuable insights, their applicability to other Indian or global heritage cities with different socio-cultural and governance systems remains limited. In terms of temporal scope, the study reflects conditions between 2020 and 2025, future changes in governance, conservation programs, or urban pressures may alter its relevance.

Data availability was a key challenge. Limited access to archival records, maps, and municipal datasets hindered the reconstruction of Amritsar's urban development. Many heritage properties remain undocumented or informally modified, resulting in incomplete inventories. Reliance on municipal data and secondary sources further restricted accuracy.

Community engagement faced similar constraints. Participation depended on the willingness of residents, shopkeepers, and stakeholders, which varied due to sensitivities, scepticism, and survey fatigue. Marginalized voices—particularly women, artisans, and informal vendors—were not always adequately represented. The subjectivity of responses also introduced limits, though triangulation across methods reduced bias.

Policy and governance limitations persisted, as the study does not directly engage with statutory frameworks such as ASI/AMASR or the Punjab Heritage Act. While policy gaps are highlighted and recommendations proposed, enforcement lies beyond the scope of this research.

Economic evaluation remains indicative rather than comprehensive. Though mechanisms like Transfer of Development Rights (TDR) are examined, detailed financial feasibility or cost-benefit models were not undertaken. Methodological constraints are evident in the subjective interpretation of intangible heritage—crafts, rituals, and identities—despite efforts at cross-verification. Lastly, the COVID-19

pandemic restricted fieldwork and site visits, limiting ongoing observation of rituals, social practices, and daily spatial use.

1.18 Research Methodology and Study Area

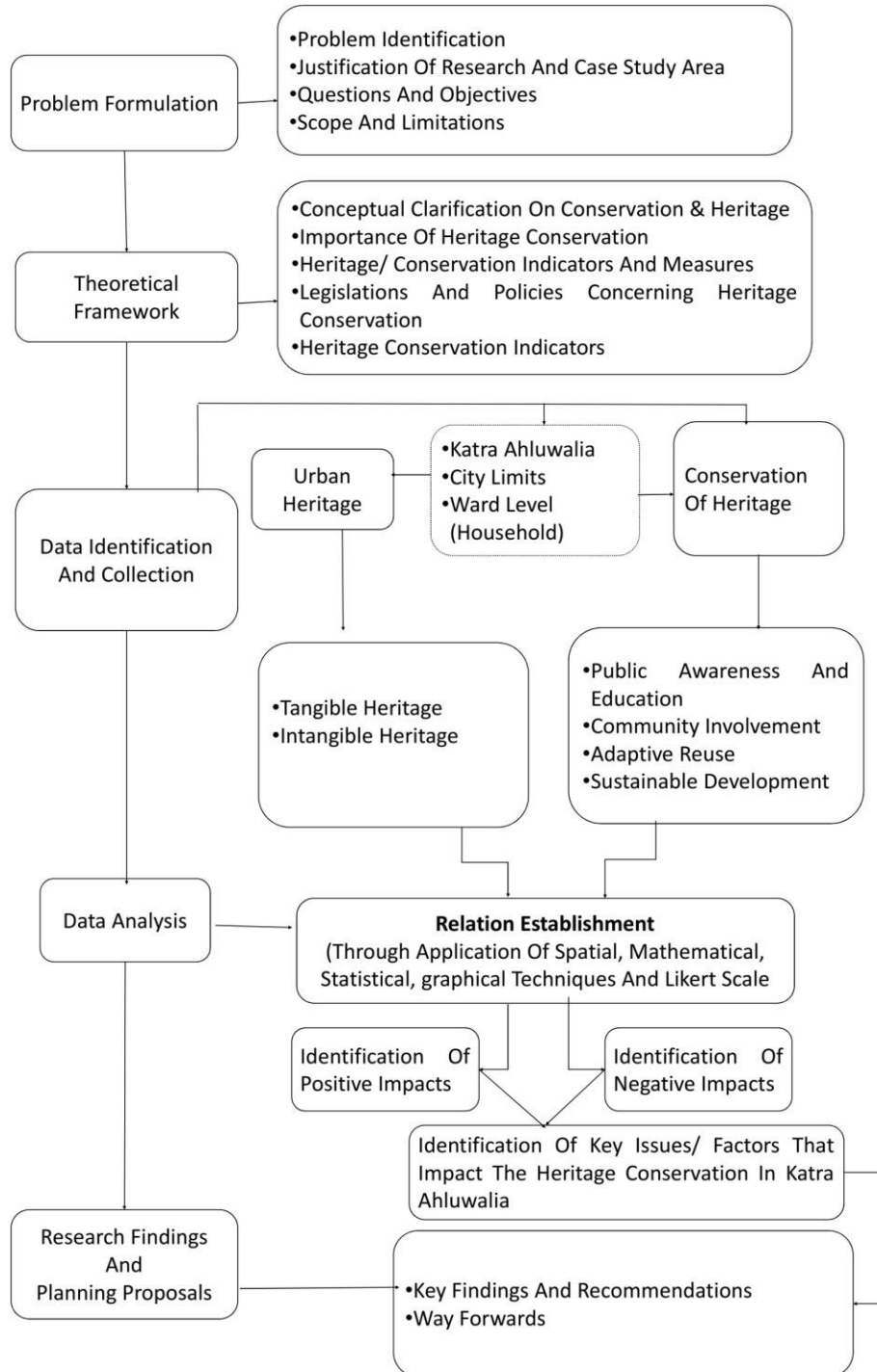
The study utilized a descriptive research methodology to establish a theoretical base and analyze the relationship between various indicators. This approach aimed to define, quantify, and clarify the research problem in depth. Participants included cultural heritage officials, local community members, and stakeholders from Katra Ahluwalia

Sample Size: This study used a sample size of 272 people to gather information. We used sampling techniques to select the key informants for the study. This study used a combination of closed and open-ended questionnaires to gather data. To achieve this, we distributed and collected questionnaires. People who live in the area, have a hand in making decisions, or are otherwise involved with built heritage in some way were all considered for the purpose of selecting respondents. We gathered data using a combination of primary and secondary sources. The study's data collection methods included questionnaires, semi-structured interviews, and documentary analysis.

Primary Data: We distributed and processed questionnaires to gather primary data for this study. Before we fully implemented these methods, we conducted a pilot study to evaluate the clarity, validity, and consistency of the research instruments. We gathered data for this type of study through questionnaires and interviews. We simply wanted more in-depth replies, so we did this. A major advantage of conducting face-to-face interviews is that researchers can more easily observe nonverbal signals such as facial expressions and body language.

Secondary Data Collection: We collected secondary data through library research and document review. The review process included perusing and summarizing key points from a variety of print and digital sources, including books, reports, newspapers, articles, and websites. **Pilot Study (Questionnaire Pre-testing):** We conducted a small-scale pilot study in the designated area (Katra Ahluwalia) to evaluate the clarity, validity, and consistency of the research instrument. We used a random sampling technique to select 10 participants with open-ended interviews to help us refine the questionnaire and other tools based on their feedback during the pilot study. Stepwise procedure followed for the present research is shown in figure 1.7.

Figure 1.7 : Summary of Research Methodology



1.19 Research Significance

This study holds significance at three interrelated levels:

- Academic significance – It contributes to scholarship on heritage conservation by integrating tangible and intangible dimensions, highlighting the role of community participation, and examining incentive mechanisms such as Transfer of Development Rights (TDR) that are rarely applied in Indian heritage precincts. The research enriches comparative discussions on values-based conservation and participatory frameworks in historic urban contexts.
- Policy significance – The findings provide insights for urban local bodies, state authorities, and heritage organizations by identifying gaps in existing policies and proposing practical mechanisms to reconcile development pressures with conservation needs. The study supports alignment with global frameworks such as UNESCO’s Historic Urban Landscape (HUL) and national initiatives like HRIDAY, while also highlighting the need for localized policy innovations.
- Community and societal significance – At the grassroots level, the research underscores the importance of community memory, crafts, rituals, and pride as integral to sustaining Amritsar’s cultural identity. By advocating participatory and incentive-based approaches, the study empowers residents and stakeholders to become active custodians of their heritage, ensuring that conservation outcomes are socially inclusive and sustainable.

1.20 Organization of Report

The thesis is structured into three interrelated parts, each building upon the previous to create a coherent narrative that moves from theoretical foundations to contextual study, empirical analysis, and finally to conclusions and recommendations.

Part I (Chapters 1–3) establishes the background and methodological framework of the research. Chapter 1 introduces the study by defining its aims, objectives, research questions, scope, and limitations. It sets the stage by presenting the challenges of conserving Amritsar’s walled city, particularly issues of public participation, awareness, and socio-economic pressures, and explains why Katra Ahluwalia was chosen as the focus precinct. It also outlines the methodological tools—field surveys, interviews, and statistical analysis—used to examine tangible and intangible heritage. Chapter 2

presents a detailed literature review, exploring global and national perspectives on urban heritage conservation, including frameworks such as UNESCO's Historic Urban Landscape, HRIDAY, and INTACH guidelines. It highlights debates around community engagement, informal conservation practices, and adaptive reuse, identifying gaps that this study seeks to address. Chapter 3 describes the research design and methodology in detail, including criteria for selecting case study areas, sampling techniques, data collection methods, and analytical frameworks such as Likert-scale surveys, ANOVA testing, and correlation analysis. This part provides the conceptual clarity and methodological rigor needed for the study.

Part II (Chapters 4–6) presents the contextual and empirical research, anchoring the study in Amritsar's history and contemporary challenges. Chapter 4 traces the historical evolution of the city and the walled precincts, outlining the role of religious, cultural, and socio-economic forces in shaping its urban morphology. It also examines how processes of urbanization and modernization have placed increasing pressure on heritage assets. Chapter 5 narrows the focus to Katra Ahluwalia, analysing its architectural characteristics, including building typologies, facade treatments, traditional construction techniques, and distinctive features such as religious monuments, chowks, and wells. It highlights the precinct's significance as both a repository of architectural heritage and a site of cultural identity. Chapter 6 presents the core analysis and findings, integrating both tangible and intangible heritage. Tangible aspects include the condition of historic structures, government and community repair efforts, and the use of traditional versus modern materials. Intangible aspects include sense of place, community pride, social cohesion, education and awareness, civic participation, and intergenerational continuity. Using statistical tools such as ANOVA, the chapter establishes correlations between these dimensions, demonstrating how the built form (tangible) and lived culture (intangible) are interconnected in shaping conservation outcomes.

Part III (Chapter 7) synthesizes the results and proposes recommendations. It begins with a summary of the key findings, showing how gaps in public participation, awareness, and socio-economic pressures hinder heritage conservation in Amritsar. It then develops guidelines for conservation and adaptive reuse, emphasizing community

participation frameworks, strategies for enhancing awareness and education, and policy recommendations to strengthen governance and institutional support. The chapter also reflects on the study's limitations, such as the focus on Katra Ahluwalia's main street rather than the entire precinct, and the reliance on perception-based survey data rather than material testing. Finally, it suggests areas for future research, such as comparative studies with other walled cities, the integration of digital technologies in heritage documentation, and long-term participatory conservation models. This concluding section positions the study not only as an assessment of Amritsar's heritage but also as a framework for holistic, community-centered conservation strategies applicable to other historic cities.

CHAPTER 2

REVIEW OF LITERATURE

This chapter presents a comprehensive review of literature on heritage conservation, exploring the concepts, methods, and strategies involved in preserving historical sites. It examines cultural, architectural, historical, and aesthetic aspects of heritage conservation, including definitions, evaluation approaches, significance assessment, and heritage legislation. The chapter also discusses the roles of public participation and community awareness, analyses international conservation charters, and reviews various strategies for conserving heritage precincts in walled cities. Through this literature review, the chapter establishes the theoretical foundation for understanding the challenges and methodologies pertinent to heritage conservation in historic urban environments.

2.1. Background

Through an analysis of published works from books, journals, articles, and websites, the literature review aims to understand the ideas, methods, and strategies involved in the conservation of historical sites. It addresses aspects of heritage conservation that are cultural, architectural, historical, and aesthetically pleasing. It touches on constructed form, city image, aesthetics, landscape, environment, signs, heritage law, awareness, and public engagement. With an emphasis on understanding concerns, carrying out analyses, and using models to establish policies for heritage conservation, the paper examines definitions, methodologies, evaluation approaches, importance assessment, heritage legislation, strategies, toolkits, and practices in various cities.

Cultural heritage involves inheriting physical artefacts and intangible attributes from past generations, conserved for future benefit. Tangible cultural heritage includes structures, historic places, monuments, and artefacts worthy of conservation, attracting both international and local tourists. Because responsibility rests on the current generation due to the uniqueness and irreplaceability of surviving heritage. Heritage places enrich lives by offering glimpses into the past, enhancing community character, and respecting cultural heritage, which involves managing and retaining significant places.

Heritage conservation identifies, protects, and promotes culturally and historically significant elements, safeguarding them from environmental or human threats. It pertains to protecting valued aspects of the built environment, responding to historical

connections, and creating a "sense of place." Urban heritage includes protected archaeological sites, ruins, monuments, and unprotected buildings, Neighborhoods, public spaces, landscapes, and natural features defining a city's identity. Conservation plans for cities must consider both protected and unprotected urban heritage components, classified as tangible and intangible heritage. Heritage site conservation aims to protect not only man-made features but also those that are historically, aesthetically, architecturally, culturally, or environmentally significant, such as areas, precincts, buildings, artefacts, and structures.

2.2 Literature Review of Few Researchers

This section reviews key scholarly contributions, conservation frameworks, and evolving approaches that have shaped heritage preservation across different contexts. The discussion highlights the growing influence of planning, governance, socio- economics, and intangible heritage on conservation thought. By comparing global and Indian research, it identifies important gaps and convergences. These insights provide the conceptual basis for the present study.

2.2.1 Pre-1980: Philosophical and Institutional Foundations

The origins of architectural conservation as an intellectual and ethical discipline can be traced to nineteenth-century Europe, where scholars first articulated principles that shaped modern conservation philosophy. John Ruskin (1849, 1851–53) argued that buildings embody memory through their age, patina, and weathering, and that restoration falsifies history by imposing artificial newness on authentic fabric. His doctrine of the “lamp of memory” established authenticity, integrity, and continuity as foundational values. William Morris (1877) expanded this thinking and institutionalized these ideas through the creation of the Society for the Protection of Ancient Buildings (SPAB), advocating maintenance rather than reconstruction to safeguard the cultural spirit and craftsmanship embedded in historic structures. In opposition to Ruskin and Morris, Eugène Viollet-le-Duc (1854–68) promoted restoration to an imagined perfect state, even if such a state never historically existed. His theoretical position generated the long-standing debate between minimum-intervention conservation vs. ideal completion. Seeking a compromise, Camillo Boito (1883) supported cautious restoration while ensuring visible distinction between old and new material. Later, Cesare Brandi (1963) advanced a dual-value restoration theory balancing aesthetic and

historical significance, which strongly influenced the Venice Charter (1964), the cornerstone of contemporary conservation ethics. Conservation thinking gradually expanded beyond the scale of monuments. Camillo Sitte (1889) emphasized the civic symbolism and social meaning embedded in traditional urban spaces such as irregular squares, pedestrian markets, and narrow streets—ideas reflected in historic urban centres such as those in India. Patrick Geddes (1915–1917) extended these principles through his work in Indian cities, advocating “conservative surgery,” incremental neighbourhood-based improvements, and community participation instead of large-scale demolition. These philosophical traditions contributed to the formation of international frameworks including the Athens Charter (1931) and the UNESCO World Heritage Convention (1972), which framed heritage as a global responsibility spanning cultural and natural environments. Their influence remains visible today in precinct-based conservation and community-focused planning agendas.

2.2.2 1980s–2000s: Expanding Conservation into Urban Policy, Community & Interdisciplinary

Approaches During this period, conservation broadened into interdisciplinary intersections involving urban planning, governance, sociology, economics, and community empowerment. Gainstord (1980), studying Istanbul, argued that conservation challenges stem more from governance limitations, social pressures, and financial constraints than from technical deficiencies. Wayne Attie (1986) emphasized integrating conservation into statutory planning systems, enabling municipal authorities to institutionalize long-term protection. In the Indian context, A.G.K. Menon (1989) repositioned conservation from a nostalgic cultural endeavour to a developmental strategy embedded in public policy. Razia Grover (1988) reinforced the importance of legislation, incentives, and participatory mechanisms. Community perspectives gained prominence: Amitha Baig (1996) advocated adaptive reuse as a means to revive cultural identity, while Shalini Dasgupta (1998), studying Lucknow, recommended bylaws and specialized heritage architects to counter neglect. T.P. Issar (1991) demonstrated how public awareness campaigns in Mysore built citizen ownership and contributed to targeted conservation success. Theoretical critique evolved in parallel. Rodricks (1993) challenged elitism in conservation practice and supported broader socio-spatial inclusion. Sivramakrishnan (1990) linked heritage to civilizational continuity, and

Radhakrishna & Sarvapalli (1991) saw heritage as a unifying cultural identity for India. Singh & Balvinder (1998) framed conservation as an intergenerational duty, while Thakur & Nalini (1997) highlighted collaboration between governmental agencies and NGOs. New threats to heritage emerged amid commercialization: Nita Modi (1995) exposed market-driven exploitation of heritage properties, while Françoise Choay (1992) criticized tourism-based spectacle and commodification. Conversely, Belinda Yuen (2005) demonstrated how Singapore successfully aligned heritage protection with economic development goals. Conceptual expansion continued through Ashish Banerjee (1992) on cultural landscapes and Rahul Mehrotra (1990s–2000s) who introduced the influential dichotomy of the “static” formal city versus the informal “kinetic” city, emphasizing the dynamic interplay of social and spatial realities.

2.2.3 2000–2015: Institutionalization and Transitional Frameworks

The early twenty-first century marked the integration of conservation into national and international planning policy. INTACH (2004, 2007) produced guidelines on heritage inventories, adaptive reuse, and traditional repair practices, while Menon (2004) underscored the importance of intangible heritage and craft knowledge. The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) (2005–2014) and MoUD Toolkit (2006) attempted to mainstream conservation within urban governance, though Banerjee (2010) criticized weak enforcement and marginal priority. The UNESCO Historic Urban Landscape (HUL) Recommendation (2011) reshaped heritage discourse by integrating community participation, environment, planning, identity, economics, and sustainability. Bandarin & van Oers (2012) promoted resilience-based strategies. Practical cases deepened empirical grounding: Chakrabarti (2012) documented heritage-sensitive guidelines in Jaipur; Nanda (2013) demonstrated participatory heritage walks in Delhi; Sridharan (2014) evaluated Hyderabad’s Charminar pedestrianization and highlighted enforcement challenges; Joshi (2004) and Rao & Bhat (2005) linked heritage conservation to infrastructure and livelihoods; and Rao (2010) assessed tourism-related opportunities and risks. Increasingly, literature acknowledged that heritage needed to be woven into mainstream development rather than considered a secondary cultural concern.

2.2.4 2015–2024: Contemporary Frameworks and Innovative Practices

The launch of HRIDAY (2015–2019) marked a shift toward heritage-based urban infrastructure. Projects such as Gobindgarh Fort, Town Hall Plaza, and the Partition Museum precinct improved public environments in Amritsar, though Sharma (2021) and Joshi & Ghosh (2023) observed sustainability challenges once funding cycles ended. Globally, UNESCO (2023–24) introduced the Urban Heritage Atlas expanding HUL into finance and participatory evaluation. Patel (2022) noted partial implementation in India due to weak institutional capacity. Bandarin (2019) connected heritage to climate resilience, while Hosagrahar (2017) linked heritage to UN Sustainable Development Goals. The Nizamuddin Basti Renewal Project (AKTC 2019; UNESCO 2021) demonstrated how conservation linked to education, health, skills, and livelihoods can drive socio-economic improvement, though Bhatia (2020) argued limited replicability. Critical examination of political and institutional shortcomings emerged through Lahiri (2018) and Ghose (2016). Measurement techniques evolved, with Khalaf et al. (2024) proposing performance-based indicators. Adaptive reuse gained new influence (Jain 2017; INTACH 2019; Brooker & Stone 2018; Shipley et al. 2016). Regulatory innovation included zoning reforms (Ferrara 2019; Yoshida 2018) and expansion of TDR tools (Sharma & Rao 2023; Chakrabarti 2022; Times of India 2025). Intangible heritage and memory became central (Kalra 2020; UNESCO 2020), and the Government of Punjab (2023) framed Amritsar as a cultural tourism circuit.

2.2.5 Summary of Literature Studies

The literature demonstrates a clear progression from early philosophical debates focused on authenticity and minimum intervention (Ruskin 1849; Morris 1877; Brandi 1963) to multidimensional frameworks integrating socio-economic development, policy implementation, community participation, adaptive reuse, and heritage-based identity. Over time, heritage conservation transitioned from monument protection toward precinct-level and community-centred strategies, as reflected in the works of Menon (1989/2004), Baig (1996), and Nanda (2013). Increasing scholarly attention to heritage- economy linkages (Yuen 2005; Rao 2010; Jain 2017) and sustainability and resilience priorities (Bandarin 2019; Hosagrahar 2017) marks a contemporary shift toward holistic, measurable, and policy-aligned conservation solutions. Global frameworks

such as the Venice Charter (1964), UNESCO Convention (1972), and HUL (2011), together with Indian programs Such as INTACH guidelines, JNNURM, HRIDAY, and heritage-linked TDR, illustrate a growing recognition of heritage as a catalyst for urban transformation and cultural identity building. However, review of literature indicates that theoretical evolution has not yet fully translated into robust, scalable implementation models for living heritage precincts.

2.2.6 Research Gap

Despite substantial conceptual advancement, significant gaps persist within conservation theory and practice. Research continues to prioritise tangible heritage and physical restoration, with limited structured frameworks addressing the socio-cultural dynamics and lived realities of dense heritage environments. While participation and community stewardship are widely emphasized across literature, they remain inconsistently operationalized and rarely institutionalized into policy or planning systems. Similarly, pressures such as commercialization, tourism, informal repairs, and speculative redevelopment are acknowledged but seldom analysed for long-term impacts on identity, traditional craftsmanship, and community resilience. Existing policies, including AMASR, INTACH guidelines, JNNURM, and HRIDAY, provide direction but suffer from fragmented governance and weak enforcement, particularly in historic commercial centres such as Katra Ahluwalia. Intangible heritage—memory narratives, festival culture, inherited skills—remains insufficiently integrated into applied conservation models. In addition, measurable evaluation tools and financing mechanisms such as TDR require further empirical validation in smaller city contexts. These gaps collectively justify the need for an integrated, locally adaptive, community- inclusive conservation framework that unites tangible and intangible heritage, socio- economic sustainability, governance continuity, and impact-based assessment, forming the conceptual foundation of the present research.

2.3. Administration of Research Instruments

This study employed interviews, questionnaires, and observations as its primary tools. Data were systematically organized, validated, and analyzed using descriptive statistics, Likert scales, and One-Way ANOVA (Bryman, 2016). Graphs and tables supported quantitative interpretation, while open-ended responses were thematically coded. Ethical protocols ensured confidentiality of respondents. Observation and interviews

incorporated nonverbal cues, tone, and symbolic meanings to capture both explicit and latent information (Kvale, 2007). Case studies highlighted the social and cultural dynamics of precincts, particularly their links with informal heritage management.

2.3.1. Observation Tools

Observation contextualized interviewee responses by situating them within the physical and social environment of Amritsar's precincts. Field methods included site visits, photography, sketches, and measurement of structures and spaces. The researcher documented customs, community roles, and language in *katras* (mohallas), linking these insights to local conservation practices (Creswell & Poth, 2018).

2.3.2. Interview as Research Tool

Open-ended, standardized interviews encouraged candor and comparability. Following McNamara (1999), interviews provided immediacy and depth, enabling probing of key issues. Questions began with general historical knowledge and advanced to specific concerns. Data derived included:

1. Knowledge-based insights (history, built form, crafts, business activity).
2. Socio-cultural and religious norms structuring daily life.
3. Nonverbal and emotional cues observed during discussions.
4. Sensory experiences (visual, auditory, tactile) shaping lived environments.

These findings revealed how community perceptions, traditions, and emotional ties influence conservation priorities in Amritsar's walled city.

2.3.3. Supporting Methods (Pilot Studies, Sampling, Ethics)

Pilot studies are often used in heritage research to refine research tools and identify potential challenges before large-scale data collection (Yin, 2014). They help test observation schedules, survey instruments, and interview protocols in real contexts, ensuring reliability and validity.

Sampling is another critical element, particularly in heritage precinct studies, where representative samples of residents, shopkeepers, tourists, and experts are required to capture diverse perspectives (Creswell & Plano Clark, 2011). Both probability and purposive sampling methods have been employed in similar urban heritage research to balance statistical robustness with contextual depth.

Ethical considerations are emphasized across conservation literature. Researchers highlight the importance of informed consent, confidentiality, and sensitivity to

community knowledge systems (ICOMOS, 2014; UNESCO, 2011). Ethical engagement not only protects participants but also builds trust, ensuring that community voices are authentically represented in conservation research.

2.4. Conservation Values and Elements

According to the National Commission on Urbanization (NCU, 1988), conservation encompasses individual monuments, architectural ensembles, core precincts, and culturally significant residential areas. These elements form the structural and cultural fabric of historic towns and underpin sustainable conservation.

Conservation Areas: Conservation areas extend beyond monuments to include towns, suburbs, estates, and transport infrastructure. Their character derives from plans, finishes, and usage patterns, emphasizing the collective urban form over isolated structures (English Heritage, 2008).

Built Heritage: Built heritage refers to sites, buildings, and artefacts valued for history, architecture, or culture. Conservation integrates environmental, cultural, and economic considerations, aligning heritage with sustainable development goals (UNESCO, 2011).

Built Environment Protection: The Appleton Charter (1983) frames conservation as a management process that balances cultural significance, fabric condition, integrity, contextual value, and appropriate use of resources. Conservation is positioned as an essential component of sustainable urban management (Stovel, 1998).

Community Identity and Cultural Continuity: Historic districts embody collective memory and identity, sustaining cultural heterogeneity. Local participation is essential to defining heritage significance (Smith, 2006). Conservation strengthens emotional connections and social stability, although communities sometimes risk overemphasizing nostalgia (Lowenthal, 1985).

Listing: Listing systematically documents heritage assets to aid planning and regulation. INTACH (2004) emphasizes documentation of unprotected heritage as a foundation for conservation policies. Inclusion raises awareness and integrates heritage into master plans.

Listing Criteria (INTACH, 2004) : Heritage is identified through:

- Historic Significance – cultural, architectural, archaeological, or technological value.
- Historic Integrity – conservation of original materials and details.

- Historic Context – links to broader historical themes and patterns.

INTACH's process combines archival research with fieldwork, surveys, photography, and community consultations. Heritage is graded into Grade I (national importance), Grade II (regional), and Grade III (local), based on significance across history, aesthetics, technology, and social values.

Assessment of Significance: Assessment frameworks assign either numerical values or qualitative statements to heritage importance (Mason, 2002). Criteria include:

- High significance: distinctive, exemplary, or community-wide value.
- Medium significance: locally valued, knowledge enhancing.
- Low significance: minimal associations, poor conservation.

These assessments establish relative priorities, guiding allocation of conservation.

2.5. Heritage Charters

Different heritage charters (Table 2.1) provide frameworks (Table 2.2) suited to diverse heritage contexts—from tangible monuments and archaeological sites to cultural landscapes and intangible traditions—ensuring sensitive, comprehensive, and sustainable conservation worldwide (Table 2.3).

2.5.1. Burra Charter

Australia's ICOMOS Character (1996) has provided a definition of conservation, which includes its principles and policies for improving historic areas with the aim of conservation culturally significant places. Any action taken to conserve a place's cultural significance is considered a component of conservation efforts. It depends on reducing physical interference while still valuing the current structure.

2.5.2. ICOMOS Charter

A number of sites in New Zealand have special protection under the ICOMOS New Zealand Charter for the Conservation of Places of Cultural Heritage (1995), which is a collection of sites with major cultural significance. The stated policies and principles of these charters will regulate the upkeep of New Zealand's historic and cultural landmarks.

2.5.3. Washington Charter

The proposal was showcased at the October 1987 ICOMOS General Assembly in Washington, DC, with the aim of incorporating it into citywide historic conservation programs. There are a number of stated goals and principles, such as involving locals,

emphasizing the importance of conservation the historic character of towns and cities, enquiring caution and a methodical approach, and integrating conservation into consistent social and economic development policies.

Table 2.1: Types of Conservation Charters at International Level

S. No.	Conservation Charters
1	The Athens Charter for the Restoration of Historic Monuments
2	The Venice Charter: International Charter for the Conservation and Restoration of Monuments and Sites
3	The Florence Charter for Historic Gardens
4	The Washington Charter: Charter for the Conservation of Historic Towns and Urban Areas
5	Charter for the protection and management of the archaeological heritage
6	Charter on the protection and management of underwater cultural heritage
7	The Burra Charter for Places of Cultural Significance
8	Charter on the Built Vernacular Heritage (Mexico)
9	The Charter of Krakow: Principles for conservation and restoration of built heritage
10	ICOMOS Charter – Principles for the analysis, conservation and structural restoration of architectural heritage
11	ICOMOS Principles for the conservation and conservation/restoration of wall paintings

Source: Compiled by the Author, from the different Charters
(www.international.icomos.org and www.unesco.org/new/en/unesco)

2.5.4. English Heritage

English Heritage defines conservation areas as distinctive locations possessing significant historical, architectural, or cultural value that require careful maintenance, enhancement, or improvement. These areas are designated to safeguard not only individual buildings but also the wider spatial relationships, land uses, streetscapes, and interstitial spaces that collectively create character and identity. Conservation therefore extends beyond the protection of isolated structures to include the broader visual quality, experiential atmosphere, and social value of entire regions, ensuring that their heritage significance is preserved for present and future generations.

2.5.5. INTACH Charter

On November 4, 2004, the INTACH approved a charter to conserve India's unprotected architectural heritage and sites. By recognizing the importance of principles from

international charters, valuing the living heritage of master builders, and stressing the necessity of conserving unprotected architectural heritage and sites in India using context-sensitive guidelines, the charter achieves its goals (Table 2.4).

Table 2.2: Types of Conservation Charters and their respective focus

S. No.	CHARTER	FOCUS
1	The Venice Charter -1964	Prioritized conservation artefacts in their original form while recognizing the worth of works from all time periods
2	the Nara Document -1994	Authenticated propose of the principle of the local value of heritage.
3	The Burra Charter-1994	Was founded on the ideas of place and fabric, differentiation and linkage.
4	the Athens Charter	Restoring historic landmarks with an eye toward conservation their underlying architectural integrity.
5	Xi'an Declaration (ICOMOS 2005).	Heritage is valued for its social, spiritual, historical, aesthetic, scientific, environmental, or other forms of cultural significance. (Earth Protection for Historic Buildings, Sites, and Areas)

Source: Compiled by the Author, from the different Charters
(www.international.icomos.org and www.unesco.org/new/en/unesco)

Table 2.3: Types of Conservation Charters and their Respective Functions

S. No.	CHARTER	FOCUS
1	The Venice Charter - 1964	The idea of architectural heritage was defined as encompassing not just a single structure but also an entire civilization and the creation of a significant or historical artefact from any given location, be it urban or rural.
2	The European Charter of the Architectural Heritage -1975	Explored the importance of conservation architectural heritage for society and put forth the idea of holistic conservation
3	The Washington Charter -1987	The charter lays out the connection between developing cities while conservation their historic districts.
4	The Vienna Memorandum -2005	Urged thorough analysis of the interplay between social development, urban modernization, and conservation of urban heritage.
5	The Xi'an Declaration - 2005	Emphasized that environmental factors, including the ever-changing cultural, social, and economic backdrop, both shape and produce environmental space.
6	The Recommendation on the Historic Urban Landscape -2011	Developed nations prioritize the conservation and responsible administration of their cultural assets.
7	The Venice Charter	Conservation efforts for historic buildings have been evolving. Conservation efforts for historic buildings are evolving from conservation to living history.

Source: Compiled by the Author, from the different Charters
(www.international.icomos.org and www.unesco.org/new/en/unesco)

Table 2.4: Types of Conservation Charters and their Respective Functions at National Level

S. No.	Charters	Function and need
1	Bengal Regulation XIX – 1810	The protection of monuments
2	The Archaeological Survey Of India (ASI) 1861	First steps for the protection and restoration of monuments in a national level
3	The Indian Treasure Trove Act (Act No. VI Of 1878)	To protect the archaeological and historical sites accidentally found (during any excavation
4	The Ancient Monuments Conservation Act – (Act No. VII Of 1904)	The monuments, especially those in the possession of individuals or private entities, were effectively conserved and given authority over by this act.
5	ASI A Uniform Legislative System, Based On European Traditions And In 1923	Published the conservation manual
6	The Antiquities Export Control Act, 1947 (Act No. XXXI Of 1947) And Rules	To regulate the export of antiquities
7	The Ancient Monuments And Archaeological Sites And Remains Act-1958 Replaced Colonial Act	Extend protection to monuments of national importance
8	Different States adopted similar Acts. To Protect Monuments Of State Importance	
9	The Antiquities And Art Treasures Act (No. 52 Of 1973)	To avoid encroachments and uncontrolled constructions close to protected monuments, a 100-meter-wide prohibited area and a 200-meter-wide regulated area have been declared.
10	Indian National Trust for Art and Cultural Heritage (INTACH) - 1984 Autonomous Non-governmental Indian NGO	There were only a handful of structures that were officially designated as such, and the government was thought to be mainly responsible for ensuring their safety.
11	INTACH- Institutionalised in 20 Years	Local groups around the nation and raise public consciousness about the need to protect cultural artefacts of all kinds, not just monuments.
12	In 2002, INTACH held a workshop to discuss the need for a national policy regarding the conservation and administration of cultural assets.	Currently, ASI, as stated on their website is protecting only 3,600 monuments in India. India needs 910,000 protected monuments, but the current number of listed buildings is less than 0.025 percent of that number.
13	Charter for the Conservation of Unprotected Architectural Heritage And Sites - 2004	In order to conserve India's unprotected cultural heritage

Source: Compiled by the Author, from the different Charters
(www.international.icomos.org and www.unesco.org/new/en/unesco)

2.5.6. Critical Review of Heritage Conservation Charters

Charters shape global practice but show gaps. The Venice Charter, while foundational, neglected intangible values (Jokilehto, 1999). The Burra Charter emphasized cultural significance but was critiqued for assuming inherent site value without considering community meanings (Tainter & Lucas, 1986). The Nara Document responded by embedding cultural diversity and local authenticity into conservation frameworks (Stam, 1994).

2.6. Conservation Charters and Toolkits

The evolution of heritage conservation has been shaped by a series of international charters, national frameworks, and institutional guidelines that provide principles, methodologies, and regulatory directions. These documents—ranging from the Athens Charter (1931) to the Historic Urban Landscape (2011)—reflect a gradual shift from monument-centric conservation to integrated urban and community-based conservation. In India, parallel efforts such as the ASI legislations, the INTACH Charter (2004), and government-led schemes like HRIDAY (2015–2019) have aimed to contextualize global principles for local realities.

While each charter or toolkit has contributed important theoretical and practical insights, their applicability varies significantly when applied to complex, living historic cities such as Amritsar’s walled city, where *katras*, *chowks*, *bazaars*, and religious precincts coexist as both tangible and living heritage. The following table 2.5 synthesizes the contributions, gaps, and relevance of key conservation charters and bodies, highlighting how these frameworks align—or fall short—when addressing the unique challenges of Amritsar’s precincts.

Table 2.5: Comparative Review of International Charters and Their Applicability

Charter Body	Contributions	Identified Gaps
Athens charter (1931)	First systematic principles for restoration of monuments emphasized architectural integrity.	Focused narrowly on monuments; ignored communities, streetscapes, and living traditions.
Venice Charter (1964)	Established authenticity, minimal intervention, and recognition of works from all periods (Jokilehto, 1999).	Eurocentric; applies better to monuments than mixed-use historic cores.
Florence Charter (1981)	Extended conservation to historic gardens and landscapes.	Limited urban application; little focus on dense historic cores.

Washington Charter (1987)	Conservation of historic towns/urban areas; integrated with social and economic policies.	Rarely tested in Indian contexts; lacks evaluation frameworks.
Nara Document (1994)	Broadened “authenticity” to include cultural values and diversity.	Weak local adaptation; intangible heritage rarely integrated in practice.
Xi'an Declaration 2005	Recognized setting, environment, and context as essential.	Application remains limited in Indian precinct planning.
HUL Recommendation (2011)	Promoted heritage integration into urban planning, financing, and sustainability (Bandarin & van Oers, 2012).	Remains principle-driven; lacks measurable outcomes in India.
Burra Charter (Australia ICOMOS, 1996)	Defined conservation as maintaining cultural significance with minimal interference.	Context-specific to Australia; difficult to transpose fully to India.
ICOMOS NZ Charter (1995)	Prioritized cultural significance of local sites in New Zealand.	Not designed for South Asian urban cores; little global transfer.
English Heritage Framework	Defined conservation areas as living urban zones, not just monuments.	Based on UK planning system; weak fit for informal Indian precincts.
INTACH Charter (2004)	Recognized unprotected heritage, vernacular buildings, and community knowledge in India.	Implementation weak; lacks enforcement and monitoring mechanisms.
ASI Legislation (1904, 1958, 1972 Acts)	Provided statutory protection for monuments of national importance.	Precincts and unlisted heritage remain unprotected; enforcement weak.
HRIDAY (2015–19)	Precinct-level interventions with funding and toolkits for 12 Indian cities including Amritsar.	Short-term, limited continuity, no evaluation indicators.

Source: Source: Compiled by the Author, from the different Charters (www.international.icomos.org and www.unesco.org/new/en/unesco)

In conclusion, conservation charters and toolkits—from the Venice Charter (1964) and Washington Charter (1987) to the HUL Recommendation (2011) and HRIDAY (2015–19)—have laid down important theoretical principles and operational frameworks for heritage management. However, when examined in the context of Amritsar’s walled city, their application reveals significant gaps. Monument-focused charters provide guidance for iconic sites but often ignore the lived realities of bazaars, katras, and chowks, where conservation is inseparable from daily community life. National frameworks like INTACH’s Charter (2004) recognize unprotected heritage, yet lack mechanisms for sustained community participation and awareness building. HRIDAY

demonstrated precinct-scale renewal but failed to ensure long-term socio-economic integration or evaluation of outcomes.

“While this study primarily emphasizes India’s rich cultural diversity and urban heritage practices, selective international examples are included as comparative benchmarks. These help situate Indian experiences within a global framework, offering insights that can inform and strengthen context-specific strategies for cities such as Amritsar.”

Heritage conservation practice has gradually shifted from monument-centric interventions to holistic frameworks that recognize urban heritage as an active component of city life. Over the past four decades, a range of charters, toolkits, and institutional programs have shaped the way historic areas are managed. While international recommendations like the UNESCO Historic Urban Landscape (HUL) emphasize integration with urban planning and participatory governance, national initiatives such as HRIDAY and INTACH’s Charter have sought to adapt these principles to India’s diverse urban contexts. Alongside these, toolkits like JNNURM, EoH 2.0, and the CITIIS–NIUA Climate Toolkit highlight evolving concerns—ranging from basic surveys and inventories to performance evaluation and climate resilience. Examining these frameworks provides insight into both their strengths and limitations, as demonstrated by successful cases in cities such as Jaipur, Varanasi, Delhi, and Surat, as well as by failures in places where implementation has been weak or cosmetic.

2.6.1. UNESCO Historic Urban Landscape (HUL) Recommendation (2011 present)

The UNESCO Historic Urban Landscape (HUL) Recommendation, adopted in 2011, redefined conservation by expanding its scope from the conservation of individual monuments to the sustainable management of entire urban landscapes. It emphasizes layered value mapping (tangible, intangible, and natural heritage), participatory governance, and integration with infrastructure, mobility, and finance. Recent extensions such as the Urban Heritage Atlas (2024) provide structured workflows for heritage mapping and planning, already applied in cities like Jaipur (where traditional markets were successfully integrated with urban services) and Varanasi (where ghat revitalization balanced ritual and civic needs). However, in Old Delhi, HUL’s participatory principles were poorly implemented, as large-scale infrastructure upgrades often ignored community voices and cultural continuity. For Amritsar, this framework

suggests a comprehensive heritage mapping of *katras*, *chowks*, sacred routes, and wells, embedded into statutory plans and transport projects.

2.6.2. HRIDAY – Heritage City Development and Augmentation Yojana (2015–2019)

The Ministry of Housing and Urban Affairs (MoHUA) as a central sector scheme targeting heritage-based urban infrastructure upgrades in twelve Indian cities, including Amritsar, launched HRIDAY. Although the scheme formally ended in 2019, its City Heritage Management Plans (CHMPs) and Detailed Project Reports (DPRs) remain valuable templates. Good examples include Varanasi's Kashi Vishwanath Corridor, where improved pilgrim access was combined with heritage-sensitive upgrades, and Amritsar's Gobindgarh Fort precinct, where façade lighting and pedestrianization renewed civic pride. On the other hand, some bad examples appeared in Ajmer, where HRIDAY projects focused on cosmetic beautification without deeper structural conservation, and in Amritsar's Town Hall Plaza, where limited community consultation led to short-lived interventions. The next step would be to update Amritsar's DPRs into a living CHMP with measurable indicators and maintenance strategies.

2.6.3. INTACH Guidelines and Charter (2004–present)

The INTACH Charter (2004) addressed India's vast stock of unprotected heritage, emphasizing vernacular architecture, community participation, and context-sensitive conservation. INTACH's technical manuals cover repair methods (lime plastering, timber joinery, façade treatment) alongside participatory tools such as school heritage clubs and craft documentation. Good examples include the Nizamuddin Basti Renewal Project in Delhi, where historic precincts were conserved alongside social development, and Shekhawati havelis in Rajasthan, where frescoes were restored and crafts revived. However, bad examples also exist: in some smaller towns of Uttar Pradesh, INTACH-led projects were constrained by lack of funds and weak monitoring, leading to incomplete or abandoned conservation efforts. In Amritsar, INTACH's methods can guide façade improvements in *katras* and bazaars while engaging communities in documenting crafts like Phulkari embroidery and traditional food practices.

2.6.3. JNNURM Heritage Toolkit (2006–2014)

The Jawaharlal Nehru National Urban Renewal Mission (JNNURM) introduced one of India's first official heritage toolkits in 2006, designed to integrate heritage into City

Development Plans. While the scheme ended in 2014, its survey and inventory formats remain useful for baseline data collection. Good examples can be seen in Hyderabad's Charminar precinct, where JNNURM funds supported inventories and traffic management planning, laying the foundation for later heritage walks. However, in Bhubaneswar, JNNURM projects largely ignored heritage precincts, focusing instead on flyovers and roads, highlighting the scheme's weakness in enforcing heritage priorities. These templates can be repurposed in Amritsar to systematically catalogue chowks, katras, and havelis, before aligning the results with newer frameworks such as HUL and INTACH guidelines.

2.6.4. Enhancing Our Heritage (EoH) Toolkit 2.0 (2023–present)

Developed by UNESCO, ICCROM, IUCN, and ICOMOS, the EoH Toolkit 2.0 is a performance-oriented self-assessment instrument for heritage managers. It provides indicators and forms to evaluate management effectiveness through authenticity, integrity, stakeholder satisfaction, and socio-economic outcomes. Good examples include its application at Kaziranga National Park (India) and Angkor (Cambodia), where structured KPIs improved management and monitoring. However, the toolkit remains underused in Indian urban contexts, where municipal authorities often lack technical capacity to translate evaluation frameworks into practice. For Amritsar, the EoH Toolkit could be piloted in Katra Ahluwalia, producing annual dashboards that track resident satisfaction, authenticity of repairs, and vitality of traditional markets.

2.6.5. CITIIS–NIUA Climate Action Toolkit (2025–present)

The latest framework, developed by NIUA under CITIIS 2.0 (2025), prioritizes climate resilience for built and cultural heritage. It introduces risk-screening tools for heat stress, flooding, and material decay, along with adaptation strategies such as shading, permeable paving, and drainage-oriented planning. Emerging good examples in Surat and Chennai integrate water management with heritage streetscapes, whereas smaller towns like Puri illustrate weak implementation where plans remain paper-based. For Amritsar's bazaars and chowks, this toolkit is critical as climate risks accelerate deterioration of structures and public spaces, enabling mitigation through small yet impactful interventions.

Taken together, these frameworks trace the shift from early cataloguing to integrated, participatory, and sustainability-led conservation. The HUL Recommendation

emphasises balancing heritage with urban growth, while HRIDAY shows both potential and limitations of short-term schemes. The INTACH Charter is significant for vernacular heritage but unevenly applied. Earlier instruments like JNNURM lacked enforceability, whereas EoH 2.0 and the CITIIS–NIUA Climate Toolkit reflect evidence-based, climate-sensitive practices. Ultimately, success depends on governance, community involvement, and continuity (Table 2.6) and these tools are most effective when applied collectively to support dynamic, sustainable urban futures.

Table 2.6: Key Heritage Conservation Programmes and Toolkits: Contributions, Gaps.

HRIDAY (Heritage City Development & Augmentation Yojana)	MoHUA (India)	2015–2019	Heritage-linked urban improvements in 12 cities	Closed (legacy)	City Heritage Management Plans (CHMPs), DPRs still usable as templates & lessons
INTACH Guidelines & Charter (2004)	INTACH	1984–present	Technical conservation, documentation and community engagement	Active	Most useful for unlisted/vernacular precincts (façades, lime, timber, signage) and community programs
JNNURM Heritage Toolkit	MoUD (India)	2006–2014	Heritage identification in city development plans	Obsolete	Useful historically for survey formats, not policy
Enhancing Our Heritage (EoH) Toolkit 2.0	UNESCO ICCROM IUCN/ICOMOS	2023–present	Self-assessment of management effectiveness (KPIs)	Active	Ideal to monitor precinct conservation (authenticity, satisfaction, socio-economic impact)
CITIIS–NIUA Climate Action Toolkit (Built & Cultural Heritage)	NIUA (MoHUA)	2025–present	Heat/flood/material resilience for heritage areas	Active	Adds climate-risk lens to design & materials in precincts

Source: Compiled by the author from MoHUA, INTACH, UNESCO-ICCROM-IUCN-ICOMOS, NIUA (CITIIS), and JNNURM Toolkit documents, 2024–2025.

2.6.6. Policies and Strategies for sustainable Conservation

Built Heritage Policies: International experiences highlight the role of policies in protecting historic structures and precincts. In Winchester (UK), conservation policies

stress the importance of preserving architectural details—doors, windows, balconies, and rooflines—as they embody past lifestyles. Similarly, the Cork City Development Plan (2015) emphasizes safeguarding civic, cultural, and architectural heritage through strategies that regulate density, height, and material use while encouraging maintenance, repairs, and enhancement of streetscapes.

Sustainable Built Heritage Strategies: The Australian government's *Vision 2001* framework identified five key principles for sustainable conservation of built heritage:

- Acting in the public interest through leadership.
- Building collaborations and maintaining reliable information systems.
- Recognizing heritage as a teaching tool.
- Ensuring inclusivity and public access.
- Keeping historic areas in a protected state for future generations.

Objectives included safeguarding archaeological sites, preparing long-term conservation strategies, creating detailed records, promoting awareness, and fostering inter-agency partnerships with funding mechanisms and technical guidance for heritage management.

Historic Regeneration

English Heritage outlines ten guiding principles for successful historic regeneration. These include inspiring local communities with a shared vision, involving residents and businesses in planning, maintaining links with the past, ensuring quality in design and materials, and addressing social, economic, and environmental issues holistically. Documentation through photography, early consultations with stakeholders, and minimizing physical or social disruption are considered essential for effective regeneration.

2.7. Heritage and Tourism Linkages

2.7.1. Built Heritage and Tourism

Tourism strongly influences heritage conservation worldwide. Built heritage monuments, historic precincts, and traditional neighbourhoods—forms the core of cultural tourism, identified by UNESCO (2011) as a key driver of local development. Along with economic benefits, it strengthens cultural identity and civic pride. Yet Ashworth and Tunbridge (2000) caution that poorly managed tourism can cause overcrowding, commodification, environmental pressure, and loss of authenticity. In India, INTACH heritage walks, HRIDAY projects, and community initiatives in

Ahmedabad and Jaipur demonstrate tourism's value for awareness and revenue (Table 2.7). However, without effective regulation and sustainable planning, tourism pressures may ultimately undermine conservation goals.

Table 2.7: Opportunities vs. Risks of Built Heritage and Tourism

Opportunities	Risks / Challenges
Generates revenue for conservation projects and maintenance (UNESCO, 2011).	Over-commercialization and loss of authenticity (Ashworth & Tunbridge, 2000).
Strengthens local identity and civic pride through heritage awareness.	Overcrowding and strain on infrastructure in historic precincts.
Provides employment in crafts, guiding, hospitality, and cultural industries.	Displacement of local communities and gentrification.
Encourages adaptive reuse of heritage buildings (e.g., havelis as boutique hotels).	Insensitive modern development disrupting historic character.
Promotes cultural exchange and education through storytelling and interpretation.	Pollution, signage clutter, and wear-and-tear from excessive visitor inflows.
Initiatives like INTACH heritage walks and HRIDAY projects demonstrate sustainable models.	Lack of regulation and monitoring leads to uneven benefits and conservation gaps.

Source: Compiled by the author from UNESCO (2011), Ashworth & Tunbridge (2000), INTACH heritage walk reports, and HRIDAY (MoHUA) project documents.

2.7.2. Heritage Walks

Heritage walks have emerged as a powerful tool to connect people with historic environments.

- Ahmedabad (1997): Organized by AMC and CRUTA, the two-hour guided walks through pols, havelis, temples, and bazaars provide immersive experiences and revive centuries-old traditions such as the nightly drummers announcing gate closures.
- Jaipur (2001): Initiated by Jaipur Virasat Foundation, DRONAH, and JMC, daily walks through Chowkri Modikhana showcase conservation work aligned with local lifestyles.

2.7.3. Students' Competitions (NASA, INTACH, UNESCO)

Student-focused competitions play a vital role in strengthening heritage awareness and documentation skills. The National Association of Students of Architecture (NASA), through the Louis I. Kahn Trophy, engages students in documenting and proposing adaptive reuse strategies for historic buildings and precincts. Similarly, INTACH's Heritage Awards for Excellence in Documentation and workshops encourage

meticulous recording of cultural assets. UNESCO-supported initiatives, such as the World Heritage Education Programme, promote global perspectives and community engagement among students. These platforms not only cultivate technical expertise but also instil cultural sensitivity, ensuring future architects and planners become active custodians of heritage.

2.8. Factors Influencing Conservation of Heritage Precincts

The conservation of heritage precincts is shaped by several interrelated factors, including community awareness, public participation, socio-economic conditions, government initiatives, material practices, and intangible heritage values. These dimensions must be understood together to achieve sustainable conservation outcomes.

2.8.1 Community Awareness

Community awareness represents the level of understanding, sensitivity, and value attachment that residents hold toward their built and cultural heritage. It shapes attitudes toward maintenance, authenticity, and adaptive reuse. Awareness initiatives—such as heritage walks, school outreach programs, and citizen heritage clubs promoted by INTACH and UNESCO—build emotional and intellectual ownership of heritage assets (INTACH, 2004; UNESCO, 2011). A community that is aware of its historical environment is more likely to engage in participatory planning, advocate for conservation-friendly policies, and sustain traditional practices. Therefore, awareness is not a passive condition but an enabling pre-requisite for active public participation and long-term stewardship.

2.8.2 Public Participation

Public participation is emphasized as essential in conservation frameworks, particularly in the Burra Charter (Australia ICOMOS, 2013). Community involvement through workshops, charrettes, and stakeholder committees ensures inclusive decision-making and shared ownership (Smith, 2006). A landmark example is the Nizamuddin Basti Renewal Project in Delhi, where the Aga Khan Trust for Culture integrated heritage conservation with social development, demonstrating how participatory approaches enhance both cultural and civic outcomes (Aga Khan Trust for Culture, 2010).

2.8.3 Socio-economic Conditions

Socio-economic realities often dictate conservation practices, as low-income groups may lack resources for conservation while commercialization and gentrification can

threaten authenticity (Logan, 2002). Tourism, when carefully managed, can provide strong economic incentives for conservation, but inequitable benefit sharing often leads to resistance from local residents (Bandarin & van Oers, 2012). Studies highlight how linking heritage with livelihoods can support sustainable outcomes (INTACH, 2015).

2.8.4 Government Initiatives and Legislation

Legislation and government initiatives form the regulatory backbone of heritage management. In India, the AMASR Act (1958, amended 2010) provides statutory protection for monuments, while more recent initiatives like HRIDAY (2015–2019) sought to integrate heritage with infrastructure renewal in cities such as Amritsar, Varanasi, and Ajmer (MoUD, 2016). International frameworks such as the Venice Charter (1964) and UNESCO’s Historic Urban Landscape (2011) recommendation stress the importance of embedding conservation into urban planning (UNESCO, 2011). Despite this, weak enforcement and overlapping jurisdictions often remain barriers to effective implementation (Menon, 2010).

2.8.5 Traditional vs Modern Repair Materials

The use of appropriate repair materials is critical to ensuring sustainability and authenticity of heritage structures. Traditional materials like lime plaster and Nanakshahi bricks are compatible with historic structures and support traditional crafts (INTACH, 2004). In contrast, modern materials such as cement often accelerate deterioration because of chemical incompatibility (Jokilehto, 2007). Successful projects in Rajasthan and Punjab demonstrate the revival of traditional craft practices, while insensitive repairs highlight risks posed by indiscriminate modernization

2.8.6 Community Pride and Intangible Heritage: Community pride sustains heritage conservation by reinforcing intangible cultural practices such as festivals, crafts, and oral traditions. The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (2003) emphasizes the importance of such practices in maintaining continuity alongside built heritage (UNESCO, 2003). The Jaipur Virasat Foundation offers an important example, where cultural festivals have successfully fostered civic pride and supported conservation through active community engagement (Jain, 2015). “Community awareness forms the foundation for active public participation. Awareness sensitizes residents to the cultural and social values of heritage, while participation transforms this awareness into dialogue, stewardship, and shared responsibility.”

2.9. Strategies for The Heritage Conservation of Heritage Precincts in Walled Cities

Heritage conservation in the precincts of walled cities of India is a critical challenge, as these historic urban areas are often under pressure from urbanization, modernization, and neglect. The conservation of these precincts requires a balanced approach that conserves the historical, cultural, and architectural integrity of the area while addressing the needs of the local population and economic growth. Various conservation strategies can be employed to achieve this balance. The key options for heritage conservation in the walled cities of India are:

- Transfer of Development Rights (TDR)
- Heritage Zoning and Development Controls
- Adaptive Reuse of Heritage Buildings
- Government Grants and Subsidies
- Public-Private Partnerships (PPP)
- Local Community Participation and Incentives
- Conservation Easements
- Heritage Tourism Initiatives
- Creation of Heritage Trusts and Funds
- Legislation and Policy Advocacy
- Capacity Building and Training

Heritage conservation in the precincts of India's walled cities requires a balanced approach that addresses both the conservation of physical structures and the cultural, economic, and social context in which they exist. Below, the key strategies for conserving these precincts, with a focus on their advantages and challenges.

2.9.1. Transfer of Development Rights (TDR)

Transfer of Development Rights (TDR) is a tool that allows property owners to sell the unused development rights of a heritage building or site to developers in other areas. In exchange, they agree to conserve and maintain the heritage structure. This helps in balancing urban growth with the need to conserve historical buildings, especially in densely populated walled cities where space for new development is limited.

Advantages

- Economic incentive: TDR provides property owners with financial

compensation for conserving their heritage properties. By transferring unused development rights, they can still capitalize on their property's potential without altering or demolishing the heritage structure.

- **Urban development balance:** TDR helps direct urban growth toward areas that are better suited for high-density development, reducing pressure on heritage precincts.
- **Conservation of integrity:** The heritage property remains intact while development takes place elsewhere, conserving the historical and cultural fabric of the walled city.

Challenges

- **Market dependency:** The success of TDR relies on a strong real estate market where developers are willing to buy additional development rights. In weaker markets, TDR may not generate sufficient revenue.
- **Complexity of implementation:** Managing TDR requires a robust legal and regulatory framework to ensure that transactions are transparent and enforceable, which can be difficult to achieve in cities with informal land use practices (Rao, 2019).

2.9.1.1. Case Studies for Transfer of Development Rights (TDR):

TDR is a widely used heritage conservation tool that allows property owners to sell unused development rights while ensuring the conservation of heritage buildings. Below are two prominent case studies from India and two from the global context, followed by a comparison chart that evaluates these cases based on key parameters. Transfer of Development Rights (TDR) is an urban planning tool used to protect heritage properties by allowing the transfer of unused development rights from heritage precincts to other areas where higher-density development is more appropriate. This strategy provides financial compensation to property owners for conserving their heritage structures while enabling urban growth elsewhere. Below are four detailed case studies of TDR in action:

A. Fort Precinct, Mumbai (India): One of Mumbai's oldest colonial-era districts, the Fort Precinct highlight Victorian and Neo-Gothic architecture but faced severe redevelopment pressure in the city's core.

TDR Strategy: Property owners maintaining heritage buildings could sell their unused development rights (FAR) to developers in growth corridors such as Bandra and

Andheri. This incentive was structured through zoning adjustments under the Development Control Regulations (DCR) (Shah, 2020).

Impact: Redirected high-density development to peripheral zones, reducing stress on the heritage core. Key landmarks like Chhatrapati Shivaji Maharaj Terminus and Bombay High Court were preserved, exemplifying a model that balances economic viability and conservation outcomes (Government of Maharashtra, 2019).

B. Kothi Darwaza, Hyderabad (India): Situated in the historic Old City, Kothi Darwaza contains Islamic architectural heritage from the Qutb Shahi and Asaf Jahi periods, under threat from rapid urbanization.

TDR Strategy: Through local heritage zoning, property owners were allowed to transfer development rights to newer growth centers like Hi-Tech City and Gachibowli, conditional upon maintaining façade integrity and authentic materials (INTACH, 2018).

Impact: The TDR mechanism reduced redevelopment pressure within the historic core, ensuring conservation of religious and civic buildings while encouraging controlled urban growth elsewhere (Reddy, 2019).

C. Grand Central Terminal, New York City (USA): Constructed in 1913 Grand Central Terminal faced demolition threats in the 1960s amid vertical growth pressures.

TDR Strategy: Owners were permitted to sell unused “air rights” to adjacent properties along Park Avenue, providing financial resources for maintenance without physical redevelopment of the terminal (Barrese, 1983).

Impact: The initiative safeguarded the terminal’s architectural integrity and culminated in the 1978 U.S. Supreme Court ruling, affirming the constitutional validity of TDR. It remains a global precedent for heritage protection through transferable rights.

D. Paris (France): Paris’s dense historic fabric, particularly in districts like Le Marais, demands strict heritage protection while accommodating modern urban expansion.

TDR Strategy: The city adopted a zoning-based TDR system, allowing property owners in protected heritage zones to transfer development potential to designated modern districts such as La Défense. This supported skyline management and density control (Paris,, 2017).

Impact: The mechanism maintained the authentic urban grain and historic skyline while enabling high-rise development in peripheral areas. It highlights a balanced approach to heritage conservation and urban modernization (Boulanger, 2019).

Table 2.8: Comparison Chart: TDR Case Studies

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaways
Fort Precinct, Mumbai	High: Property owners benefit financially from selling unused rights.	High: Redirects urban growth to less sensitive areas like Bandra.	High: Iconic heritage sites like Bombay High Court conserved.	Demonstrates the economic and cultural balance achievable through TDR.
	Positive: Protects colonial-era architecture and reduces redevelopment pressures.	Moderate: Effective zoning ensures sustained impact.	High: Stakeholders include government, developers, and property owners.	
Kothi Darwaza, Hyderabad	Moderate: Financial benefits are dependent on local market demand.	Moderate: Reduced development pressure in Kothi Darwaza.	High: Protects authentic structures of cultural significance.	Highlights the adaptability of TDR in culturally rich but developing urban contexts.
	Positive: Protects Islamic-era heritage and architectural integrity.	High: Enabled urban growth in new areas like Hi-Tech City.	Moderate: Collaboration with local authorities and INTACH is essential.	
Grand Central Terminal, NYC	High: Revenue from air rights sales sustained conservation efforts.	Very High: A Supreme Court decision solidified TDR's legal foundation.	Very High: Beaux-Arts architecture fully intact.	Global benchmark for legal, financial, and conservation success using TDR.
	Positive: Conserved a key cultural landmark in NYC.	Very High: Allowed dense urban development along Park Avenue.	High: Collaboration between city government, legal bodies, and developers.	
Paris, France	Moderate: Revenue generated by shifting development to La Défense.	High: Long-term protections enforced by zoning laws.	Very High: Maintains Paris's streetscape and skyline.	Highlights the flexibility of TDR in balancing heritage conservation with urban growth.
	Positive: Conserves unique heritage in areas like Le Marais.	High: Supports vertical development in designated modern zones.	High: Strong regulatory framework and stakeholder cooperation.	

Source: Google Arts & Culture (2018); Urban Design Research Institute (n.d.); Mumbai Metropolitan Region Heritage Conservation Society (n.d.); AFJBS (2020); The News Minute (2023); Telangana Heritage Protection Act (2017); International Network for Heritage Areas Foundation (2019); Barrese (1983); Paris City Council (2020); Boulanger (2019); UNESCO (2018).

The Transfer of Development Rights (TDR) mechanism effectively balances urban development with heritage conservation. In India, examples like Mumbai's Fort Precinct

and Hyderabad's Kothi Darwaza highlight TDR's role in protecting historic areas while incentivizing property owners (Table 2.8). Globally, landmarks like New York's Grand Central Terminal and Paris's Seine River highlight TDR's success in preserving heritage alongside urban growth. TDR is an adaptable tool that ensures authenticity in heritage conservation when supported by strong legal frameworks, market demand, and stakeholder collaboration.

2.9.2. Heritage Zoning and Development Controls:

Heritage Zoning refers to the implementation of special regulations that restrict development in heritage precincts to maintain their historical and architectural integrity. These controls regulate building heights, materials, design, and land use to ensure that new developments do not compromise the heritage value of the precinct.

Advantages:

- Protection of heritage: Zoning laws and development controls regulate construction in heritage areas, ensuring that new developments do not detract from the historical character of the precinct.
- Long-term conservation: By restricting building heights, materials, and uses, these regulations help maintain the sustainable integrity of walled cities
- Cultural conservation: Development controls ensure that the unique architectural styles and cultural landscapes of walled cities are conserved.

Challenges:

- Resistance from developers: Zoning restrictions may face opposition from developers and property owners who wish to maximize the economic potential of their properties.
- Enforcement difficulties: Effective enforcement of zoning regulations can be difficult, especially in densely populated walled cities where informal and illegal developments are common (Shah, 2020).

2.9.2.1. Heritage Zoning and Development Controls: Case Studies

Heritage zoning and development controls are essential mechanisms to protect the historical, architectural, and cultural fabric of cities. They provide a framework that regulates development, renovations, and new constructions within heritage precincts, ensuring their conservation while allowing for urban growth. This section presents four case studies: Old Ahmedabad (Gujarat, India), Chandni Chowk (Delhi, India), Rome

(Italy), and Kyoto (Japan), highlighting how these mechanisms have been applied in different cultural contexts.

A. Old Ahmedabad, Gujarat, India: Old Ahmedabad, a UNESCO World Heritage Site since 2017 is known for its traditional Pols (neighbourhood clusters), havelis, and religious sites from Hindu, Islamic, and Jain traditions. The walled city, dating back to the 15th century, employs heritage zoning and development controls to conserve its historical urban fabric while allowing modernization.

Heritage Zoning Strategy:

- **Regulatory Framework:** The Ahmedabad Municipal Corporation (AMC), along with the Heritage Department, enforces zoning regulations in the old city to protect over 600 heritage structures. These include restrictions on building heights, the use of traditional materials (such as sandstone and wood), and mandates for architectural consistency in any new construction or renovation (Shah, 2020).
- **Development Controls:** Strict development controls ensure that new buildings or modifications align with the existing heritage architecture, particularly in sensitive areas like Manek Chowk and Rani Sipri Mosque (Patel, 2017).
- **Community Engagement:** Local communities are actively engaged in maintaining heritage buildings through financial incentives and heritage tourism, which has boosted local participation in conservation efforts (Government of Gujarat, 2017).

Impact: The zoning regulations have been instrumental in conserving the architectural integrity of Old Ahmedabad. UNESCO status has bolstered tourism and global attention, helping attract funding for restoration (Shah, 2020).

Challenges: Enforcement of heritage regulations remains inconsistent, with some unauthorized modifications to heritage structures reported (Patel, 2017).

B. Chandni Chowk, Delhi, India: The Mughal Emperor Shah Jahan established Chandni Chowk, one of Delhi's oldest and busiest markets, in the 17th century. The area is known for its Mughal-era architecture but has faced significant pressure from commercialization and overcrowding. Heritage zoning and development controls have been applied to manage and conserve the historic character of the precinct.

Heritage Zoning Strategy:

- Master Plan for Delhi 2021: Chandni Chowk is part of a "special conservation area" in the Master Plan for Delhi 2021. This includes zoning laws restricting building height, facade alterations, and new construction materials to maintain the area's Mughal-era character (Singh, 2020).
- Pedestrianization and Redevelopment: In 2020, a significant redevelopment project was implemented to pedestrianize the area, reduce traffic congestion, and improve the visitor experience. The redevelopment also involved restoring historical facades and installing modern infrastructure underground (Delhi Development Authority, 2021).
- Development Restrictions: The zoning regulations prevent any new construction exceeding four stories and mandate that all modifications align with traditional architectural aesthetics (Singh, 2020).

Impact: Pedestrianization has reduced pollution and revitalized the area, making it more accessible for tourists. The efforts have also attracted businesses to invest in the restoration of historical structures (Singh, 2020).

Challenges: The high population density and commercial pressure in Chandni Chowk make enforcement difficult. Vendor encroachments and illegal construction persist as ongoing challenges (DDA, 2021).

C. Rome, Italy: Rome is a UNESCO World Heritage Site known for its vast collection of ancient Roman structures, Renaissance and Baroque architecture, and significant religious sites such as St. Peter's Basilica and the Colosseum. The city's heritage zoning and development controls are among the strictest globally, ensuring that new developments do not interfere with Rome's historical skyline or urban fabric.

Heritage Zoning Strategy:

- Zoning Regulations: The city centre is divided into multiple protection zones, each with specific rules on building heights and facade modifications. New high-rise construction is strictly prohibited within the historical core, and building modifications require approval from the Superintendence of Archaeological Heritage (Ferrara, 2019).
- Conservation of Views: Rome's zoning laws also protect view sheds, ensuring that key monuments, such as the Pantheon and Vatican, remain visible from

designated vantage points (UNESCO, 2020).

- **Facade and Aesthetic Controls:** Developers must use traditional materials, such as travertine and marble, for building exteriors, and any modern construction must blend seamlessly with the historical landscape (Ferrara, 2019).

Impact: These strict zoning controls have conserved Rome's iconic skyline and maintained its cultural and historical identity, making the city a model for urban heritage conservation.

Challenges: Balancing the need for modern infrastructure development with the protection of heritage zones remains a challenge. Additionally, high real estate costs and development pressures pose ongoing issues (UNESCO, 2020).

D. Kyoto, Japan: Kyoto, the former capital of Japan, is known for its temples, shrines, and traditional Machiya townhouses. The city has implemented heritage zoning laws and development controls that regulate urban growth, ensuring that the traditional character of the city is conserved alongside modern development.

Heritage Zoning Strategy:

- **Machiya Conservation:** The city's traditional wooden Machiya houses are protected under strict zoning regulations that prevent demolition. Owners are encouraged to restore and reuse the buildings, often converting them into shops, cafes, or guesthouses (Kyoto City Government, 2020).
- **Design and Height Controls:** In historical districts, new buildings must adhere to strict height and design standards that ensure harmony with the surrounding historical structures. High-rise buildings are not permitted within the city's cultural districts (Yoshida, 2018).
- **Cultural Districts:** Certain areas are designated as cultural conservation districts, where any building alterations must be approved by the Cultural Properties Protection Division to ensure that they conform to the city's heritage guidelines (Kyoto City Government, 2020).

Impact: Kyoto has successfully conserved its cultural landscape while modernizing its infrastructure. These efforts have contributed to Kyoto's continued status as a global tourist destination.

Challenges: Rising restoration and maintenance costs have increased property values, making it difficult for many local residents to remain in heritage areas (Yoshida, 2018).

Table 2.9 : Comparison Chart: Heritage Zoning and Development				
Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaways
Walled City, Ahmedabad, India	Moderate: Boosts tourism but faces funding gaps for maintenance.	High: Zoning ensures conservation.	High: Maintains architectural integrity of Pols.	Focus on engaging locals and leveraging UNESCO status for funding.
	High: Protects cultural fabric through local engagement.	Moderate: Balances modernization with conservation.	High: Involves AMC and local communities.	
Chandni Chowk, Delhi, India	Moderate: Pedestrian traffic benefits businesses, limits commercial expansion.	High: Pedestrianization ensures conservation.	High: Restores Mughal-era architecture.	Continue balancing commerce and conservation; improve grassroots engagement.
	High: Revitalized area reduces congestion.	Moderate: Restricts unregulated growth.	Moderate: Led by authorities with limited grassroots input.	
Historic City Centre, Rome, Italy	High: Real estate restrictions boost property value, tourism.	Very High: Strict zoning laws safeguard integrity.	Very High: Minimal alteration to landscapes.	Serve as a global model for zoning and long-term conservation.
	High: Protects cultural identity.	Moderate: Limits sprawl in heritage core.	High: Collaboration with heritage planners.	
Historic Districts, Kyoto, Japan	Moderate: Tourism sustains economic value; restoration costs are high.	Very High: Ensures survival of structures.	Very High: Protects Machiya houses.	Focus on local engagement and balance between conservation and accessibility.
	High: Conserves pride in heritage.	Moderate: Conserves heritage with modern infrastructure nearby.	High: Strong involvement of local governments, property owners.	

Source: Government of Gujarat (2017); Shah (2020); Patel (2017); Singh (2020); Delhi Development Authority (2021); Ferrara (2019); UNESCO (2020); Kyoto City Government (2020); Yoshida (2018).

Heritage zoning and development controls play a crucial role in conserving the architectural integrity of historic cities while allowing for modern development. The Old Ahmedabad and Chandni Chowk case studies illustrate how heritage zoning can successfully balance development needs with conservation goals in India. Globally, cities like Rome and Kyoto demonstrate the effectiveness of zoning regulations in

conserving cultural heritage (Table 2.9). Heritage Zoning and Development Controls effectively balance conservation and modernization by leveraging zoning laws, fostering community engagement, and safeguarding authenticity, as demonstrated by global and Indian case studies.

2.9.3. Adaptive Reuse of Heritage Buildings:

Adaptive reuse involves repurposing heritage buildings for modern uses while conserving their architectural and historical significance. This strategy ensures that heritage buildings continue to be functional and economically viable, making them sustainable in the long term.

Advantages: Economic viability- Adaptive reuse allows heritage buildings to be repurposed for modern uses (such as hotels, museums, or cultural centres), making them financially self-sustaining.

- Continued relevance: By giving heritage buildings new functions, adaptive reuse ensures that they remain part of the city's active landscape, rather than becoming neglected or abandoned.
- Cultural and historical conservation: This strategy allows for the conservation of the original architecture and historical value while adapting the structure to meet contemporary needs.

Challenges: Risk of loss of authenticity- Depending on the extent of the alterations needed for new functions, adaptive reuse can sometimes compromise the authenticity of the original heritage structure.

- High initial investment: Adaptive reuse often requires substantial investment to restore and retrofit heritage buildings for modern uses, which may not always be feasible for property owners (Singh, 2018).

2.9.3.1. Case Studies for Adaptive Reuse of Heritage Buildings

Adaptive reuse refers to the process of repurposing heritage buildings for new uses while retaining their historical and architectural significance. Below are two prominent Indian and two global case studies of adaptive reuse, highlighting capacity-building and training strategies and their impacts on heritage conservation.

A. Haveli Dharampura, Old Delhi: Haveli Dharampura, a 19th-century mansion in Old Delhi, was repurposed as a heritage hotel and cultural centre. The building underwent

extensive restoration to conserve its Mughal architecture, while modern amenities were added to suit its new function.

Focus on Capacity Building: The restoration project included training local artisans in traditional Mughal construction techniques, such as lime plastering and intricate woodwork, to ensure authenticity in the restoration process.

Impact: The adaptive reuse of Haveli Dharampura has rejuvenated the heritage precinct of Old Delhi, attracting tourists and creating jobs. The capacity-building initiatives helped revive traditional craftsmanship that had been on the decline (Jain, 2017).

B. Victoria Memorial Hall, Kolkata: The Victoria Memorial Hall, a colonial-era building in Kolkata, has been repurposed as a museum and cultural venue. Although originally constructed as a tribute to Queen Victoria, the building now serves as a museum displaying India's art, culture, and history.

Focus on Capacity Building: The Victoria Memorial Hall Trust organized training programs for local artisans and museum staff, focusing on conservation techniques for both the building and its collections. These programs aimed to conserve the building's historical integrity while adapting it to its new role.

Impact: The adaptive reuse of the Victoria Memorial Hall has transformed it into one of Kolkata's premier cultural institutions, drawing both tourists and locals. The training programs have built local capacity for ongoing maintenance and conservation (Sen, 2018).

C. Distillery District, Toronto, Canada: The Distillery District in Toronto, originally a 19th-century industrial complex, was transformed into a vibrant cultural and commercial district. The adaptive reuse project conserved the district's original Victorian-era industrial architecture while repurposing the buildings for retail, dining, and cultural venues.

Focus on Capacity Building: The redevelopment project included training programs for architects and craftsmen in heritage conservation techniques specific to industrial buildings. The focus was on retaining the architectural character of the site while adapting it for modern uses.

Impact: The Distillery District is now one of Toronto's most popular destinations, balancing commercial success with heritage conservation. The capacity-building efforts ensured that professionals involved in the project could manage similar adaptive reuse projects in the future (Thompson, 2016).

D. Tate Modern, London, UK: The Tate Modern in London, a leading modern art museum, is located in the former Bankside Power Station. Its industrial structure was conserved, with minimal exterior changes, while the interior was repurposed to host modern art galleries.

Focus on Capacity Building: The project involved training architects and engineers in the complexities of converting industrial heritage buildings for public use. Workshops and capacity-building programs focused on the technical challenges of adaptive reuse, such as integrating modern amenities while conserving structural integrity.

Impact: The Tate Modern has become a cultural icon and a model for adaptive reuse projects globally. Its success has shown how industrial heritage can be repurposed for modern use while retaining its historical significance.

Table 2.10 : Comparison Chart: Adaptive Reuse of Heritage Buildings				
Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaways
Haveli Dharampura, Old Delhi	High: Transformed into a heritage hotel, boosting tourism and creating local jobs.	High: Revitalized heritage precinct; supports ongoing conservation.	High: Traditional Mughal craftsmanship conserved; local artisans engaged in restoration.	Demonstrates how adaptive reuse can revive urban heritage while supporting cultural and economic growth.
Victoria Memorial Hall, Kolkata	Moderate: Functions as a cultural venue and museum, attracting both tourists and locals.	High: Well-maintained through continuous funding and training programs.	High: Historical integrity maintained through artisan and staff training initiatives.	Highlights the potential of adaptive reuse to conserve colonial-era heritage and foster cultural engagement.
Distillery District, Toronto, Canada	High: Vibrant commercial and cultural hub generating significant revenue while preserving industrial heritage.	High: Balances commercial success with heritage conservation.	High: Retained Victorian-era industrial architecture; stakeholders trained for future projects.	A model for integrating commercial viability with heritage conservation in an urban context.
Tate	High: One of the	Very High:	Very High:	Exemplifies large-

Modern, London, UK	world's most visited museums; significant cultural and economic impact.	Global model for adaptive reuse with minimal environmental footprint.	Conserved industrial structure; trained architects and engineers ensured integrity.	scale adaptive reuse, balancing public use and industrial heritage conservation.

Source: Jain (2017); Sen (2018); INTACH (2019); Thompson (2016); Miller (2016).

Adaptive reuse is a powerful strategy for conserving heritage buildings while giving them new life in contemporary settings. The Haveli Dharampura and Victoria Memorial Hall case studies show how adaptive reuse has successfully balanced heritage conservation with modern functionality in India. Globally, the Distillery District in Toronto and Tate Modern in London demonstrate the potential for industrial heritage sites to be repurposed as cultural hubs (Table 2.10). Adaptive reuse effectively combines economic viability, cultural conservation, and community engagement, demonstrating its potential as a sustainable strategy for conserving heritage buildings while ensuring their relevance in contemporary contexts

2.9.4. Government Grants and Subsidies: Government grants and subsidies are financial tools used to support the restoration and conservation of heritage buildings. These funds help property owners and local governments cover the costs of maintaining and restoring heritage structures, which might otherwise be financially prohibitive.

Advantages: Grants and subsidies provide crucial financial support for restoring and maintaining heritage buildings, particularly for owners lacking sufficient resources. They also enable targeted conservation by directing funds to culturally important sites that may not offer immediate commercial returns.

Challenges: Reliance on public funding makes conservation vulnerable to shifting government priorities and budget constraints. Additionally, the limited scope of available grants means many heritage sites remain unsupported (Sharma, 2018).

2.9.4.1. Case Studies for Government Grants and Subsidies:

Government grants and subsidies are essential mechanisms for heritage conservation, providing financial assistance to property owners and organizations responsible for maintaining heritage structures. These incentives help reduce the financial burden of restoration and encourage the conservation of cultural heritage.

Below are four case studies that illustrate the use of government grants and subsidies for

heritage conservation: Chettinad Mansions (Tamil Nadu), Mysore Heritage Buildings (Karnataka), Edinburgh (Scotland), and Melaka (Malaysia).

A. Chettinad Mansions, Tamil Nadu, India: The Chettinad Mansions, located in the Chettinad region of Tamil Nadu, are renowned for their elaborate architecture that blends Indian, European, and Southeast Asian styles. Many of these mansions, which were built by wealthy Chettiar merchants in the late 19th and early 20th centuries, have fallen into disrepair due to neglect and the high costs of restoration.

Government Grants and Subsidies: To conserve the Chettinad Mansions, the Tamil Nadu government has provided grants and subsidies to property owners for the restoration and conservation of these heritage structures. These funds have been crucial in enabling homeowners to maintain the mansions and promote heritage tourism in the region (Singh, 2020). Additionally, the Chettinad Heritage Committee, formed by the state government, has worked to identify and allocate funds for the restoration of the most significant mansions.

B. Mysore Heritage Buildings, Karnataka, India: Mysore, known for its palaces, temples, and colonial-era buildings, has been a significant centre of heritage conservation efforts in Karnataka. The Mysore Palace, Jaganmohan Palace, and other heritage structures have been conserved through state-led initiatives that provide financial assistance to property owners.

Government Grants and Subsidies: The Karnataka Department of Archaeology, Museums, and Heritage provides grants and subsidies for restoring Mysore's heritage buildings, including palaces and temples. The Mysore Heritage Regulations Act further supports private owners with tax breaks and subsidies for approved restoration projects, preserving the city's architectural legacy (Rao, 2019).

C. Edinburgh, Scotland: Edinburgh, a UNESCO World Heritage Site, is known for its medieval and Georgian architecture. The city's historical significance and aesthetic beauty have made it a focal point for heritage conservation efforts supported by the UK government and local authorities.

Government Grants and Subsidies: The UK government, in collaboration with local authorities, offers grants for the restoration and conservation of heritage buildings in Edinburgh. Through the Historic Environment Scotland agency, grants are provided for projects that focus on the conservation of listed buildings, such as Edinburgh Castle and

the Royal Mile. These grants help property owners restore buildings to their historical state while ensuring their continued use (McLaren, 2017).

D. Melaka, Malaysia: Melaka (Malacca), a UNESCO World Heritage Site, is known for its rich history, combining Malay, Chinese, and Portuguese influences. The city's heritage buildings, including traditional shop houses, mosques, and forts, are significant cultural assets that attract tourists from around the world.

Government Grants and Subsidies: The Malaysian government, through the National Heritage Department, provides grants and subsidies for restoring Melaka's heritage properties. This support has facilitated the conservation of landmarks like A Famosa Fort and Stadthuys, while promoting traditional craftsmanship (Zulkifli, 2018).

Table 2.11: Comparison of Government Grants and Subsidies in Heritage Conservation

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaways
Chettinad Mansions, Tamil Nadu	High: Grants enable homeowners to maintain mansions; heritage tourism supports local economy.	High: Funds have allowed for continuous conservation; promotes tourism-driven growth.	High: Authenticity maintained with traditional craftsmanship; community involvement present.	Financial support for private owners ensures long-term conservation of lesser-known heritage sites.
Mysore Heritage Buildings, Karnataka	Moderate: Grants assist in restoration; tax incentives encourage private investment.	High: Regular funding supports upkeep of iconic structures like Mysore Palace.	High: Regulatory frameworks ensure conservation; stakeholders include govt. and owners.	Public-private partnerships enhance the sustainability of conservation efforts.
Edinburgh, Scotland	High: Financial assistance ensures restoration; attracts tourism, boosting local economy.	Very High: Collaborative efforts between local and national authorities ensure ongoing care.	Very High: Conservation aligns with UNESCO guidelines; strong stakeholder collaboration.	Collaborative funding models support conservation of globally significant heritage sites.
Melaka, Malaysia	Moderate: Grants have revitalized historic shop	High: Sustained government funding and	High: Emphasis on preserving cultural diversity	Financial support combined with tourism

Table 2.11: Comparison of Government Grants and Subsidies in Heritage Conservation

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaways
	houses; tourism generates additional revenue.	cultural tourism promote conservation efforts.	and craftsmanship; community engagement limited.	promotion enhances cultural and economic sustainability.
Source: INTACH (2019), McLaren (2017), Rao (2019), Sharma (2018), Singh (2020), Thompson (2016), UNESCO (2018), and Zulkifli (2018).				

Government grants and subsidies play a vital role in conserving heritage buildings, funding restoration, and supporting sustainable use. Examples like India's Chettinad Mansions and Mysore Heritage Buildings, along with Edinburgh and Melaka, show how grants combined with training initiatives conserve historic cityscapes and boost local economies through tourism (Table 2.11). These efforts underscore the importance of skill development in sustaining long-term heritage conservation.

2.9.5. Public-Private Partnerships (PPP):

Public-Private Partnerships (PPP) bring together government entities and private investors to finance and manage heritage conservation projects. These partnerships can be particularly effective for large-scale conservation efforts that require significant financial resources.

Advantages: Public-Private Partnerships (PPPs) share financial responsibility by leveraging private investment, reducing reliance on government funds. They can improve efficiency and accountability through professional management, ensuring timely delivery and budget control. PPPs also enable self-sustaining models where tourism-generated revenue supports ongoing maintenance.

Challenges: Commercial pressures may lead private investors to prioritise profit, risking over-commercialisation or inappropriate alterations. Achieving a balance between public conservation interests and private profitability remains a major challenge (Rao, 2019).

2.9.5.1. Case Studies for Public-Private Partnerships (PPP)

Public-Private Partnerships (PPP) are a valuable approach for heritage conservation, leveraging private investment alongside public initiatives to conserve, manage, and revitalize historic sites. PPP projects often help finance restoration efforts, while also

enhancing the tourism and cultural appeal of heritage sites. Below are four case studies that illustrate the use of PPP in heritage conservation: Kala Ghoda (Mumbai), Qutb Shahi Tombs (Hyderabad), Berlin Wall Memorial (Germany), and Palazzo Grassi (Venice, Italy).

A. Kala Ghoda, Mumbai, India: The Kala Ghoda precinct in Mumbai, known for its rich colonial architecture and vibrant art scene, underwent a successful revitalization through a PPP model. The precinct, home to iconic buildings such as the David Sassoon Library and Jehangir Art Gallery, was facing neglect before private entities collaborated with government agencies to restore its historical significance.

PPP Strategy: Private companies, local businesses, and cultural organizations collaborated with the Mumbai Municipal Corporation to fund restoration efforts and host cultural events like the Kala Ghoda Arts Festival. This collaboration ensured the conservation of the precinct's architectural heritage while promoting it as a cultural hub (INTACH, 2018).

B. Qutb Shahi Tombs, Hyderabad, India: The Qutb Shahi Tombs, a complex of tombs built by the rulers of the Qutb Shahi dynasty in Hyderabad, are recognized for their Indo-Islamic architecture. The site had suffered from neglect, but through a PPP initiative between the Aga Khan Trust for Culture (AKTC) and the Telangana Department of Archaeology, the tombs have been restored and conserved.

PPP Strategy: The Aga Khan Trust provided funding and expertise in heritage restoration, while the Telangana government supported the project with logistical and administrative assistance. This partnership led to the conservation of over 40 tombs, revitalizing the site as a major historical and cultural landmark in Hyderabad (Aga Khan Trust for Culture, 2018).

C. Berlin Wall Memorial, Germany: The Berlin Wall Memorial is a significant historical site in Germany, marking the division between East and West Berlin during the Cold War. After the reunification of Germany, the site was in need of restoration and memorialization to serve as a reminder of the country's divided history.

PPP Strategy: The Federal Government of Germany, the Berlin State Government, and private stakeholders partnered to restore and maintain the Berlin Wall Memorial. Private donations and public funding were combined to create a site that educates visitors while conserving the physical remnants of the wall and related structures.

(Riedel, 2017).

D. Palazzo Grassi, Venice, Italy: The Palazzo Grassi, an 18th-century palace located on the Grand Canal in Venice, Italy, was in disrepair before a private entity, the François Pinault Foundation, collaborated with local authorities to restore it. The palace is now a contemporary art museum.

PPP Strategy: The Pinault Foundation funded the restoration of the building while working closely with the Venetian Heritage Department to ensure that all renovations adhered to strict heritage conservation laws. This successful PPP allowed for the conservation of the building's historical features while repurposing it as a modern art space (Sartori, 2019).

Table 2.12: Comparison Chart: Public-Private Partnerships in Heritage Conservation				
Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Kala Ghoda, Mumbai, India	High: Boosts local economy through tourism and cultural events; promotes community engagement.	High: Revitalization ensures long-term cultural and economic sustainability.	High: Heritage restored without compromising historical integrity; multi-stakeholder collaboration.	Combining cultural promotion with conservation enhances tourism and local pride.
Qutb Shahi Tombs, Hyderabad	High: International expertise and funding improved site management; attracts global tourism.	Very High: Comprehensive restoration plan ensures conservation for future generations.	High: Balance of technical expertise and local involvement maintains authenticity.	Expertise-driven PPPs achieve sustainable conservation of large heritage complexes.
Berlin Wall Memorial, Germany	Moderate: Public-private funding ensured restoration, but the site is not a major revenue generator.	High: Maintains historical significance while contributing to educational tourism.	Very High: Careful conservation maintains historical authenticity; broad stakeholder involvement.	PPPs can prioritize educational and cultural conservation over commercial goals.

Table 2.12: Comparison Chart: Public-Private Partnerships in Heritage Conservation				
Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Palazzo Grassi, Venice, Italy	High: Private funding restored the site; now generates revenue as a museum.	High: Adaptive reuse ensures functionality while preserving heritage.	High: Collaboration ensured adherence to strict conservation guidelines.	Integrating contemporary use with heritage conservation maximizes financial and cultural value.

Source: Aga Khan Trust for Culture (2018), INTACH (2018), Riedel (2017), Sartori (2019), Sharma (2019), Thompson (2016), and UNESCO (2018).

Public-Private Partnerships (PPP) are effective tools for heritage conservation, bringing together government resources and private sector expertise. The Kala Ghoda Art District and Qutb Shahi Tombs in India demonstrate how PPPs can help conserve cultural heritage while promoting tourism and local engagement. Globally, the Berlin Wall Memorial and Palazzo Grassi illustrate the power of PPPs in managing heritage sites with both historical and cultural significance. Government grants and subsidies are vital for heritage conservation, providing financial support to property owners and ensuring long-term conservation of culturally significant sites (Table 2.12). Effective collaboration between stakeholders enhances sustainability and promotes balanced urban growth.

2.9.6. Local Community Participation and Incentives:

Local community participation is crucial for the success of heritage conservation, especially in walled cities where communities have strong cultural and historical ties to the precinct. Involving the local population in conservation efforts through incentives such as tax breaks, grants, or recognition can help ensure the long-term care of heritage sites.

Advantages: Community participation fosters a sense of ownership and responsibility, ensuring conservation aligns with local values and traditions. It enhances sustainability, as residents actively maintain cultural and historical integrity, and supports the preservation of both tangible and intangible heritage such as crafts, rituals, and festivals.

Challenges: Effective community-led conservation requires strong institutional support to provide training, funding, and resources. Coordination can be complex, as diverse community groups often have conflicting priorities and interests (Sharma, 2018).

2.9.6.1. Local Community Participation and Incentives - Case Studies:

Local community participation is essential for the sustainable conservation of heritage sites. When local communities are directly involved in heritage conservation efforts, they are more likely to ensure long-term maintenance and protection. Below are two prominent Indian and two global case studies of local community participation and incentives, focusing on capacity building, training strategies, and their impact.

A. Bhaktapur Durbar Square, Kathmandu Valley: Although Bhaktapur Durbar Square is located in Nepal, it has historical and cultural ties to Indian heritage conservation efforts, particularly in the context of community-driven initiatives. The UNESCO restoration project, supported by Indian experts, focused on rebuilding structures damaged by earthquakes, with significant participation from local communities. The project engaged local artisans and used traditional materials and methods for the restoration of temples and historic buildings.

Focus on Capacity Building: Training programs were developed for local craftsmen in traditional construction techniques, such as wood carving, brick-making, and stone masonry. This ensured that the local community could maintain the site post-restoration.

Impact: Community participation was crucial in the project's success. The restoration not only conserved the historical integrity of Bhaktapur but also revived local craftsmanship and provided employment to community members (Pradhan, 2019).

B. Sidhpur Heritage Project, Gujarat: The Sidhpur Heritage Project aims to conserve the unique havelis (traditional mansions) of Sidhpur, which feature a blend of European and Islamic architecture. The project relies heavily on the local community's involvement, offering incentives such as tax rebates and grants for homeowners who participate in the restoration and conservation efforts.

Focus on Capacity Building: Workshops were organized to train local artisans and residents in the conservation of havelis, with a focus on traditional building techniques. The project also engaged local NGOs to educate the community about the importance of conserving their heritage.

Impact: The project has led to the restoration of several havelis, fostering a sense of pride and ownership among residents. The training programs have also empowered

local artisans to continue the work independently, creating a sustainable conservation model (Patel, 2018).

C. Bairro Alto, Lisbon, Portugal: The Bairro Alto district in Lisbon, known for its 16th-century architecture, was at risk of losing its historical character due to modern development pressures. The City of Lisbon initiated a community-driven conservation program, offering financial incentives to property owners for maintaining and restoring their historic homes. Local community participation was a cornerstone of the project.

Focus on Capacity Building: The initiative included workshops for residents and local artisans to teach them traditional building techniques and how to use government incentives effectively. Training sessions also focused on sustainable tourism practices to ensure that the local community benefited economically from the conservation efforts.

Impact: The conservation of Bairro Alto has revitalized the area while conserving its cultural identity. The local community's involvement has been key to the project's success, with many residents taking an active role in promoting and maintaining the district's heritage (Ferreira, 2017).

D. George Town, Penang, Malaysia: George Town, a UNESCO World Heritage Site, is a historic district known for its diverse architecture and cultural significance. The Penang Heritage Trust led an initiative to involve local communities in the conservation of traditional shop houses, offering incentives such as grants and tax rebates to homeowners who restored their properties in accordance with heritage guidelines.

Focus on Capacity Building: The project included training programs for local builders, focusing on restoring traditional shop houses using historical construction methods. Workshops for homeowners were also conducted, educating them about the financial incentives available and the importance of conserving George Town's unique cultural landscape.

Impact: The program has been highly successful, with many shop houses restored to their original state. Local participation ensured that the conservation efforts were sustainable, while the incentives encouraged more property owners to take part in conserving the city's heritage (Lim, 2018).

Table 2.13 Comparison Chart: Local Community Participation in Heritage Conservation

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Bhaktapur Durbar Square, Nepal	High: Revived local craftsmanship, created employment; strengthened cultural ties.	High: Community-driven restoration ensures ongoing maintenance.	Very High: Traditional materials and techniques conserved; broad community involvement.	Community participation and traditional craftsmanship are pivotal for sustainable heritage conservation.
Sidhpur Heritage Project, Gujarat	Moderate: Tax rebates and grants provide economic incentives for property owners.	High: Trained artisans ensure independent, long-term conservation efforts.	High: Local engagement fosters pride and ensures alignment with cultural values.	Incentivized training programs empower communities to sustain heritage conservation.
Bairro Alto, Lisbon, Portugal	High: Financial incentives revitalized the economy and encouraged resident participation.	High: Sustainable tourism and community ownership ensure future growth.	High: Focus on traditional techniques maintained district's cultural identity.	Financial incentives combined with training ensure community-driven conservation success.
George Town, Penang, Malaysia	High: Incentives encouraged restoration; boosted local economy through tourism.	Very High: Community education and grants ensure broad participation.	High: Conservation aligned with cultural and architectural heritage.	Educating property owners and offering incentives drive large-scale community involvement.

Source: Pradhan (2019), Patel (2018), Ferreira (2017), and Lim (2018).

Local community participation is vital for the sustainable conservation of heritage sites. In India, projects like Sidhpur have engaged local communities and artisans, creating a strong foundation for long-term conservation. Globally, Bairro Alto and George Town showcase the power of incentives and capacity building to drive successful heritage conservation (Table 2.13). Local community participation and incentives are vital for sustainable heritage conservation. By fostering a sense of ownership and providing financial and educational support, these initiatives ensure the long-term conservation of both tangible and intangible cultural heritage.

2.9.7. Conservation Easements:

Conservation easements are legal agreements between property owners and a conservation authority, which place restrictions on the development or alteration of a heritage site. These easements ensure that the heritage value of the property is conserved in perpetuity, regardless of ownership changes.

Advantages: Conservation easements provide long-term protection through legally binding agreements that prevent inappropriate alterations or development, even when ownership changes. They offer flexibility, allowing property owners to retain use and control of their property while restricting actions that could compromise its historical or cultural value.

Challenges: These agreements involve legal complexity, requiring a strong regulatory framework and consistent oversight to ensure compliance. Property owners may resist permanent restrictions, despite potential tax benefits or compensation, making implementation difficult (Shah, 2020).

2.9.7.1. Conservation Easements - Case Studies:

Conservation easements are legal agreements that protect heritage properties by restricting development while allowing the property to remain privately owned. These easements ensure the conservation of historically significant buildings and landscapes. Below are case studies of conservation easements, focusing on capacity building, training strategies, and their impact.

A. Kalimpong, West Bengal: The heritage buildings of Kalimpong in West Bengal have benefited from conservation easements aimed at protecting colonial-era architecture. A conservation easement program, supported by the West Bengal Heritage Commission, has restricted modifications to these properties while allowing property owners to receive tax benefits and financial support for conservation.

Focus on Capacity Building: The program includes workshops for property owners and local artisans on heritage maintenance techniques. Training sessions focus on how to maintain the integrity of the historic buildings while still allowing for necessary repairs and updates.

Impact: The program has successfully conserved numerous colonial-era structures in Kalimpong. Property owners are incentivized through financial and tax benefits to maintain the historical integrity of their properties (Chatterjee, 2019).

B. Walled City of Jaipur, Rajasthan

Overview: The Walled City of Jaipur, a UNESCO World Heritage Site, has implemented conservation easements to protect its iconic architectural features, including Havelis, temples, and palaces. The Government of Rajasthan, in partnership with local NGOs, has developed easements that restrict alterations to the façades of heritage properties.

Focus on Capacity Building: Training programs have been organized for local architects, property owners, and artisans to educate them on the proper techniques for maintaining heritage buildings. These programs include training on materials conservation, structural integrity, and traditional architectural styles.

Impact: Conservation easements have played a key role in maintaining the historic character of Jaipur's Walled City. By engaging the local community through training and incentives, the city has successfully protected its heritage from modern development pressures (Mehta, 2020).

C. Charleston, South Carolina, USA

Overview: Charleston is known for its well-conserved antebellum architecture. The Historic Charleston Foundation uses conservation easements to protect historic buildings from inappropriate alterations or demolitions. The easements restrict the external appearance and ensure that any changes conform to the city's heritage standards.

Focus on Capacity Building: The foundation offers training programs for property owners and local contractors, focusing on historic conservation techniques. These workshops teach participants how to restore and maintain heritage properties while adhering to easement regulations.

Impact: Conservation easements in Charleston have been instrumental in conservation. The training programs have ensured that property owners and professionals are equipped to manage the challenges of maintaining properties (Smith, 2017).

D. Historic Villages of Shirakawa-go and Gokayama, Japan

Overview: The Historic Villages of Shirakawa-go and Gokayama, a UNESCO World Heritage Site, have been conserved with conservation easements. These villages, known for their traditional gassho-style houses, are protected from development through legal easements that limit alterations to the historic properties.

Focus on Capacity Building: The Japanese Agency for Cultural Affairs provides training to local residents on maintaining the gassho-style buildings using traditional techniques. The programs focus on materials conservation and the structural stability of the unique thatched-roof houses.

Impact: The easements have conserved the cultural and architectural significance of these villages, preventing development pressures from altering their traditional landscape. The training programs have empowered the local community to actively participate in the conservation of their heritage (Tanaka, 2018).

Table 2.14 Comparison Chart: Conservation Easements in Heritage Conservation

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Kalimpong, West Bengal	Moderate: Tax benefits incentivize conservation; raises awareness among owners.	High: Legal agreements ensure perpetual protection of heritage sites.	High: Workshops build skills; owners actively participate in maintenance.	Financial incentives and training programs encourage community-driven heritage protection.
Walled City of Jaipur, Rajasthan	High: Easements sustain tourism and heritage value while limiting modifications.	Very High: Strong community and NGO collaboration ensures durability.	Very High: Engages local artisans; conserves historic façades authentically.	Comprehensive easement programs, paired with local engagement, maintain heritage integrity sustainably.
Charleston, South Carolina, USA	High: Incentives support long-term conservation; promotes pride in heritage.	High: Legal easements shield historic districts from modern pressures.	High: Training ensures adherence to conservation standards.	Strong easements coupled with skilled local expertise deliver consistent, long-term heritage outcomes.
Shirakawa-go and Gokayama, Japan	Moderate: Supports cultural tourism; high restoration costs for residents.	Very High: Heritage landscape remains intact through legal protections.	Very High: Local participation ensures authenticity; techniques are conserved.	Legal protection and traditional skill-building empower sustainable cultural heritage conservation.
Source: Chatterjee (2019), Mehta (2020), Smith (2017), and Tanaka (2018)				

Conservation easements provide a robust mechanism for protecting heritage properties by restricting inappropriate development and incentivizing property owners to maintain historical buildings. In India, the Walled City of Jaipur and Kalimpong have benefited from easement programs that involve local communities and provide financial incentives for heritage conservation. Globally, Charleston and the Historic Villages of Shirakawa-go and Gokayama demonstrate the effectiveness of easements in conserving historically significant properties. Conservation easements provide a robust mechanism for preserving heritage properties by legally restricting harmful modifications (Table 2.14). Combined with incentives and capacity-building programs, they empower local communities to actively participate in heritage conservation, ensuring long-term sustainability and the conservation of authenticity.

2.9.8. Heritage tourism initiatives:

Heritage tourism can be a powerful driver of economic growth while also promoting the conservation of heritage precincts. By attracting visitors to walled cities and their historical sites, tourism generates revenue that can be reinvested in conservation efforts.

Advantages: Heritage tourism generates revenue to support both conservation initiatives and the local economy, as visitors pay to access and experience heritage sites. It also promotes cultural awareness and appreciation by highlighting the historical significance of these sites to both tourists and local communities.

Challenges: Unmanaged tourism can result in overcrowding, environmental damage, and physical deterioration, ultimately threatening conservation goals. Additionally, commercialisation to satisfy tourist expectations may dilute cultural authenticity and historical value (Singh, 2018).

Tourism-based revenue generation is a significant model for funding heritage conservation efforts. By leveraging heritage sites as tourist attractions, local governments and communities can generate income to support conservation while promoting sustainable development. Below are two prominent Indian case studies and two global examples of tourism-based revenue generation for heritage conservation.

2.9.8.1. Heritage Tourism Initiatives- Case Studies:

Heritage tourism initiatives leverage the cultural and historical significance of heritage sites to promote tourism while ensuring their conservation. These initiatives often focus on generating revenue through tourism, which in turn supports the conservation of the

site. Below are studies that highlight the impact of heritage tourism initiatives, focusing on capacity building, training strategies, and outcomes.

A. Hampi, Karnataka: The UNESCO World Heritage Site of Hampi in Karnataka is known for its ancient temples and ruins from the Vijayanagara Empire. The Government of Karnataka initiated a heritage tourism plan to boost the local economy by promoting the cultural significance of Hampi through sustainable tourism.

Focus on Capacity Building: Training programs were implemented for local guides, artisans, and hotel staff, educating them on the historical significance of the site, sustainable tourism practices, and hospitality skills. Local communities were encouraged to participate in promoting the site and benefitting from tourism revenue.

Impact: The initiative increased tourist footfall, generating significant revenue that was reinvested into site maintenance and conservation. The training programs also empowered the local community, providing them with economic opportunities while ensuring that tourism activities did not compromise the site's heritage (Prasad, 2018).

B. Rajasthan Heritage Tourism, Rajasthan: Rajasthan is famous for its palaces, forts, and desert heritage. The Rajasthan Heritage Tourism initiative by the state government promotes tourism through heritage walks, festivals, and cultural events, with a particular focus on the state's historic forts and palaces, such as Amber Fort and Mehrangarh Fort.

Focus on Capacity Building: Local communities were trained to act as guides, hospitality providers, and artisans in the tourism sector. Workshops were held to teach traditional crafts such as pottery and textile weaving, which were then marketed as part of the tourism experience.

Impact: The initiative has boosted the local economy and generated funds for the conservation of Rajasthan's forts and palaces. The training programs ensured that tourism development was integrated with heritage conservation, and local artisans benefited from increased visibility and sales (Singh, 2019).

C. Machu Picchu, Peru: Machu Picchu, one of the most iconic heritage sites in the world, is a UNESCO World Heritage Site. The Peruvian government initiated heritage tourism strategies that focused on promoting the site's Incan history while managing the impact of mass tourism.

Focus on Capacity Building: The program included capacity-building workshops for

local tour guides, who were trained in sustainable tourism practices and historical education. Additionally, local communities were involved in promoting responsible tourism and maintaining the surrounding areas.

Impact: Tourism at Machu Picchu generates significant revenue, a portion of which is allocated for conservation and maintenance efforts. The local communities benefited from tourism through employment and business opportunities, ensuring that the site remains conserved despite heavy tourist traffic (Garcia, 2017).

D. Angkor Wat, Cambodia: Angkor Wat is a UNESCO World Heritage Site and one of Southeast Asia's most visited historical landmarks. The Cambodian government, in collaboration with UNESCO, initiated a heritage tourism plan that balances conservation needs with the influx of tourists.

Focus on Capacity Building: Training programs were designed for local tour operators and artisans to equip them with skills in sustainable tourism management. The initiative also focused on empowering local communities to develop tourism-related businesses, such as crafts and hospitality services that complement the heritage site.

Impact: The tourism initiative has helped conserve Angkor Wat's cultural and architectural heritage while contributing to Cambodia's economy. Training programs ensured that the local population played a key role in heritage management and benefitted from the revenue generated by tourism (Sophea, 2018).

Table 2.15: Comparison Chart: Heritage Tourism Initiatives

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Hampi, Karnataka	High: Generates revenue for conservation and supports local economy.	Very High: Revenue reinvested ensures site maintenance and conservation.	High: Involves local guides and artisans, maintaining cultural practices.	Sustainable tourism integrates heritage conservation with local economic growth.
Rajasthan Heritage Tourism	High: Promotes traditional crafts and cultural tourism, boosting livelihoods.	High: Events like heritage walks encourage sustainable tourism.	High: Engages local artisans and communities, preserving traditional crafts.	Combines cultural promotion with community empowerment for sustainable conservation.
Machu	Very High:	Moderate: Heavy	Moderate:	Highlights the

Picchu, Peru	Generates significant revenue for site conservation and local economy.	tourism requires robust management to prevent overuse.	Balances conservation with mass tourism, ensuring local benefits.	importance of balancing tourism influx with conservation and local participation.
Angkor Wat, Cambodia	Very High: Tourism supports both national economy and heritage conservation.	High: Programs ensure conservation despite high tourist traffic.	High: Involves local stakeholders in management and business opportunities.	Combines tourism with community-driven conservation to balance economic and cultural goals.

Source: Prasad (2018), Singh (2019), Garcia (2017), and Sophea (2018)

Heritage tourism initiatives are a powerful means of conserving heritage sites while boosting local economies. In India, efforts in Hampi and Rajasthan integrate local communities into the tourism economy, benefiting them while protecting heritage assets. Globally, sites like Machu Picchu and Angkor Wat highlight the role of international collaboration and local capacity building in sustaining tourism and conservation (Table 2.15). These initiatives generate revenue, foster community involvement, and drive economic growth, but balancing tourism influx with conservation is essential for long-term sustainability and preserving authenticity.

2.9.9. Creation of Heritage Trusts and Funds:

Heritage trusts and funds are financial vehicles established to raise and manage resources dedicated to the conservation of heritage sites. These trusts can receive donations, grants, and revenue from tourism, providing a stable, long-term source of funding for conservation.

Advantages: Heritage trusts and funds provide sustainable financial resources dedicated to conservation, independent of fluctuating government budgets. They also encourage public engagement through donations and community participation, increasing awareness and support for heritage protection.

Challenges: Managing heritage trusts requires strong governance to maintain transparency and accountability. Their success often depends on securing reliable donor support and continuous fundraising, which can be difficult to sustain (Rao, 2019).

2.9.9.1. Case Studies for Creation of Heritage Trusts and Funds:

Heritage trusts and funds play a crucial role in the conservation of cultural sites by providing financial support, enabling capacity building, and offering training for sustainable management. Below are case studies that illustrate the impact of heritage trusts with a focus on capacity building and training as key strategies.

A. Aga Khan Trust for Culture (AKTC), Humayun's Tomb, Delhi: The Aga Khan Trust for Culture (AKTC), in collaboration with ASI, established a heritage trust to restore and conserve the Humayun's Tomb complex. The project emphasized capacity building and training local artisans in traditional conservation techniques, ensuring the sustainability of heritage restoration skills.

Focus on Capacity Building: As part of the conservation project, AKTC trained over 200 local craftsmen in traditional stone masonry, tile work, and plastering techniques. These skills were used in restoring the tomb and its surrounding structures, ensuring that the knowledge of these traditional crafts was conserved and passed on.

Impact: The project not only conserved an important UNESCO World Heritage Site but also contributed to long-term cultural and economic sustainability by empowering local artisans with marketable skills for future conservation projects (Singh, 2018).

B. Indian National Trust for Art and Cultural Heritage (INTACH): INTACH, India's leading heritage organization, operates various heritage funds that support the conservation of significant cultural sites across the country. A key aspect of INTACH's work involves capacity building and training programs that focus on educating local communities, artisans, and students about heritage conservation techniques.

Focus on Capacity Building: INTACH regularly organizes training workshops for local artisans and community members in areas such as traditional building methods, conservation techniques, and site management. These initiatives aim to foster a deeper understanding of heritage conservation within local communities, making them active participants in the conservation process.

Impact: INTACH's capacity-building efforts have been particularly successful in cities like Varanasi and Jaisalmer, where local communities now play a key role in managing and conserving their cultural heritage (Rao, 2019).

C. National Trust, United Kingdom: The National Trust in the UK is one of the world's largest heritage organizations, responsible for the management and

conservation of over 500 historic sites. The trust places a significant emphasis on capacity building, providing extensive training to staff, volunteers, and local communities.

Focus on Capacity Building: The National Trust has developed specialized training programs in heritage conservation, focusing on traditional craftsmanship, building restoration, and site management. These programs are designed for both in-house professionals and local volunteers, ensuring the long-term sustainability of heritage management.

Impact: By empowering a large network of trained professionals and volunteers, the National Trust has successfully conserved iconic sites such as Stonehenge and Hadrian's Wall, ensuring their conservation for future generations (Thompson, 2017).

D. The Getty Foundation, USA: The Getty Foundation is a major global institution focused on cultural heritage conservation. Through its Getty Conservation Institute, the foundation has established a heritage fund that supports capacity building and training initiatives worldwide.

Focus on Capacity Building: The Getty Foundation's Conservation Institute has implemented capacity-building programs that train professionals in advanced conservation techniques and site management strategies. These programs are designed to enhance the capabilities of local conservation teams in countries around the world, including Peru (Machu Picchu) and Greece (Acropolis).

Impact: The Getty Foundation's capacity-building initiatives have played a significant role in conserving globally significant sites by fostering local expertise in heritage conservation. The foundation's approach ensures that conservation efforts are sustainable and can be managed locally in the long term (Miller, 2016).

Table 2.16: Comparison Chart: Heritage Trusts and Funds

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Aga Khan Trust for Culture (AKTC), Humayun's	High: Training artisans provided economic benefits and	Very High: Craftsmen's skills ensure long-term sustainability of	High: Traditional techniques conserved; stakeholders	Empowers local artisans and ensures sustainability through capacity

Tomb, Delhi	conserved cultural skills.	conservation projects.	actively engaged.	building and skill transfer.
Indian National Trust for Art and Cultural Heritage (INTACH)	Moderate: Supports diverse heritage sites but relies on external funding.	High: Training workshops embed conservation skills within local communities.	High: Strong community involvement in site management and conservation.	Combines community-driven conservation with skill-building initiatives.
National Trust, United Kingdom	High: Sustainable funding and large volunteer network ensure financial stability.	Very High: Extensive training programs sustain long-term conservation.	Very High: Collaboration with professionals and volunteers enhances outcomes.	Builds a robust network of skilled professionals and volunteers for large-scale heritage management.
The Getty Foundation, USA	Very High: Global outreach generates significant resources for conservation.	Very High: Advanced training programs ensure self-reliance of local teams.	High: Promotes authentic restoration through global capacity-building efforts.	Enhances global conservation efforts by fostering local expertise in diverse regions.

Source: Singh (2018), Rao (2019), Thompson (2017), and Miller (2016)

Heritage trusts and funds provide a sustainable financial and institutional framework for heritage conservation, effectively integrating capacity building and stakeholder involvement to ensure long-term conservation and economic viability. Indian examples, such as the Aga Khan Trust for Culture at Humayun's Tomb and INTACH's work in Varanasi and Jaisalmer, highlight how local communities and artisans can be empowered to take ownership of heritage conservation. Globally, the National Trust and the Getty Foundation demonstrate the importance of professional training and long-term capacity building to manage and conserve significant cultural sites (Table 2.16). These case studies emphasize that capacity building is integral to ensuring the conservation of heritage sites for future generations.

2.9.10. Legislation and Policy Advocacy:

Legislation and policy advocacy are essential for creating a legal framework that protects heritage sites. Strong laws and policies can prevent unauthorized development, enforce conservation standards, and ensure that heritage sites are conserved for future generations.

Advantages: Legal protection-Strong legislation ensures that heritage sites are protected from unauthorized development or demolition, providing long-term

safeguards for historically and culturally significant areas.

Accountability: Heritage conservation laws create accountability for developers, property owners, and governments, ensuring that conservation standards are upheld.

Challenges: Enforcement- Even with strong laws in place, enforcement can be difficult, especially in areas with complex property ownership patterns or informal developments.

Political will: The success of legislation depends on political will and the support of both local and national governments, which can fluctuate over time (Shah, 2020).

2.9.10.1. Case Studies for Legislation and Policy Advocacy:

Legislation and policy advocacy are essential for creating robust frameworks that protect heritage sites and ensure long-term sustainability. Below are two prominent case studies from India and two from the global context that illustrate how legislation and policy advocacy have been employed to conserve cultural heritage, with a focus on capacity building and training strategies.

A. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 (Amendments 2010): The Ancient Monuments and Archaeological Sites and Remains Act (AMASR Act) is one of India's key pieces of legislation aimed at the protection and conservation of heritage sites. In 2010, the act was amended to include stricter regulations on construction activities within a 100-meter radius of protected monuments, while also creating a "regulated zone" extending to 200 meters. This law was pivotal in safeguarding heritage sites from urban development pressures.

Focus on Capacity Building: The amendments also called for the establishment of the National Monument Authority (NMA), tasked with implementing these regulations. The NMA has also focused on training urban planners, architects, and local authorities on managing heritage sites, especially in urban areas where development pressures are high.

Impact: The AMASR Act and its amendments have been crucial in protecting hundreds of India's most significant historical sites, including the Qutb Minar and Taj Mahal, from unauthorized development. The law has increased awareness and enforcement, ensuring that urban development does not compromise heritage conservation.

B. Maharashtra Heritage Conservation Committee (MHCC), Mumbai: The Maharashtra Heritage Conservation Committee (MHCC) was established in 1995 as part of the development control regulations of Mumbai. It is one of the most influential heritage conservation policy frameworks in India, especially in an urban setting.

MHCC's regulations have protected critical historical areas such as the Fort Precinct and Marine Drive, ensuring that new developments adhere to strict heritage guidelines.

Focus on Capacity Building: The MHCC has focused on training local government officials, architects, and planners in heritage conservation practices. It regularly organizes workshops and training programs to ensure that heritage regulations are enforced effectively.

Impact: Through its advocacy and legislative framework, the MHCC has played a vital role in maintaining the historic fabric of Mumbai. It has successfully protected numerous heritage buildings from inappropriate redevelopment and urban pressures.

C. Venice Charter and UNESCO World Heritage Convention, Italy: The Venice Charter (1964), a seminal document in international heritage conservation, set the foundation for modern conservation practices globally. This was later integrated into the UNESCO World Heritage Convention (1972), which provides a global framework for identifying and protecting cultural and natural heritage of outstanding universal value. Italy has played a key role in shaping this legislative framework, particularly for the conservation of sites like Venice and Florence.

Focus on Capacity Building: Both the Venice Charter and the UNESCO convention have established global standards for conservation practices and capacity building. Training programs are regularly organized by UNESCO for heritage site managers, architects, and conservators to ensure that best practices in heritage conservation are followed.

Impact: These legislative frameworks have contributed significantly to the global heritage conservation movement, with Italy benefitting from the protection of its UNESCO World Heritage Sites, including the Venice Lagoon. These policies ensure that Italy's cultural heritage is conserved amidst increasing tourism pressures.

D. National Historic Conservation Act (NHPA), United States: The National Historic Conservation Act (NHPA), passed in 1966, is a landmark piece of legislation in the United States that ensures the conservation of historical and archaeological sites. The act established the National Register of Historic Places and the Advisory Council on Historic Conservation, which play a key role in conserving heritage of the country. **Focus on Capacity Building:** The NHPA includes provisions for training and capacity building through the National Park Service (NPS), which offers extensive training

programs for conservation professionals, site managers, and archaeologists. These programs focus on developing skills in site management, traditional conservation techniques, and community engagement.

Impact: The NHPA has been instrumental in conserving a wide range of heritage sites, from the Statue of Liberty to smaller, community-based landmarks. It has also established a network of professionals across the country dedicated to the long-term conservation of American heritage.

Table 2.17: Comparison Chart: Legislation and Policy Advocacy

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
AMASR Act, India	Moderate: Increased awareness and funding for monument protection.	High: Protects heritage sites from unauthorized development pressures.	High: Strong legal framework; training enhances implementation capacity.	Stricter regulations and capacity-building ensure urban development does not compromise heritage.
MHCC, Mumbai, India	High: Economic value added through conservation of heritage districts.	Very High: Comprehensive guidelines sustain heritage in urban settings.	High: Active enforcement by local authorities and collaboration with stakeholders.	A model for urban heritage conservation through collaborative governance and policy enforcement.
Venice Charter and UNESCO, Italy	Very High: Global recognition increases funding and tourism revenue.	Very High: Global standards ensure consistent conservation efforts.	Very High: Establishes international best practices; extensive training programs.	Sets a global benchmark for legislative frameworks in heritage conservation.
NHPA, United States	High: Encourages local community and private sector involvement.	Very High: National programs provide robust, long-term sustainability.	High: Comprehensive stakeholder involvement through NPS and local initiatives.	Integrates community and professional networks to sustain nationwide conservation efforts.

Source: Sharma (2018) for the AMASR Act, Patel (2020) for MHCC Mumbai, Boulanger (2019) for the Venice Charter and UNESCO, and Smith (2017) for the NHPA in the United States.

Legislation and policy advocacy are crucial for conserving heritage sites in India and globally. In India, the AMASR Act and the MHCC have established foundations for

urban heritage protection, supported by training programs for officials and planners. Internationally, the Venice Charter and the U.S.'s NHPA have shaped heritage policies, promoting protection through professional training and advocacy (Table 2.17). Such legislation ensures legal protection, fosters accountability, and aligns conservation efforts with urban development and community engagement.

2.9.11. Capacity Building and Training:

Capacity building and training are crucial for developing the skills and expertise needed to manage heritage conservation projects. This includes training local artisans, architects, urban planners, and conservation professionals in traditional building techniques and modern conservation practices.

Advantages: Local skill development- Capacity-building programs equip local artisans, architects, and conservation professionals with skills in traditional building techniques and modern conservation practices to uphold high standards in heritage conservation.

Job creation: Training programs provide employment opportunities and empowers local communities to actively conserve their cultural heritage.

Challenges: Funding: Capacity-building programs require ongoing funding and institutional support to be effective.

Sustaining engagement: Maintaining the interest and involvement of local communities in training programs can be difficult, particularly if economic pressures drive people toward more immediately lucrative work (Singh, 2018).

2.9.11.1. Case Studies for Capacity Building and Training:

Capacity building and training are essential components of heritage conservation strategies, ensuring that local communities, professionals, and government agencies possess the necessary skills to conserve and manage heritage sites. Below are two prominent Indian and two global case studies focused on capacity building and training in heritage conservation.

A. Aga Khan Trust for Culture (AKTC), Humayun's Tomb, Delhi: The Aga Khan Trust for Culture (AKTC) undertook the restoration of the Humayun's Tomb complex in Delhi, a UNESCO World Heritage Site. The project placed a strong emphasis on training local craftsmen in traditional conservation techniques, ensuring the transfer of skills and knowledge required for the sustainable management of heritage sites.

Focus on Capacity Building: AKTC worked closely with local artisans, training them in traditional masonry and stone carving. This skill development was critical not only for the Humayun's Tomb project but also for future heritage restoration efforts across India. **Impact:** More than 200 artisans were trained during the project, which contributed to the conservation of craftsmanship. The project set a precedent for capacity building in Indian heritage conservation, with a focus on long-term sustainability (Singh, 2018).

B. Indian National Trust for Art and Cultural Heritage (INTACH): INTACH is a leading heritage conservation organization in India that focuses on conserving cultural and natural heritage. It regularly organizes capacity-building workshops and training programs for local communities, professionals, and students, ensuring that traditional knowledge and skills are conserved and passed on to future generations.

Focus on Capacity Building: INTACH's training initiatives have included workshops on heritage conservation techniques, site management, and community engagement. These programs have been implemented across various states, focusing on local crafts, traditional building techniques, and sustainable heritage management.

Impact: The organization has enhanced awareness and expertise in heritage conservation across India, enabling local communities in places like Varanasi and Jaisalmer to actively manage and conserve their heritage. (Rao, 2019).

C. National Trust, United Kingdom: The National Trust in the United Kingdom is a major heritage conservation organization that manages a wide array of historic sites. The trust has long recognized the importance of capacity building and training, offering extensive programs for volunteers, staff, and local communities.

Focus on Capacity Building: The National Trust has implemented structured training programs in traditional building techniques, conservation management, and landscape restoration. These programs target professionals and volunteers, equipping them with the necessary skills to conserve and manage heritage sites.

Impact: Through its capacity-building initiatives, the National Trust has successfully conserved iconic sites such as Hadrian's Wall and Stonehenge, ensuring their protection for future generations. The trust's comprehensive approach to training has also built a strong network of skilled heritage professionals and volunteers (Thompson, 2017).

D. The Getty Conservation Institute, USA: The Getty Conservation Institute (GCI) is a global leader in heritage conservation, offering training programs and

resources to professionals worldwide. Its projects have focused on the conservation of major cultural landmarks, including Machu Picchu in Peru and the Acropolis in Greece. Focus on Capacity Building: The GCI's capacity-building efforts train local professionals in advanced conservation techniques and modern technology while developing conservation management plans with local authorities and communities. Impact: The GCI's training programs strengthen local conservation teams, enabling them to manage globally significant heritage sites and address ongoing conservation challenges effectively. (Miller, 2016).

Table 2.18: Comparison Chart: Capacity Building and Training in Heritage Conservation

Case Study	Economic Viability and Social Impact	Long-Term Sustainability and Impact on Urban Growth	Conservation of Authenticity and Stakeholder Involvement	Key Takeaway
Aga Khan Trust for Culture (AKTC), Humayun's Tomb, Delhi	High: Empowered artisans generate local economic opportunities.	Very High: Trained artisans contribute to ongoing restoration efforts.	High: Authentic conservation practices retained through traditional techniques.	Demonstrates a replicable model for integrating capacity building with large-scale restoration.
Indian National Trust for Art and Cultural Heritage (INTACH)	Mod. to High: Community-driven initiatives enhance pride and economic potential.	High: Sustains local traditions and empowers communities for future conservation.	Very High: Broad community and professional involvement ensure authenticity.	Focuses on grassroots engagement and preserving traditional knowledge across regions.
National Trust, United Kingdom	High: Heritage sites contribute to tourism and local economies.	Very High: Creates a strong, skilled workforce for ongoing site management.	High: Volunteers and professionals maintain authenticity.	A model for structured capacity building with broad public and professional participation.
Getty Conservation Institute, USA	Very High: Global reach ensures scalable economic and social benefits.	Very High: Builds sustainable conservation models worldwide.	High: Advanced techniques ensure authenticity while involving local teams.	Sets a global standard for integrating modern and traditional conservation techniques.

Source: Singh (2018) for the Aga Khan Trust for Culture, Rao (2019) for INTACH, Thompson (2017) for the National Trust, and Miller (2016) for the Getty Conservation Institute.

Capacity building and training are crucial for sustainable heritage conservation, providing skills to protect cultural landmarks while fostering economic opportunities. Initiatives like the Aga Khan Trust at Humayun's Tomb and INTACH in India, along with efforts by the UK's National Trust and the USA's Getty Conservation Institute, highlight the importance of empowering local artisans and professionals (Table 2.18). These programs ensure authenticity and equip communities for long-term heritage management.

2.9.12. Heritage Conservation in Walled Cities: Parameters and Key Strategies

Heritage conservation in India's walled cities demands a nuanced, multi-pronged approach that aligns preservation objectives with the socio-economic realities of rapid urban transformation. These historic urban cores face pressures arising from commercialization, population density, infrastructural inadequacies, and shifting land values; therefore, conservation strategies must operate simultaneously at policy, financial, community, and technical levels. Each method reviewed—Transfer of Development Rights (TDR), Heritage Zoning, Adaptive Reuse, Government Grants and Subsidies, Public-Private Partnerships (PPP), Community Participation, Conservation Easements, Heritage Tourism Initiatives, Creation of Heritage Trusts and Funds, Legislation and Policy Advocacy, and Capacity Building—offers distinct strengths and limitations in achieving equitable and resilient conservation outcomes. Together, they address critical parameters such as economic feasibility, community empowerment, management efficiency, authenticity of built fabric, and the safeguarding of intangible heritage.

While tools like TDR and Adaptive Reuse enable financial viability through incentivization and productive reuse of historic structures, mechanisms such as heritage zoning and conservation easements are essential for legal protection and control of development pressures. Similarly, PPP models and trust-based funding frameworks contribute to sustainability by diversifying financial responsibility, whereas community participation and capacity-building initiatives ensure that conservation remains culturally rooted and socially inclusive. Heritage tourism, when responsibly managed, can generate significant revenue and awareness, yet demands strong regulatory frameworks to prevent over-commercialisation. (Table 2.19)

Table 2.19: Comparison Chart: All Strategies

Strategy	Economic Viability	Social Impact	Long-Term Sustainability	Impact on Tourism	Impact on Stakeholders	Stakeholder Involvement	Public Participation	Conservation of Authenticity	Cultural Significance
Transfer of Development Rights (TDR)	High: Generates revenue through sale of development rights.	Moderate: Limited direct social impact, but protects communities from displacement.	Moderate: Depends on market demand for development rights.	Indirect: Supports tourism by preserving the aesthetic and historical fabric.	Beneficial: Primarily for property owners and developers.	High: Involves property owners, developers, and urban planners.	Low: Primarily a top-down approach.	Very High: Preserves heritage structures without alteration.	High: Protects the built heritage and urban form of walled cities.
Heritage Zoning and Development Controls	Moderate: Restricts some development, but ensures long-term value through preservation.	High: Protects social and cultural fabric of communities.	High: Maintains historical integrity over time.	Positive: Enhances tourism by maintaining visual and cultural coherence.	Varied: Can limit property development but benefits the broader community.	Moderate to High: Requires collaboration between government, developers, and communities.	Moderate to High: Community input required in planning.	Very High: Strict controls prevent inappropriate development.	High: Protects cultural heritage and community values.
Adaptive Reuse of Heritage Buildings	High: Allows for new revenue streams through modern uses.	Positive: Creates social space and promotes cultural engagement.	High: Repurposed buildings are maintained and preserved for future use.	Significant: Repurposed heritage buildings often attract tourists.	Beneficial: Provides economic opportunities for property owners and the community.	High: Requires collaboration between property owners, architects, and communities.	Moderate: Involves local input, especially if the new use benefits the community.	Moderate: Some risk of loss of authenticity due to alterations.	High: Keeps heritage relevant while respecting its historical value.
Government Grants and Subsidies	Moderate: Dependent on government funding, but can support non-commercial sites.	Positive: Supports socially and culturally significant projects.	Moderate: Success depends on consistent government funding.	Moderate: Indirectly supports tourism by maintaining heritage structures.	Beneficial: Helps property owners and communities looking for financial resources.	Moderate: Primarily government-led, with some local stakeholder involvement.	Limited: Primarily top-down, but local grants may involve the community.	Very High: Grants typically focus on authentic restoration.	High: Prioritizes culturally and historically significant sites.
Public-Private Partnerships (PPP)	High: Reduces public cost through private investment.	Positive: Funds large-scale projects that benefit the local population.	High: Long-term agreements ensure continued maintenance and operation.	High: Often enhances tourism through improved heritage sites.	Beneficial: Collaborative approach that benefits government, private investors, and the public.	High: Requires close collaboration between government, private investors, and communities.	Moderate: Limited direct involvement but benefits the community indirectly.	Moderate: Risk of commercialization but can maintain authenticity if well-managed.	High: Ensures conservation of culturally important sites while allowing for economic growth.
Local Community Participation and Incentives	Moderate: Economic benefits may be indirect but create long-term sustainability.	Very High: Encourages local stewardship and reflects social values.	Very High: Community engagement promotes long-term care and preservation.	Moderate: Can enhance tourism by fostering a living heritage experience.	Beneficial: Empowers local communities, encouraging preservation efforts.	Very High: Involves residents and community groups directly in decision-making.	Very High: Central to the strategy, with local engagement driving the process.	High: Community involvement ensures that both tangible and intangible heritage are preserved.	Very High: Preserves local cultural practices alongside physical heritage.
Conservation Easements	Moderate: Provides tax incentives but limits development opportunities.	Positive: Protects the cultural and social environment from unsympathetic changes.	High: Permanent legal protection ensures long-term preservation.	Moderate: Supports tourism by maintaining the authenticity of heritage landscapes.	Beneficial: Helps property owners protect their heritage properties.	Moderate: Involves property owners and legal authorities.	Limited: Focuses on legal protections rather than public involvement.	Very High: Legally binding, preventing alterations that compromise authenticity.	High: Ensures the protection of culturally significant sites.
Heritage Tourism Initiatives	High: Tourism can generate substantial revenue for local economies and conservation.	Positive: Promotes cultural awareness and supports local businesses.	Moderate: Risk of over-tourism if not managed carefully.	Very High: Directly enhances tourism and boosts local economies.	Beneficial: Supports local businesses, government, and tourism industries.	High: Involves local communities, businesses, and government in tourism planning.	Moderate: Public participation depends on how inclusive the tourism initiative is.	Moderate: Risk of over-commercialization, but well-managed initiatives protect authenticity.	High: Promotes cultural heritage and helps preserve traditional practices.
Creation of Heritage Trust and Funds	High: Provides a continuous funding stream through donations and grants.	Positive: Supports long-term conservation projects that benefit the community.	Very High: Trusts and funds ensure ongoing financial support for heritage preservation.	Moderate: Indirectly supports tourism by maintaining heritage sites.	Beneficial: Provides financial support to property owners and conservation projects.	Moderate: Primarily managed by trustees, with input from stakeholders.	Limited: Focuses more on funding and management than on public engagement.	Very High: Focused on long-term preservation and maintaining authenticity.	High: Directs funds toward culturally and historically significant projects.
Legislation and Policy Advocacy	Moderate: Does not generate revenue but ensures compliance with conservation goals.	Very High: Protects socially and culturally important heritage from inappropriate development.	Very High: Legal frameworks provide consistent, long-term protection.	Positive: Ensures heritage sites are preserved for cultural tourism.	Beneficial: Supports the interests of communities, governments, and property owners.	Moderate: Involves government, legal bodies, and heritage organizations.	Moderate: Public involvement varies depending on the advocacy process.	Very High: Legally enforces the protection of authenticity.	High: Focuses on the preservation of culturally and historically significant heritage.
Capacity Building and Training	Moderate: Indirect economic impact through job creation and skills development.	Very High: Promotes local expertise and creates jobs in heritage conservation.	Very High: Ensures that skills and knowledge are passed down for continued heritage preservation.	Moderate: Indirectly supports tourism by ensuring well-preserved heritage sites.	Beneficial: Empowers local artisans, professionals, and communities.	High: Involves local communities, educational institutions, and conservation professionals.	High: Public participation is central, with local training programs enhancing community engagement.	Very High: Ensures the preservation of traditional skills and practices, maintaining authenticity.	Very High: Focuses on cultural knowledge transfer and preservation of traditional craftsmanship.

Source: Compiled by the Author, from Google Arts & Culture (2018); Urban Design Research Institute (n.d.); Mumbai Metropolitan Region Heritage Conservation Society (n.d.); AFJBS (2020); The News Minute (2023); Telangana Heritage Protection Act (2017); IINHAF, Areas Foundation (2019); Barrese (1983); Paris City Council (2020); Boulanger (2019); UNESCO (2018). and et. al

The findings reveal that no single strategy suffices on its own. For instance, TDR excels in providing financial incentives and preserving authenticity but requires robust legal

frameworks and community engagement to reach its full potential. Similarly, adaptive reuse offers significant economic and cultural benefits but necessitates careful planning to balance modern functionality with historical conservation.

Community participation emerges as the cornerstone of sustainable heritage conservation. Engaging local residents ensures that strategies are rooted in the social and cultural fabric of the precinct, fostering a sense of ownership and stewardship. Tools like heritage zoning and legislation provide the regulatory backbone needed to enforce conservation goals, while initiatives like adaptive reuse and heritage tourism generate revenue and keep heritage sites relevant to contemporary urban life.

To achieve long-term success, these strategies must operate in synergy:

1. TDR and adaptive reuse should drive financial viability.
2. Community participation and capacity building should ensure social and cultural sustainability.
3. Heritage zoning, conservation easements, and legislation should safeguard authenticity and prevent inappropriate development.
4. Public-Private Partnerships (PPP) and heritage funds should provide the resources and management capacity for large-scale initiatives.

A holistic approach combining these elements can transform walled cities into models of sustainable heritage conservation, where historical legacies are conserved, and the needs of modern urban life are harmoniously balanced. By centering these efforts on community awareness, stakeholder involvement, and the integration of traditional and modern practices, India's walled cities can thrive as living monuments to the past while meeting the demands of the future.

2.10. Comparative Review of Walled City Conservation

Indian walled cities represent unique cultural landscapes where tangible architectural fabric and intangible traditions coexist, shaping urban identity over centuries. From Mughal-founded centres like Shahjahanabad (Old Delhi) and Hyderabad to princely capitals such as Jaipur, Lucknow, and Mysuru, and living religious cities like Varanasi and Ahmedabad, these precincts embody diverse trajectories of planning, architecture, and community practices. Conservation of such cities has gained policy attention through national initiatives like HRIDAY (2015–2019) and INTACH's heritage listing efforts, as well as global frameworks such as UNESCO's *Historic Urban Landscape*

(HUL) *Recommendation* (2011), which advocates integrating heritage into sustainable urban management. Comparative review of these walled cities provides insights into strategies, strengths, and gaps—ranging from Ahmedabad’s successful UNESCO inscription (2017) to ongoing challenges of overcrowding and commercialization in Varanasi and Old Delhi. Together, these cases highlight both the potential and constraints of heritage conservation in India’s historic urban precincts.

2.10.1 Ahmedabad (UNESCO World Heritage City, 2017)

Founded in 1411 by Sultan Ahmad Shah, Ahmedabad’s walled city consists of ~360 pols (traditional neighbourhoods) with otlas, chowks, and intricately carved wooden façades. Its fabric blends Islamic mosques, Jain derasars, and vernacular haveli typologies. Conservation efforts include the establishment of AMC’s Heritage Cell, INTACH surveys, and recognition as India’s first UNESCO World Heritage City in 2017. Heritage walks since 1997 have enhanced awareness. However, gentrification, wooden craft decline, and vehicular pressure remain major challenges.

2.10.2 Jaipur (UNESCO World Heritage City, 2019)

Planned in 1727 by Maharaja Sawai Jai Singh II on a nine-square Shilpa Shastra grid, Jaipur’s walled city showcases uniform pink façades, bazaars, temples, and chowkris (wards). Crafts like meenakari and block printing continue within its urban fabric. HRIDAY and Rajasthan heritage by-laws (2018) regulated façades, signage, and shopfronts. UNESCO inscription (2019) recognised its outstanding universal value. Yet, rapid commercialization, encroachments, and traffic load threaten its cultural identity.

2.10.3 Varanasi (Ghats and Old City Precincts)

One of the world’s oldest living cities, Varanasi’s heritage precincts span over 80 ghats, temples, and galis connecting to Kashi Vishwanath temple. Its built environment—palatial havelis, stone ghats, and shikhara temples—is intertwined with intangible rituals and pilgrimages. HRIDAY and INTACH supported ghat restoration, while the Kashi Corridor (2019–21) introduced large-scale redevelopment. Despite ongoing conservation, overcrowding, flooding risks, and unmanaged waste remain unresolved.

2.10.4 Old Delhi (Shahjahanabad & Chandni Chowk)

Shahjahanabad, established in 1639, was enclosed by walls with 14 gates and centered on Chandni Chowk as a commercial axis. The urban fabric included havelis, katras, mosques, and Mughal–Rajput–Islamic stylistic fusion. DDA’s Special Area By-laws

(2016) and Chandni Chowk Redevelopment Plan (2019–22) introduced façade restoration, pedestrianisation, and underground services. INTACH inventories supported documentation. Yet, encroachments, overcrowding, and weak enforcement persist.

2.10.5 Hyderabad (Charminar Precinct & Qutb Shahi Tombs)

Founded in 1591 around Charminar, Hyderabad’s walled city integrates Deccani- Islamic architecture with granite, arches, domes, and bustling bazaars. The Charminar Pedestrianisation Project (CPP) and Aga Khan Trust for Culture (AKTC)’s restoration of Qutb Shahi tombs used traditional lime and craft revival. PPP models and craft training were central to conservation. Yet, commercial encroachments, informal trade, and spillover traffic challenge long-term sustainability.

2.10.6 Lucknow (Chowk, Hazratganj & Kaiserbagh Precincts)

Nawabi Lucknow developed precincts like Chowk, Imambaras, and Kaiserbagh, blending Mughal arches, Rajput motifs, and European neoclassical details. Special heritage by-laws (2016–20) regulated façades, signage, and shopfronts, while HRIDAY supported upgrades. Trader associations played a role in façade control at Hazratganj. However, weak enforcement, unplanned repairs, and commercialization dilute conservation efforts.

2.10.7 Mysuru (Palace Precinct & Heritage Streets)

Under the Wodeyars, Mysuru evolved with the Indo-Saracenic palace, colonial civic buildings, and planned boulevards. The Devaraja market and Dasara festivities reinforce its heritage character. Heritage Regulations (2011/2016) enforce façade and skyline control, and heritage walks/tourism promote awareness. Yet, sprawl, neglect of lesser havelis, and poor maintenance budgets remain challenges.

2.10.8 Comparative Synthesis of Indian Walled Cities

Despite distinct historical trajectories, Indian walled cities share overlapping challenges: commercialization, traffic pressure, gentrification, weak enforcement, and loss of crafts. Successful models include Ahmedabad’s heritage cell, Jaipur’s façade by-laws, Hyderabad’s PPP craft revival, and Varanasi’s ritual integration (Table 2.20). A common lesson is that heritage conservation requires multi-stakeholder participation, consistent funding, integration of tangible-intangible values, and context-specific policy frameworks.

Table 2.20 Comparative Conservation Approaches in Selected Indian Walled Cities

City	Context & Character	Conservation Approach	Strengths	Gaps/Challenges
Ahmedabad	Pols, havelis, otlas, bird-feeding towers	AMC Heritage Cell, UNESCO WH, heritage walks	Strong heritage governance, UNESCO status	Gentrification, tourism load
Jaipur	Grid-planned pink façades, bazaars, crafts	HRIDAY, façade by-laws, UNESCO	Uniform façades, crafts	Encroachments, commercialization
Varanasi	Ghats, temples, rituals, havelis	Corridor project, HRIDAY, INTACH	Ritual continuity, living traditions	Waste, crowding, flooding
Old Delhi	Shahjahanabad, havelis, bazaars	DDA by-laws, Chandni Chowk Redev.	Pedestrianisation, façade control	Encroachments, livelihoods
Hyderabad	Charminar & tombs, bazaars	CPP, AKTC PPP	Craft revival, PPP	Informal trade, encroachments
Lucknow	Imambaras, Kaiserbagh, Hazratganj	By-laws, HRIDAY, trader role	Trader-led façade control	Weak enforcement, repairs
Mysuru	Palace, colonial streets, markets	Heritage regulations, tourism	Civic branding, façade control	Sprawl, budget gaps

Source: Compiled by Author from UNESCO, HRIDAY, INTACH, DDA & AKTC.

2.11 Significance, Context, and Values of Heritage

Heritage embodies the dynamic relationship between people, place, and time, serving as a bridge between the past and the present while shaping the identity of future generations. Its significance lies not only in the tangible aspects—monuments, precincts, and landscapes—but equally in the intangible dimensions of tradition, ritual, and collective memory. Contemporary conservation frameworks such as the Venice Charter (1964), Nara Document on Authenticity (1994), and UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (2003) emphasize an integrated and people-centric approach that recognizes the interdependence of physical fabric and living culture.

2.11.1 Tangible Heritage Values

Tangible heritage encompasses the physical and material components of walled cities that define their historical character. These include temples, mosques, havelis, bazaars, chowks, wells, and gateways. In Amritsar, Nanakshahi-brick façades, lime plaster, carved timber jharokhas, and ornate doors demonstrate continuity of regional craftsmanship. Across other Indian walled cities—Ahmedabad, Jaipur, Lucknow, or

Varanasi—tangible heritage is expressed through pol houses, havelis, monumental gateways, and water systems that respond to climatic, social, and ritual requirements. Such physical features embody craft skill, urban morphology, and historical identity, forming the basis of conservation strategies (INTACH, 2004; UNESCO, 2011).

2.11.2 Intangible Heritage Values

Intangible heritage enriches the built environment by linking architecture to living practices. It includes oral histories, rituals, performing arts, crafts, and culinary traditions that sustain community life. In Amritsar, religious processions, langar at the Golden Temple, and vibrant market traditions reinforce a shared cultural identity. Likewise, Jaipur's handicrafts, Varanasi's musical rituals on the ghats, and Hyderabad's culinary heritage form inseparable layers of intangible significance. These practices ensure the inter-generational transmission of knowledge, strengthen social cohesion, and add meaning to architectural spaces (Smith, 2006; Nara Document, 1994).

The interplay of tangible and intangible heritage is central to defining authenticity in historic precincts. Tangible heritage provides the stage—streets, monuments, courtyards—while intangible heritage supplies the performance—rituals, crafts, festivals, and memories. For example, the ghats of Varanasi (tangible) derive their meaning from the ritual of Ganga Aarti (intangible), and the Golden Temple precinct (tangible) is inseparable from the tradition of seva and langar (intangible). Without intangible practices, tangible sites risk becoming lifeless monuments, while without tangible anchors, intangible traditions lose their spatial identity (Table 2.21). Thus, conservation must embrace both dimensions, ensuring that built forms and cultural practices are sustained together (Nara Document, 1994; Clarke & Johnston, 2003).

Table 2.21: Tangible and Intangible Heritage Elements in Selected Indian Walled Cities

City (Walled Precinct)	Tangible Heritage Elements	Intangible Heritage Elements
Ahmedabad (Gujarat)	Pol houses with carved wooden façades- Bhadra Fort, Teen Darwaza- Stepwells (Adalaj, Dada Harir)- Temples and mosques integrated in urban fabric	- Kite Festival (Uttarayan)- Navratri Garba in pol courtyards- Oral traditions in pol communities- Craft traditions (bandhani, block printing)
Jaipur (Rajasthan)	Planned walled city with chowkris- Havelis with jharokhas, courtyards- Temples (Govind Devji)- City	- Festivals: Teej, Gangaur, Diwali processions- Craft traditions: meenakari, blue pottery, block printing- Oral

	Palace, Hawa Mahal, bazaars	narratives, royal traditions
Lucknow (Uttar Pradesh)	Imambaras (Bara, Chhota)- Rumi Darwaza- Chowk area with havelis- Colonial-era overlays in Kaisarbagh	- Muharram processions- Chikan embroidery and zardozi- Awadhi cuisine traditions- Storytelling (dastangoi)
Varanasi (Uttar Pradesh)	- Ghats and riverfront structures- Temples (Kashi Vishwanath)- Narrow street fabric with akharas and dharamshalas	- Ganga Aarti rituals- Oral traditions and Sanskrit learning- Classical music (Benaras gharana)- Festivities (Dev Deepawali)
Hyderabad (Telangana)	Charminar and Mecca Masjid- Chowmahalla Palace- Bazaar streets with arcaded fronts- Kaman gateways	- Ramzan night bazaars at Charminar- Bidriware and pearl craft traditions- Culinary heritage (Hyderabadi biryani, haleem)- Qawwali traditions
Mysore (Karnataka)	Mysore Palace- Devaraja Market- Temples and colonial-era buildings- Clock towers and pavilions	- Dasara festival processions- Yakshagana and folk performances- Mysore silk weaving- Oral traditions of Wadiyar dynasty
Delhi (Shah jahanabad)	Red Fort, Jama Masjid- Chandni Chowk bazaars- Haveli architecture- Katras and kuchas	- Ramzan festivities at Jama Masjid- Craft practices (zardozi, ittar-making)- Qawwalis at Nizamuddin- Street food traditions

Source: Compiled by Author from UNESCO, INTACH, HRIDAY City Plans & State Heritage Records.

2.11.3 Cultural Legacies and Authenticity

Cultural legacies within walled cities evolve through historical layering and continued use of traditional practices. Authenticity, as articulated in the Nara Document on Authenticity (1994), extends beyond material conservation to encompass symbolic meaning, continuity of use, and cultural expression. In Amritsar, authenticity is reflected not only in maintaining Nanakshahi façades but also in sustaining oral narratives, artisanal crafts, and religious rituals. Across India's historic cities, the hybridization of Mughal, Rajput, Sikh, and Colonial styles demonstrates how authenticity is negotiated between form and function, linking tangible form with intangible purpose (ICOMOS, 1994; UNESCO, 2011).

2.11.4 Historical Context and Management

Indian walled cities embody multi-layered historical trajectories shaped by shifts in power and culture—from Sultanate and Mughal to Sikh, Colonial, and Post- Independence eras. Each period contributed unique architectural vocabularies and governance models.

In Amritsar, Sikh vernacular morphology merged with Mughal-Rajput influences under Maharaja Ranjit Singh and was later transformed through British urban restructuring. Similar transitions occurred in Jaipur (Rajput planning), Ahmedabad (Sultanate– Colonial layering), and Varanasi (sacred urban restructuring).

Effective management of such layered contexts requires integrated frameworks. Legislative and policy mechanisms such as the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act (1958), HRIDAY Scheme (2015), and UNESCO Historic Urban Landscape (HUL) Recommendation (2011) advocate for synergy between heritage conservation and urban infrastructure. However, persistent challenges—including weak enforcement, limited funding, and lack of community inclusion—often hinder implementation. Sustainable outcomes depend on aligning government initiatives with community aspirations to preserve both tangible structures and intangible traditions (INTACH, 2004; HRIDAY, 2015).

2.11.5 Core Parameters Influencing Heritage Values

The significance of walled cities can be evaluated through five interrelated parameters combining social, cultural, economic, and managerial dimensions:

Community Participation: Participatory frameworks build shared ownership and accountability, ensuring residents act as active custodians of heritage. The Nizamuddin Basti Renewal Initiative demonstrates how community-led planning improves stewardship and long-term upkeep.

Cultural Revitalisation: Revival of festivals, crafts, and oral traditions reinforces cultural identity, strengthens emotional attachment to place, and enhances social cohesion through intergenerational knowledge exchange.

Economic Sustainability: Integrating heritage with tourism and creative industries generates livelihoods, supports local businesses, and builds financial resilience. Successful heritage-walk models in Ahmedabad and Jaipur highlight how tourism can fund conservation while promoting cultural visibility.

Governance & Innovation: Collaboration among authorities, NGOs, technical experts, and residents enables coordinated action. Tools such as GIS-based heritage mapping support evidence-based planning, as demonstrated in West Midnapore.

Key Takeaways: Authentic materials and techniques, strong community partnerships, and recognition of intangible practices are vital for durable conservation outcomes

aligned with global standards and charters (Smith, 2006, Creighton, 2005).

Table 2.22: Tangible and Intangible Heritages in Indian Walled Cities

City (Walled Precinct)	Tangible Heritage Elements	Intangible Heritage Elements
Ahmedabad (Gujarat)	Pol houses, narrow streets, stepwells, temples, havelis, forts, wooden carvings, jharokhas, heritage markets	Festivals of Uttarayan, Navratri Garba, temple rituals, kite flying
Jaipur (Rajasthan)	Forts, gateways, chowks, city palace, bazaars, havelis	Crafts, gem cutting, puppet making, blue pottery, festivals like Teej and Gangaur
Lucknow (Uttar Pradesh)	Imambaras, gateways, havelis, Rumi Darwaza, clock tower, chowks, residential courtyard housing	Mughlai cuisine, chikan embroidery, Urdu poetry, performing arts, festivals (Muharram, Diwali, Holi)
Varanasi (Uttar Pradesh)	Ghats, temples, riverfront, narrow streets, religious institutions	Religious discourses, Ganga Aarti, music traditions (Banaras Gharana), fairs and rituals
Mysore (Karnataka)	Palaces, temples, pavilions, gateways, colonial structures, Devaraja market	Dussehra festival, folk performances, Yakshagana, painting traditions
Delhi (Shahjahanabad)	Red Fort, Jama Masjid, Chandni Chowk, havelis, gateways, street architecture, Katras and Bazaars	Muharram processions, food traditions, qawwali at dargahs, Sufi culture, festivals

Source: Compiled by Author from UNESCO, INTACH, HRIDAY City Plans & State Heritage Records.

The comparative review demonstrates that although each walled city reflects a unique synthesis of form and tradition, the integration of tangible and intangible heritage, rooted in community participation and authenticity, remains the key to sustainable conservation (Table 2.22). These insights form the conceptual foundation for subsequent chapters that analyze community perception, conservation efforts, and policy frameworks in the walled city of Amritsar.

2.12 Emerging Concepts in Heritage Conservation

Emerging concepts in heritage conservation recognize that heritage is not confined to tangible monuments or architectural structures, but also embodies cultural legacies, social memory, and living traditions. Contemporary approaches emphasize authenticity, the management of historic contexts, and the integration of intangible values, while addressing the challenges posed by urbanization, tourism, and socio-economic pressures. These evolving perspectives highlight the need to balance conservation of historic city centres and traditional neighbourhoods with sustainable development and community participation.

2.12.1. Significance and Management of Heritage

Conservation connects past, present, and future, providing stability and identity to communities. Lowenthal (2001) stresses that understanding the past is key to shaping the present. The Nara Document on Authenticity (1994) emphasizes cultural diversity as a foundation for human progress. International charters such as the Venice Charter (1964) and Burra Charter (1999) highlight authenticity, minimal intervention, and integration of tangible and intangible values as central to sustainable conservation (Jokilehto, 1999).

2.12.2. Architectural Heritage :

The European Convention on the Protection of the Architectural Heritage of Europe (Granada, 1985) defines architectural heritage as monuments, groups of buildings, and sites of artistic, scientific, social, or historical importance. Conservation here is not limited to isolated monuments but extends to ensembles and cultural landscapes reflecting community traditions and histories (Council of Europe, 1985).

2.12.3. Conserving Cultural Legacies : Conservation today includes restoration, regeneration, adaptive reuse, and routine maintenance. The goal is to safeguard cultural meaning while ensuring continuity (Feilden, 2003). Recent approaches also highlight the significance of ordinary buildings, vernacular neighbourhoods, and traditional crafts, aligning with the UNESCO World Heritage Centre's cultural landscape framework (Rössler, 2006).

2.12.4. Heritage Management : Heritage management involves identification, interpretation, evaluation, and maintenance, with emphasis on community participation (Avrami, Mason & de la Torre, 2000). Effective management incorporates indigenous knowledge and sociocultural values, shifting conservation from a purely technical task to a shared societal responsibility (Labadi, 2017).

2.12.5. Historical Context of Urban Conservation: Urban conservation practices have evolved to recognize intangible heritage—memory, rituals, and traditions—alongside physical assets. Clarke and Johnston (2003) argue that heritage is not only about buildings but also about social identity, collective memory, and community values, requiring inclusive and adaptive frameworks.

2.12.6. Recognizing Intangible Values: A Paradigm Shift : The UNESCO Convention for the Safeguarding of the Intangible Cultural Heritage (2003) emphasizes

the importance of oral traditions, rituals, crafts, and cultural expressions. The Nara Document (1994) reinforced authenticity as context-dependent, legitimizing both tangible and intangible aspects (Stovel, 2007). This paradigm shift recognizes that cultural continuity relies as much on lived traditions as on preserved structures.

2.12.7. Heritage and Authenticity : Authenticity remains debated across contexts. The Venice Charter (1964) stressed material integrity, while the Burra Charter (1999) and Nara Document (1994) broadened authenticity to include spirit, setting, and community values (Australia ICOMOS, 1999). This shift challenged Eurocentric models and acknowledged Asian and indigenous approaches where adaptation and renewal form part of heritage continuity (Byrne, 1991).

2.12.8. Urban Heritage Conservation: Key Challenges Historic centres face threats from globalization, commercialization, congestion, and the decline of traditional trades. Scholars argue that intangible heritage is often side-lined, despite being central to continuity (Bandarin & van Oers, 2012). Asian contexts highlight the challenge of balancing modernization with conserving cultural identity and practices (Logan, 2002).

2.13 Public Participation and Community Awareness in Heritage Conservation Public participation has become a central theme in contemporary heritage discourse, reflecting the understanding that conservation is not only about safeguarding monuments or sites but also about engaging the communities that give them meaning. Earlier conservation models, particularly during the mid-20th century, were criticized for their expert-driven and top-down approaches, which often alienated residents and limited long-term effectiveness (Bolan, 1967; Arnstein, 1969). Arnstein's *Ladder of Participation* highlighted the unequal distribution of power in decision-making, while later frameworks argued for moving beyond token consultation to genuine collaboration (Creighton, 2005; Briggs, 2008).

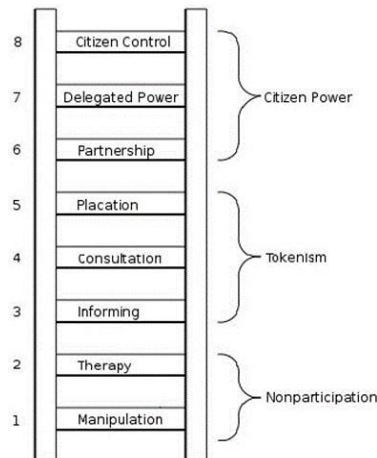
By the late 20th century, international charters and conventions increasingly recognized the importance of integrating communities into conservation. UNESCO (2007) and ICOMOS (1994) emphasized that heritage encompasses not only physical fabric but also traditions, crafts, and ways of life, requiring participatory strategies that build awareness, capacity, and shared responsibility. This shift positioned citizens as active stakeholders, whose knowledge, skills, and cultural memory are indispensable to sustainable outcomes.

Today, public participation is seen as a dynamic, multi-stakeholder process involving dialogue, transparency, and inclusivity. Its typologies range from formal, structured mechanisms of consultation and facilitation to informal, community-led initiatives that emerge from local needs. Each approach highlights different dimensions of participation—education, consultation, collaboration, or grassroots empowerment—and demonstrates how diverse actors, including government agencies, civil society, and local communities, contribute to heritage management. Understanding these modes, their benefits, and their limitations provides the foundation for developing effective participatory conservation frameworks that are socially relevant and culturally sustainable.

2.13.1 Concept and Evolution of Public Participation

Failures in conservation during the 1960s highlighted the lack of meaningful citizen involvement. Arnstein's (1969) *Ladder of Participation* distinguished between passive awareness, limited consultation, and genuine citizen power (Figure 2.1). Later frameworks, such as Creighton's (2005) continuum and Briggs' (2008) emphasis on stakeholder inclusion, shifted conservation away from top-down approaches toward collaborative decision-making. Choi and Ahn (2016) reinterpreted the ladder for heritage, acknowledging that even lower rungs—awareness and consultation—can support education, while higher levels promote co-management and grassroots initiatives.

Figure 2.1: Continuum of Participation



Source: The Public Participation Handbook: Making Better Decisions Through Citizen Involvement. Creighton, (2005).

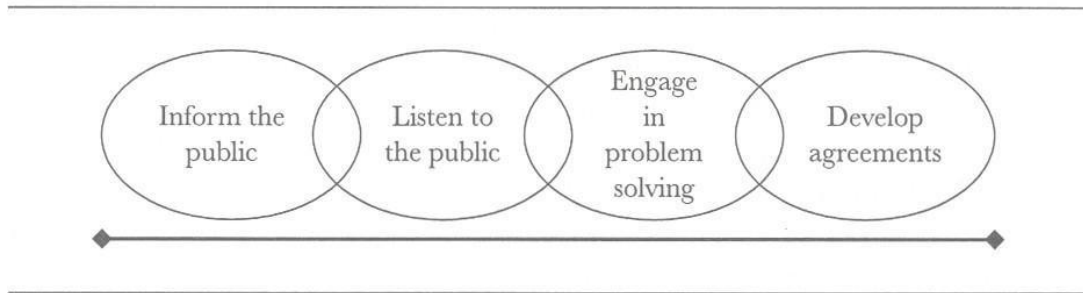
2.13.2 Essential Elements and Stakeholders

Public participation involves agencies, civil society, and the public in transparent, inclusive, and flexible processes. Stakeholders are categorized as:

- Primary stakeholders – directly engaged in consensus-building.
- Secondary stakeholders – episodically involved.
- General public – requiring education and awareness.

Although resource-intensive, participation enhances decision quality, broadens perspectives, and builds ownership (Creighton, 2005). Success depends on cooperation, civic education, and mechanisms for feedback (Figure 2.2).

Figure 2.2: Continuum of Participation

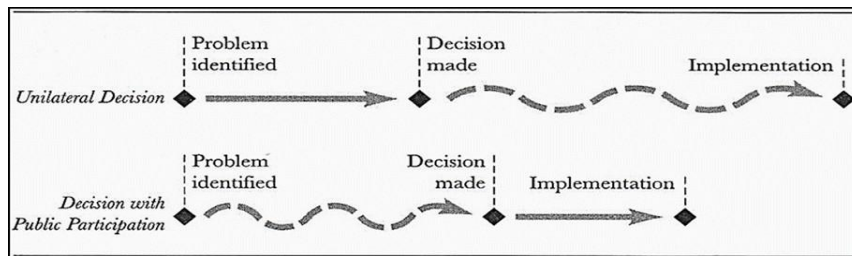


Source: Creighton, 2005, p 9.

2.13.3 Typologies of Participation

1. Formal Participation – Structured dialogue with decision-makers, often facilitated by NGOs or officials. Civil society mediates reforms, promotes civic culture, and builds awareness, though risks of politicization remain (Figure 2.3).
2. Informal Participation – Spontaneous, community-driven, and flexible, granting citizens direct authority in addressing local issues.

Figure 2.3: The decision-making and execution steps



Source: Creighton, 2005

Public participation is a complex and controversial matter. The scope of public participation has varied in different contexts due to its diverse and culturally specific nature. However, public participation can generally be classified into two main types

Formal Participation – Structured dialogue with decision-makers, often facilitated by NGOs or officials. Civil society mediates reforms, promotes civic culture, and builds awareness, though risks of politicization remain. Active participation, a more engaged form of public involvement, fosters partnerships where citizens help shape policies and agendas. Facilitators, typically from governments or NGOs, guide the process without making decisions, ensuring inclusivity, respect, and collective goal setting. They enable creative problem solving and consensus by fostering an environment of mutual respect and psychological safety.

Informal Participation – Spontaneous, community-driven, and flexible, granting citizens direct authority in addressing local issues. Informal public participation arises spontaneously to address local issues, giving community members direct decision-making and execution powers. This approach is more flexible and dynamic, operating without formal authority.

2.13.4. Social Value of Heritage

Heritage value extends beyond physical fabric to memory, identity, and lived practices. Lung (2007) classifies values as historic, aesthetic, scientific, and social (Table 2.23). The Burra Charter and Cohen (1985) emphasize cultural meaning, community identity, and collective memory as essential in conservation.

Table 2.23: Heritage values - Lists Lung's parameters (2007)

Historic Value	What the location discloses regarding the past of a certain group or culture. Depending on the location, artifacts or historical fabric may be left behind. It is associated with significant occurrences and progress.
Aesthetic and artistic value	The intellectual or emotional effect of a location. The emotional association or mood of a website is this. It might be an exhibition of style, innovation in art, or skill in construction.
Scientific Research Value	The capacity of a location to impart useful human knowledge.
Social Value	The extent to which a location holds cultural, political, religious, or other significance for a particular group.

Source: Lung, 2007, p23.

2.13.5 Importance of Participation in Conservation

Participation links people and place, aligning heritage management with community aspirations. It sustains traditional crafts, strengthens identity, and fosters socio-

economic resilience. UNESCO (2007) highlights its role in capacity-building, self-sufficiency, and sustainable restoration.

2.13.6 Contemporary Concepts and Processes

From the mid-1970s, community involvement became central in heritage frameworks (ICOMOS, 1994; UNESCO LEAP, 2001). While participation can yield uneven results (Smith, 2006), careful balancing of inclusivity, resources, and tangible–intangible heritage is critical. IA (2012) identifies five guiding questions: *Why, Who, What, How, and When*. (Table 2.24)

Table 2.24: Participatory conservation process: five crucial questions to be addressed

Question	Relevant issues
Why	The goal of the conservation effort within a specific temporal and geographical setting is to determine the project's viability.
Who	Determine who in the community or among stakeholders plays a pivotal role in conservation efforts and how they can be best engaged.
What	The conservation issues and strategies should be clearly identified.
How	The process of deciding and deliberating; scope; phasing; tactics; agenda; and so on.
When	The crucial decisions and when they were put into action.

Source: IA, 2012.

2.13.7 Participatory Heritage Conservation: Elements and Processes

Participatory conservation engages residents through workshops, discussions, surveys, and public forums, enabling communities to express interests, share knowledge, and shape agendas. This approach fosters awareness, leadership, and democratic decision-making, while integrating crafts, traditions, and local practices into conservation strategies. Educational institutions, media, and charrettes further strengthen dialogue and ensure well-supported outcomes. Smith (2006) emphasizes that communities' traditional knowledge of crafts, customs, and oral histories provides cumulative insights, fosters equal participation, and instills belonging. Their strong connection to place enhances care and sustainability of heritage assets for future generations. According to Creighton (2005), the participatory process follows five key steps: **Organizing issues and participants** – Workshops and meetings clarify problems and priorities.

Building a knowledge base – Identifying resources and assets generates actionable ideas.

Presentation and feedback – Residents refine strategies with their input.

Discussion and deliberation – Facilitators guide debates and collaborative learning.

Decision-making – Consensus-based actions prioritize feasible and community-driven conservation goals.

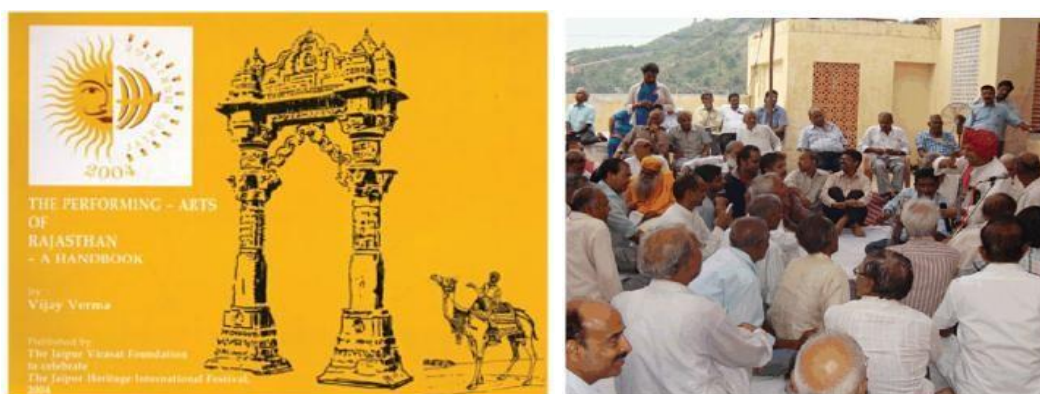
Together, these elements and steps ensure inclusive, democratic, and accountable conservation strategies that reflect community values and strengthen heritage management.

2.14. CASE STUDIES OF COMMUNITY HERITAGE CONSERVATION

2.14.1 Awareness Programme of Jaipur Virasat Foundation

The Jaipur Virasat Foundation (JVF), established in 2002 in Rajasthan, is a charitable trust dedicated to conserving and revitalizing cultural heritage.

Figure 2.4: Publication on Performing Arts by JvF



Source: NIUA, 2015

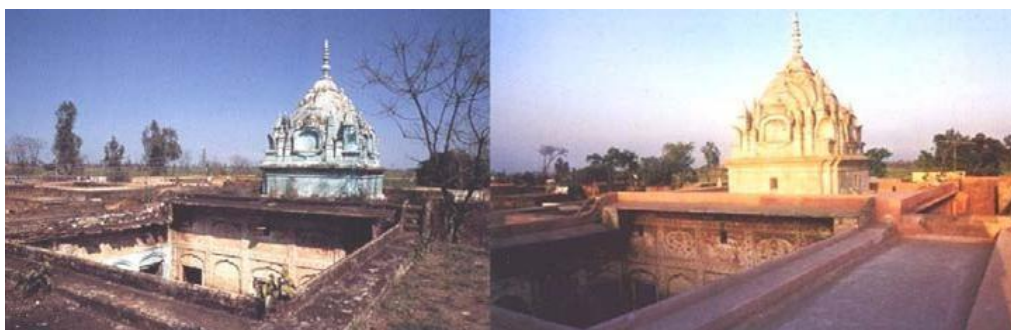
JVF collaborates with the Government of Rajasthan and other organizations to promote traditional building methods, rural arts, and community empowerment by adapting traditional practices with modern marketing (Jain, 2015). Its initiatives include Rural Arts for Development, Creative Workshops, Heritage Walks, and the Jaipur Heritage Studio. Major achievements are the Jaipur Heritage International Festival and the Jodhpur International Folk Festival (Figure 2.4). In line with UNESCO charters, JVF emphasizes tangible–intangible heritage conservation, cultural diversity, and creative industries for poverty reduction (UNESCO, 2003).

2.14.2 Krishan Temple, Kishankot, Punjab

The Krishan Temple, built in the 1830s, is a Hindu shrine with wall paintings of Hindu

and Sikh themes. Years of neglect led to disrepair, misuse as a police post, and later the threat of demolition, despite its legal protection (Singh, 2014).

Figure 2.5: Krishan temple – before and after restoration



Source: UNESCO, 2007, p.143

The local community formed the Krishan Mandir Temple Trust (KMTT), successfully fighting a legal case to save it. Restoration focused on recovery, conservation, and pride through inclusive methods (Figure 2.5). The process involved partnerships between experts and locals, who contributed ideas and hands-on work. This case shows how community participation restores both the cultural and social role of heritage.

2.14.3 Nizamuddin Basti Urban Renewal Initiative, New Delhi

The Nizamuddin Urban Renewal Initiative in Delhi exemplifies conservation-led development in historic centres.

Figure 2.6 : Lakkarwala Burj and Nizamuddin Baoli: before & after conservation



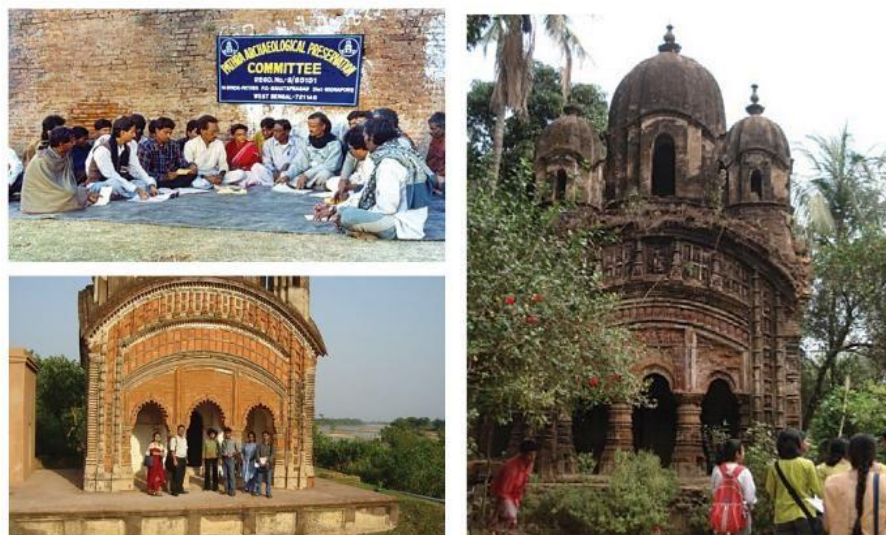
Source: NIUA: Compendium of good practices, 2015

Launched by the Aga Khan Development Network (AKDN), the project integrates heritage conservation with socioeconomic improvements (Figure 2.6). Key components include conservation at Humayun's Tomb, upgrades at Sunder Nursery, and health, education, sanitation, and vocational programs (Rao, 2016). The initiative improved quality of life by expanding schooling, healthcare, and awareness on early childhood care. Challenges such as relocation, unclear heritage boundaries, and weak law enforcement were addressed through community engagement and inclusive planning. It demonstrates the potential of integrating conservation with urban renewal.

2.14.4 Community-Based Participatory Mapping, West Midnapore, West Bengal

Initiated in 1997 by IIT Kharagpur, this project mapped unprotected heritage in Pathra and beyond through participatory methods, GIS, and community surveys (Figure 2.7).

Figure 2.7: Restored temple at Pathra and Pilot survey at Vishnu temple, Narajo



Source: NIUA: Compendium of good practices, 2015

Around 350 sites were documented in a GIS database with support from locals, students, and volunteers. The project fostered community pride, informal conservation networks, and employment. It also provided resources for research, tourism, and skill development, showing the scalability of grassroots documentation.

2.14.5 Comparative Insights

These case studies reveal that participatory conservation succeeds when community engagement, socio-economic empowerment, and innovative tools converge. The Nizamuddin project illustrates integrated urban renewal, while West Midnapore highlights scalable mapping and awareness. Krishan Temple demonstrates the power of

local ownership, and JVF shows how intangible heritage can drive creative economies. Despite issues of funding, coordination, and enforcement, they confirm that hybrid models—combining grassroots action, socio-economic benefits, and multi-stakeholder partnerships—offer sustainable strategies for conserving heritage precincts (JVF, 2019; Sharma, 2020; KTC, 2018).

Table 2.25: Comparison Chart				
Case Study	Focus & Approach	Community Role	Key Achievements	Challenges / Lessons
Jaipur Virasat Foundation (JVF), Rajasthan	Promotion of tangible & intangible heritage, creative industries, and rural arts	Active participation in heritage walks, workshops, rural arts, cultural festivals	India's first city-based festival (JHIF), Jodhpur Folk Festival, integration of heritage into development	Requires long-term funding, alignment with government; risk of cultural commodification
Krishan Temple, Kishankot, Punjab	Conservation of 19th c. temple, recovery of cultural pride	Community trust (KMTT) led legal battle, hands-on restoration, feedback and ideas	Prevented demolition, restored paintings, revived cultural/social role	Weak heritage law enforcement, reliance on local initiative
Nizamuddin Basti Urban Renewal, New Delhi	Integrated conservation with health, education, sanitation, and tourism	Participation in planning, service delivery, awareness programs	Conservation of Humayun's Tomb & Sunder Nursery, improved schools, health access, vocational training	Relocation issues, weak heritage zone enforcement, funding needs
West Midnapore, West Bengal	Grassroots mapping of unprotected temples using GIS and surveys	Students, volunteers, locals in surveys, inventories, monitoring	Database of 350 sites, local pride, ASI guide opportunities, tourism skill development	Sustaining volunteer networks; scaling up requires institutional support

Source: Jvf, 2019, Sharma, 2020, Ktc, 2018

The case studies reveal that participatory conservation succeeds when community involvement, socio-economic empowerment, and innovative tools converge (Table 2.25). The Nizamuddin initiative stands out for integrating conservation with health, education, and tourism, generating lasting social and economic benefits. West Midnapore demonstrates the scalability of grassroots mapping and documentation through participatory surveys and GIS, while Krishan Temple highlights the value of

local ownership and pride in sustaining heritage. JVF effectively showcases intangible heritage integration within urban renewal. Despite challenges of funding, coordination, and regulation, the overall analysis confirms that a hybrid model—combining socio-economic empowerment, grassroots engagement, and multi-stakeholder partnerships—offers the most balanced and sustainable framework for conserving heritage precincts in walled cities.

2.15 Findings from Literature Review

2.15.1. Compatibility of TDR with other strategies

The literature shows that TDR schemes alone are insufficient for achieving holistic conservation outcomes, but they can be highly effective when integrated with complementary strategies.

- **TDR + Zoning and Development Controls:** Studies highlight that while TDR provides financial incentives, it needs to be combined with heritage zoning regulations to ensure that historic precincts maintain their architectural character (Bhowmik, 2011; Menon, 2012). Zoning ensures that inappropriate development is restricted, while TDR transfers growth pressure to other parts of the city.
- **TDR + Adaptive Reuse:** Literature emphasizes that adaptive reuse allows heritage buildings to retain functional relevance and economic viability (Bandarin & van Oers, 2012). When paired with TDR, adaptive reuse provides dual benefits: property owners gain financial support while also generating income through new uses such as cultural centers, boutique hotels, or museums.
- **TDR + Community Participation and Incentives:** Research points out that without community support, TDR mechanisms often face resistance or limited uptake (Smith, 2006; Jain, 2015). Incentives such as tax rebates, grants, or support for traditional craft industries can encourage local stakeholders to actively participate in conservation, thereby reinforcing the economic advantages of TDR.
- **TDR + Legislative Backing:** Strong legislative frameworks are essential for ensuring the transparent transfer of rights and preventing misuse (INTACH, 2016; UNESCO, 2011). Literature stresses that successful TDR programs, such as those in Mumbai's Fort Precinct, work because they are embedded in statutory development control regulations.

- International and Indian Case Reflections: Comparative studies (e.g., Grand Central Terminal in New York, Fort Precinct Mumbai, Kothi Darwaza Hyderabad) demonstrate that TDR functions optimally when integrated with multi-pronged strategies, including zoning, adaptive reuse, and community-led initiatives (Bhowmik, 2011; UNESCO, 2011).

In sum, the literature establishes that TDR is not a standalone conservation solution. Its compatibility with zoning controls, adaptive reuse, community incentives, and legislative enforcement makes it a comprehensive tool, addressing both the financial and cultural dimensions of conservation.

2.15.2. Role of Zoning, Adaptive Reuse, and Incentives

The literature review highlights that effective conservation of heritage precincts requires a balanced integration of regulatory measures, creative reuse, and economic incentives.

- Zoning and Development Controls: Zoning is identified as a critical tool to regulate building heights, façade treatments, and land-use patterns in historic cores, preventing intrusive modern development. Case studies from Ahmedabad and Chandni Chowk demonstrate how zoning guidelines preserve the spatial character, street morphology, and visual continuity of historic areas (INTACH, 2012; UNESCO, 2011).
- Adaptive Reuse of Heritage Buildings: Scholars argue that adaptive reuse provides heritage structures with renewed relevance by accommodating contemporary uses such as cultural centres, boutique hotels, and museums, while retaining architectural integrity. Successful examples such as Haveli Dharampura in Old Delhi and Victoria Memorial Hall in Kolkata illustrate how adaptive reuse enhances economic viability, community pride, and long-term sustainability (Jain, 2015; Singh, 2018).
- Incentives and Financial Mechanisms: Literature also underscores the role of financial incentives—ranging from Transfer of Development Rights (TDR) in Mumbai, to tax rebates and grants in Mysore and Chettinad—for motivating owners to maintain heritage buildings. These mechanisms bridge the gap between conservation costs and owner capacity, aligning private interests with public heritage goals (Bhowmik, 2017; Aga Khan Trust for Culture, 2010).

Overall, findings suggest that zoning preserves the physical fabric, adaptive reuse

revitalizes heritage buildings, and incentives ensure economic sustainability. When used in combination, these strategies create a robust conservation framework that protects both tangible and intangible values while enabling urban resilience.

2.15.3. Importance of Intangible Heritage and Community Pride

The literature review demonstrates that heritage conservation today extends beyond the protection of monuments and built fabric to include intangible cultural practices, traditions, and collective memory.

- **Recognition in Global Frameworks:** The UNESCO Convention for the Safeguarding of Intangible Cultural Heritage (2003) and the Nara Document on Authenticity (1994) stress that cultural practices, rituals, crafts, and oral traditions are inseparable from physical heritage. They argue that conservation loses meaning if the living traditions that give monuments their cultural identity are ignored (UNESCO, 2003; ICOMOS, 1994).
- **Community Pride as a Driver:** Literature highlights that heritage conservation thrives when communities feel pride and ownership over their history. The Burra Charter (2013) emphasizes the role of local narratives and collective attachment, while case studies such as the Nizamuddin Basti Renewal in Delhi show how pride in craft, music, and cultural memory became central to revitalization (Aga Khan Trust for Culture, 2010; Menon, 2012).
- **Cultural Continuity and Identity:** Scholars such as Lowenthal (2001) and Smith (2006) underline that intangible heritage strengthens cultural continuity, reinforcing identity amidst pressures of globalization and modernization. Community pride ensures that residents not only safeguard the past but also integrate traditions into evolving urban life.
- **Indian Context:** In Indian walled cities like Ahmedabad and Jaipur, literature points to how festivals, street traditions, chowk-based performances, and craft practices create a sense of belonging. These cultural forms, when celebrated and conserved, generate resilience against commercial pressures and help sustain urban heritage precincts (INTACH, 2012; Jain, 2015).

In summary, the literature finds that intangible heritage and community pride are essential to sustainable conservation because they transform heritage from a static physical legacy into a living cultural asset. They ensure long-term community

engagement, authenticity, and intergenerational continuity, making conservation meaningful both socially and culturally.

2.15.4. Gaps in policy enforcement and community participation

The literature consistently highlights that while frameworks, policies, and charters provide strong foundations for heritage conservation, their effectiveness is often undermined by weak enforcement and insufficient community engagement.

- **Policy Enforcement Gaps:** Scholars argue that Indian heritage legislation such as the Ancient Monuments and Archaeological Sites and Remains Act (AMASR, 1958, amended 2010) remains largely monument-centric and fails to extend protection to unlisted or vernacular heritage (Menon, 2012; INTACH, 2016). Municipal bylaws and zoning regulations are frequently bypassed, resulting in encroachments, illegal modifications, and unsympathetic redevelopment in historic precincts (Bandarin & van Oers, 2012). Enforcement mechanisms are weak, with limited monitoring capacity and poor coordination among local, state, and central agencies.
- **Community Participation Gaps:** Literature underlines that community involvement is often tokenistic rather than substantive (Smith, 2006). Top-down planning approaches dominate, leaving residents with little decision-making power over heritage initiatives. Studies on Indian walled cities (e.g., Ahmedabad, Jaipur, Hyderabad) show that despite heritage walks and awareness campaigns, communities remain under-informed about heritage policies and receive minimal incentives to participate (Jain, 2015; NIUA, 2017).
- **Disconnect Between Policy and Practice:** While international charters such as the Washington Charter (1987) and the HUL Recommendation (2011) advocate integration of heritage into urban planning and emphasize community engagement, the literature reveals that implementation in India often reduces these principles to project-based interventions without long-term continuity or accountability (UNESCO, 2011; Bandarin, 2015).

In summary, the literature establishes that gaps in enforcement and participation weaken conservation outcomes. Policies without effective local monitoring lead to unchecked alterations, while conservation efforts without genuine community buy-in fail to sustain long-term conservation. Bridging these gaps requires both institutional accountability

and grassroots empowerment, a recurring theme across comparative studies of Indian walled cities.

2.16. Conclusion

The literature reviewed demonstrates that heritage conservation has steadily evolved from isolated efforts to safeguard individual monuments into broader approaches that recognize precincts, cultural landscapes, and living traditions as equally vital. Conservation today is understood as a multifaceted process that combines the protection of tangible values—such as architectural character, building fabric, and historic urban form—with intangible dimensions like community pride, memory, rituals, and craft practices. Global charters such as the Venice Charter, Burra Charter, and the Nara Document, along with Indian initiatives including INTACH guidelines and HRIDAY, reinforce the importance of authenticity, contextual understanding, and inclusive participation in shaping conservation practices.

At the same time, the review also reveals the persistent gaps and challenges that constrain conservation outcomes. Weak policy enforcement, limited awareness, and inadequate integration of community voices continue to dilute efforts in historic urban cores. The pressures of urbanization, commercialization, and modern development often conflict with heritage values, leading to piecemeal interventions rather than comprehensive strategies. Findings also highlight the potential of tools such as Transfer of Development Rights (TDR), heritage zoning, adaptive reuse, and public–private partnerships to provide financial viability and sustainable alternatives, provided they are adapted to local socio-cultural realities.

Overall, this review emphasizes that heritage conservation cannot be reduced to technical or architectural solutions alone but must be approached as a dynamic, value-driven process. It is shaped by collective memory, civic identity, socio-economic factors, and institutional support, requiring the collaboration of multiple stakeholders. By recognizing both achievements and shortcomings in existing frameworks, the chapter establishes a critical foundation for examining case-specific challenges and identifying pathways for more inclusive and sustainable heritage management.

CHAPTER 3

RESEARCH METHODS: TOOLS AND TECHNIQUES

This chapter outlines the research methodology implemented to investigate the processes and parameters influencing heritage conservation within the fortified city of Amritsar, with specific emphasis on Katra Ahluwalia. It presents the methodological framework, research design, sampling strategy, and analytical tools employed to collect and interpret both qualitative and quantitative data. The study adopts a systematic plan of investigation that translates the objectives and hypotheses established in Chapter 1 into measurable and verifiable outcomes. The method integrates descriptive, analytical, and interpretative approaches to ensure triangulation of field observations, community perceptions, and statistical validation. As Kothari (2004) notes, systematic research enables analytical reasoning and structured inquiry, while UNESCO (2003) emphasizes its role in linking cultural heritage to sustainable development. The chapter is organized into major sections addressing the universe of study, data analysis tools, sample design, population, sample size determination, survey factors, data collection methods, and presentation techniques.

3.1. Research Framework and Methodological Approach

This research adopts a mixed-methods approach, combining quantitative and qualitative techniques to investigate the interrelationship between community participation, awareness, and heritage conservation outcomes in the walled city of Amritsar.

The methodological framework integrates both deductive (statistical validation through ANOVA) and inductive (field observation and interpretive analysis) reasoning to ensure a comprehensive understanding of the conservation process.

The framework aligns with the study objectives outlined in Chapter 1 and provides a sequential structure linking data collection, analysis, and interpretation with the identified research variables. It ensures that the tangible and intangible dimensions of heritage are addressed simultaneously through structured data collection tools and contextual interpretation.

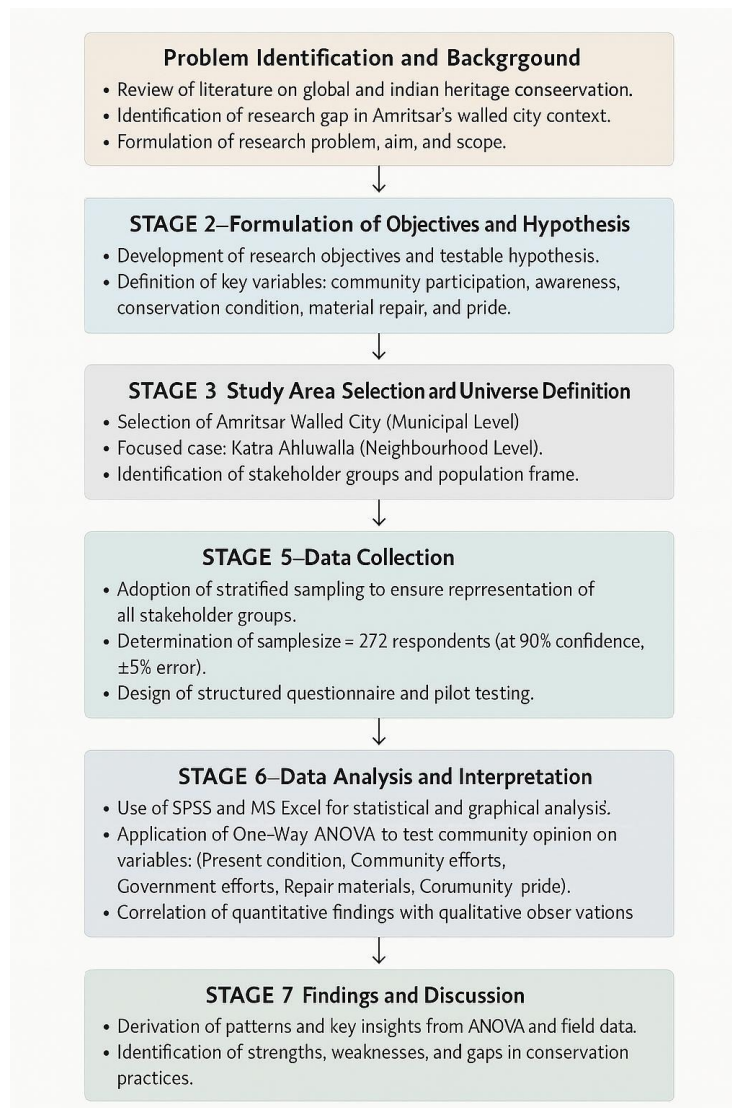
3.1.1. Objectives Linked with Methodological Design

Each research objective was addressed through specific methods and measurable indicators. The present condition of heritage structures was evaluated through field observation, photographic documentation, and condition mapping. Community and

government efforts were assessed using a structured questionnaire with Likert-scale responses and comparative statistical analysis. The *use of traditional versus modern repair materials* was examined through survey preferences and further validated using ANOVA. Community pride and awareness were interpreted by correlating opinion data with demographic variables such as age, income, and education. To identify gaps in conservation mechanisms, interviews were conducted with officials, NGOs, and experts, supported by municipal reports and heritage guidelines.

Overall, the methodological framework translated the objectives into multi-level data collection—municipal (macro), precinct (meso), and household (micro)—ensuring triangulation between quantitative surveys and qualitative field evidence. (Figure 3.1).

Figure 3.1: Illustrating the Logical Progression from Problem Identification to Inference.



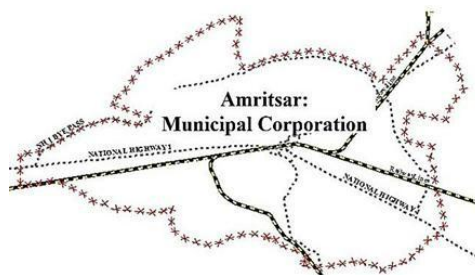
3.2. Universe of the Study

The universe of the study includes identification Traditional Heritage Precinct of Katra Ahluwalia, Amritsar and collection of primary as well as secondary sources data. The use of software and statistical tools and techniques for the compilation and explanation of the collected data. The present study is carried at two levels viz. Municipal Corporation-the city limit (secondary data collection and analysis- Figure 3.2) and Locality level data i.e. Katra Ahluwalia-part of Wall city of Amritsar (Primary data collection and analysis).

In consequence, the data on Traditional Heritage Precinct of Katra Ahluwalia for socio-economic and physical parameters at each level i.e. MC Amritsar and Katra Ahluwalia (Table 3.1). The broad data concerning the Traditional Heritage Precinct of Amritsar city at Municipal Corporation and specific data concerning to Traditional Heritage Precinct of Katra Ahluwalia (Neighborhood Level), are collected as per the questionnaires in Annexure-I and Annexure-II respectively.

The socio-economic and spatial data (Traditional Heritage Precinct and structure) to be collected for Municipal Corporation and Katra Ahluwalia (Neighborhood Level) of Amritsar include land use characteristics (city and local level area), population growth profile, infrastructure (include social and physical infrastructure), legislations, policies and government initiatives. The data for the same are collected from secondary sources such as various government organizations. With an objective, 'to understand the basic concept of Traditional Heritage Precinct of Amritsar and Katra Ahluwalia, highlighting the causes, parameters, aspects that has led to decay of heritage precinct and responsible for urban growth of city'. The native's perception about present infrastructure (social and physical), which in turn affects the local conditions; their opinion is collected by conducting a sample primary survey.

Figure 3.2 Municipal Corporation Area of Amritsar.



Source: Master Plan – Amritsar, Notified April 29, 2011, pg. 343 & 344

Table 3.1: Indicators of Traditional Heritage Precinct Amritsar (Listing of Buildings by different authorities based on different parameters and indicators)

Physical	• Land Use • Listed Structures/Buildings • Types of the Structure/Building • Change in Structure/Building Style • Change in Structure/Building Façade • Change in Traffic & Transport Activities • No. of Registered Vehicles with Availability of Parking Space • Issues in Demand and Supply for physical infrastructure
Socio-Economics	• Urban Population with Decadal Growth of Urban Population • Historic Buildings (Restoration and Reuse) • Migration with Reasons for Migration • Economic Activities and Changes • Government Initiatives • Provisions for TDR in Traditional Heritage • Changes After use of TDR for • Traditional Heritage
Physical	• Land Use • No. of Listed Structures/Buildings • Age of the Structure/Buildings • Material Used in the Structure/Buildings • Types of the Structure/Building • Change in Structure/Building Style • Change in Structure/Building Façade • Change in the overall Urban • Morphology of the Area/Locality
Socio-Economic	• Growth in the Population in the Locality • No. of Historic Buildings (restoration and reuse) • Economy used to save the historic buildings of the locality • Government Initiatives • Provisions for the TDR • Economy generated from the saved historic structure/buildings • Enhanced decision-making quality • Reduced costs and delays • Improved consensus and implementation - Preventing conflicts • Maintaining credibility and legitimacy - Anticipating public concerns and attitudes. • Building civic society.

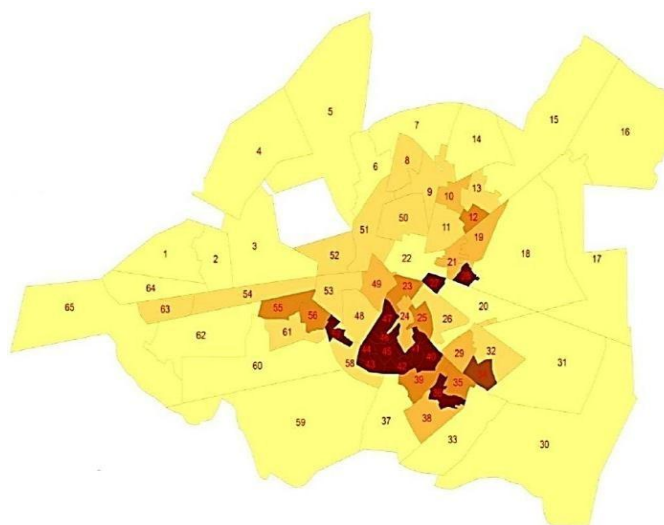
Source: Compiled by the Author from Amritsar development Authority ADA.

The city level and neighborhood level data is collected about the housing and socio-economic characteristics as per the aspects listed in questionnaire (refer Annexure-II & I). Opinions of the natives are taken to put them to the Likert Scale to rank the challenges regarding urban development and Traditional Heritage Precinct lead to the socio- economic development. The details of the process followed for data collection and tools applied to analyze and present the data are explained below.

3.2.1. Municipal Corporation Amritsar

Amritsar, commonly referred to as the "Holy City," established its first committee, known as the "Town Committee," in 1858. The Amritsar Town Committee of 1858 underwent a transformation into a "Municipal Committee" in 1868 due to the city's expansion. Subsequently, the Amritsar Municipal Committee underwent a transformation and was bestowed with the prestigious title of "City" on March 29th, 1977, in accordance with the Punjab Municipal Corporation Act of 1976. Consequently, the Amritsar Municipal Corporation was established to replace the Municipal Committee. The Amritsar Municipal Corporation underwent a division into 50 wards in 1991. However, in 1997, the number of wards was augmented to 60. In 2007, the number of wards in Amritsar city was increased to 65, as depicted in Figure 3.3. Currently, there are 85 wards in the city.

Figure 3.3: 85 Wards of Amritsar Municipal Corporation



Source: Computed Values from Police Department.

As per Municipal Corporation Amritsar and AMRUT Master Plan 2021, Amritsar Municipal Corporation has 85 wards inhabiting 1132761 persons. Distribution of

population in 85 wards of Amritsar is shown in the figure 3.3. The inner wards of the city are more populated than the outer wards of the city.

3.2.2. Katra Ahluwalia (Neighborhood Level)

Amritsar Local Planning Area comprises Amritsar Municipal Corporation Area and four other urban settlements Majitha Municipal Council, Jandiala Municipal Council, Rajasansi Nagar Panchyat, and Rayya Nagar Panchyat and 310 rural settlements. The Master Plan of Amritsar, also known as the Amritsar Local Planning Area, is formulated in accordance with the Punjab Regional and Town Planning and Development Act of 1995, which was amended in 2006. There is a need for data that includes a table, graph, and map specifically for Katra Ahluwalia.

3.2.3. Justification for Selection of Study Area

The selection of the walled city of Amritsar as the overall study area and Katra Ahluwalia as the representative precinct is guided by their exceptional historical continuity, architectural significance, and socio-cultural complexity. Together, they form a living laboratory that encapsulates the evolution of Amritsar's urban and architectural character, reflecting the city's development through multiple historical eras — from the Guru period to the Sikh Misl, Maharaja Ranjit Singh's rule, the British colonial phase, and post-Independence transformations (INTACH, 2010; Singh, 2017). Amritsar's walled city embodies over four centuries of layered growth, with its dense morphology of *katras*, *chowks*, and *bazaars* centred around the Golden Temple precinct (CRCI, 2015). The area contains a rich concentration of buildings constructed in Nanakshahi brick, lime plaster, and timber, displaying stylistic influences that evolved with each period of rule—Sikh, Mughal, Colonial, and Modern. Socio-economic transitions and rapid urban pressures have accompanied this continuity of form and material. Today, it faces challenges of commercial encroachment, unregulated alterations, and the absence of statutory byelaws or conservation guidelines, resulting in the erosion of architectural authenticity (NIUA, 2015; ADA, 2015). Government initiatives such as HRIDAY (2015–2019) addressed limited façade improvements, yet large areas remain unprotected, reflecting gaps between policy frameworks and on-ground implementation.

Within this context, Katra Ahluwalia has been selected as the precinct-scale case study for its representative architectural fabric, historical depth, and vibrant socio-economic

activity. The precinct exhibits the katra–chowk–bazaar morphology, incorporating both heritage and modern structures that allow comparative analysis of conservation patterns. It retains significant examples of traditional craftsmanship- timber joinery, lime plaster, fresco painting, and metalwork- which persist as vital expressions of Amritsar’s intangible cultural heritage (Singh, 2017). Simultaneously, visible neglect by property owners, shopkeepers, and municipal agencies, compounded by the lack of heritage-specific legislation or maintenance incentives, has accelerated material decay and cultural loss.

Katra Ahluwalia therefore provides a uniquely layered case where architectural evolution, community identity, and conservation challenges intersect. The area’s compact scale, stakeholder diversity, and architectural variance offer the ideal setting for analysing the study’s key variables — present condition, community and government efforts, repair materials, and community pride — through both qualitative and quantitative approaches. Its diverse temporal and typological strata make it an ideal precinct to evaluate how historical evolution and modern pressures converge within a living heritage environment.

3.3. Population and Sample Design.

Municipal Corporation Data for Traditional Heritage Precincts and its impact on socio-economic development of natives of Katra Ahluwalia and Amritsar city. At neighborhood level household survey have been conducted (primary data-personal interviews) has been collected and at the same time data from secondary sources such as government offices has been collected. Details of sample design, sampling and data collection sources are mentioned below.

According to the Census of India (2011), the Municipal Corporation of Amritsar covers an area of 14,237 hectares and is home to 10, 160, 79 and 11,322,761 individuals in 2001 and 2011 respectively. This information is based on the Census of India conducted in 2001 and 2011. The municipality is divided into 65 wards. The data collected for its city area is restricted to physical, socio-economic and environmental indicators as listed in Table 3.1. The questionnaire of data collected for these indicators is presented in annexure-II.

When conducting a survey on heritage conservation in a walled city with a total population of 1,132,705, it is essential to identify the relevant population to be

considered, determine the appropriate sample size, and consider various factors to ensure the survey's effectiveness.

3.3.1 Population to be Considered (Stakeholder Groups)

The study's population encompasses all stakeholders directly or indirectly involved in the conservation, management, and day-to-day functioning of the walled city of Amritsar, with particular emphasis on the Katra Ahluwalia precinct. In accordance with the study's objectives, the population is categorized into six major stakeholder strata, representing the social, institutional, and functional spectrum of the precinct.

Residents – Individuals and families residing within the traditional katras, chowks, and heritage clusters of the walled city. They act as custodians of living heritage, preserving the social fabric, vernacular traditions, and community networks that define Amritsar's cultural identity.

Business Owners / Shopkeepers – Traders and proprietors operating within the commercial corridors of Katra Ahluwalia and adjacent bazaar streets. They represent the economic dimension of heritage, directly influenced by conservation interventions and market-led transformations.

Visitors and Tourists – Domestic and international visitors who engage with the walled city's tangible and intangible heritage through pilgrimage, cultural exploration, and tourism activities. Their perceptions influence heritage awareness, sustainability, and economic viability.

Cultural and Academic Experts – Heritage professionals, conservation architects, historians, and faculty members of architecture, urban planning, and history departments from regional universities and colleges. Their inclusion ensures the integration of scholarly and technical perspectives in assessing authenticity, architectural value, and conservation practice.

Government and Institutional Representatives – Officials from the Municipal Corporation, Improvement Trust, Department of Town Planning, Department of Tourism, and Urban Development Authorities, along with representatives of HRIDAY, ADA, and NIUA. This group also includes departmental heads and technical staff responsible for heritage regulations, policy implementation, and infrastructure management.

Community Leaders and Civil Society Representatives – Local councillors, religious

custodians, NGO workers, and social activists engaged in public awareness, advocacy, and cultural conservation initiatives. They form the crucial bridge between institutional mechanisms and local communities.

Together, these groups form the universe of study, representing the interdependence of policy, community, economy, and culture in Amritsar's historic core. Their inclusion aligns with integrated heritage management principles advocated by UNESCO's Historic Urban Landscape (2011), INTACH Guidelines (2020), and HRIDAY Toolkit (2015).

Assuming a breakdown similar to the following:

- Residents: 800,000
- Business Owners: 150,000
- Visitors and Tourists: 100,000
- Cultural and Historical Experts: 10,000
- Government and NGO Representatives: 10,000
- Community Leaders: 10,000

This gives an estimated relevant population of 1,080,000.

3.3.2 Sampling Design and Techniques (Stratified Sampling)

Given the diversity of stakeholder groups in Amritsar's walled city, a stratified sampling method was employed to ensure balanced representation and analytical validity. Stratification allows the inclusion of all key actors—residents, business owners, visitors, experts, government/institutional representatives, and community leaders—each contributing unique perspectives on heritage conservation.

A **proportionate stratified allocation** method was used, maintaining a minimum of 20–25 respondents for smaller strata to ensure statistical robustness. The sample size for each stratum was determined by:

$$n_i = \frac{N_i}{N} \times n$$

Where: n_i = sample in stratum I N_i = population of stratum I
 N = total population n = total sample size

$n=272$ (refer Section 3.4). Adjustments were applied where subgroups were small, and post-stratification weights were computed to correct proportional imbalances.

Sampling frames were compiled from municipal records, field mapping, and institutional databases:

This stratified design minimizes sampling bias, enables subgroup comparisons, and ensures that both policy-level and grassroots perspectives are reflected in the analysis. The methodology aligns with standard practices outlined by Kothari (2004), Cochran (1977), Dillman, Smyth, & Christian (2014), and Field (2018).

3.3.3 Sample Frame and Distribution:

To ensure equitable representation of all key stakeholder categories identified in Section 3.3.1, a stratified proportional allocation method was adopted. Each stratum was assigned a sample size in proportion to its estimated population weight within the total relevant population of 1,080,000 inhabitants. The allocation also considered the relative importance of each group in heritage decision-making and the feasibility of field access. Population estimates were drawn from municipal and census sources, trade association records, and institutional data. Where accurate counts were unavailable (e.g., experts, NGOs), reasonable proportional estimates were applied based on consultations with the Municipal Corporation Amritsar and HRIDAY documentation (Table 3.2).

Minor upward adjustments were made for small strata (e.g., government/experts) to guarantee a statistically meaningful minimum of 20–25 cases. This approach ensures reliable comparison among stakeholder groups and maintains overall representativeness of the sample (Cochran, 1977; Kothari, 2004; Field, 2018).

Table 3.2: Population and Sample Distribution of Stakeholder Groups

Stakeholder Group	Estimated Population (N_h)	Approx. % of Total Population	Allocated Sample Size (n_h)	Sampling Technique Used
Residents	8,00,000	74%	200	Systematic Random Sampling (across wards and katras)
Business Owners / Shopkeepers	1,50,000	14%	38	Systematic Random Sampling (from market registers and street segments)
Visitors / Tourists	1,00,000	9%	20	Time–Location Sampling (at heritage nodes and corridors)
Cultural & Academic Experts (Teachers, Architects etc.)	10,000	1%	5	Purposive / Quota Sampling (university and professional rosters)
Government & Institutional Representatives (MC, I. Trust, Dept. Heads, NGOs)	10,000	1%	5	Purposive Sampling (departmental and agency contacts)

Community Leaders & Civil Society Representatives	10,000	1%	4	Quota Sampling (local councillors, religious custodians, NGOs)
Total	10,80,000	100%	272	—

Source: Census of India (2011); Municipal Records (2018–2022); Punjab Tourism (2022); Cochran (1977); Kothari (2004).

3.4 Determining the Sample Size

The survey targets the effective universe of stakeholders in Amritsar's walled city (residents, business owners, visitors/tourists, experts, NGOs/government officials, community leaders), estimated at $N = 1,080,000$. To ensure statistically reliable estimates within field-feasible limits, the sample size was computed at a 90% confidence level and $\pm 5\%$ margin of error under maximum variability ($p = 0.50$).

3.4.1. Computation of Sample Size.

Step 1 – Base sample (large-population/Cochran):

$$n_0 = (Z^2 \times p \times (1-p)) / E^2$$

with $Z = 1.645$ (90% confidence), $p = 0.50$, $E = 0.05$.

$$n_0 = (1.645^2 \times 0.25) / 0.05^2 = (2.706025 \times 0.25) / 0.0025 = 0.6765 / 0.0025 = 270.60$$

Step 2 – Finite Population Correction (FPC):

$$n = (N \times n_0) / ((N-1) + n_0)$$

$$n = (1,080,000 \times 270.6025) / (1,079,999 + 270.6025) \approx 270.535$$

Step 3 – Adopted sample (rounding):

Round up to ensure target precision $\rightarrow n = 271$ (minimum). To add a robustness cushion, the study adopts $n = 272$.

The FPC-adjusted computation yields $n \approx 270.535$; rounding up gives 271. Adopting $n = 272$ provides a small but explicit buffer against rounding and minor field losses while keeping the promised precision (90% / $\pm 5\%$) intact. With $p = 0.50$ (worst-case variance), $n = 272$ guarantees design-level accuracy across all proportion estimates relevant to this study (awareness, efforts, materials, pride). The sample is then allocated across stakeholder strata using stratified sampling (see 3.3), preserving representativeness for subsequent ANOVA tests (Ch. 6).

3.4.2 Confidence Level, Margin of Error and Finite Population Correction

Confidence Level (90%): The probability that the confidence interval from the sample will contain the true population parameter. At 90%, the corresponding Z-score is 1.645.

Margin of Error ($\pm 5\%$): The maximum expected difference between the sample estimate and the population value. This study's target MOE $\leq 5\%$ is achieved with $n = 272$.

Finite Population Correction (FPC): Because the study draws a non-negligible sample from a finite population, the FPC adjusts the base (infinite-population) sample downward to reflect the reduced sampling variance (summary discussed in Table 3.3):

$$n = (N \times Z^2 \times p \times (1-p)) / (E^2 \times (N-1) + Z^2 \times p \times (1-p))$$

Applying FPC with $N = 1,080,000$, $Z = 1.645$, $p = 0.50$, $E = 0.05$ gives $n \approx 270.535$, rounded up to 272 (adopted).

Table 3.3: Parameter Summary

Parameter	Symbol	Value
Population size	N	1,080,000
Confidence level	Z	1.645 (90%)
Margin of error	E	0.05
Proportion (max variance)	p	0.50
Computed n (with FPC)	-	270.535
Adopted n	-	272
Resulting MOE (at n=272)	-	4.987%

3.5 Factors to Consider for Survey and Sample

The process of designing and conducting surveys within Amritsar's walled city required sensitivity to its social, cultural, and operational complexities. Given the heterogeneity of the respondent groups and the heritage context, several factors were carefully integrated into the survey design to ensure representativeness, inclusivity, and data reliability.

3.5.1 Cultural and Socio-Economic Representation

The walled city exhibits significant diversity in income, occupation, literacy, and cultural practices. Accordingly, the sampling approach was structured to ensure equitable representation across socio-economic strata, including lower-income artisan households, medium-income shopkeepers, and higher-income property owners. The inclusion of religious and caste-based diversity—particularly among Sikh, Hindu, and Muslim communities—ensured that cultural nuances influencing heritage perception were appropriately reflected.

Special attention was given to gender balance and age distribution, incorporating both younger and senior residents to capture generational variations in attitudes toward conservation. This approach aligns with the participatory ideals of UNESCO's Historic Urban Landscape (2011) and INTACH's People-Centered Conservation Model (2020), emphasizing inclusivity and local agency.

3.5.2 Language, Accessibility and Timing

Given the linguistic diversity of Amritsar, the questionnaires and interview schedules were prepared in English and Punjabi, with translations reviewed by bilingual faculty to ensure semantic accuracy. Enumerators fluent in both languages were deployed to facilitate respondent comfort and comprehension.

Accessibility was addressed by selecting interview sites across residential *katras*, commercial bazaars, and religious precincts, ensuring equitable geographic coverage. Data collection was strategically scheduled to avoid peak business hours, festival seasons, and religious events to maximize participation and minimize response fatigue. These measures enhanced both response quality and participation rate, particularly among shopkeepers and elderly residents.

3.5.3 Ethical Considerations and Consent Process

Ethical standards were rigorously followed throughout the research process in accordance with the Institutional Research Ethics Guidelines of Lovely Professional University and international social research protocols (Babbie, 2013; Creswell & Poth, 2018).

Each participant was provided with an informed consent statement detailing the study's purpose, voluntary nature, confidentiality assurance, and intended use of data. No personal identifiers were recorded, and participants retained the right to withdraw at any stage. Interviews were conducted with respect for privacy, cultural norms, and gender sensitivity, particularly when engaging with older or female respondents in domestic settings.

All digital data were securely stored and anonymized prior to statistical analysis, ensuring compliance with ethical and privacy standards.

3.5.4 Pilot Testing and Instrument Reliability

Prior to full-scale data collection, a pilot survey covering 10% of the total sample ($n = 27$) was administered to assess clarity, sequence, and comprehension of survey

instruments. The pilot phase allowed refinement of question wording, coding schemes, and Likert-scale response structures.

Reliability of the structured questionnaire was assessed using Cronbach's Alpha, with an acceptable internal consistency value of $\alpha \geq 0.70$, confirming scale reliability (Field, 2018). Faculty members from the Department of Architecture and urban planning professionals affiliated with INTACH and HRIDAY established content validity through expert review.

Feedback from the pilot survey informed improvements in layout, skip patterns, and time management during fieldwork. The validated instrument was subsequently deployed for the main survey phase, ensuring accuracy, consistency, and respondent engagement.

3.6 Data Collection Methods

Data collection combined primary, secondary, and observational sources to capture both tangible and intangible aspects of the walled city of Amritsar, with particular focus on Katra Ahluwalia. A combination of quantitative and qualitative methods ensured representativeness, inclusiveness, and contextual accuracy.

Multiple techniques—including stratified sampling, structured questionnaires, interviews, field observations, and archival reviews—were employed to obtain reliable data reflecting the community's perception, institutional practices, and the physical state of heritage assets.

3.6.1 Primary Data – Structured Questionnaire and Interviews

Primary data constituted the main evidence base, obtained through structured questionnaires and semi-structured interviews covering diverse stakeholder groups within the walled city.

3.6.1.1. Household Survey (Level of Awareness, Efforts, Pride, etc.)

Structured questionnaires were designed to assess awareness, participation, conservation practices, and sense of pride among residents and business owners. The instrument included both close-ended and perception-based questions organized under three thematic sections:

Socio-demographic profile – age, education, occupation, income, and tenure.

Perception and awareness – understanding of heritage significance, current condition, and maintenance practices.

Attitudes and participation – personal involvement, community initiatives, use of traditional materials, and overall pride in heritage.

Responses were recorded on a five-point Likert scale ranging from Strongly Agree to Strongly Disagree. Face-to-face interviews were conducted in Punjabi and English to ensure clarity and inclusivity.

A stratified sampling approach was applied to ensure balanced representation from all key stakeholder groups—residents, shopkeepers, visitors, experts, government officials, and community leaders. Each stratum was proportionally sampled according to its estimated population size to maintain analytical validity.

3.6.1.2. Key Informant Interviews (Experts, NGO Officials, Leaders)

Semi-structured interviews were held with architects, historians, municipal and improvement trust officials, INTACH and HRIDAY members, NGO representatives, and community leaders. Discussions explored:

- Governance structures and heritage policy implementation.
- Community engagement and participation mechanisms.
- Challenges of regulation, funding, and byelaw enforcement.
- The role of local identity, culture, and crafts in heritage continuity.

Each interview lasted approximately 30–45 minutes and was conducted either in person or via recorded sessions (with consent). Data were analyzed thematically to identify recurrent issues in governance, awareness, and conservation management.

3.6.2 Secondary Data – Municipal Records, Plans and Archives

Secondary data were sourced from institutional documents, government databases, and scholarly materials to support and verify primary findings. These included:

Municipal Corporation Amritsar – ward boundaries, building records, land-use maps, and demographic data.

Improvement Trust and Town Planning Department – development plans, zoning maps, and heritage regulations.

INTACH, HRIDAY, and ADA reports (2010–2020) on façade restoration, urban renewal, and heritage listing.

Census of India (2011) for population and occupational data.

Archival materials, photographic inventories, and previous research on Amritsar's

urban evolution. These documents established the physical and institutional framework for understanding changes within the heritage precinct.

3.6.3 Observation and Photographic Documentation

Systematic field observation and photographic documentation were conducted across Katra Ahluwalia to visually record urban morphology, architectural typologies, and public spaces such as chowks, wells, piaos, gateways, and otlas.

Observation focused on:

The condition of materials (brick, lime plaster, timber, metal, glass).

Encroachments, alterations, and visual clutter affecting heritage façades.

Functional adaptation and reuse patterns within mixed-use structures.

Over 1,000 geo-referenced photographs were compiled as part of a structured visual archive to support comparative analysis and provide evidence of architectural degradation and resilience.

3.6.4 Data Validation and Triangulation

Accuracy was ensured through triangulation of data sources. Quantitative survey data were cross verified with qualitative interviews and field observations. Archival records were checked against actual site conditions for consistency.

Data entry and analysis were performed using SPSS and Excel, applying consistency checks, cross-tabulations, and logic validation. Qualitative transcripts were manually coded to identify themes on awareness, conservation behaviour, and institutional performance.

Back-checks and random verifications were conducted during fieldwork to reduce interviewer bias and ensure reliability. The combination of multiple data sources strengthened both internal validity and methodological robustness.

3.7 Data Analysis Tools and Presentation Techniques

The data collected from surveys, interviews, and field observations were analyzed to understand how people and institutions perceive and act toward heritage conservation in Amritsar's walled city. The analysis focused on identifying patterns, differences, and relationships between physical conditions, community involvement, and socio-economic factors.

3.7.1 Software Used (SPSS and MS Excel)

Two easy-to-use software programs were employed for analysing and presenting the

data:

SPSS (Statistical Package for the Social Sciences): used to calculate averages, percentages, and comparisons among different stakeholder groups. It helped identify trends and differences in opinions through simple statistical tests.

Microsoft Excel: used to enter, sort, and verify data. Excel was also used to prepare tables, bar charts, and pie charts for clear visual presentation of results.

Together, SPSS and Excel made it possible to summarize large amounts of information clearly and accurately.

3.7.2 Statistical Techniques Applied – Descriptive and ANOVA Analysis

The analysis used two basic types of techniques:

Descriptive Analysis: This provided an overall picture of the responses—showing how many people agreed or disagreed, what their average opinions were, and how different groups viewed the same issue.

Comparative Analysis (ANOVA – Analysis of Variance): This test was used to see whether the views of different groups—such as residents, business owners, visitors, and officials—were significantly different from each other. The method helped identify where opinions varied most strongly, for example in government efforts or repair practices.

These simple techniques helped convert survey data into meaningful findings that reflect the views of the entire community.

3.7.3 Variable Mapping for Analysis

To organize and compare the data effectively, key topics were identified and grouped. Each variable was analysed (Table 3.4) to understand its relationship with the others.

Table 3.4: Variables Used for Assessing Heritage Conservation Indicators

Category / Theme	Variable Name	Remarks / Focus
Physical Condition	Present Condition	Condition of buildings, streets, and chowks
Community Role	Community Efforts	Local participation in maintenance
Institutional Role	Government Efforts	Effectiveness of municipal & state initiatives
Material Practice	Repair with New Materials	Use of modern materials (cement, tiles, RCC)
Material Practice	Repair with Traditional Materials	Use of lime plaster, Nanakshahi brick, timber
Cultural Dimension	Community Pride	Sense of belonging and emotional connection
Awareness	Awareness Level	Knowledge about heritage and its

		conservation
Socio-Economic	Income Level	Economic background influencing perception
Socio-Economic	Education Level	Educational background of respondent
Demographic	Age Group	Respondent's age category
Demographic	Gender	Male / Female representation
Socio-Economic	Occupation Type	Type of livelihood or profession
Community Character	Duration of Residence	Length of stay in the walled city
Property Context	Ownership Type	Owned / Rented / Ancestral
Functional Attribute	Use of Building	Residential, commercial, religious use
Physical Observation	Facade Condition	Degree of maintenance and alteration
Spatial Attribute	Street Morphology	Continuity and pattern of streets
Environmental	Open Space / Chowk Condition	Cleanliness and activity in open spaces
Cultural Attribute	Intangible Heritage Practices	Crafts, festivals, rituals
Institutional Attribute	Community Awareness Programs	Exposure to INTACH / HRIDAY programs
Institutional Attribute	Satisfaction with Govt Efforts	Public view of official performance
Behavioural Attribute	Willingness to Participate	Readiness for active involvement
Economic Attribute	Tourism Impact	Effect of tourism on local economy
Physical Stressor	Urban Pressure / Encroachment	Commercialization and space conflicts
Service Attribute	Accessibility & Infrastructure	Condition of public utilities
Cultural Attribute	Religious Significance	Influence of religious sites
Heritage Attribute	Historic Significance	Association with past events or eras
Conservation Attribute	Authenticity & Integrity	Originality of form and materials
Intangible Attribute	Social Cohesion	Neighbourhood interaction and unity
Socio-Economic	Economic Dependence on Heritage	Livelihood linked to heritage commerce

Source: Author's Field Survey, 2023–24 UNESCO (2011), INTACH (2004).

3.7.4 Graphical and Tabular Presentation of Results

The analysed data were displayed in simple tables, charts, and graphs to make interpretation easy and visually clear:

- Tables were used to show averages, percentages, and comparisons.
- Bar charts and pie charts illustrated how opinions or awareness levels were distributed.

- Grouped bar graphs highlighted differences among stakeholder categories.
- Photographs and field images supported visual interpretation of physical conditions.

All visuals were numbered, titled, and formatted consistently to maintain clarity and professionalism.

This combination of SPSS and Excel, together with simple descriptive and comparative methods, ensured that both numerical and perceptual data were analysed systematically. The approach allowed clear understanding of community views, conservation efforts, and socio-economic differences within the walled city of Amritsar.

3.8 Limitations of Methodology

While the adopted research design ensured comprehensive coverage of tangible and intangible heritage aspects, certain methodological limitations must be acknowledged to define the scope and validity of the findings.

Scope Boundaries: The study is geographically limited to the walled city of Amritsar, focusing primarily on Katra Ahluwalia as a representative precinct. Although the area reflects broader patterns of urban heritage transformation, the conclusions may not be fully generalizable to other Indian walled cities with distinct governance and socio-cultural contexts.

Response Bias: As the survey relied on self-reported data through structured questionnaires and interviews, responses were occasionally influenced by individual perceptions, expectations from government bodies, and social desirability tendencies. Efforts were made to minimize this bias through neutral questioning, pilot testing, and respondent anonymity.

Data Availability and Documentation Constraints: Access to archival records, historical maps, and municipal inventories was limited, resulting in partial documentation of heritage assets. Some data on building conditions and ownership were inconsistent due to informal modifications or absence of updated records.

Sampling Limitations: Although stratified sampling ensured broad stakeholder representation, smaller subgroups—such as heritage experts and NGO members—had lower participation levels due to availability constraints, slightly affecting subgroup comparisons.

Temporal Limitations: The study reflects data and field conditions from 2020–2025.

Subsequent policy changes, urban interventions, or redevelopment projects may alter the contextual relevance of the findings over time.

Despite these constraints, methodological rigor—through triangulation of sources, pilot validation, and use of both qualitative and quantitative tools—helped maintain the reliability and credibility of the research outcomes.

3.9. Conclusion

The methods and tools used for data collection, analysis, and presentation form the core of this study's methodological structure. The chosen approaches—combining quantitative surveys, qualitative interviews, and field observations—ensured a balanced examination of tangible and intangible dimensions of heritage conservation.

In order to streamline the research, it was crucial to use methods that accurately test, verify, and interpret results across multiple stakeholder groups. The carefully determined sample size ($n = 272$), stratified sampling design, and application of statistical tools such as SPSS and Excel contributed to ensuring the validity and reliability of findings.

Many problems of urban vitality, socio-economic stress, and environmental sustainability have arisen from the neglect of traditional heritage within Amritsar's walled city. This methodological framework, by linking physical assessment, community perception, and institutional response, provides a structured means to understand these interrelated challenges.

Concern for traditional heritage has led to evolving urban forms that reflect both cultural continuity and structural adaptation, yet they also reveal the fragmentation and disjointed growth resulting from inconsistent conservation policies and limited community engagement.

CHAPTER 4

The Transformation of Katra Ahluwalia Architectural Reflections of Amritsar's Heritage

This chapter delves into the rich architectural heritage of Katra Ahluwalia, a historic neighborhood in Amritsar, tracing its evolution through various significant periods—from the Guru Period and Sikh Misls to Maharaja Ranjit Singh's reign, British colonial rule, and the post-independence era. It examines how socio-political changes and cultural influences shaped the architectural styles, materials, and techniques of the area, resulting in a unique fusion of Sikh, Mughal, Rajput, and colonial elements. By exploring the transformations in building designs, decorative features, and urban layouts, the chapter highlights Katra Ahluwalia's significance as a living repository of Amritsar's historical identity and underscores the importance of conserving its rich architectural legacy.

4.1 Introduction to Historical profile of Amritsar

Amritsar is a prime example of "punjabiat," a composite culture that includes secular heritage. As the capital of Punjab's Majha region, this city on the Beas River's eastern bank is a treasure trove of cultural, religious, and historical artifacts. It is the lifelong dream of every devout Sikh to visit Amritsar and bathe in the holy Amrit Sarovar. Sites, buildings, routes, and processional paths make up the town's distinctive "sacred and sociopolitical geography," which is shaped by the town's rich history and its ties to notable figures in the region. Since the language, its idiom, and its literary traditions all originated in the Majha region of Punjab, Amritsar can be considered a cultural and linguistic epicenter of Punjabi literature. Furthermore, as a manufacturing hub, it had long been linked to Lahore, the great Mughal capital and, later, and the urban center par excellence of undivided Punjab. Maharaja Ranjit Singh was also associated with it. Nevertheless, the region's traditional industries still draw in both locals and visitors with their high-quality pickles, papads, spices, embroidery, kirpans, and wooden goods. Residents of the walled city can observe the twelve katras, which are occupational neighborhoods, as evidence of the prosperous market economy in the area.

4.1.1. Local Planning Area, Amritsar

The Amritsar Local Planning Area (LPA) was officially announced on July 18, 2007, through notification number 12/65/2006-4HGI/5599, in accordance with section 56 of

the Punjab Regional and Town Planning and Development Act, 1995 (amended 2006-Acting in accordance with the authority granted by Section 56).

For the purpose of developing the Master Plan, the 1,39,419 ha Amritsar Local Planning Area is considered. There are 16, 60,466 people living there. Jandiala (M.C), Majitha (M.C), Rayya (Nagar Panchayat), and Rajasansi (Nagar Panchayat) are four urban settlements, and 310 rural settlements make up the city of Amritsar, which covers an area of 142.37 sq.kms (including Amritsar Cantonment). You will find the complete list of all the settlements in Amritsar L.P.A., along with their area and population details, in the attached annexure II.

In accordance with Rule 22 of the Punjab Regional and Town Planning and development (General Rules, 1995), the Amritsar Local Planning Area has been delineated by considering the administrative and revenue boundaries of settlements; the region's topography, including UBDC, minors, drains, major roads, and rail networks; existing and proposed connectivity; current and projected population distribution and growth; industrial locations and expansion trends; the area's economic base and commercial activity; cultural and historical conservation priorities; and the broader patterns of urbanization and management of peripheral zones. The planning approach also aims to redistribute economic activities to reduce pressure on Amritsar city, maintain ecological balance, and promote balanced regional development. Overall, the Amritsar Local Planning Area comprises 52.67% of the district's area and accommodates 74.98% of its population (Table 4.1).

Table 4.1: Area and Population of Different Settlements in Amritsar District

S. No.	Settlement	Area (Hectares)	Population (2001)
1	Amritsar M.C	14,237	10,16,079
2	Jandiala (M. CI)	1,454	23,834
3	Rayya (N.P)	655	12,631
4	Rajasansi (N.P)	1,551	12,176
5	Majitha (M. CI)	387	12,992
6	Villages in LPA	1,21,135	5,82,754
7	Total LPA	1,39,419	16,60,466
8	Amritsar District	2,64,700	21,57,000

Source: PRSC Existing Land Use Map (ELU); Punjab Statistical Abstract 2007 Census of India, 2001.

4.1.2. Regional Setting & Linkages

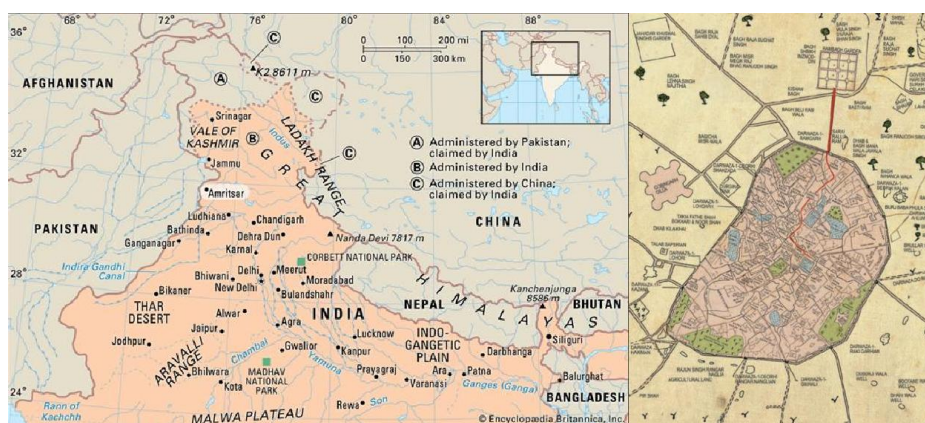
The study of Amritsar's locational context helps evaluate its developmental advantages and constraints within the region, guiding the Master Plan in identifying suitable future directions. Located between 74°29'–75°23' E and 31°29'–32°03' N, Amritsar is the state's third-largest border district, with Tarn Taran being the smallest.

Amritsar is regionally important as the district headquarters and a major pilgrimage and tourist center (Golden Temple, Durgiana Mandir, Jallianwala Bagh). Its proximity to the Indo–Pak border restricts expansion to the northwest, though this border also enhances its symbolic and tourism value. As Punjab's second-largest city, it is a cultural and educational center with key institutions such as Guru Nanak Dev University and Khalsa College.

The district has around 25,000 industrial units producing woolens, carpets, and food items, reinforcing its commercial identity. Amritsar is central to Sikh heritage, while Rajasansi International Airport strengthens national and international connectivity.

Agriculturally, it functions as a major trade node with mandis such as Rayya, Gehri, Chogawan, Majitha, and Attari under the LPA. The district's connectivity is supported by NH-1, NH-15; state highways, an extensive road network, and strong rail and air links (Figure 4.1).

Figure 4.1: Location of Amritsar District in Punjab state, India.



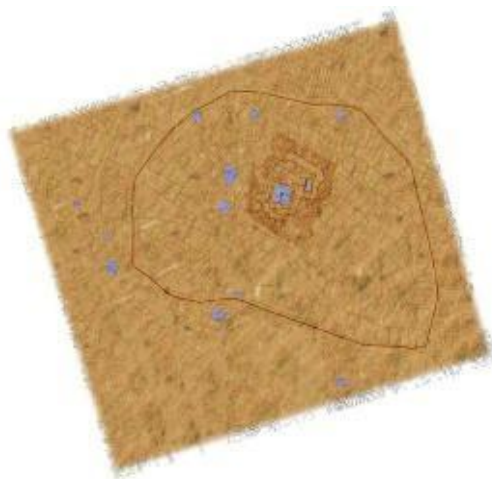
Source: Amritsar heritage Walk, Punjab Heritage and Tourism Promotion Board.

Like Sri Harmandir Sahib, Amritsar changed. The Gurus' reign (1708–1708), the struggle (1708–1764), the Misals' reign (1764–1800), Maharaja Ranjit Singh's reign (1801–1849), the British era (1849–1947), and the modern era are approximately the city's history.

Amritsar's origins, development, and layout have been well documented since it helped realign the Badshahi Sadak after the British annexed Punjab in 1849. This shift in focus has several causes. The alignment change was influenced by several factors. Amritsar's role as a regional economic center, the East India Company's relationship with the Sikh kingdom, and the city's sociocultural importance to the Sikhs due to Sri Harmandir Sahib, the holiest

Sikh shrine (The Golden Temple), were among these.

Figure 4.2: Evolution of Amritsar



Source: city Hriday plan- Amritsar, 2016.

Amritsar grew like a seed into a flourishing tree (Figure 4.2). Guru Amar Das selected the site and began the excavation of a tank, which Guru Ram Das later developed, inviting artisans and families to settle around it and establishing a dharamsal and langar, as in Guru Nanak's tradition. The settlement gradually became known as Ramdasapur.

Today, the Golden Temple stands as the core symbol of Punjab's spiritual heritage, while places like Jallianwala Bagh add historical depth. Though many cities are older, few match Amritsar's 423-year legacy as the holiest Sikh centre, a cultural and educational hub, and an important node of trade and exchange on India's northwest frontier. The city's identity and value remain inseparable from the teachings and contributions of the Sikh Gurus.

4.2. Historical development of Amritsar:

4.2.1. Guru Period (1577-1628): Sri Guru Ram Dass Ji, who had previously taken over as third guru from Goindwal, established the Amritsar (Figure 4.3), also called the "Pool of Nectar," in 1577 AD. At this time, Guru Ram Das Ji established a small village settlement known as Guru-Ka-Chak, which consisted of a house for his residence (Gurudwara Guru-Ka-Mahal) and several huts that had grown nearby. In an effort to expand their trade and commercial activities, many khatri families also settled there. Even though he was unable to finish it, the Guru began excavating a tank.

Guru Ram Das Ji's son and fifth Sikh guru, "Sri Guru Arjun Dev Ji," continued work on the tank after his death in 1588. He was also involved with the settlement's expansion,

2	Bhangian	Qila Bhangian	Katra Hari Singh, Katra Desu Singh, Katra Bhag Singh, Katra Dulo, Katra Chatar Singh, Tunda Talab area
3	Kanhaiya	Sardar Jai Singh	• Built fort • Katra Baggan, Katra Jaimal Singh, Karmo Deouri
4	Ahluwalia	Sardar Jassa Singh Ahluwalia	Qila Ahluwalia, Katra Ahluwalia
5	Faizal Puria	Nawab Kapoor Singh Faizal Puria	Katra now known as Bazaar Kaserian got developed.

Source: District Gazetteer, Amritsar; Amritsar: A study in urban history (1840-1947); The city of Amritsar an Introduction by Fauja Singh

This period led to strengthening of the defense system for Hari Mandir Sahib as well as for the city. Further, many activity areas in the form of Bazaars, Katras, etc. also were developed (Figure 4.4).

Figure 4.4: Amritsar Walled City with Katras

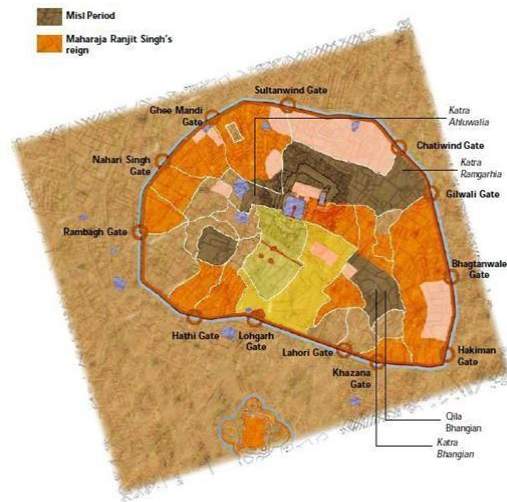


Source: City Hriday plan – Amritsar, 2016.

4.2.4. Amritsar Under Maharaja Ranjit Singh (1802-1849)

Following his victories over Misl Bhangian in 1802 and Misl Ramgarhia in 1816, Maharaja Ranjit Singh took Amritsar for himself. The Maharaja treated Amritsar with great reverence, and it quickly became his second capital, following Lahore. Several buildings in Amritsar attest to his influence there (Figure 4.5). Forts (such as Gobindgarh Fort), walls, gardens, havelis, akharas (like Balanand and Brahm Bareck), and other traditional architectural features were used to portray this character. It was not until 1925 that the city's enormous wall 25 yards wide and 7 yards high was built around it (Figure 4.6).

Figure 4.5: Amritsar during Maharaja Ranjit Singh Period (1800 AD)



Source: city Hriday plan – Amritsar, 2016.

Figure 4.6: Amritsar walled City with 14 historic Gates



Source: city Hriday plan – Amritsar, 2016.

The gates were named as:

1. Hall Gate (built in British Period)	2. Hathi Gate
3. Lohgarh Gate	4. Lahori Gate
5. Khazana Gate	6. Hakima Gate
7. Bhagtanwala Gate	8. Gilwali Gate
9. Chatiwind Gate	10. Sultanwind Gate

11. Ghee Mandi Gate

12. Sheranwala Gate

13. Mahan Singh Gate

14. Ram Bagh Gate

Only Ram Bagh Gate, which was among these fourteen gates, retains its original façade the others were destroyed and rebuilt by the British between 1866 and 1868. During this period, specifically in 1931, numerous gardens such as Ram Bagh were constructed. Located in Ram Bagh Garden is the summer palace that the Maharaja used to live in. Based on the Mughal Garden Concept, the garden's layout was comparable to Shalimar Garden. Additional gardens that were constructed included Bagh Akalian, Shamsheer Singh, Bagh Santokhsar, Ralia Ram, Bagh Ramanand, and Attar Singh in Katra Dal Singh. The expansion of the city was encouraged by the Maharaja's sardars. Around the havelis and small gardens that the Sardars constructed, *katras* grew. Katra Hakima, Katra Khazana, Katra Dal Singh, Katra Mit Singh, Katra Garba Singh, Katra Zamindar Khushal Singh, and Katra Sher Singh were among the numerous *katras* that were developed.

Bagichas, or gardens, within the *katras* of Amritsar's walled city provided greenery and open spaces, contributing to a garden city ambiance. Trades were organized by specific quarters, such as Loon Mandi for rock salt and areas for firewood makers, wool spinners, and cotton weavers. Linear bazaars served as hubs for retail trade. Many buildings from this "Golden Period" still showcase remarkable craftsmanship through their ornamentation, traditional materials like *nanakshahi* bricks and *surkhi* lime, and unique textures, reflecting the city's rich built heritage.

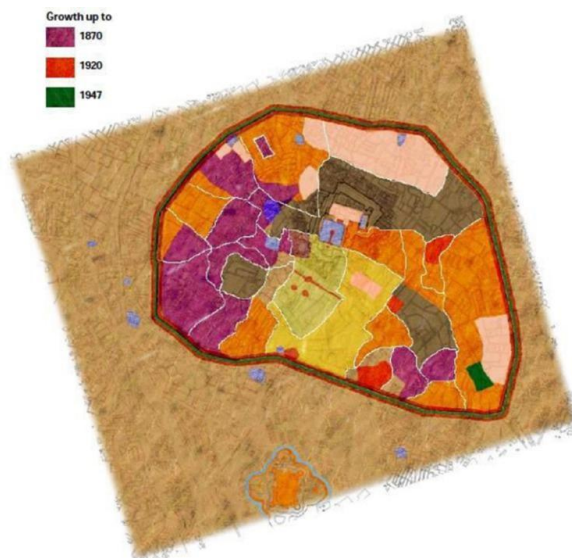
4.2.5. Amritsar Under the British Rule (1849-1947)

Numerous physical advancements, including new technologies, craftsmanship skills, etc., characterize this era. There was a shift from *Katras* to bungalows with setbacks. In 1866 and 1868, between the Lahori Gate and the Ram Bagh Gate, a new masonry wall measuring fourteen feet in height was built, replacing the old wall in the western part of the city. New gates were also installed during this time. A road known as Circular Road was built outside the city walls and runs parallel to the new walls; this road is still in use today. At the same time, the Municipal Committee (Figure 4.7) was established, which placed a premium on water distribution, sanitation, street lighting, etc. During the British era architectural style, streetscapes, visual appearance of the city etc. was changed. New structures were also developed such as

- District Headquarters - 1849 A.D. Civil Hospital - 1849

- Clock Tower - 1852
- St. Paul's Church - 1853
- Municipal Committee - 1868
- Town Hall – 1876
- Khalsa College - 1892
- Head Post Office - 1925
- Railway Station – 1931
- Cantonment Area - 1854
- Hall Gate - 1876
- District Courts - 1877
- Sadar Police Station - 1907
- Medical College - 1929

Figure 4.7: The British Period (1849-1947)



Source: Evolution of Amritsar- Dossier for nominating Amritsar as World Heritage Site, Pg 102

4.2.6. Post-Independence. Period (1947-1994):

In 1947, communal riots during India's partition burned down much of the city. Fire destroyed nearly 20% of the walled city. Punjab passed "The Punjab Development of Damaged Areas Act" in 1951 to help rebuild these areas. After its 1949 founding, the Amritsar Improvement Trust drafted several development plans (Figure 4.8). The approach road to the Golden Temple in the walled city was widened to 60 feet. This plan shifted walled cities' focus from pedestrians to motors, causing traffic congestion today.

Also founded in 1969 is Guru Nanak Dev University, the city's landmark. In 1981, Amritsar had 5, 89,229 residents and many businesses within its walls. Operation Blue Star in 1984 severely damaged the Golden Temple and surrounding area. Mortar and gunfire destroyed Akal Takhat. Watchtowers were heavily damaged. Operation Black Thunder again damaged Watch Towers and other buildings in 1986.

Galiara Scheme beautification was launched to compensate for the loss. The Corridor

Plan, also known as Operation Demolition by the press, involved acquiring and destroying 30 meters of land around the Golden Temple complex. It included many landmarks and historic buildings. Akhara Sangulwala, Burj Giania, Baradari near Baba Atal, Akal Rest House, Akhara Beriwala, and others are examples. Many traditional bazaars, like Papran wala, suffered similar tragedies. In 1988 and 1994, the Amritsar Municipal Area was expanded to accommodate northwest and southeast development. The city expanded from 60 to 65 wards in 2004–2005, but its area remained at 142 sq km.

Figure 4.8: (Left to Right) Walled city 1849, Walled city 1947, Walled city 2010.



Source: Master Plan Amritsar: Punjab Government Gazette, April 29, 2011.

4.3 Architectural Evolution of Katra Ahluwalia, Amritsar

Katra Ahluwalia, a historic neighbourhood in Amritsar, embodies a rich tapestry of architectural styles influenced by various dynasties, cultures, and historical events. The area's architectural evolution mirrors the socio-political changes from the Guru Period to the Post-Independence era. This comprehensive overview explores the architectural styles and influences during each significant period.

4.3.1 Guru Period (1577–1628): Amritsar, established by Guru Ram Das in 1577, quickly evolved into a spiritual hub centred around the construction of the Harmandir Sahib, or Golden Temple. The city grew organically around the sacred Amrit Sarovar tank, attracting Sikh followers who initiated settlements and laid the foundation for Amritsar's architectural and cultural identity (Kaur, 2012).

Architectural Styles and Influences: The early architecture of Amritsar reflected Sikh vernacular traditions, characterized by simplicity, functionality, and the use of local materials like mud bricks and timber. Buildings prioritized community spaces, facilitating collective worship and social interaction. Flat roofs and internal courtyards were common features, providing climatic comfort and fostering social engagement

within families and communities (Kaur, 2012).

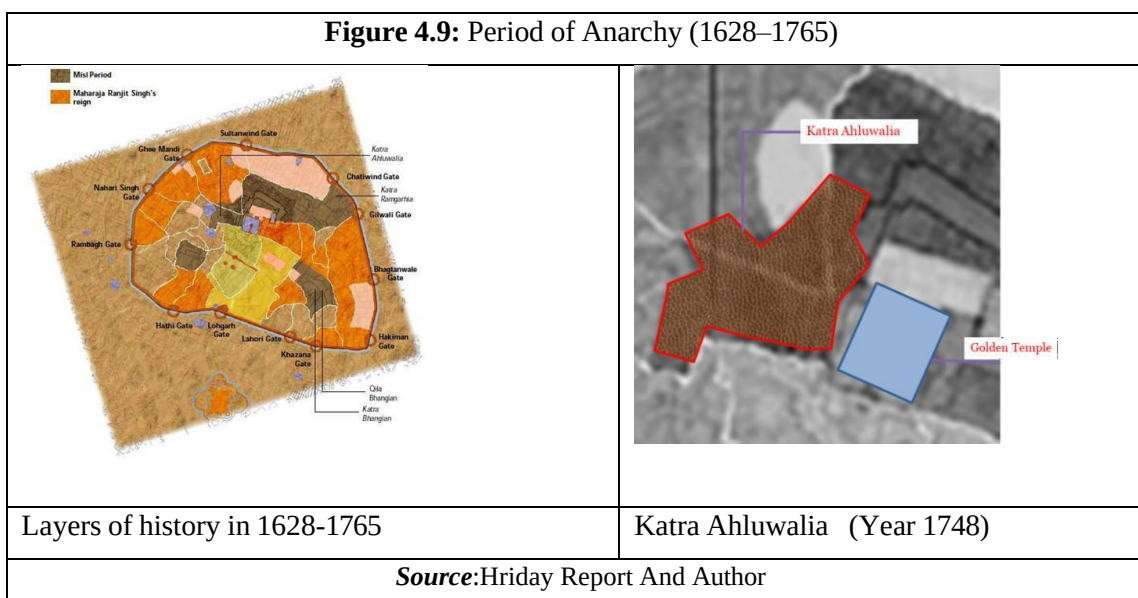
Islamic architectural influences also shaped Amritsar's early structures. Religious buildings incorporated pointed arches, small domes, and jaalis (lattice screens) made of wood or stone. These features offered ventilation, privacy, and aesthetic appeal, blending functionality with artistic expression (Table 4.3). This fusion of Sikh and Islamic styles created a unique architectural language that embodied practicality, spirituality, and artistic innovation, forming the core of Amritsar's built heritage (Kaur, 2012).

Table 4.3: Evolution of Architectural Styles and Influences at Katra Ahluwalia in Guru Period.	
Details	Key Insights
Historical Context	Founded in 1577 by Guru Ram Das around the Harmandir Sahib, Amritsar developed around the Amrit Sarovar as a major Sikh spiritual center.
Architectural Style - Sikh Vernacular Traditions	Simplicity and functionality characterized early structures. Built with mud bricks/timber, designs prioritized community-centric spaces for collective worship and social interactions.
Architectural Style - Islamic Influence	Influence seen in pointed arches, small domes, and jaalis (lattice screens). These elements provided ventilation, privacy, and artistic expression.
Materials and Techniques	Mud bricks and timber were locally sourced, ensuring cost efficiency and sustainability. Techniques focused on simplicity and resource optimization.
Key Architectural Elements - Harmandir Sahib	The Harmandir Sahib emerged as the spiritual and architectural core of Sikh religious life..
Key Architectural Elements - Flat-Roofed Houses	Houses with flat roofs offered additional usable space and adapted well to the local climate.
Key Architectural Elements - Internal Courtyards	Internal courtyards enhanced airflow and light, promoting social engagement within families and communities.
Key Architectural Elements – Jaalis	Jaalis, made of wood or stone, combined ventilation and privacy with decorative appeal, showcasing intricate craftsmanship.
Key Architectural Elements - Pointed Arches and Domes	Pointed arches and domes added elegance to religious structures while reflecting Islamic architectural traditions.

Reasons/Needs - Religious and Spiritual Focus	Spaces for collective worship and meditation were central to the community spiritual life.
Reasons/Needs - Community Building	Community-centric design elements encouraged social interactions and inclusivity.
Reasons/Needs - Climatic Adaptation	Courtyards and jaalis addressed climatic needs by enhancing ventilation and thermal comfort.
Reasons/Needs - Resource Efficiency	Locally sourced materials ensured sustainable and economical construction practices.
Legacy	Established principles of Sikh architecture, blending functionality, spirituality, and artistic expression, laying the groundwork for Amritsar's cultural and architectural identity.
Source: Kaur, H. (2012). Architectural and cultural identity of Amritsar: A historical perspective.	

4.3.2 Period of Anarchy (1628–1765): During the period of Mughal-Sikh conflicts, Amritsar endured significant instability and destruction of its built fabric (Figure 4.9). Continuous clashes caused considerable damage to structures, but the Sikh community displayed resilience by consistently rebuilding essential religious and communal spaces, reinforcing their cultural identity (Singh, 2015).

Architectural Response and Defensive Strategies: In response to instability, the city's architecture emphasized defensive strategies. Fortified walls and gated entrances were constructed for protection, while the urban layout included narrow streets and cul-de-sacs designed to hinder enemy movement and support community defence. This pragmatic urban planning prioritized security and functionality (Singh, 2015).



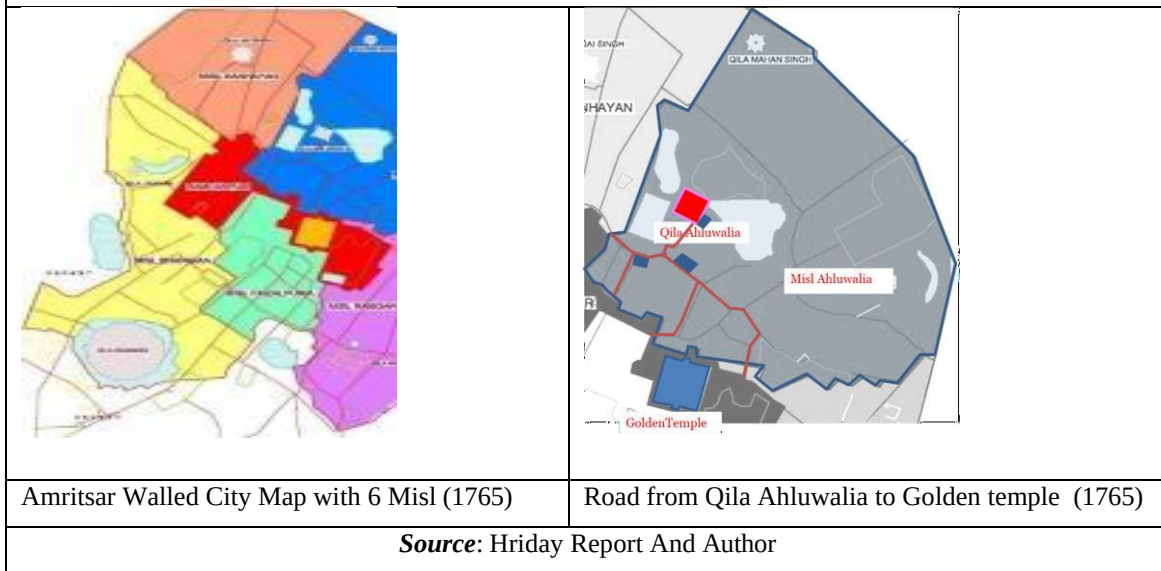
Islamic architectural influence persisted, though resource constraints during this period limited ornamentation. Buildings were constructed with robust techniques to withstand attacks, focusing on resilience and functionality (Table 4.4). This architectural approach balanced the immediate need for protection with the enduring goal of conserving cultural and religious identity (Singh, 2015).

Table 4.4: Evolution of Architectural Styles and Influences at Katra Ahluwalia in Period of Anarchy (1628–1765).	
Details	Key Insights
Historical Context	Frequent Mughal-Sikh conflicts caused instability and destruction, yet the Sikh community persistently rebuilt key religious and communal structures, reinforcing their cultural identity.
Defensive Strategies - Fortified Walls	Defensive walls were constructed to protect key areas from invasions, symbolizing resilience and offering a first line of defence.
Defensive Strategies - Gated Entrances	Gates were placed at strategic points, with reinforced doors to enhance security and control access to protected areas.
Defensive Strategies - Narrow Streets and Cul-de-Sacs	Urban layouts featured winding streets and cul-de-sacs to hinder enemy movement and facilitate local defensive strategies.
Islamic Architectural Influence	Islamic elements such as pointed arches and domes persisted, but resource constraints led to minimal ornamentation.
Functional and Robust Construction - Focus on Structural Resilience	Buildings were constructed to withstand attacks, prioritizing durability over aesthetic features.
Functional and Robust Construction - Minimal Ornamentation	Limited resources meant designs avoided elaborate detailing, focusing on functionality and efficiency.
Functional and Robust Construction - Material Use	Locally available materials like mud bricks and stone were used to ensure quick, economical reconstruction.
Urban Planning for Security - Compact Settlements	Buildings were densely packed with interconnected rooftops, enabling swift movement for defence during attacks.
Urban Planning for Security - Strategic Placement of Communal Spaces	Religious and communal spaces were placed centrally to ensure accessibility and security during crises.
Key Architectural Elements - Fortified Structures	Fortified structures, including gurdwaras, had thick walls and small openings for surveillance and defence.
Key Architectural Elements - Simplified Religious Structures	Gurdwaras retained essential features but focused on functionality to ensure survival during conflict.
Key Architectural Elements -	Entrances were heavily reinforced with durable doors, acting as

Defensive Entrances	strongholds during attacks.
Cultural and Religious Significance - Rebuilding as a Cultural Statement	Reconstruction efforts symbolized resilience, emphasizing the community determination to recover and rebuild.
Cultural and Religious Significance/Conservation of Religious Identity	Conserving key religious spaces ensured continuity of Sikh identity and traditions despite destruction.
Reasons/Needs – Security	Focused on protecting the community from external threats through robust architectural designs.
Reasons/Needs – Resilience	Demonstrated the Sikh community's ability to recover and rebuild amidst adversity.
Reasons/Needs - Cultural Conservation	Efforts to rebuild religious and communal spaces ensured the continuity of Sikh cultural identity.
Reasons/Needs – Pragmatism	Simple, robust designs met the immediate need for protection and functionality.
Legacy	Defensive strategies and robust construction methods laid the groundwork for resilient architectural practices and became enduring symbols of resistance.
Source: Singh, J. (2015). Resilience in architecture: The response of Amritsar's built fabric to conflict during Mughal-Sikh clashes.	

4.3.3 Under Sikh Misls (1764–1802): Katra Ahluwalia, established by Jassa Singh Ahluwalia, leader of the Ahluwalia Misl, served as a fortified residential and commercial enclave strategically designed to ensure security and promote trade (Figure 4.10). During a period of relative peace and stability, economic growth spurred the area's development into an architectural and cultural hub (Kaur, 2018). The area was strategically designed to provide security to its residents and merchants while fostering a vibrant trade hub. During this period of relative peace and stability, economic growth flourished, enabling the architectural development of Katra Ahluwalia into a space that embodied the cultural and artistic richness of the time.

Architectural Styles and Influences: The architectural styles in Katra Ahluwalia reflected a fusion of Sikh, Mughal, and Rajput influences. Rajputana elements appeared in chattris (domed pavilions) and jharokhas, enhancing façades with elegance, while intricate stone and wood carvings on doors and windows featured floral and geometric motifs that showcased skilled craftsmanship. Mughal features such as multifoil arches, symmetry, and balanced proportions created visual harmony, complemented by Sikh symbols like the Khanda that added cultural and religious meaning (Kaur, 2018).

Figure 4.10: Amritsar Under Sikh Misls (1764-1802)

Mughal influence in Amritsar's architecture is evident in multifoil arches, symmetry, and proportion, creating a harmonious aesthetic. This was complemented by a distinct Sikh architectural identity, emphasizing community spaces like central courtyards and communal gathering areas. Symbolic motifs, such as the Khanda, added cultural and religious significance to the decorative elements.

Materials and Techniques: The materials and techniques used in the construction of Katra Ahluwalia further enhanced its architectural character. Nanakshahi bricks, named after Guru Nanak, were extensively used for their durability and uniformity, while lime plaster and mortar provided smooth finishes and effective thermal insulation. Elaborate woodwork was a defining feature, with wooden jharokhas and brackets showcasing detailed carvings. Decorative wooden columns and arches served both structural and ornamental purposes, contributing to the aesthetic/functional richness of the buildings. Together, these elements created an architectural legacy that symbolized the prosperity and cultural vitality of Katra Ahluwalia while reflecting the ingenuity and adaptability of its builders during this flourishing period (Table 4.5).

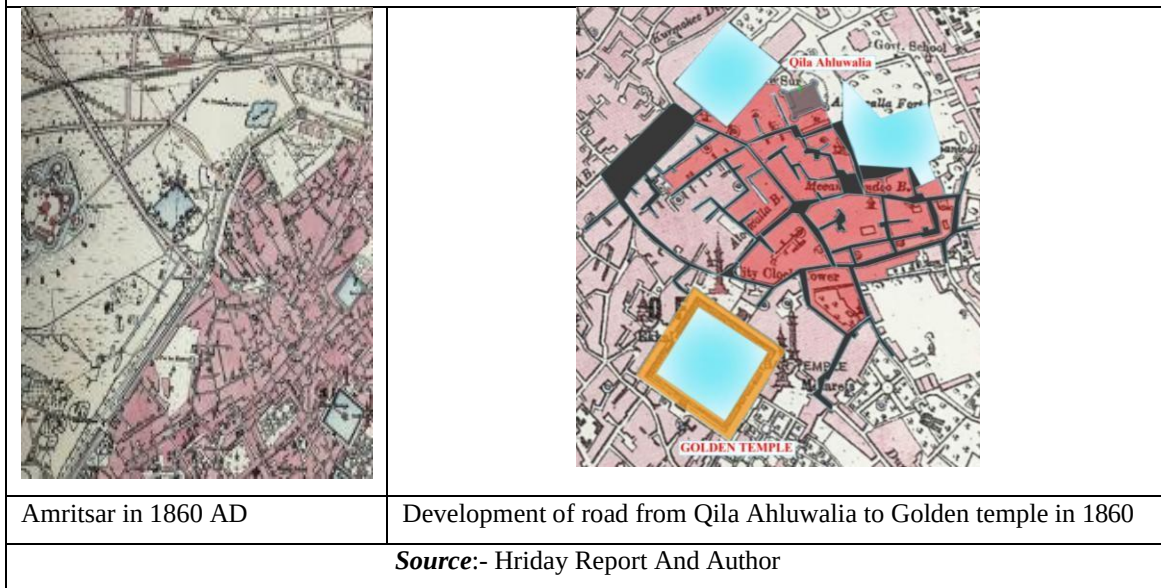
Table 4.5: Evolution of Architectural Styles and Influences at Katra Ahluwalia Under Sikh Misls (1764–1802)

Details	Key Insights
Timeline	Establishment by Jassa Singh Ahluwalia (18th Century): A fortified residential and commercial hub fostering a vibrant trade center.
Architectural Style	Fusion of Sikh, Mughal, and Rajput Elements: Representing

	cultural and artistic richness.
Architectural Style - Rajput Elements	Chattris (domed pavilions) and Jharokhas (ornately carved balconies) added elegance and prominence to buildings.
Architectural Style - Mughal Elements	Multifoil arches and decorative symmetry emphasized proportion and harmony in design.
Architectural Style - Sikh Identity	Central courtyards fostered community interactions and included symbolic motifs like the Khanda, reflecting spiritual ethos.
Architectural Influence - Material Use	Nanakshahi bricks (durable and uniform) and lime plaster provided thermal insulation and structural strength.
Architectural Influence - Ornamental Features	Elaborate woodwork (jharokhas, brackets), decorative wooden columns, and intricate stone carvings enhanced aesthetics.
Architectural Influence - Functional Design	Practical and artistic elements balanced functionality and beauty, integrating cultural values with daily use.
Reason/Need – Security	Fortifications ensured the safety of residents and merchants against external threats.
Reason/Need - Economic Growth	The design supported bustling trade and economic activities, contributing to regional prosperity.
Reason/Need - Cultural Flourishing	Architectural richness symbolized the area's cultural ingenuity and reflected its economic vitality.
Reason/Need - Community Focus	Central courtyards and communal spaces promoted social and religious gatherings, emphasizing societal values.
Source: Kaur, R. (2018). Architectural evolution of Katra Ahluwalia: A reflection of Sikh, Mughal, and Rajput influences.	

4.3.4. Under Maharaja Ranjit Singh (1802–1849): The unification of the Sikh Misl under Maharaja Ranjit Singh marked a period of stability and prosperity that sparked a cultural renaissance shaping arts and architecture (Figure 4.11). His patronage encouraged the construction of grand structures and ornate havelis, establishing a golden era of architectural creativity in the region (Singh, 2017).

Architectural Styles and Influences: During Maharaja Ranjit Singh's rule, Amritsar's architecture blended Sikh, Rajput, and Islamic traditions into a distinct aesthetic. Havelis featured spacious courtyards decorated with frescoes and murals depicting religious and cultural motifs (Singh, 2017). Islamic pietra dura inlay with floral and geometric patterns, along with Gurmukhi calligraphy, enriched ornamentation, merging artistic elegance with cultural identity (Kaur, 2018).

Figure 4.11: Amritsar In 1860

The Rajputana influence deepened with the extensive use of jaali work—intricately carved stone and wooden lattice screens. These screens served functional purposes like ventilation and privacy while also enhancing the visual appeal of buildings. Floral and geometric carvings on structural elements showcased exceptional craftsmanship and attention to detail (Kaur, 2018).

Materials and Techniques: The materials and techniques of this era reflected the grandeur and innovation of the period. Stone and marble were extensively used in prominent buildings, enhancing durability and magnificence. Elaborate wooden elements such as jharokhas, beams, and brackets highlighted the craftsmanship of the time. Colored glass windows set in finely crafted wooden frames introduced vibrancy and light into interiors, merging functionality with aesthetic appeal (Singh, 2017). This period under Maharaja Ranjit Singh is regarded as a golden age for architecture and the arts, marked by a harmonious blend of styles, materials, and cultural influences. It left an enduring legacy in the built heritage of the region (Table 4.6).

Table 4.6: Evolution of Architectural Styles and Influences at Katra Ahluwalia Under Maharaja Ranjit Singh (1802–1849)	
Details	Key Insights
Historical Context	Unification of Sikh Misl under Maharaja Ranjit Singh led to stability and prosperity, fostering a cultural renaissance.
Architectural Style - General Fusion	Fusion of Sikh, Rajput, and Islamic influences resulted in cohesive and distinct architectural aesthetics.

Architectural Style - Sikh Rajput Influence	Grand Havelis featured spacious courtyards and vibrant frescoes/murals depicting religious and cultural themes.
Architectural Style - Islamic Influence	Islamic inlaid marble work (pietra dura) and calligraphic inscriptions in Gurmukhi blended cultural identity with artistic elegance.
Architectural Style - Rajputana Influence	Rajputana influence seen in extensive jaali work (lattice screens) and floral/geometric patterns on carvings and structural elements.
Materials and Techniques	Stone and marble were widely used for durability; wooden jharokhas, beams, and brackets showcased exceptional craftsmanship; colored glass windows added vibrancy.
Key Architectural Elements - Havelis	Lavish mansions (Havelis) designed with courtyards and adorned with frescoes/murals, highlighting prosperity and cultural pride.
Key Architectural Elements - Jaali Screens	Intricately carved jaali screens provided ventilation and privacy while serving as decorative elements.
Key Architectural Elements - Pietra Dura Panels	Marble panels with pietra dura floral and geometric designs added elegance and complexity to architectural features.
Key Architectural Elements - Frescoes and Murals	Walls decorated with frescoes/murals depicted folklore, religious themes, and cultural motifs in vibrant colours.
Key Architectural Elements - Calligraphy in Gurmukhi	Calligraphic inscriptions in Gurmukhi script emphasized cultural and religious identity while enhancing artistic appeal.
Reasons/Needs - Cultural Renaissance	Celebrating Sikh heritage and fostering artistic expression through innovative architectural designs.
Reasons/Needs - Durability and Grandeur	Use of durable materials (stone, marble) symbolized strength and prosperity, reflecting the region's stability.
Reasons/Needs - Community and Religious Identity	Internal courtyards and inscriptions created spaces for social and spiritual gatherings, emphasizing community values.
Reasons/Needs - Innovation and Aesthetic Appeal	Coloured glass windows, intricate carvings, and pietra dura work demonstrated advanced craftsmanship and creativity.
Source: Kaur, R. (2018), Singh, J. (2017).and et. All and Author	

4.3.5. Under the British Rule (1849–1947):

During the British colonial period, Amritsar underwent significant transformations as Western architectural styles and building regulations reshaped the city's urban fabric. The colonial administration prioritized infrastructure development, constructing roads, railways, and public buildings that became key regional landmarks (Figure 4.12) This

era introduced a new architectural language that blended European aesthetics with local traditions, profoundly influencing the city's built environment (Sharma, 2019).

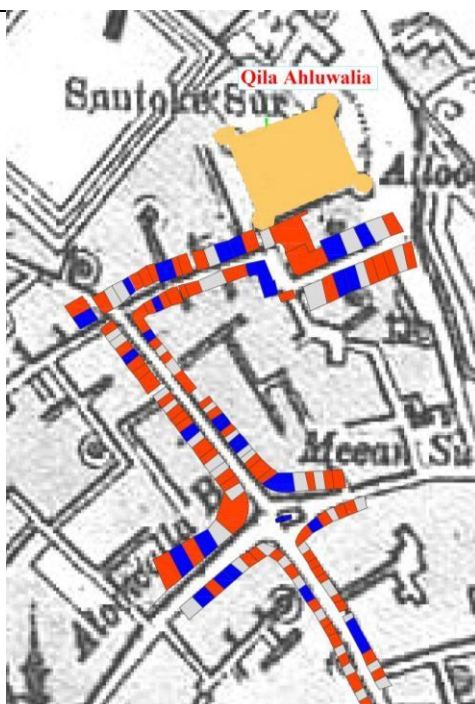
Architectural Styles: The period's architectural styles incorporated elements of Victorian Gothic, Neo-Classical, and Indo-Saracenic designs.

Victorian Gothic: Featured prominently in churches and institutional buildings, this style emphasized pointed arches, ribbed vaults, and stained glass windows, creating grandeur and vibrant interiors.

Neo-Classical: Inspired by Classical Greek and Roman architecture, it highlighted grandeur and symmetry, employing columns, pediments, and formal layouts.

Indo-Saracenic: This hybrid style fused Indian and European elements, integrating domes, minarets, and Mughal motifs with Victorian embellishments, resulting in a distinct and eclectic aesthetic (Sharma, 2019). The influence of these styles was prominent in Katra Ahluwalia and nearby areas, where colonial façades and arcades shaped shop-houses. Public buildings such as post offices, schools, and administrative offices adopted similar aesthetics and became important civic landmarks. Colonial construction introduced modern materials and methods by combining brick and stucco with iron and steel, transforming Amritsar's architectural character (Kaur, 2020).

Figure 4.12: Development During The British Period (1870-1947)



Source: Hriday Report And Author

The British colonial period left a profound mark on Amritsar's architectural landscape (Table 4.7). The fusion of Western styles with local elements and advancements in materials and techniques created a legacy that continues to define the city's character today (Sharma, 2019, Kaur, 2020).

Table 4.7: Evolution of Architectural Styles and Influences at Katra Ahluwalia Under the British Rule (1849–1947)	
Details	Key Insights
Historical Context	British administration introduced Western architectural styles, reshaping Amritsar's urban fabric.
Infrastructure Development	Construction of roads, railways, and public buildings became key colonial landmarks.
Architectural Style - Victorian Gothic	Prominent in churches and institutional buildings with pointed arches, ribbed vaults, and stained glass windows.
Architectural Style - Neo-Classical	Focused on grandeur and symmetry with columns, pediments, and symmetrical layouts inspired by Greek and Roman architecture.
Architectural Style - Indo-Saracenic	Hybrid style blending Indian elements (domes, minarets, Mughal motifs) with Victorian embellishments.
Architectural Influence in Katra Ahluwalia	Colonial facades and arcades were incorporated into commercial buildings in Katra Ahluwalia, blending functionality with decorative appeal.
Materials and Techniques - Traditional Materials	Brick and stucco remained in use, supporting traditional construction practices.
Materials and Techniques - Modern Materials	Introduction of iron and steel enabled stronger supports and intricate decorative railings/frameworks.
Materials and Techniques - Construction Techniques	Modern techniques improved durability and efficiency, marking a shift from traditional methods.
Key Architectural Elements - Victorian Gothic	Pointed arches, ribbed vaults, and stained glass windows characterized institutional and religious buildings.
Key Architectural Elements - Neo-Classical	Columns, pediments, and symmetrical layouts were features of administrative and public buildings.
Key Architectural Elements - Indo-Saracenic	Domes, Mughal motifs, and minarets integrated into public buildings and railway stations.
Key Architectural Elements -	Commercial buildings featured colonial design with arcades

Shop-Houses with Arcades	and decorative facades.
Reasons/Needs - Governance and Administration	Functional and symbolic public buildings supported colonial governance.
Reasons/Needs - Economic Growth	Commercial buildings in Katra Ahluwalia supported trade and business activities.
Reasons/Needs – Modernization	Adoption of Western styles and materials symbolized modernization and efficiency.
Reasons/Needs - Cultural Integration	Indo-Saracenic architecture blended Indian and Western elements, reflecting hybridization.
Legacy	Fusion of Victorian Gothic, Neo-Classical, and Indo-Saracenic styles transformed Amritsar's architectural identity.
Source: Kaur, R. (2018) Punjab Heritage & Culture Journal; Singh, J. (2017) Journal of Historical Urbanism.	

4.3.6 Post-Independence Period (1947–1994)

The post-independence period brought significant changes to Katra Ahluwalia, deeply influenced by the Partition of India in 1947. The massive migration of people during Partition led to acute housing shortages and rapid urbanization in Amritsar. This transition toward modernization introduced new construction practices to accommodate the growing population, reshaping the architectural character of Katra Ahluwalia (Singh, 2019).

Architectural Styles and Modernization: The architectural styles of this period were heavily influenced by modernism, emphasizing functionality and practicality. Modernist designs focused on efficient space utilization, minimalism, and simplified forms. Straight lines, flat roofs, and a lack of decorative elements, reflecting a departure from traditional ornamentation, characterized buildings. Modern materials such as reinforced concrete, steel, and glass facilitated rapid construction, addressing the needs of a burgeoning urban population (Kaur, 2020).

However, these trends significantly impacted the traditional architecture of Katra Ahluwalia. Many historic buildings were altered or demolished for new developments, often sacrificing architectural heritage (Figure 4.13). Vertical expansion became common, with additional floors added to existing structures without regard for their original aesthetics, leading to a loss of the neighbourhood's cohesive architectural character (Singh, 2019).

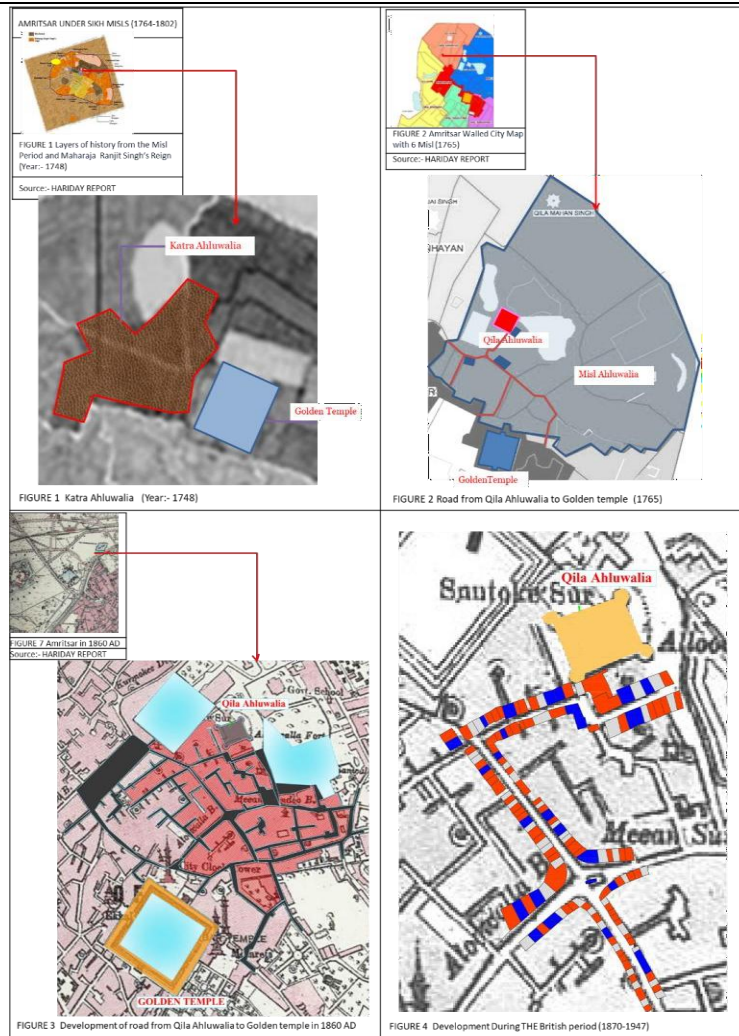
Challenges and Decline of Traditional Craftsmanship: The post-independence era saw a decline in traditional craftsmanship. The demand for skilled artisans diminished as industrialized construction methods took precedence. Encroachment and commercialization in historic areas like Katra Ahluwalia disrupted the neighbourhood's historical integrity, further challenging conservation efforts (Kaur, 2020).

Residual Influence of Earlier Styles: Despite modernization, elements of earlier architectural styles remain visible in Katra Ahluwalia.

- **Islamic Architecture:** Features such as pointed arches, modest domes, intricate jaalis (lattice screens), abstract motifs, calligraphy, and geometric patterns are evident in religious and residential structures.
- **Rajputana Influence:** Domed chhatris, carved jharokhas, and intricate stone and wood carvings highlight Rajput emphasis on social and climatic considerations, particularly in havelis with central courtyards.
- **Fusion of Styles:** The blending of Sikh, Mughal, and Rajput elements created a distinctive identity. Mughal symmetry and proportion balanced with Sikh simplicity and Rajput grandeur, while decorative motifs reflected the cultural ethos of the area (Singh, 2019).

Influence of Colonial Architecture: Colonial architectural styles—particularly Victorian Gothic, Neo-Classical, and Indo-Saracenic—left a pronounced imprint on Amritsar's built environment. Public and commercial buildings incorporated Victorian Gothic features such as pointed arches, ribbed vaults, and traceried windows; Neo-Classical symmetry expressed through pediments, colonnades, and proportioned façades; and Indo-Saracenic elements including domes, chhatris, cusped arches, and ornamental stonework, creating a hybrid vocabulary that blended European engineering with Indian aesthetics (Kaur, 2020). This synthesis not only reshaped civic landmarks such as town halls, schools, railway structures, and institutional complexes but also influenced the architectural language of market streets and commercial frontages.

The post-independence period marked a notable shift away from traditional practices as concrete construction and commercial pressures dominated urban development agendas. Despite the gradual erosion of historic fabric, the remaining colonial and indigenous elements emphasize the need for systematic conservation to protect the cultural identity and heritage of Katra Ahluwalia amid rapid change (Singh, 2019; Kaur, 2020).

Figure 4.13: Evolution Of Katra Ahluwalia

Source: Kaur, R. (2018), Singh, J. (2017).and et. All and Author

4.4 Tangible Heritage of Katra Ahluwalia

The tangible heritage of Katra Ahluwalia embodies the layered evolution of Amritsar's historic core, where urban form, materials, and building traditions intersect with socio-cultural life. This section examines the material, spatial, and typological attributes that define the precinct's fabric, tracing their transformation across historical periods. It considers the urban morphology of katra, chowks, and bazaars, the typologies of havelis and shop-houses, the use of traditional materials such as Nanakshahi bricks, lime, and timber, and the role of decorative vocabularies like frescoes, stucco, and jalisi. Public realm elements, including gates, wells, and drainage systems, are also addressed, alongside contemporary conservation interventions in the Town Hall–Golden Temple corridor (ADA, 2010; CRCI, 2015; INTACH, 2010).

4.4.1 Urban Morphology (Katra–Chowk–Bazaar Logic)

The katra pattern is characterized by gated cul-de-sac precincts with controlled entries, inward-looking lanes, and defensible spatial depth. Katra Ahluwalia originated as the residential–commercial nucleus of the Ahluwalia misl near the Golden Temple (CRCI, 2015; Grewal, 1998).

Chowks and bazaar streets functioned as nodal squares and linear markets, concentrating trade and movement along the Town Hall–Golden Temple axis—now formalized as the Heritage Street pedestrian corridor (INTACH, 2016; ADA, 2010). Municipal anchors such as the Town Hall (now Partition Museum), Jallianwala Bagh, and the Golden Temple create a compact cultural core, making streets and chowks inseparable from civic memory (Partition Museum Trust, 2017; CRCI, 2015).

4.4.2 Period-wise Evolution (Material & Form)

a) Guru/Mughal–Early Sikh (16th–18th centuries):

- Material palette included Nanakshahi (lakhori) bricks, lime mortar, timber beams, and lime plaster finishes. Surface modeling was applied to cornices, pilasters, and jalis (INTACH, 2010; ASI, 2012).
- Urban form: compact kattras with narrow lanes and courtyard houses for climate control and defense (ADA, 2010).

b) Misls & Maharaja Ranjit Singh (18th–19th centuries):

- Amritsar was consolidated under the Sikh Misls and expanded by Maharaja Ranjit Singh. Jassa Singh Ahluwalia as a fortified residential-commercial enclave (Grewal, 1998) established Katra Ahluwalia.
- Residential havelis displayed carved wooden balconies (jharokhas), painted interiors, and fresco ornamentation (CRCI, 2015).

c) Colonial Period (1849–1947):

- Hybrid facades combined arches with stucco pilasters, cast-iron railings, and arcaded shopfronts. Selective street widening was introduced near Town Hall to accommodate vehicular traffic (Punjab Gazetteer, 1883–84; INTACH, 2010).

d) Post-Independence (1947–present):

- Rapid commercialization introduced RCC slab replacements, vertical accretions, and aluminum cladding.
- The Heritage Street Project (2016) pedestrianized and re-façaded over 170

shopfronts between Town Hall and the Golden Temple, reintroducing a “historic” material vocabulary with Nanakshahi brick and wooden details (INTACH, 2016; ADA, 2010).

4.4.3. Building Typology

Havelis and Courtyard Houses: These were built with load-bearing brick walls, central courtyards for light and ventilation, timber joist roofs, carved balconies, and otlas (raised plinths) articulating thresholds (CRCI, 2015; INTACH, 2010).

Shop-houses and Godowns: Typical structures consisted of a ground-floor shop with storage above, with continuous frontages forming a unified bazaar wall. Colonial interventions introduced arcaded facades (HUDCO, 2012).

Civic and Institutional Fabric: The Town Hall, now the Partition Museum, and Jallianwala Bagh serve as civic anchors, functioning as both material heritage and carriers of commemorative functions (Partition Museum Trust, 2017; Ministry of Culture, 2021).

4.4.4. Materials & Decorative Elements

Nanakshahi bricks (lakhori): thin modular units, historically used for cornices, decorative bands, and façade cladding. They were re-employed in the Heritage Street facelift to visually the traditional aesthetics (ASI-2012, INTACH-2016)

- Lime mortar and plaster: compatible with historic brickwork, ensuring breathability and plastic modeling of details (INTACH, 2010).
- Timber: beams, brackets, balcony frames, and jharokhas (CRCI, 2015).
- Cast iron/steel (colonial): railings, canopies, and market structures introduced during the British era (Punjab Gazetteer, 1883–84).

Decor and Ornament: Frescoes and mural panels (floral and geometric), stucco relief, perforated jalis, and projecting cornices dominated Sikh and colonial phases. Colonial motifs hybridized stucco with classical orders (INTACH, 2010; CRCI, 2015).

4.4.5. Structural Adaptations across Eras

- Defensive khatras: Thick perimeter walls, gated entries, and blind turns provided security during unstable political periods (CRCI, 2015).
- Vertical accretions: Havelis expanded vertically to accommodate joint families, later giving way to RCC slabs and ad-hoc additional floors for commercial use post-1947 (HUDCO, 2012; ADA, 2010).

- Shopfront modifications: Timber shutters were replaced with iron grilles and aluminum facades. The Heritage Street Project attempted façade regularization to recover coherence (INTACH, 2016).

4.4.6. Public Realm & Infrastructure Elements

- Gates and wells: Lohgarh Gate remains a symbol of defense and resilience, while wells historically provided community water supply (INTACH, 2010).
- Drainage and paving: Narrow lane sections included surface drains; recent conservation upgraded paving, lighting, and underground cable management to prioritize pedestrian use (INTACH, 2016; ADA, 2010).

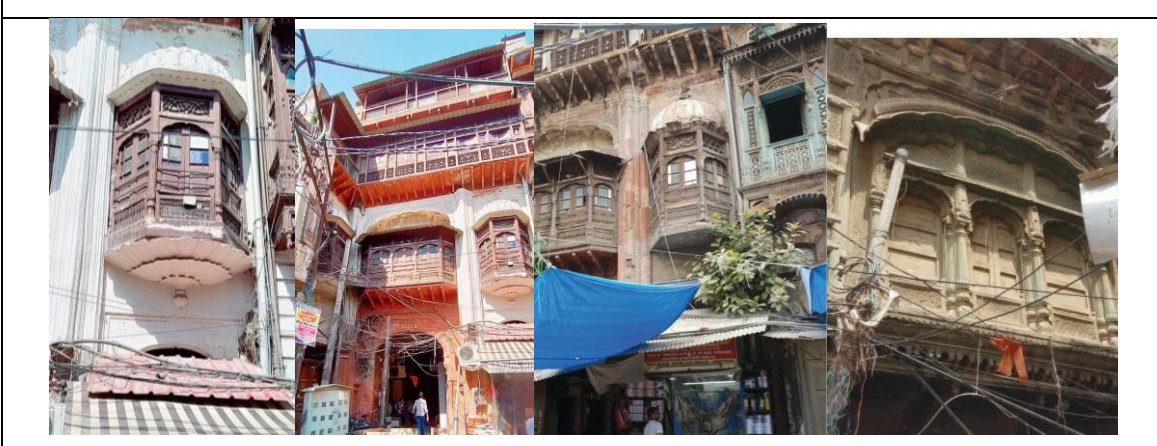
Katra Ahluwalia's tangible heritage—its katra layout, chowks, havelis, shop-houses, Nanakshahi brickwork, and landmarks—forms the spatial foundation for intangible traditions, demonstrating how space and cultural practice co-produce Amritsar's living heritage (INTACH, 2010, CRCI, 2015, UNESCO, 2011).

4.5 Influences of architectural character at Katra Ahluwalia

4.5.1 Islamic and Rajputana Architectural Influences in Katra Ahluwalia

Islamic architectural influence significantly shaped the design ethos of Katra Ahluwalia, particularly during its formative years. Key features included pointed and multi-cusped arches and modest domes, prominently seen in religious and public buildings (Figure 4.14). Jaalis (intricate wooden or stone lattice screens) served both functional and aesthetic purposes by providing ventilation and privacy while enhancing visual appeal. Abstract motifs, including calligraphy and geometric patterns, were common in decorative elements, leaving a lasting aesthetic impact on arches, doorways, and windows (Ansari, 2018).

Figure 4.14: Jharokha(overhanging balcony)



Rajputana architectural elements further enriched Katra Ahluwalia's built environment. Domed chattris crowned rooftops and gateways, while intricately carved jharokhas enhanced façades with floral, geometric, and mythological motifs. Rajput-inspired courtyard planning, central to havelis, provided social and climatic advantages, particularly in wealthy merchants' residences, contributing to the decorative richness of both façades and interiors (Sharma, 2020).

4.5.2 Fusion of Sikh, Mughal, and Rajput Architectural Elements

The fusion of Sikh, Mughal, and Rajput architectural elements created a distinctive and cohesive vernacular identity for Katra Ahluwalia. This syncretism blended Mughal symmetry and proportion with Sikh simplicity and Rajput grandeur. Decorative motifs, including religious symbols like the Khanda, floral patterns, and geometric designs, were integrated into the architecture of gurdwaras, residential buildings, and communal spaces, reflecting cultural and religious significance (Kaur, 2021).

4.5.3 Colonial Influence on Katra Ahluwalia

Colonial rule introduced Victorian Gothic, Neo-Classical, and Indo-Saracenic styles to Katra Ahluwalia, particularly in public and commercial buildings (Figure 4.15). Victorian Gothic showcased pointed arches, ribbed vaults, and rich ornamentation, while Neo-Classical forms emphasized grandeur through columns, pediments, and symmetry. Indo-Saracenic architecture blended domes, minarets, and cusped arches with European structural vocabulary, creating hybrid expressions that balanced colonial aesthetics with local traditions (Kumar, 2019).

Figure 4.15: Colonial Influence



4.5.4 Post-Independence Modernism

Post-independence modernism promoted functional, minimalist design with simple forms, flat roofs, and minimal ornamentation, relying on concrete, steel, and glass for rapid urban construction(Figure 4.16). This shift, however, led to the loss and alteration of heritage structures and increased vertical growth, reducing original character. Traditional craftsmanship declined as urban pressures and commercialization eroded architectural heritage (Singh, 2020).

Figure 4.16: Modern Developments In Katra Ahluwalia



Documenting tangible heritage is essential because it provides a framework for understanding urban identity and spatial organization. The use of materials such as Nanakshahi bricks, lime plaster, carved wood, and marble, along with elements like arches, domes, jaalis, and frescoes, illustrates the continuity of local craftsmanship while also revealing external influences (Kaur, 2018; Singh, 2020).

The following Table 4.8 categorizes these tangible elements systematically—covering monumental, residential, commercial, and public architecture, as well as materials and ornamentation. This classification creates a foundation for analyzing architectural evolution and highlights the significance of preserving not only iconic monuments but also everyday urban fabric.

At the same time, it is important to recognize that the physical form of heritage gains its meaning through intangible associations. Courtyards become vibrant through family rituals, chowks transform into stages for festivals and performances, and city gates embody collective memory of resilience. Thus, tangible and intangible heritage must be

studied together as part of a heritage continuum, where the tangible provides the structure and the intangible sustains its life and meaning (UNESCO, 2003; Jain, 2015).

Table 4.8 :Tangible Elements of Architecture

Category	Elements in Katra Ahluwalia	Description / Elaboration	Illustration
Monumental Structures	Gates, watchtowers, shrines	Hall Gate and minor entry gates; small shrines integrated within katras; historic chowk landmarks.	
Residential Typologies	Havelis, courtyard houses	Multi-storeyed havelis with carved balconies, jaalis, otlas (raised plinths); central courtyards for light/air.	
Commercial Typologies	Shops, bazaars, godowns	Narrow shopfronts on ground floor, godowns for storage, continuous bazaar activity along axial streets.	
Public / Community Spaces	Chowks, communal wells, katras (clustered enclosures)	Chowks as nodes of social/religious gatherings; wells for shared water supply; katras functioning as secure clusters.(Jalebi wala chowk in Amritsar (Punjab),India- 1908.	
Street Morphology	Narrow winding lanes, cul-de-sacs, bazaar streets	Organic street network for defense and climate comfort; katras with enclosed access; bazaars with linear trade. (Author)	

Construction Materials	Nanakshahi bricks, lime plaster, wood, stone	Predominant Nanakshahi brick masonry, lime mortar/plaster, carved timber balconies and brackets.	
Architectural Features	Arches, domes, jharokhas, jaalis, balconies, cornices	Islamic arches, Sikh domes, projecting wooden jharokhas, iron balconies, ventilated jaalis. (@Travelling Camera)	
Art & Ornamentation	Frescoes, murals, stucco motifs, carved woodwork	Wall paintings with floral motifs, stucco panels, wooden brackets with intricate carving.	
Infrastructure Elements	Wells, drainage channels, fortified entry points	Wells within katra, traditional drainage in lanes, fortified entry gates.(An old well - Picture from kila Ahluwalia)	
Civic / Institutional	Dharamshalas, sarais (inns), small community schools	Dharamshalas for travelers, sarais for pilgrims, local schools integrated in katra courtyards.	

Source: INTACH Amritsar (2010), CRCI Heritage Management Plan (2015), HRIDAY–Amritsar City Report (2017), and Author’s Field Survey (2022–2024) and Author.

4.5.5 Structural Adaptations across Eras

Structural elements adapted to meet changing needs. Defensive walls and narrow streets characterized the Period of Anarchy, while courtyards in havelis provided spaces for social interaction and climate control during the Sikh and Rajput periods. Arches and domes, influenced by Islamic and Mughal styles, added elegance and strength to buildings. During the colonial era, columns and pediments, hallmarks of Neo-Classical architecture, were integrated. Post-independence development emphasized vertical expansion, often leading to multi-story buildings that diverged from the area’s historic

architectural ethos (Sharma, 2020).

4.6 Katra Ahluwalia as a Prototype of Amritsar's Evolution

This synthesis of styles, materials, and techniques reflects Katra Ahluwalia's architectural evolution, from its spiritual and defensive origins to its modern transformations, highlighting a dynamic interplay of tradition, innovation, and cultural identity.

Katra Ahluwalia represents a sample of Amritsar's historical and cultural evolution, reflecting centuries of architectural innovation and socio-political change. From its roots in the Guru Period, emphasizing simplicity and community, to the resilience shown during the Period of Anarchy, its structures embody the values and challenges faced by its inhabitants. The golden age under the Sikh Misls and Maharaja Ranjit Singh saw a fusion of Sikh, Mughal, and Rajput styles, with grand havelis, intricate carvings, and symbolic motifs showcasing unparalleled craftsmanship. The British colonial era introduced Western architectural influences, enriching the built environment with Victorian Gothic, Neo-Classical, and Indo-Saracenic elements (Table 4.9). However, post-independence modernization brought significant changes, with functionalist designs replacing traditional aesthetics and urban pressures threatening heritage structures (Kaur, 2021).

Katra Ahluwalia's heritage value lies in its architectural diversity and cultural significance, serving as a repository of Amritsar's historical identity. As a living legacy, its conservation requires balancing heritage conservation with sustainable development, ensuring its rich history and cultural ethos endure for future generations (Singh, 2020).

The Historic and Architectural Evolution of Katra Ahluwalia, Amritsar, Presented in Tabular Format:

Table 4.9: Evolution of Architectural Styles and Influences at Katra Ahluwalia			
Period	Context	Architectural Styles and Features	Materials and Techniques
Guru Period (1577–1628)	Foundation of Amritsar by Guru Ram Das.	Sikh vernacular architecture: simple, functional structures. Islamic influence: pointed arches, small domes, jaalis (lattice screens). Flat roofs, internal courtyards for social interaction and climatic comfort.	Mud bricks and timber. Lime plaster for smooth finishing. Basic woodwork for doors and windows.

Period of Anarchy (1628–1765)	Mughal-Sikh conflicts caused instability. Destruction and reconstruction of buildings.	Defensive architecture: fortified walls, gated entrances, narrow streets for defence. Continued Islamic influence with minimal ornamentation.	Nanakshahi bricks for resilience. Functional construction to prioritize security and durability.
Under Sikh Misls (1764–1802)	Establishment of Katra Ahluwalia by Jassa Singh Ahluwalia. Peace allowed architectural development.	Fusion of styles: Sikh, Mughal, and Rajput elements. Rajputana influence: chattris, jharokhas, carved stone and woodwork. Mughal influence: multifoil arches, symmetry. Sikh symbols like Khanda in decoration. Central courtyards for communal spaces.	Nanakshahi bricks and lime mortar. Elaborate wooden elements: jharokhas, brackets, beams, and arches. Use of carved wooden panels and decorative features.
Under Maharaja Ranjit Singh (1802–1849)	Unified Sikh Empire under Ranjit Singh. Prosperity led to advancements in architecture.	Enhanced fusion of Sikh, Mughal, and Rajput styles. Frescoes and mural paintings depicting religious and cultural themes. Ornate havelis with spacious courtyards. Decorative motifs: floral and geometric patterns.	Increased use of stone and marble. Wooden jharokhas, stained glass windows. Detailed carvings on wooden doors, columns, and arches.
Under British Rule (1849–1947)	Colonial governance brought European architectural styles. - Infrastructure development (railways, roads).	Victorian Gothic: pointed arches, ribbed vaults, stained glass windows. Neo-Classical: columns, pediments, symmetrical layouts. Indo-Saracenic: domes, minarets blended with European designs. Commercial buildings with arcades and colonial façades.	Brick and stucco construction. Use of iron and steel in structural elements. Introduction of modern construction materials.
Post-Independence Period (1947–1994)	Partition brought migration and rapid urbanization. Unplanned development altered historic fabric.	Modernism: functional, minimalistic designs. Simplification of forms: flat roofs, plain façades. Vertical expansion of buildings to accommodate population growth. Loss of traditional ornamentation.	Reinforced concrete and steel. Use of synthetic materials like cement and modern paints. Decline in traditional woodwork and craftsmanship.
Source: Kaur, R. (2018), Singh, J. (2017).and et. All and Author			

4.7 Spatial and Socio-Economic Setting of Amritsar

4.7.1 Regional Setting and Connectivity

Amritsar lies between 31°29'–32°03' N and 74°29'–75°23' E in Punjab's Majha region. It is Punjab's third-largest border district, this strategic location constrains northwest growth yet attracts millions of religious and heritage tourists annually. Amritsar functions as the state is cultural, educational, and industrial hub, housing - 25,000 textile, carpet, and food-processing units and major institutions such as Guru Nanak Dev University and Khalsa College (Table 4.10).

Connectivity is ensured through NH-1 & NH-15, three state highways, dense rail links, and Sri Guru Ram Dass Jee International Airport.

Table 4.10: Distribution of Urban Population in Major Towns of Amritsar District

Name	Urban Population	%age to Population	District
Amritsar District	11,10,811		-
M. Corp. Amritsar *	10,16,079		91.50%
Jandiala M. Cl	23,834		2.14%
Rayya N.P.	12,631		1.14%
Majitha M. Cl	12,992		1.17%
Rajasansi N.P.	12,176		1.10%

Source: Census of India, 2001

4.7.2 Physiography and Environment:

Amritsar lies in the Punjab Upland Plain, a shallow alluvial basin (175–200 m) between the Ravi and Beas rivers. Its terrain includes the Upland Plain, Beas Bluff, and Sutlej Floodplain, with soils from loamy *maira* to sandy *tibba* (ADA 2010). The climate is continental, ranging from 2°C to 47°C, with ~700 mm annual rainfall. Biodiversity is mainly preserved in Rakh Bhusian Forest and the green corridor along the Upper Bari Doab Canal, identified for ecological protection (CRCI 2015).

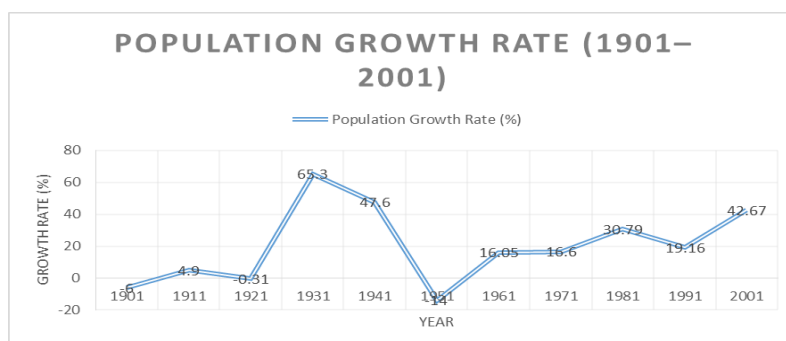
4.7.3 Demographic Profile and Population Trends

As of 2001, Amritsar Municipal Corporation (Map 4.1) housed 1.02 million people (91 % of urban population). Historic records show rapid expansion until 1947, deceleration post-Partition, and revival after 1990 with the fastest growth (42.7 %) among Punjab's Class I cities (ADA 2010).

Average density $\approx 7,100$ persons/km²; twelve walled-city wards exceed 300 persons/ha. The core walled city (2.5 % of municipal area, 15 % of population) accounts for over

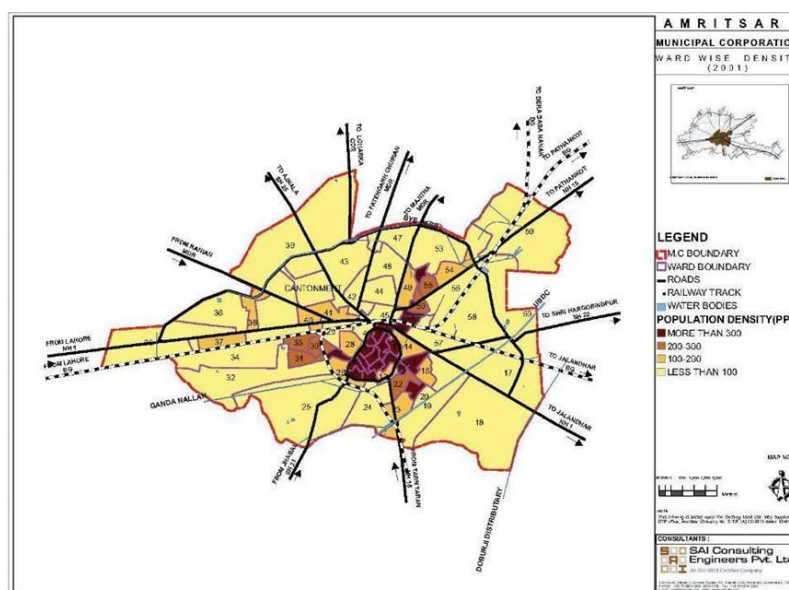
half of Amritsar's high-density zones, causing infrastructure stress (Table 4.11).

Table 4.11: Population Growth of Municipal Corporation Amritsar



Source: Census of India, Historical Population Series (1901-2001).

Map 4.1: Amritsar Map with ward wise density



Source: Master Plan, Amritsar Development Authority, 2010.

4.8 Urban Growth, Land Use, and Economic Profile

4.8.1 Land Use and Physical Growth

According to the Existing Land Use Plan (2010), about 58.5% of the municipal area is built-up (Figure 4.17), while 41.5% remains agricultural or vacant (Map 4.2). At the LPA scale, agriculture is predominant at approximately 84%, with residential and traffic uses each accounting for around 2% (Table 4.12).

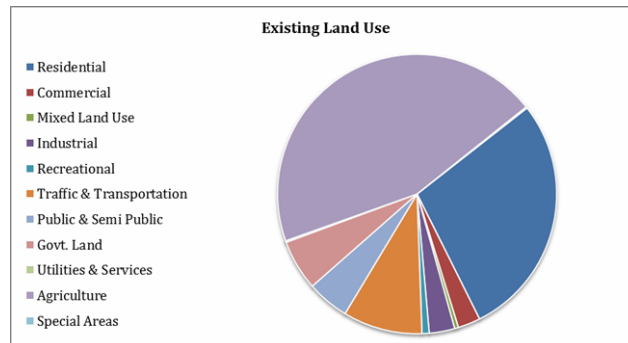
Table 4.12: Demographic Trend, Annual Growth Rate and Population Density in Amritsar

Category of the Settlements	Total Population		Growth Rate		Population density (no. of persons/sq.km)		
	1981	1991	2001	1901	1981	1991	2001

Amritsar (MC)	5,94,844	7,08,835	10,16,07	19,16,42	5,173	6,163	7,137

Source: Census of India, 2001

Figure 4.17: Percentage of LPA area covered in existing Land-use Plan 2010



Source: Master Plan, Amritsar Development Authority, 2010.

4.8.2 Urban Growth, Land Use, and Economic Profile

Open/green areas cover only 0.88 % of the city (ideal 15–20 %).(map 4.2)

The walled city hosts 56 % of high-density zones yet contains minimal public open space; courtyards and chowks therefore function as shared neighbourhood lungs (HRIDAY 2016).

Map 4.2: Mapping of open/ green/ vacant spaces in the walled city



Source: City Hriday plan – Amritsar, 2016.

4.8.3 Tourism and Cultural Footfall

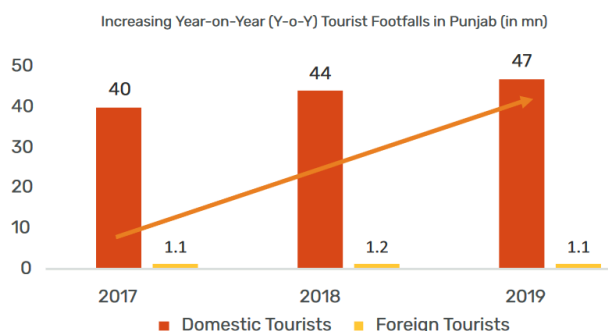
Amritsar is Punjab's most-visited city (Table 4.13) and with >30 million annual visitors (PHTPB 2019). The Golden Temple, Jallianwala Bagh, and Partition Museum anchor religious and heritage tourism (Figure 4.18 and Figure 4.19) Heritage Street (2016) enhanced pedestrian infrastructure from Town Hall to Harmandir Sahib, though its “theme-set” façades raise debates on authenticity (INTACH 2016).

Table 4.13: Year-wise number of tourist per year.

Sr. No	Year	Domestic	Foreign	Total
1	2015	2,57,96,361	2,42,367	2,60,38,728
2	2016	3,87,03,325	6,59,736	3,93,63,061
3	2017	4,02,93,352	11,08,635	4,14,01,987
4	2018	4,45,95,061	12,00,969	4,57,96,030
5	2019	4,73,85,387	11,01,343	4,84,86,730
6	2020	1,66,92,197	3,59,114	1,70,51,311
7	2021	2,66,40,432	3,08,135	2,69,48,567

Source: India Tourism Statistics, MoT, GoI

Figure 4.18: Top 5 Districts in Punjab to receive domestic tourists showing Amritsar at the top



Source: PHTPB www.punjabtourism.gov.in

Figure 4.19: Top 5 Districts in Punjab to receive foreign tourists



Source: PHTPB www.punjabtourism.gov.in

4.8.4 Economic and Occupational Structure

The Amritsar LPA (Figure 4.20) is tertiary-sector-dominated (77.9 %), with only 18 % in primary and 4 % in manufacturing (ADA 2010).

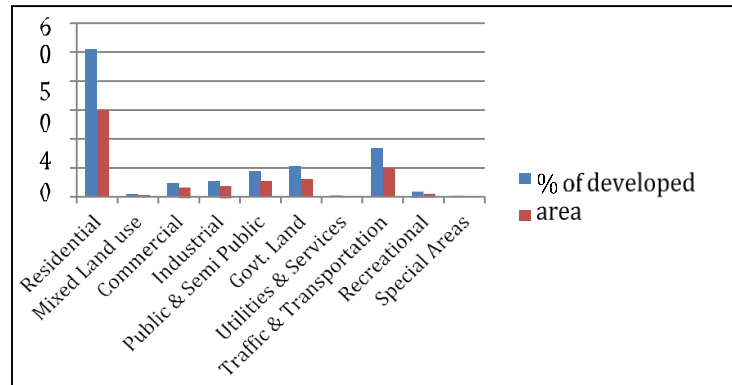
Within the city(as per Table 4.14), over 90 % work in trade, transport, hospitality, and services, supported by heritage-linked crafts such as phulkari, brassware, and durrie weaving (CRCI 2015).

Table 4.14: Percentage of working class

			Number of workers	% age	Number of workers	% age
(I) PRIMARY						
1	A & B	Cultivators	4,603	2.16	3,004	0.97
2		Agricultural labourers	12,405	5.81	6,213	2.02
3		Plantation, Livestock, Forestry, Fishing, Hunting and allied activities	1,398	0.65	3,023	0.98
4	C	Mining and Quarrying	9	0.00	212	0.07
(II) SECONDARY						
5(a)	D	Manufacturing processing and repairs industry	483	0.23	12,317	4.00
		(Household industry)				
5(b)		Manufacturing processing and repairs than Household) industry (Other	660,678	28.43	67,632	21.94
	E	Electricity, Gas and Water Supply			3,592	1.17
6	F	Constructions	6,957	3.26	20,989	6.81
(III) TERTIARY						
7	G	Whole sale and Retail trade	64,730	30.32	79,033	25.64
	H	Hotels and Restaurants			4,073	1.32
8	I	Transport, Storage and Communications	15,903	7.45	24,595	7.98
9	J & K	Real estate activities Renting and Business	46,293	21.69	19,814	6.43
	L to Q	Public Administration and Defence; Compulsory Social Security; Education; Health and Social Work; Other Community, Social and Personal Service Activities; Private Households with Employed Persons; Extra- Territorial Organisations and Bodies.			63,700	20.67
		Total	2,13,459	100.00	3,08,197	100.00

Source: Master Plan – Amritsar, Notified April 29, 2011, pg. 362

Figure 4.20: Percentage (bar chart) of LPA area covered in existing Land-use Plan 2010



Source: Master Plan, Amritsar Development Authority, 2010.

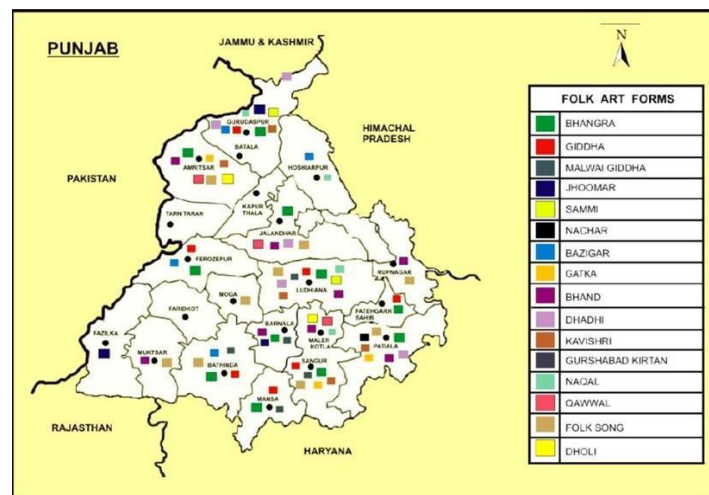
4.8.5 Synthesis: Implications for Heritage Conservation

High population densities, scarce open spaces, and commercial pressures have intensified stress on the historic core. However, tourism and service growth offer opportunities for heritage-led regeneration, linking Katra Ahluwalia's tangible and intangible assets with Amritsar's urban economy (HRIDAY 2016; INTACH 2015).

4.9 Intangible Heritage

Under UNESCO's 2003 Convention, intangible heritage refers to living traditions, rituals, social practices, and craftsmanship passed through generations (map 4.3). In Amritsar's walled city, particularly Katra Ahluwalia, these practices coexist with the historic built fabric, sustaining its identity as a living heritage precinct (CRCI 2015; INTACH 2010). The following sections describe these traditions according to following categories.

Map 4.3: Spread of ICH Practitioners of oral traditions and performing arts in Punjab.



Source: CRCI, 2015.

Ritual activity forms the spiritual backbone of daily life in Katra Ahluwalia. The langar (community kitchen) at the Golden Temple continuously feeds between 50,000 and 100,000 people per day—one of the world’s largest expressions of collective service - seva (UNESCO 2003; Golden Temple Trust 2023). Devotional recitations such as Ardaas and Kirtan extend beyond shrine interiors into adjoining streets and chowks, transforming civic space into sacred terrain. Nagar Kirtans—processions celebrating Sikh Gurus—symbolically unite tangible routes and spiritual experience, affirming the city’s inclusive ethos (CRCI 2015).

4.9.1 Festivals and Celebrations

Seasonal and religious festivals animate the precinct through colour, music, and food. Baisakhi marks both the agrarian harvest and the founding of the Khalsa; Lohri and Maghi celebrate mid-winter renewal; Diwali illuminates the Golden Temple complex; and Hola Mohalla revives martial traditions through Gatka performances (PHTPB 2016). Folk dances—Bhangra, Giddha, Jhumar, and Sammi—and festive cuisines such as sarson da saag and makki di roti reinforce bonds between domestic life, urban form, and collective memory (Singh 2014).

4.9.3 Oral Traditions and Community Memory

Katra Ahluwalia functions as a repository of oral culture. Folk songs (lok geet, boliyan, tappes), epic narratives (kisseh), and kavishri recitations convey themes of devotion and heroism (CRCI 2015). Storytelling has preserved local histories—from Guru Ram Das’s founding legend to Partition narratives that displaced artisan families. The Partition Museum at Town Hall embodies these memories in tangible form, illustrating how architecture serves as a vessel for intangible remembrance (ADA 2011).

4.9.3 Performing Arts and Social Practices

Performative traditions thrive in public courtyards and chowks. Bhangra and Giddha dominate festive gatherings, accompanied by the dhol, algoza, chimta, sarangi, and iktara (INTACH 2010). Folk-theatre forms such as Naqal Shaili and Bhand interweave satire with social critique. Everyday social customs—wedding ceremonies in courtyards, bargaining in bazaars, evening storytelling—infuse mundane urban life with cultural continuity, linking architecture to lived experience.

4.9.4 Crafts, Knowledge and Skills

Craftsmanship remains a defining aspect of Amritsar’s intangible wealth (Table 4.15).

Traditional arts include Phulkari embroidery, Bagh work, Tilla Jutti ornamentation, Thatera brass-copper metalwork (inscribed on UNESCO's ICH List 2014), terracotta pottery, lac turnery, and durrie weaving (IP India 2011; UNESCO 2014). Historically transmitted through the ustad–shagird apprenticeship system, these crafts integrated livelihood with cultural pride (CRCI 2015). Post-Partition migration disrupted guild networks, yet surviving families continue production with institutional support from HRIDAY and INTACH projects (ADA 2010).

Table 4.15: ICH assets of traditional craft forms in Amritsar

Craft category	Craft type
Needlework	Phulkari, Bagh, Tilla Jutti
Metalwork	Thatera, Sikligar, Judau
Woodwork	Chess, Wood and Lac turnery
Clay work	Pottery and Terracotta
Weaving	Durrie, Galeecha, Woolen Handloom
Accessories	Paranda, Nada/Nala
Natural Fibre	Straw and Bamboo

Source: CRCI, 2015.

4.9.5 Symbolic Meanings and Associations

Intangible heritage holds symbolic meaning: the Golden Temple reflects Sikh spiritual identity; gateways like Lohgarh signify defence; chowks represent social cohesion; and pilgrimage routes express continuity of faith (Table 4.16). These symbolic values endure even as the physical surroundings change (UNESCO 2011, ICOMOS 1999).

Table 4.16 – Catalogue of Intangible Elements of Katra Ahluwalia

Category	Elements	Elaboration / Examples	Illustration
Rituals & Religious Practices	Daily worship, pilgrimages, processions, langar tradition	Ardaas & kirtan at Golden Temple, nagar kirtans, langar feeding millions annually.	

Festivals & Celebrations	Religious festivals, fairs, community feasts	Baisakhi, Diwali at Golden Temple, Hola Mohalla, fairs in chowks.	
Oral Traditions	Legends, myths, folk tales, historical narratives	Guru Ram Das founding Amritsar, folk tales about wells, Partition stories.	
Performing Arts	Music, dance, drama, storytelling	Bhangra and Giddha in chowks, qisseh (epic ballads), street musicians.	
Community Memory	Shared experience partition memories cultural identity	Partition migration memory, neighborhood identity in katras.	
Social Practices & Customs	Bargaining traditions, communal gatherings, gendered space use	Bargaining in bazaars, mehndi in courtyards, gender divisions in spaces.	
Knowledge & Skills	Craft traditions, apprenticeship, oral knowledge transfer	Wood carving, weaving, fresco painting, oral training of artisans.	
Symbolic Meanings	Spiritual associations, identity, pride, resilience	Golden Temple as Sikh identity, Hall Gate as resilience marker.	

Intangible Associations	Sense of belonging, spirituality, cultural codes	Pilgrimage routes, ritualized streets, sacred wells.	
<i>Source:</i> CRCI 2015; INTACH 2010; ADA 2010) and Author.			

4.9.6 Supplementary Insights on Tangible–Intangible Heritage

- Nanakshahi Brick Symbolism in Heritage Revival

Nanakshahi bricks, ubiquitous in Sikh-era architecture, evoke authenticity and continuity. Their reinstatement in the Golden Temple Heritage Street conservation works re-connects material practice with collective memory.

- HRIDAY Scheme Interventions and Community Linkages

Under the HRIDAY (2015) program, Katra Ahluwalia was revitalized through façade improvement, signage, and craft promotion. The initiative merged physical conservation with intangible livelihoods, reinforcing heritage-based urban regeneration (INTACH 2010).

- Memory and Trauma Landscapes – Jallianwala Bagh

Commemorative rituals at Jallianwala Bagh transform a tangible memorial into an emotional landscape of collective mourning. Annual gatherings embody intangible remembrance, ensuring that trauma evolves into civic consciousness.

4.9.7 Synthesis: Living Heritage Continuum

The interdependence of rituals, festivals, crafts, and architecture situates Katra Ahluwalia within a living-heritage continuum. Tangible spaces—courtyards, chowks, katras—act as enduring containers for intangible practices, confirming that heritage in Amritsar is not static conservation but an evolving socio-cultural dialogue between place and people.

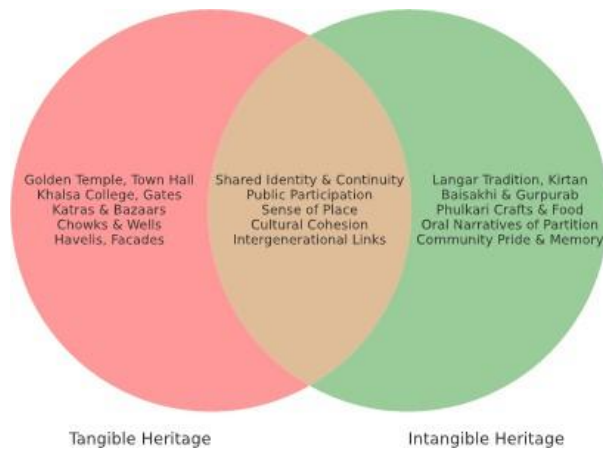
4.10 Tangible–Intangible Interlinkages

The built and cultural heritage of Katra Ahluwalia exist not as separate domains but as a continuum of lived space and collective practice. The walled-city morphology—its katras, chowks, courtyards, and bazaars—functions as the physical framework that sustains intangible traditions such as rituals, festivals, crafts, and oral performances.

Courtyards host weddings, mehndi ceremonies, and storytelling sessions; chowks

transform into stages for Bhangra and Kavishri recitals; katras retain guild memories of artisan lineages; and the Golden Temple precinct embodies faith through daily Ardaas and Langar rituals (Figure 4.21). Each tangible space thus carries layered social meanings that reinforce community identity and continuity (UNESCO, 2003; CRCI, 2015; INTACH, 2010).

Figure 4.21: Venn Diagram — “Living Heritage Continuum”



Source: INTACH Amritsar (2010), CRCI (2015), HRIDAY–Amritsar (2017), and Field Survey (2022–2024) and Author.

The interdependence of the physical and the cultural ensures that conservation of one cannot succeed without sustaining the other. Conservation, therefore, must address not only structural integrity but also the lived traditions that animate these environments.

Bridge to Analysis:

The documentation of tangible and intangible heritage in Katra Ahluwalia provides the empirical foundation for the analytical evaluation that follows. The patterns observed—spatial, social, and cultural—are interpreted in the next chapter through community perception data and statistical assessment (ANOVA), establishing correlations between the condition of heritage fabric and the vitality of living traditions.

4.11 Amritsar’s Cultural Life and Conservation Challenges

Amritsar’s calendar of festivals and cultural expressions keeps the city’s heritage in constant motion. Annual events such as Lohri, Baisakhi, Holi, Diwali, Guruparabs, and Hola Mohalla unite residents and visitors in shared rituals of faith and festivity. These occasions activate historic spaces—streets, katras, and temple precincts—transforming them into public theatres of devotion, music, and dance (PHTPB, 2016).

Cultural institutions and government initiatives—particularly the Punjab Heritage and Tourism Promotion Board (PHTPB), INTACH Amritsar Chapter, and the HRIDAY Programme (2015–18)—have attempted to integrate festival celebration, crafts promotion, and tourism with conservation. Yet, increasing commercialization of festivals, loss of open spaces, and declining artisanal livelihoods threaten authenticity.

New initiatives, such as the Bhangra Festival at heritage plazas and the International Sufi Music Festival, seek to re-energize Amritsar’s living traditions while drawing attention to the role of culture in urban regeneration.

Despite these efforts, sustaining cultural vitality requires consistent policies linking cultural heritage to urban development, ensuring that the living heritage of Amritsar remains inclusive and community-driven.

4.12 Conservation Context and Urban Dynamics

4.12.1 Urban Growth Impact

Rapid urbanization has reshaped the physical and social fabric of the walled city. Rising population densities, vertical construction, and expanding commercial activities have exerted pressure on fragile heritage structures. The replacement of lime-based materials with cement, coupled with ad-hoc repairs and signage clutter, compromises the authenticity of the historic skyline (HUDCO, 2011; ADA, 2010).

Pedestrianization projects such as Heritage Street (2016) have improved accessibility and aesthetics but have also raised debates on the balance between heritage conservation and themed redevelopment.

4.12.2 Socio-Cultural Dynamics

The city’s socio-cultural fabric is undergoing transformation. Migration, generational change, and new economic aspirations have weakened traditional custodianship of heritage. Artisan families face dwindling patronage, while younger generations seek employment outside craft traditions. Limited public awareness and inadequate coordination between civic bodies, NGOs, and community groups further constrain participatory conservation (INTACH, 2010; UNESCO, 2011).

4.12.3 Integrated Conservation Approach

Amritsar’s conservation strategy must therefore adopt a people-centred, inclusive framework that integrates physical restoration with cultural revitalization. Policies such as UNESCO’s Historic Urban Landscape (HUL, 2011) and HRIDAY (2015) emphasize

this dual objective—balancing tangible conservation with socio-economic empowerment. Strengthening local skills, supporting traditional crafts, and re-establishing the link between livelihood and heritage can transform the precinct from a static monument zone into a dynamic cultural ecosystem(Table 4.17).

Table 4.17: Summary of Key Challenges and Strategic Responses

Domain	Key Issues	Strategic Response
Tangible Fabric	Unplanned vertical growth; material incompatibility	Enforce heritage by-laws; promote lime-based restoration
Cultural Livelihoods	Decline in traditional crafts; loss of ustad–shagird system	Skill training through HRIDAY / INTACH craft centres
Public Spaces	Lack of open areas for festivals	Reclaim chowks and courtyards for cultural events
Awareness & Governance	Weak coordination among agencies	Establish Heritage Management Cell within Municipal Corporation

Source: INTACH Amritsar (2010), CRCI Report (2015), HRIDAY–Amritsar Plan (2017), and Field Observations (2022–2024) and Author.

4.13 Conclusions

4.13.1 Synthesis of Tangible and Intangible Heritage Evidence

The preceding analyses confirm that Katra Ahluwalia’s heritage is sustained through a continuous dialogue between its physical fabric and living traditions. The tangible layer—its katras, chowks, havelis, façades, and materials such as Nanakshahi brick and lime plaster—provides the architectural framework for community life. The intangible layer—rituals, oral traditions, crafts, and festivals—infuses these spaces with meaning and continuity.

Together, they form a living cultural ecosystem where built form and social practice are interdependent. Conservation, therefore, cannot be limited to façade repair or streetscape enhancement but must recognize the inseparable link between material authenticity and cultural vitality (UNESCO, 2003; INTACH, 2010; CRCI, 2015).

4.13.2 Katra Ahluwalia as a Living-Heritage Prototype

Katra Ahluwalia exemplifies the dynamics of a living heritage precinct within the walled city of Amritsar. Its spatial logic—gated katras, interactive chowks, and bazaar corridors—continues to shape social behavior and cultural exchange. Despite pressures of commercialization and modernization, the precinct still supports traditional crafts,

communal rituals, and vernacular spatial practices.

This resilience highlights Katra Ahluwalia's role as a prototype for understanding how tangible and intangible assets can coexist within contemporary urban growth. It offers lessons for integrating adaptive reuse, livelihood restoration, and participatory governance within historic cores (HRIDAY, 2016; UNESCO-HUL, 2011).

4.13.3 Integrated Conservation and Community Engagement

The findings underscore the necessity of integrated, people-centred conservation. Effective heritage management in Amritsar must align three dimensions:

1. Physical Conservation – protection and compatible repair of the built fabric using traditional materials.
2. Cultural Continuity – safeguarding rituals, crafts, and festivals through awareness and skill-transfer programs.
3. Community Participation – empowering residents, artisans, and institutions such as SGPC and INTACH to co-manage heritage resources.

This chapter established that Katra Ahluwalia is a living heritage precinct, shaped by the interplay between its tangible built environment and its intangible cultural traditions. The historic katra–chowk–bazaar urban pattern, havelis, shop-houses, Nanakshahi brick construction, and public spaces form the architectural framework of the area. These physical spaces continue to host rituals, festivals, oral narratives, folk music and dance, craft traditions, and shared community memory, giving the precinct its enduring cultural identity.

The study shows that built form and cultural practices are mutually dependent: courtyards support family and social rituals, chowks serve as performance and gathering spaces, and bazaar streets remain vital centers of exchange and interaction. However, pressures from commercialization, overcrowding, tourism-driven renovations, and the decline of craft livelihoods pose risks to both architectural authenticity and cultural continuity.

The chapter concludes that heritage conservation in Katra Ahluwalia must address both dimensions together—preserving material character while sustaining the cultural practices and community relationships that animate these spaces—so that the historic core of Amritsar remains authentic, meaningful, and alive.

CHAPTER 5

HISTORICAL AND ARCHITECTURAL CHARACTERISTICS OF KATRA AHLUWALIA

Introduction

Katra Ahluwalia, located within the historic walled city of Amritsar, is one of the most culturally layered and architecturally significant precincts of the city. Positioned within the traditional katra–chowk–bazaar network surrounding the Golden Temple, it developed as a dense mercantile and residential hub where religious life, trade activity and social interaction were deeply interwoven (Gupta, 1999). The built fabric comprising carved wooden jharokhas, moulded brackets, coloured glass transoms, lime plastered façades, cast iron railings and Nanakshahi brick masonry—demonstrates a fusion of aesthetic refinement, climatic responsiveness and functional articulation within a living historic environment (CRCI, 2015, INTACH, 2010). Narrow linear streets, chowks functioning as congregation spaces, and continuous façades of shop houses and havelis define the precinct’s spatial identity, reinforced by rhythmic plinth alignments, cornice lines and repetitive façade projections. The proportional consistency and patterned repetition of openings and projections create a cohesive streetscape despite variations in use and building age. Craft elements such as carved timber brackets, perforated jaalis, jhalars, ventilated transoms, painted soffits and coloured glass inserts reflect the craftsmanship traditions embedded within everyday architecture, expressing cultural symbolism and the artisanal knowledge historically associated with construction (Sharma, 2008). However, commercial pressures and unregulated modifications including RCC vertical extensions, aluminium shutters, vitrified tile cladding and oversized signages have begun to erode the historic coherence of the streetscape (CRCI, 2015). Despite these challenges, significant stretches continue to retain authentic material character and heritage typologies, reinforcing Katra Ahluwalia’s importance as a repository of Amritsar’s architectural and cultural memory (Singh & Joshi, 2022).

5.1 Historical significance

Katra Ahluwalia holds exceptional significance in shaping Amritsar’s urban and cultural identity. Named after Sardar Jassa Singh Ahluwalia (1718–1783), leader of the Ahluwalia Misl during the turbulent 18th century Sikh Confederacy period, the precinct reflects the transformation from post Mughal instability to Sikh sovereignty (Grewal,

1998, Gupta, 1999). Revered as *Sultan ul Quam*, Jassa Singh defended Punjab against repeated Durrani invasions and contributed to the restoration of key Sikh centres, including the Amrit Sarovar after its destruction (Singh, 2004). Born in Ahluwal near Lahore, he was mentored by Mata Sundari, widow of Guru Gobind Singh, who shaped his leadership and military dedication (Khanna, 2010).

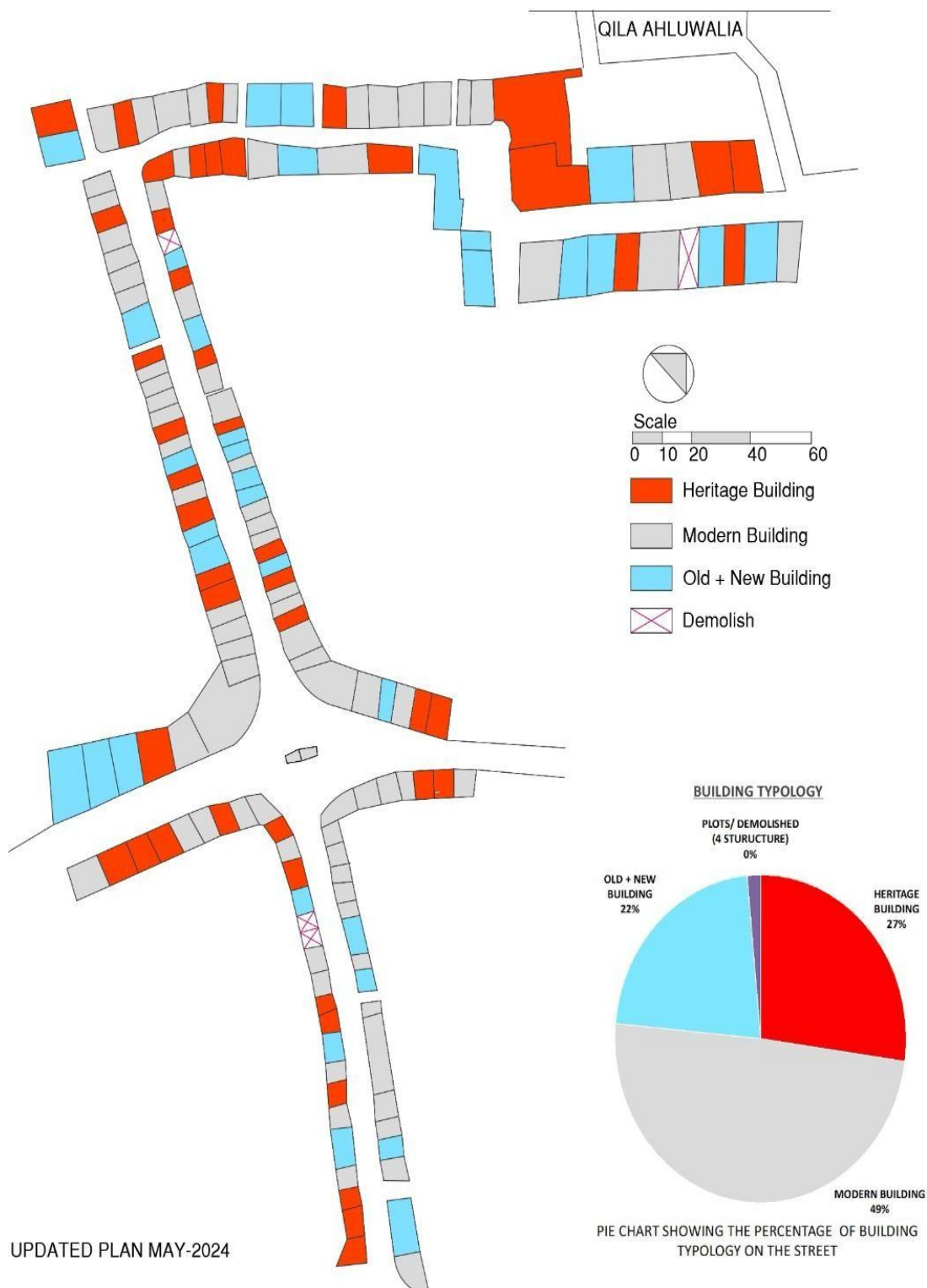
Established in 1760 as a fortified residential quarter adjacent to the Harmandir Sahib, Katra Ahluwalia served as a secure refuge for Sikh families and a defensive bulwark for the shrine. Jassa Singh constructed Qila Ahluwalia, his residential and military command centre, fortified with defensive walls and four gates controlling access to the neighbourhood. Land within the katra was allotted to settlers under the symbolic custom of accepting only a “*Rori of Gur*”, illustrating principles of community solidarity and intangible socio cultural heritage. The katra quickly developed into a hub of traders, artisans and artisans, supporting commerce, defence and religious activities (Gupta, 1999).

The precinct’s urban morphology—narrow interlinked galis, defensible gateways, chowks as social nodes and compact mixed use clusters—established the foundational planning model for Amritsar’s walled city (Khanna, 2010). Under Maharaja Ranjit Singh, Katra Ahluwalia flourished as Marwari traders were invited to settle, strengthening commerce and introducing Rajasthani haveli traditions, frescoes and skilled craftsmanship, some attributed to artisans from Baghdad.

The third phase of transformation occurred in the early 20th century under British control, when Qila Ahluwalia was auctioned and redeveloped by Marwari businessmen. Colonial building typologies emerged three to four/storey arcaded structures, decorative cornices, painted soffits, castiron railings and large balconies—distinct from older brick and lime Nanakshahi constructions. Many buildings of this era feature frescoes depicting modern and European motifs such as steam locomotives and Victorian dress styles, reflecting cultural adaptation during colonial influence. Although portions of the original fort were demolished, the underlying commercial residential pattern with shops below and residences above has remained a defining urban characteristic.

This map 5.1 interprets the spatial logic of residential, commercial, and mixed-use building patterns. It illustrates how typological variation responds to functional demand, frontage width, and plot depth, shaping the distinctive urban grain of the precinct.

Map 5.1: Map highlighting the three primary categories of structures



The chapter systematically examines the architectural typologies, structural systems, and decorative vocabularies that together define the distinctive character of Katra Ahluwalia. It classifies buildings ranging from heritage to mixed and modern structures,

analysing how spatial organization, material use, and façade articulation contribute to the precinct's urban morphology (Figure 5.1).

Figure 5.1: Present situation of structures of Katra Ahluwalia.



Today, Katra Ahluwalia stands as a living heritage precinct symbolising resilience, continuity and communal identity while illustrating the complex balance between conservation and modernization in Amritsar has walled city.

Particular attention is given to the tangible heritage elements—wood, metal, glass, and surface arts—and their intrinsic connection with intangible craft practices that continue to shape local identity.

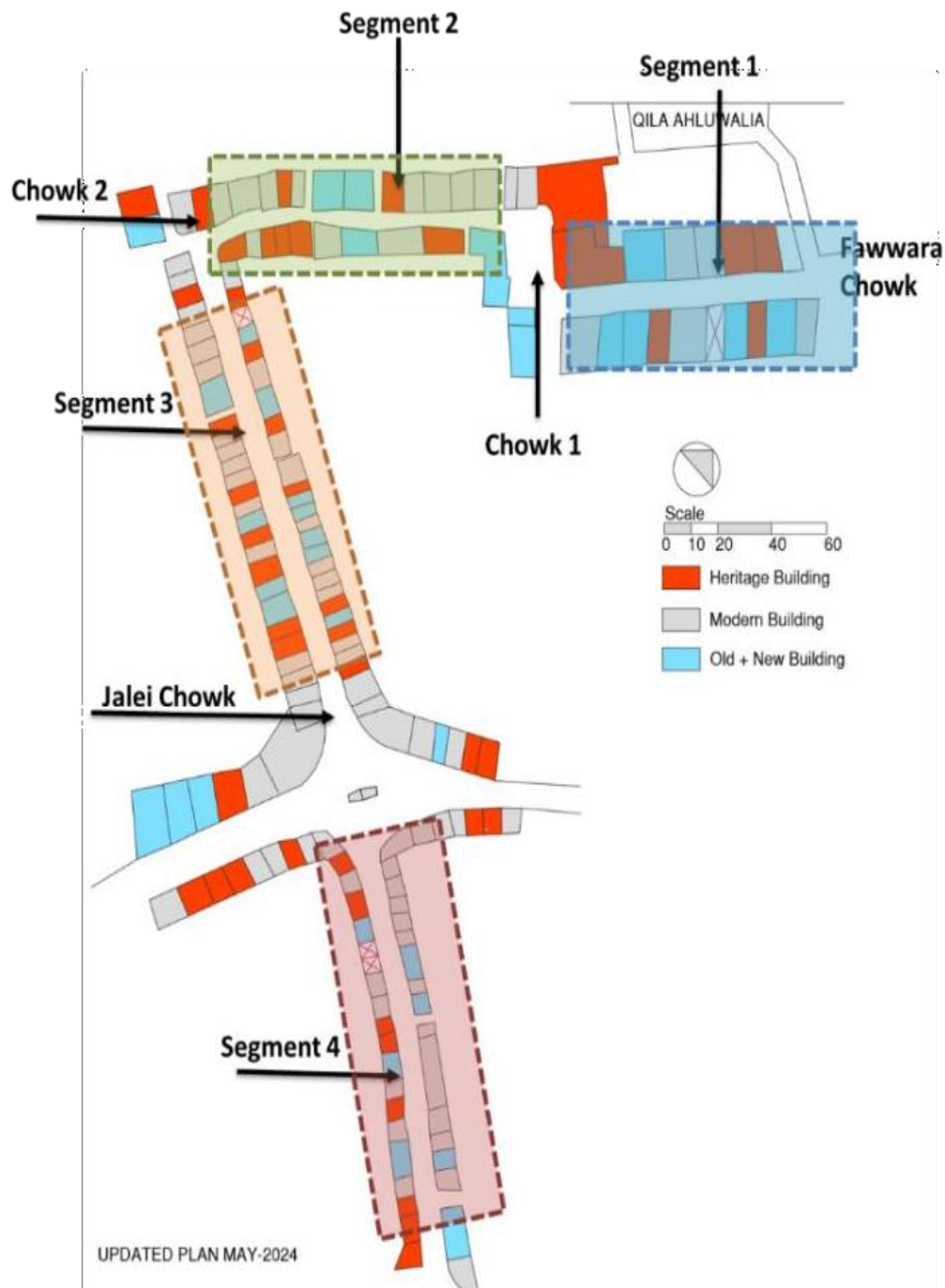
The study also undertakes a condition assessment of the existing building stock, identifying the extent of deterioration caused by insensitive repairs, modern additions,

and the pressures of commercialization. This evaluation reveals the gradual loss of architectural coherence and material authenticity within the historic streetscape. In response, the chapter emphasizes the necessity for sensitive, community based conservation strategies that integrate traditional knowledge with contemporary needs, ensuring the sustained vitality of this culturally rich urban ensemble.

5.2 Architectural Significance

Katra Ahluwalia is one of the most architecturally and culturally significant precincts within Amritsar's walled city, known for its dense heritage building concentration and layered urban evolution (CRCI, 2015, HRIDAY, 2016). Along Katra Ahluwalia Street, 106 of 222 structures are heritage buildings (map 5.1, map 5.2), while 116 are modern constructions (INTACH, 2010). Approximately 31% (69 buildings) make a strong visual contribution through projecting wooden jharokhas with coloured glass, carved timber columns, stone and wooden brackets, jhalars, cast iron railings, jaali screens, and fresco fragments (Mehrotra, 2001, CRCI, 2015). These elements together shape a cohesive visual identity and maintain a consistent three-storey skyline. Positioned along the primary route to the Golden Temple, the precinct has historically functioned as a commercial and social corridor supporting pilgrims and residents, reinforcing shared memory (Singh, 2013, HRIDAY, 2016). Over time, it has absorbed modern interventions while retaining its historic base, reflecting both transformation and continuity (INTACH, 2010).

Often described as “the richest in the city” for its heritage value (Nanda, 2019), Katra Ahluwalia showcases a rare blend of 18th-century Sikh urban planning, 19th-century Rajput-Sikh aesthetics, and early 20th-century colonial layers (Sharma, 2008). Sikh-period urbanism appears in narrow galis, chowks, gated portals, and thick defensive masonry walls (CRCI, 2015, Singh, 2013). The area's architectural character blends Punjabi, Rajasthani, Mughal, and colonial styles, brought by Marwari traders and possibly West Asian artisans (Mehrotra, 2001). Construction spans Nanakshahi brick and lime mortar to jack-arch roofs, cast iron railings, and RCC frames, offering insight into historic technologies and current conservation needs (INTACH, 2010, Sharma, 2008). Surviving craftsmanship timber carving, lime plasterwork, stained glass jaalis, and frescoes retains high pedagogic and cultural value (Nanda, 2019, CRCI, 2015).

Map 5.2: Map showing the division according to structure typology

Segment 1 maintains a continuous stretch of heritage façades with minimal modern alteration, preserving its historic visual character.

Segment 2 retains similar continuity, where traditional wooden and stone detailing remains evident along shop house frontages.

Segment 3 includes three clusters of continuous heritage façades of more than eight

buildings each, though these are visually broken by occasional modern insertions.

Segment 4 presents the most contrast, with heritage façades on one side and predominantly modern constructions on the other, resulting in a visually fragmented street edge.

Overall, Segments 2, 3, and 4 display a layered streetscape, shaped by commercial pressures and functional change. This condition highlights the need for regulated interventions to ensure new additions respect the historic façade rhythms and architectural character of the precinct.

The most prominent heritage structure of the street is Qila Ahluwalia, which stands near the Fawarra chowk from where the street starts. The three storied high structures dominate the street with its intricate wooden carving, floral and geometric designs of the glasswork and cast iron railing works. It gives a fabulous glimpse of the character of the street (Figure 5.2 and Figure 5.3). This map 5.2 distinguishes heritage, mixed, and modern categories to reveal the heterogeneity of the precinct's urban fabric.

Figure 5.2: The Old/Heritage types of building typology.



This Figure offers an overview of the existing condition of representative buildings in Katra Ahluwalia, juxtaposing preserved examples with those that have undergone deterioration.

The ground floor of the heritage structure is approximately 4 to 5 meter height comprise of wooden folding doors and at upper level have ventilators or arches. The shape and profile of the doors depicts that ground floors were mainly designed for shops, which are now the wholesale shops. On the other side 40 % of the historical structures have

been altered due to addition of floors, replace of historic building facades with new materials and construction works.

The organization of streets, chowks, and built edges forms a cohesive system of spatial interdependence. Figure 5.3 illustrates representative heritage buildings whose architectural proportions, façade continuity, and materials exemplify this enduring relationship between commerce and dwelling.

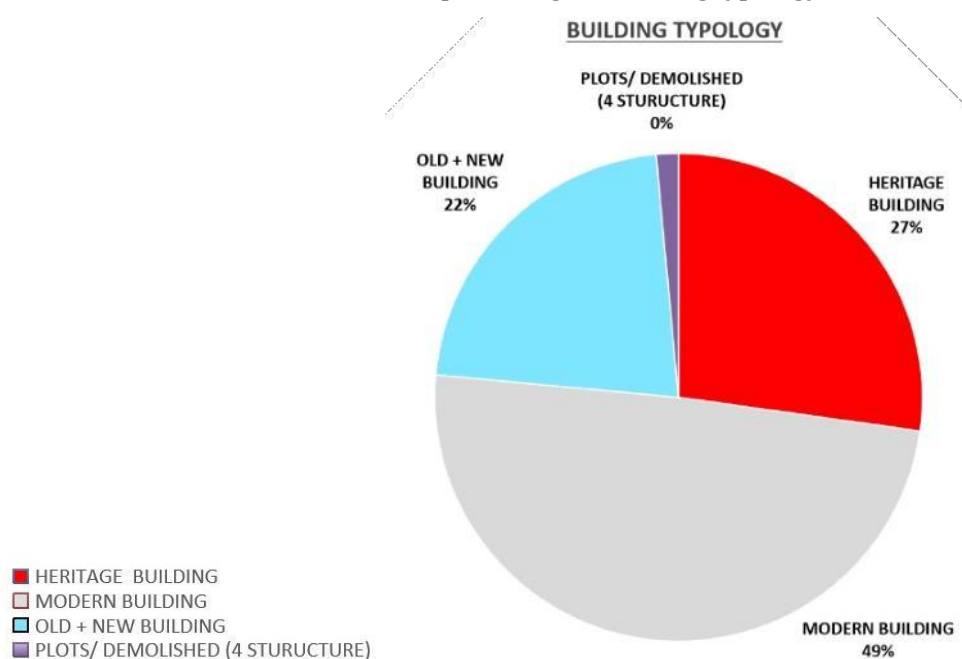
Figure 5.3: Street view of katra Ahluwalia



Despite visible transformations, the precinct retains substantial portions of its traditional morphology. Table 5.1 quantifies the distribution of building types, confirming that

heritage typologies still dominate the core zones, ensuring continuity of Amritsar's historic urban identity.

Table 5.1: Pie chart representing the building typology of the street.



5.3 Historic Fabric and Architectural Elements

The architectural character of Katra Ahluwalia is inseparable from its traditional materials and construction techniques, which evolved across eras while retaining strong regional identity. The use of Nanakshahi brick, lime plaster, timber joinery, cast and wrought iron, coloured glass, and decorative surface painting created not only structural stability but also a unique urban expression (INTACH, 2010, CRCI, 2015).

5.3.1 Structural & Supporting Elements

Brackets and jack arches were vital elements in Amritsar's historic fabric. Timber brackets, often richly carved, projected from walls to support *chajjas* and balconies, while jack arches constructed of Nanakshahi brick or stone distributed loads above door and window openings (Sharma, 2008; INTACH, 2010). Horizontal members such as band courses and lintels, executed in timber or brick, tied façades together and gave rhythm to elevations (CRCI, 2015). The use of Nanakshahi brick bonded in lime mortar was particularly distinctive, producing thin, elegant joints and fine coursing that allowed intricate detailing (ADA, 2010).

Brackets – Timber or stone supports projecting from walls, carrying *chajjas* and balconies, often carved. Timber or stone brackets supporting the balcony overhang are

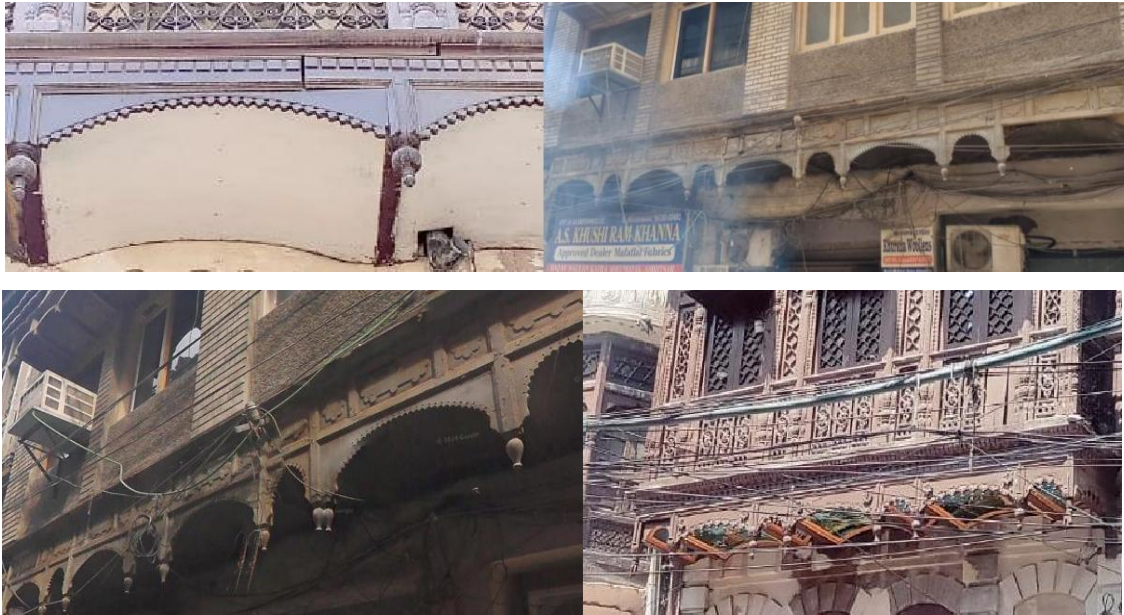
characteristic of the larger *havelis* on the street (Figure 5.4). In most of such *havelis*, frescoes can be seen in between two brackets with flower motifs or scenes.

Figure 5.4: Present situation of the selective brackets in Katra Ahluwalia



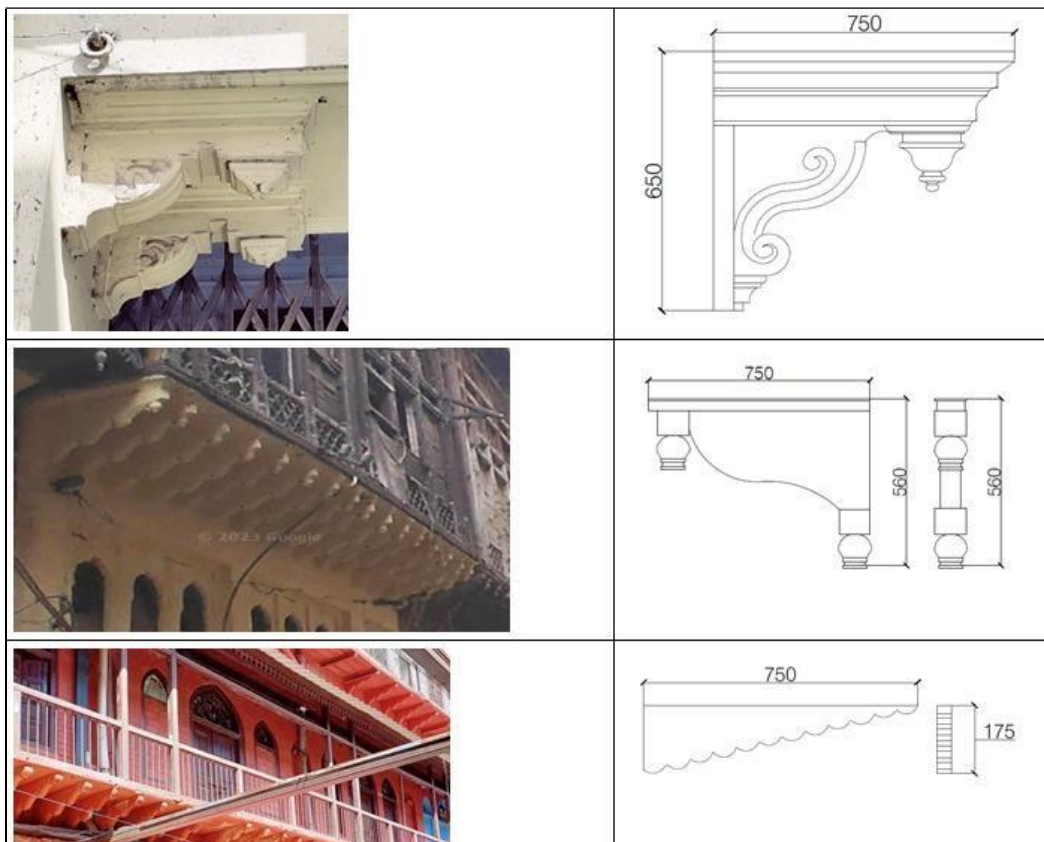
Jack Arches – Shallow brick or stone arches over openings, commonly used above lintels for strengthening (Figure 5.5).

Figure 5.5: Images showing the jack arches embellished with spandrels



The Horizontal Members – Beams, lintels, brackets and band courses that unify façades and support openings (Figure 5.6). These continuous horizontal elements strengthen the wall system and provide façade rhythm at successive floor levels.

Figure 5.6 Documentation Drawing of Traditional Wooden Bracket, Katra Ahluwalia”



5.3.2 Openings & Door Typologies

Door openings in Katra Ahluwalia exhibit a diverse range of traditional forms(Figure 5.7). Panelled timber doors of two, four, or six divisions—typically made from shisham or deodar—indicate household status. Transoms (kanats) above door frames incorporate latticework or coloured glass for ventilation and filtered light. Arch types vary by historical period segmental arches in the Guru period, cusped and pointed arches in the Sikh era and semicircular or Gothic forms in the colonial phase. These openings were built with lime plaster detailing, mortise, and tenon timber joinery, later incorporating stained glass.

Present examples include four panel folding doors or two panel fixed doors with ventilators, as well as simpler paneled doors without arch forms. Door colours vary widely—from yellow, blue, and green to beige and off white—reflecting both tradition and later alterations.

Figure 5.7: Images showing Panelled doors with arch character/ventilators



Varied traditional forms framing entrances to *havelis* and shops. The panelled and ventilated doors of Katra Ahluwalia serve both functional and decorative purposes, maintaining cross ventilation while adding aesthetic richness.

5.3.2.1 Panelled Doors (2/4/6 panels)

Timber doors with geometric panel arrangements reflected both social hierarchy and spatial function within Katra Ahluwalia. The number, scale, and detailing of panels often indicated the status of the household, distinguishing elite residential façades from modest dwellings, while in commercial settings the panel design corresponded to the nature and intensity of shop use. Thus, door typology operated as both a functional threshold and a visual marker of identity within the streetscape (Figure 5.8)

Figure 5.8: Documentation Drawing of Traditional Wooden Doors, Katra Ahluwalia.



5.3.2.2 Wooden Work on Doors and Windows (Transoms)

Louvered or carved transoms (kanats) above door openings provided ventilation and filtered light in the dense urban context. Usually crafted in shisham or deodar, they bear floral or geometric carvings that expressed both artisan skill and household status. Many also include coloured or stained glass, introducing soft tinted light and enhancing façade ornamentation. This combination of carved wood and coloured glass reflects refined joinery traditions and the continuity of regional craft practices (Figure 5.9).

Figure 5.9: Images showing Wooden work on Doors and window (Transom)



5.3.2.3 Types of Door Arches (by Eras)

Door and window arches in Katra Ahluwalia reflect the architectural character of each historical phase. As the precinct evolved over more than two centuries, distinct arch forms emerged that correspond to changing construction technologies and stylistic influences.

During the Misl period (18th century), flat timber lintels for narrow spans and pointed or four centred arches for prominent gateways and entrances typically supported openings. More elaborate cusped or multifoil arches, influenced by Mughal aesthetics, appeared in high status structures such as the Qila precinct. Although limited original specimens survive due to later alterations and these forms established the visual language that shaped early Sikh period architecture.

In the early–mid 19th century, under Maharaja Ranjit Singh, the segmental arch became the most widely used form due to structural efficiency and ease of brick construction. Havelis frequently incorporated shallow segmental arches along courtyards and street façades, often enhanced with lime plaster mouldings. This period also saw the introduction of brick jack arches hidden behind flat lintels, combined with painted stucco motifs to retain the appearance of an arched opening.

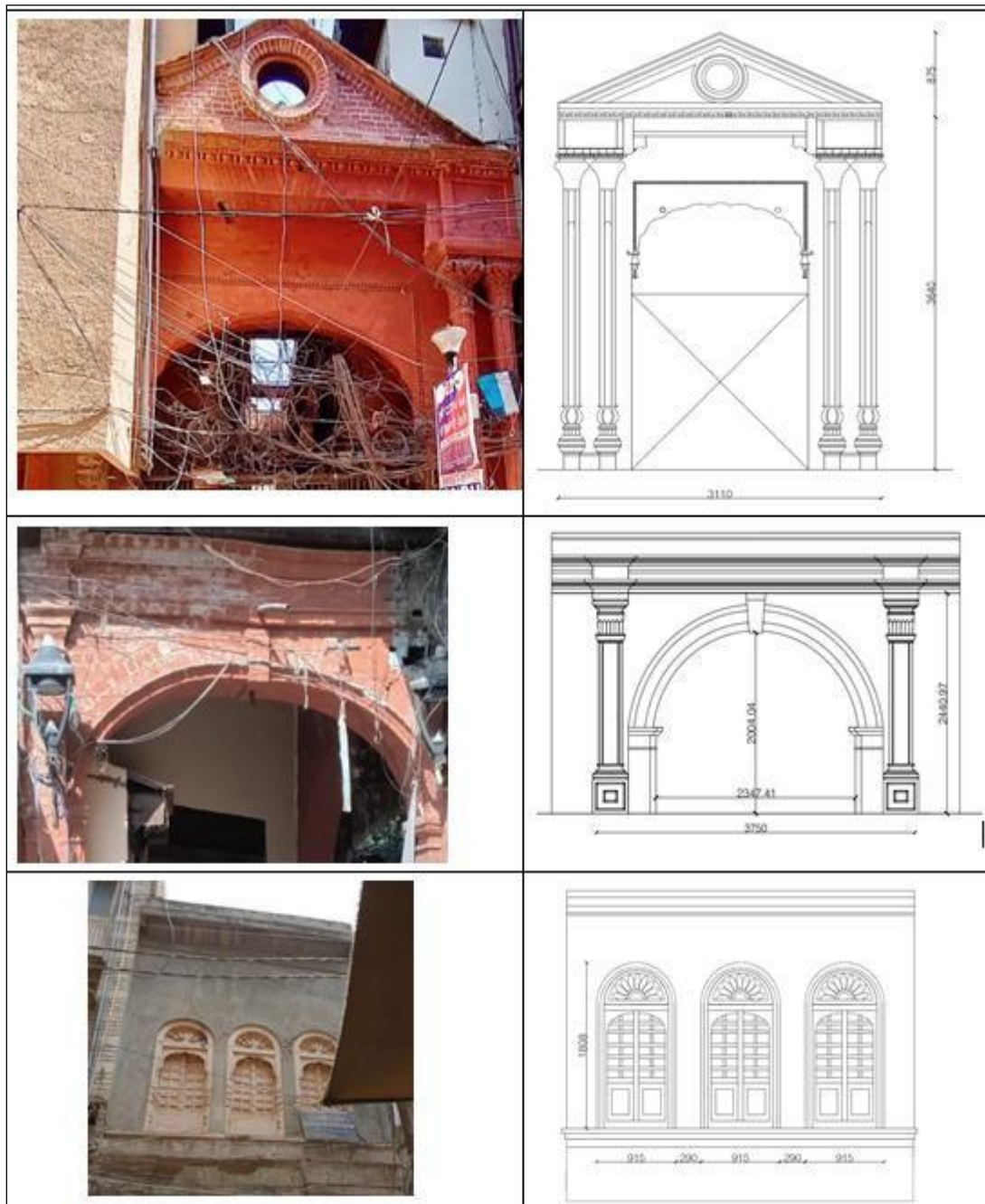
By the late 19th to early 20th century, colonial influence introduced semicircular arches for fanlights and shopfront arcades, along with elliptical arches for wide verandas. Stilted segmental arches, blending rectangular frames with a curved top, became common as iron brick structural technology expanded and commercial building typologies evolved.

From the mid 20th century onward, traditional arches were largely replaced with rectangular openings supported by reinforced concrete or steel lintels. This shift prioritised speed, height additions, and commercial flexibility, resulting in a widespread loss of traditional profiles except in a few revival attempts.

Understanding these arch typologies is essential for authenticity-based conservation. Reinstating original arch profiles where physical evidence exists strengthens historic identity, while inappropriate or decorative additions risk distorting architectural chronology. Arches therefore play a critical role not only in structural function but also in preserving the visual and cultural integrity of Katra Ahluwalia's heritage streetscape. (Figure 5.10 and Figure 5.11).

Figure 5.10: Images showing Type of door Arches



Figure 5.11: Documentation Drawing of Type of door Arches, Katra Ahluwalia.

5.3.3 Wooden Architectural Features

Timber was one of the most expressive materials in Katra Ahluwalia. *Jharokhas* or projecting balconies, often carved in floral or geometric motifs, animated the narrow streets (CRCI, 2015). Decorative wooden columns were used in elite *havelis*, while plain columns and beams provided structural support in modest dwellings (INTACH, 2010). Wooden *jaalis* (latticed screens) and *jhalars* (hanging fringes) combined functional ventilation with ornamentation (Sharma, 2008). Timber arches, ranging from

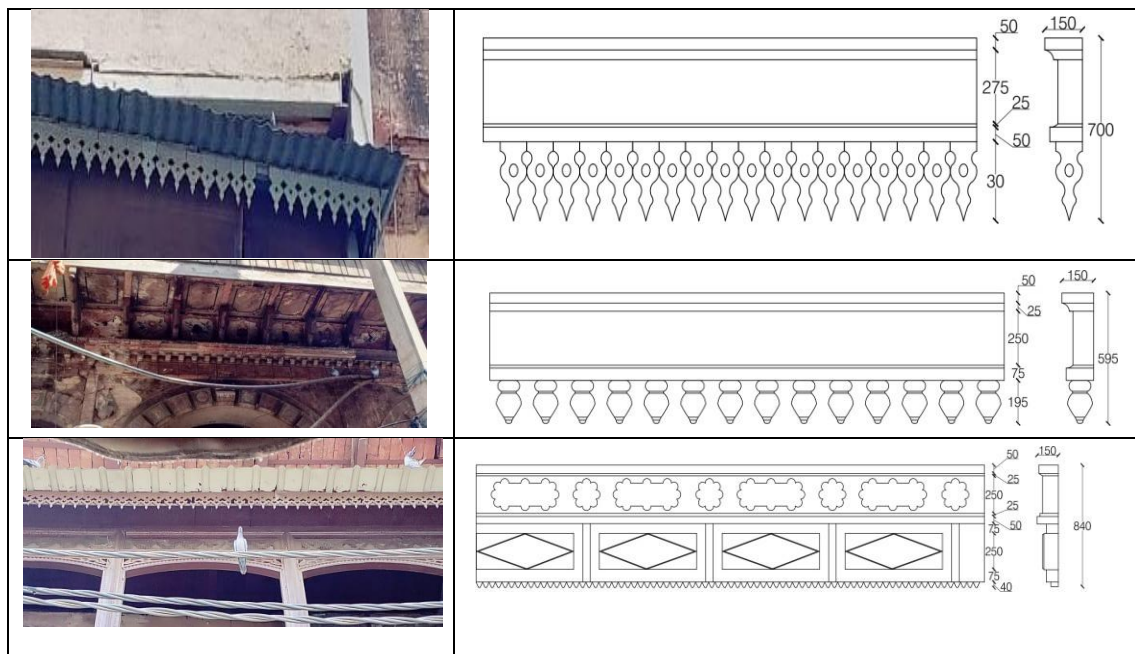
foliated to semi circular and Gothic, illustrated both local craftsmanship and colonial influence (Nanda, 2019). Carved wooden bands, pendants, and railings added detail to façades, while windows with coloured glass and richly panelled doors completed the decorative vocabulary (CRCI, 2015). These elements were produced using seasoned hardwoods like *shisham* and *deodar*, crafted by Ramgarhia guild artisans, and polished with natural oils (INTACH, 2010).

Horizontal decorative members, including jhalars and carved band courses, emphasize floor levels and façade projections in traditional buildings (Figure 5.12 and Figure 5.13))

Figure 5.12: Use of different types of Jhalars in Katra Ahluwalia



Figure 5.13: Documentation Drawing of Jhalars, Katra Ahluwalia



Wooden Jharokhas: Projecting enclosed balconies with carved detailing, overlooking streets and markets; they remain among the most distinctive timber features of the precinct.

Decorative Wooden Columns: Richly carved posts supporting verandahs, balconies, and interior galleries of havelis.

Plain Wooden Columns and Beams: Structural timber members providing support with minimal ornamentation, generally found in modest dwellings.

Wooden Jaalis and Jhalars: Perforated wooden screens and hanging fringe details that provide light, shade, and ventilation along façades. (Figure 5.14)

Wooden Arches (Foliated, Semi Circular, Gothic): Arched forms executed in timber blending local and colonial styles, often used above openings and verandahs.

Wooden Planks and Decorative Bands: Horizontal boarding and carved friezes accentuating façades, marking divisions between floors or cornices.

Wooden Railings and Pendants: Balustrades and hanging ornament enhancing balconies and interior edges.

Figure 5.14: Woodwork on façade of buildings



Wooden Windows with Coloured Glass: Timber frames fitted with tinted or stained glass, filtering patterned light into interior spaces.

5.3.4. Metal & Glass Elements

The introduction of cast iron in the 19th century reflected colonial modernity. Prefabricated cast iron railings and balustrades, imported from British foundries, were combined with traditional wooden balconies to form hybrid façades (Chattopadhyay, 2012). Local blacksmiths simultaneously continued forging wrought iron locks, hinges, and door handles, which balanced functionality with ornament (INTACH, 2010). Coloured glass, inserted into wooden transoms and windows, became popular during the late Sikh and Colonial periods, adding vibrancy and filtered light effects (CRCI, 2015).

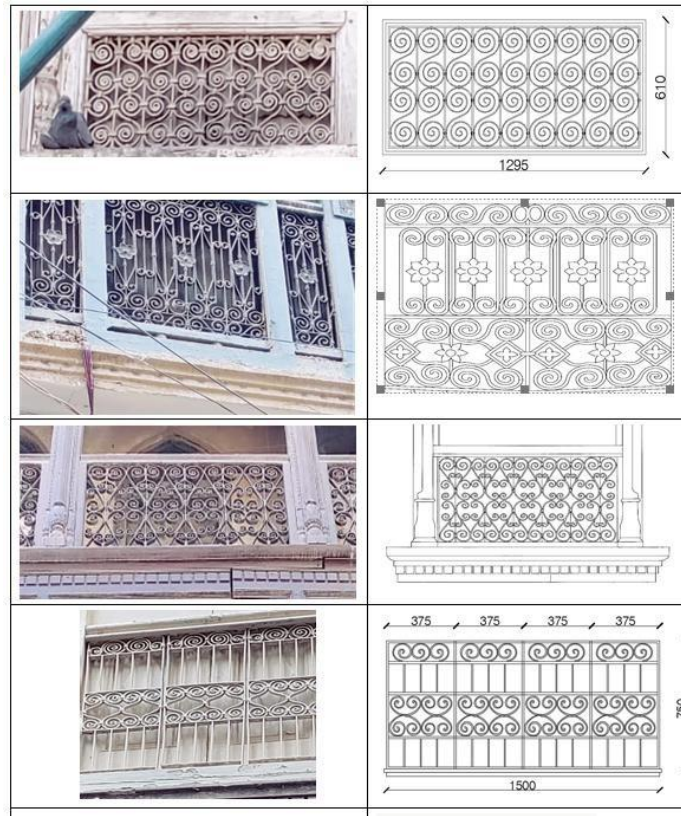
5.3.4.1. Cast Iron Railings

Colonial era imported railings, combined with local timber balconies for hybrid façades. The common characteristic of balconies, unifying the buildings, is the cast iron railing. The patterns comprise curved or floral forms and are mostly repetitive (Figure 5.15).

Figure 5.15: Various types of M. S. Grills in Katra Ahluwalia



Fig 5.16. Documentation Drawing of Traditional Cast iron railing, Katra Ahluwalia.



5.3.4.2. Coloured Glass

Decorative stained or tinted panes inserted in doors, windows, and arches, creating a vivid interplay of filtered light and colour within interiors (Figure 5.16).

Figure 5.17. Typology: Glass Patterns in Katra Ahluwalia.



5.3.5. Decorative Surface Arts

Surface painting represented the synthesis of craft and material (Figure 5.17 and Figure 5.18). Frescoes on lime plaster walls, arch spandrels, and alcoves often depicted floral motifs, religious narratives, or geometric designs, while the soffits of projecting *chajjas* carried intricate painted bands (Sharma, 2008). These works relied on lime plaster enriched with organic additives such as jaggery, *bael* pulp, and methi seeds, which created a durable and breathable surface (Jain, 2015). Natural pigments like indigo, ochre, and lampblack were used to achieve vivid colours (CRCI, 2015).

Figure 5.18: Paintings in the QILA Ahluwalia.



Figure 5.19: Paintings on the street of Katra Ahluwalia



5.3.5.1. Arts Work (Painted Surfaces)

Murals and frescoes decorating walls and architectural members.

- (a) **Wall Surfaces** – Painted floral and narrative motifs on interior and exterior walls.
- (b) **Arch Spandrels** – Painted embellishments in the triangular zones above arches.

(c) **Arch Alcoves** – Decorative niches with painted religious or floral themes.

(d) **Underneath Chajjas** – Painted wooden or plaster soffits adding colour to streetscapes.

Many historic buildings of the street have decorative painted surfaces. Decorative paintings are found at various locations of the buildings:

- Walls and arch spandrels
- Arch alcoves
- Underneath *chajjas* at different levels

The heritage street has three kinds of painted decorations:

1. **Paintings on Metal Plates** – Found under hanging balconies on all three levels. All images on the metal plates have a decorative function. Most depict Indian men and women with European style clothing and composition, influenced by western oil painting and print aesthetics.
2. **Paintings on Walls over Plastered Surfaces** – The painted portions have lost their surface finish, however, colour and detail suggest a tempera technique.
3. **Paintings over Wooden Members** – Wooden projections in few buildings retain geometric painted motif

5.3.6. Material Palette & Era Evolution

The material palette of Katra Ahluwalia shifted markedly across periods. In the Guru era (1577–1628), buildings used mud brick, timber, and lime plaster with simple arches and flat roofs (INTACH, 2010). During the anarchy phase (1628–1765), Nanakshahi brick became primary, producing compact, minimally ornamented structures (CRCI, 2015). Under Maharaja Ranjit Singh (1765–1849), ornament expanded through lime plaster frescoes, stucco mouldings, and carved timber balconies (Nanda, 2019). The colonial period (1849–1947) added cast iron railings, marble thresholds, tukri mosaic floors, and coloured glass (Chattopadhyay, 2012, Khan, 2004). Post-Independence, cement plaster, RCC slabs, aluminium frames, and vitrified tiles increasingly replaced traditional materials, disrupting the historic visual coherence (HRIDAY, 2015). As Nanakshahi brick, lime plaster, and timber had shaped both structure and craft expression (Table 5.2) their substitution with cement and RCC compromises authenticity, highlighting the need to revive traditional techniques in conservation (UNESCO, 2011, INTACH, 2010).

Table 5.2: Key Architectural Elements – Materiality, Function, and Design Expression

Element	Material / Technique	Era / Period (Timeline)	Primary Function	Architectural Characteristics (Form – Structure – Expression)	Design / Expression Value
Enclosed Balcony Jharokha	Timber + Glass / Carved cantilever	Sikh → Colonial (1765 – 1947)	Semi private projection	Cantilevered timber balcony on carved brackets, 3/ 4 proportion, floral carving symbolising prosperity and privacy.	Decorative + functional projection
Carved Wooden Bracket	Timber (Shaal) / Hand carved volute	Sikh (1765 – 1849)	Balcony support	Volute shaped timber bracket transferring load to wall, stepped geometry, lotus motif expressing craftsmanship.	Structural + decorative
Jack Arch Lintel	Nanakshahi Brick / Lime mortar	Anarchy → Colonial (1628 – 1947)	Load distribution above openings	Flat brick arch relieving opening, rise / span $\approx$ 1:10, simple profile articulating horizontal rhythm.	Functional + aesthetic articulation
Horizontal Band Course	Brick band / Timber lintel	All Eras (1577 – 1947)	Structural tie	Continuous belt course binding masonry, marks floor datum, gives visual unity to façade.	Unifying façade element
Panelled Door (2/4/6 Panels)	Shisham / Deodar timber	Sikh – Colonial (1765 – 1947)	Entrance closure	Framed door with 1/2 panel ratio, brass studs and carving denote status and hierarchy.	Symbolic hierarchy + craft detail
Transom / Fanlight	Timber + Coloured glass	Sikh – Colonial (1765 – 1947)	Ventilation / light	Fixed frame above door head with stained glass, rectangular 1:4 proportion, diffuses coloured light.	Decorative lighting accent
Door Arches (Segmental / Cusped / Gothic)	Brick / Stucco / Timber	Guru → Sikh → Colonial (1577 – 1947)	Span over entry	Arched lintels with changing profiles from cusped to Gothic, mark stylistic evolution across eras.	Era specific stylistic marker
Open Jharokha Balcony	Timber / Carved projection	Sikh – Colonial (1765 – 1947)	Observation balcony	Timber floor projected 0.75 m on paired brackets, balustrade adds rhythm and street engagement.	Social / craft expression
Wooden Jaalis & Jhalars	Timber / Perforated carving	Sikh – Colonial (1765 – 1947)	Ventilation / shading	Lattice panels within frame, 4×4 grid pattern, creates shade and filtered light patterns.	Climatic ornament
Window with Coloured Glass	Timber + Stained glass	Colonial (1849 – 1947)	Light and ventilation	Multi pane window with 3:5 ratio, vibrant coloured light enhancing façade aesthetic.	Colonial vibrancy + ornament
Cast Iron Railing	Cast iron / Prefabricated casting	Colonial (1849 – 1947)	Balcony guard	Bolted metal frame with floral motifs, industrial pattern echoing European influence.	Hybrid timber metal aesthetic
Fresco / Stucco Artwork	Lime plaster + natural pigments	Sikh (1765 – 1849)	Wall / ceiling ornament	Lime based painted panels with floral and narrative themes in repetitive geometry.	Cultural storytelling
Nanakshahi	Brick +	Sikh (1765	Structural	Thin load bearing	Authentic material

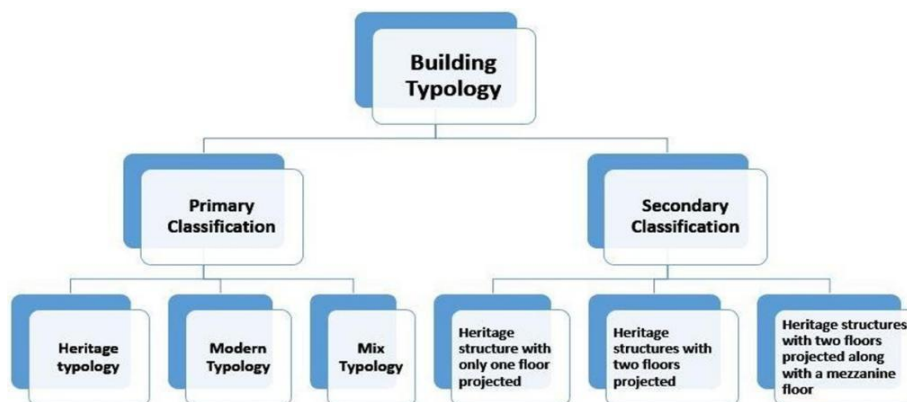
Brick Wall	Lime mortar	– 1849)	l wall	brickwork (9×4.5×1.5 in), fine texture and warm hue defining Amritsar fabric.	identity
Stone Cornice / String Course	Sandstone / Carved mould	Colonial (1849 – 1947)	Load distribution + façade accent	Linear moulded band projecting 150 mm, casts shadow and defines horizontal termination.	Horizontal rhythm
Stone Bracket (Angular)	Sandstone / Carved cantilever	Sikh (1765 – 1849)	Support for chajja	Triangular bracket carved with lotus knee, 45° cantilever supporting roof projection.	Structural + aesthetic unity
Lime Plaster Cornice Moulding	Lime stucco / Cast mould	Colonial (1849 – 1947)	Façade termination	Cast moulded plaster band at roofline, convex concave profile adding visual finish.	Decorative termination
Roof Parapet (Battlement)	Brick + Stucco / Crenellated	Sikh (1765 – 1849)	Roof edge protection	Low parapet with merlon pattern, symbolic link to defensive architecture.	Civic skyline feature
Timber Handrail & Newel Post	Timber / Turned joinery	Late Colonial (1900 – 1947)	Stair edge safety	Turned balusters with spiral newel, 1 m height, domestic craft detail.	Artisanal domestic craft

Source: Author’s Field Documentation, 2023–24, UNESCO Historic Urban Landscape Guidelines (2011), INTACH Charter (2004).

5.4 Building Typology: Analysis and Understanding

Building typology documentation of buildings according to their essential characteristics. In architectural discourse, typological classification usually focuses on building function (use), building form, or architectural style (Table 5.3). A functional typology groups buildings into groups such as residences, hospitals, schools, shopping centers, etc. A formal typology groups buildings by their form, scale, location, etc.

Table 5.3: The building typology of Katra Ahluwalia. Amritsar



5.4.1 Primary Classification

Buildings in Katra Ahluwalia fall into three principal architectural typologies—**Heritage**, **Modern**, and **Mix (Hybrid)**—based on the extent of original historic fabric retained and the degree of subsequent modification. This classification helps explain how the historic character of the precinct has evolved under redevelopment pressures, commercial expansion, and changing functional needs.

Heritage Typology comprises largely intact structures dating from the late 18th to early 20th century. These buildings preserve defining traditional elements such as carved wooden balconies and jharokhas, lime plastered façades, timber brackets, typically rising two to three storeys, and they maintain a coherent streetscape rhythm and human scale, contributing most strongly to the precinct's historic identity and cultural memory. However, many are now deteriorating due to neglect, termite damage, incompatible repairs, or partial abandonment, making them vulnerable to demolition or insensitive alteration (Figure 5.20).

Modern Typology comprises late 20th century and contemporary constructions, generally RCC frame buildings with tiled, aluminium, concrete, or glass façades. Often four to five storeys high, they prioritise commercial floor space and respond to current retail demands but disrupt scale, ventilation, and architectural continuity, creating visual imbalance and weakening heritage character (Figure 5.21).

Mix (Hybrid) Typology represents the most prevalent condition in present day Katra Ahluwalia. These buildings combine retained historic components with recent additions or internal transformations. Common examples include historic ground floors preserved for commercial value while modern upper floors are added, façades rebuilt in modern materials while rear or interior parts remain original, or adaptive reuse in which new construction sits behind an older façade. While visually inconsistent and sometimes structurally incompatible, hybrid buildings retain fragments of heritage fabric and offer considerable restoration potential if managed sensitively through façade improvement, structural regularisation, and material compatibility (Figure 5.22).

Recognising and mapping these typologies is crucial for effective conservation and planning. Heritage buildings require priority protection and sensitive restoration to preserve architectural integrity. Modern buildings necessitate design regulation and façade guidelines to ensure better contextual fit. Hybrid buildings constitute strategic opportunities—where recovery of historic elements, coupled with controlled

intervention, can gradually rebuild continuity across the streetscape. A typology based framework therefore supports balanced development, enabling economic growth while safeguarding Katra Ahluwalia's unique architectural character and heritage value.

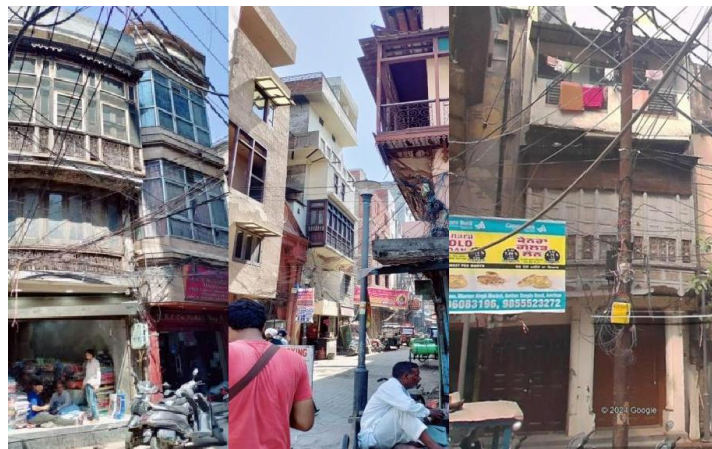
Figure 5.20: The Old/Heritage types of building typology.



Figure 5.21: The Modern types of building typology 2 in Katra Ahluwalia).



Figure 5.22: The Mix types of building typology 2 (additional floors).



5.4.2. Secondary Classification:

The secondary classification of buildings in Katra Ahluwalia offers a finer understanding of form, use and layout beyond the primary Heritage–Modern–Hybrid categories. While most structures were historically mixed use, distinct sub typologies shape the precinct’s architectural character and social function.

Courtyard Haveli Typology includes larger traditional residences arranged around an open inner courtyard for ventilation, light and shared family activity. Once associated with affluent trading families, many are now subdivided or altered, yet they remain important examples of climate responsive and community oriented design.

Linear Shop House Typology, the most prevalent form, consists of narrow plots extending deep from the street, with commercial activity in front and living spaces behind or above. This model supports bazaar-based trade and often appears today as hybrid structures combining old street fronts with newer additions.

Corner and Chowk Buildings occupy prominent nodes and act as visual anchors, often featuring dual façades or splayed corners to address public space. Historically they housed significant shops or community functions and continue to contribute to street identity and spatial orientation.

Religious and Institutional Structures such as temples, gurudwaras and the Udasin Akhara Sangliwala (established 1771) differ in layout and purpose, prioritising gathering spaces and spiritual use, requiring conservation approaches sensitive to active functioning.

Sub Divided Buildings reflect changes in ownership, where a single structure is internally divided and altered unevenly, blending old and new fabric and complicating coordinated maintenance and restoration.

Height Based Subtypes distinguish traditional low rise (G+1/G+2) forms from newer mid rise (G+3+) buildings, which disrupt the historic skyline and environmental scale.

These secondary typologies reveal Katra Ahluwalia as an assemblage of courtyard houses, linear shop houses, corner landmarks, institutional nodes and subdivided properties—each contributing distinct spatial, cultural and architectural roles. Understanding these differences is essential for targeted conservation and guiding sensitive redevelopment that respects historic identity.

The structures can be further classified based on the later interventions or building characteristics:

Heritage structure

The existing heritage structures are further classified on the basis their outer sectional profiles which are defined by projected floors. In Katra Ahluwalia street we find mainly three variations in the projected floors:

1. Heritage structure with only one floor projected
2. Heritage structures with two floors projected
3. Heritage structures with two floors projected along with a mezzanine floor

The heritage structures in Katra Ahluwalia are classified according to their outer sectional profiles, defined largely by projected floors that create the distinctive visual rhythm of the streetscape. Detailed documentation identifies three categories:

- Single projected floor – simpler forms with modest, traditional character.
- Two projected floors – more elaborate façades displaying skilled timber and stone craftsmanship.
- Two projected floors with a mezzanine – the most complex typology, reflecting spatial adaptability and architectural refinement.

More broadly, the building typology of Katra Ahluwalia is organized into primary and secondary classifications, with further subcategories developed to capture variations in design, function, and historical significance.

5.4.3 Commercial Typologies & Shop Divisions

Mix typologies combine old and new elements, seen in:

- modern structures incorporating historic wooden or cast iron features,
- partial floor modifications while retaining other levels, and
- Added upper floors constructed over original buildings.

5.5 Shops Typology

5.5.1 Wholesale Shops

Wholesale shops dominate Segments 1, 2, and 3, primarily selling traditional clothing such as sarees, salwar suits, and phulkari—items of strong cultural value. The narrow street widths (2–6 m), combined with projected display platforms, create congestion and restrict movement (Figure 5.23). Most wholesale shops rely on established clientele rather than prominent signage, though newer establishments increasingly use signage to remain competitive.

Figure 5.23: Various typologies of shops Katra Ahluwalia, Amritsar.



5.5.2 Retail Shops, Hotels, and Restaurants

Segment 4, near Ghanta Ghar Chowk, is the hub of retail activity catering primarily to tourists visiting the Golden Temple. This segment features a vibrant mix of retail shops, hotels, and restaurants (Figure 5.24). Large signage and hoardings dominate, while restaurants and hotels serve tourists seeking both shopping and dining experiences. The constant flow of pilgrims and visitors results in heavy activity.

Figure 5.24: Pics showing shop divisions on the plots



5.5.3. Modern Structures

The modern façade is characterized by varied profiles and material treatments. Two categories can be identified:

- Modern structures with projections at upper levels similar to historic ones.
- Modern structures without projections, producing plain façades along the street.

Modern façades include concrete finishes, coloured tiles, modern stonework, and glass.

Near Ghanta Ghar Chowk, many bear large signage due to commercial demand.

Mix typology (old + new structures): This category refers to new floors added atop historic structures or new constructions retaining heritage elements such as doors and windows. Variations observed include:

- Modern structures modified using historical wooden or cast iron elements.
- One or more floors altered while retaining others.
- Additional floors constructed above older fabric.

5.6. Street Character & Façade Morphology

The character of Katra Ahluwalia's streets and the morphology of its building façades are critical components of its heritage identity. This section examines the overall ambience and spatial quality of the streets (street character), the composition and profile of building façades (façade morphology), and how different stretches of the street reflect varying architectural characteristics. Essentially, it zooms out from individual buildings to analyze the collective appearance and sensory feel of the streetscape—how buildings relate to one another, how the public realm is enclosed and defined, and what visual narratives and spatial rhythms emerge as one walks through the katra. The continuous built edges, the alignment of plinths and cornices, and the varying degrees of enclosure contribute to a distinctive experiential sequence, reinforcing both orientation and cultural memory.

The street contains one to five storeyed buildings, with 3–4 storey heights dominating and thereby creating a strong vertical definition to the street profile (Map 5.3). Narrow streets ranging between 2–6 meters, combined with tall, multi-storey structures, produce a dense, canyon-like spatial character typical of historic bazaar environments (Figure 5.25, Figure 5.27, and Figure 5.28). Because of this compact morphology, façades beyond the second floor are often invisible from the street level, visually compressing the streetscape into a tightly framed pedestrian experience (Figure 5.26). The resulting spatial enclosure intensifies human interaction, commercial vibrancy, and the acoustic

character of the bazaar, reinforcing its identity as a socially active and culturally layered urban environment.

Map 5.3: Map highlighting the building heights on the street

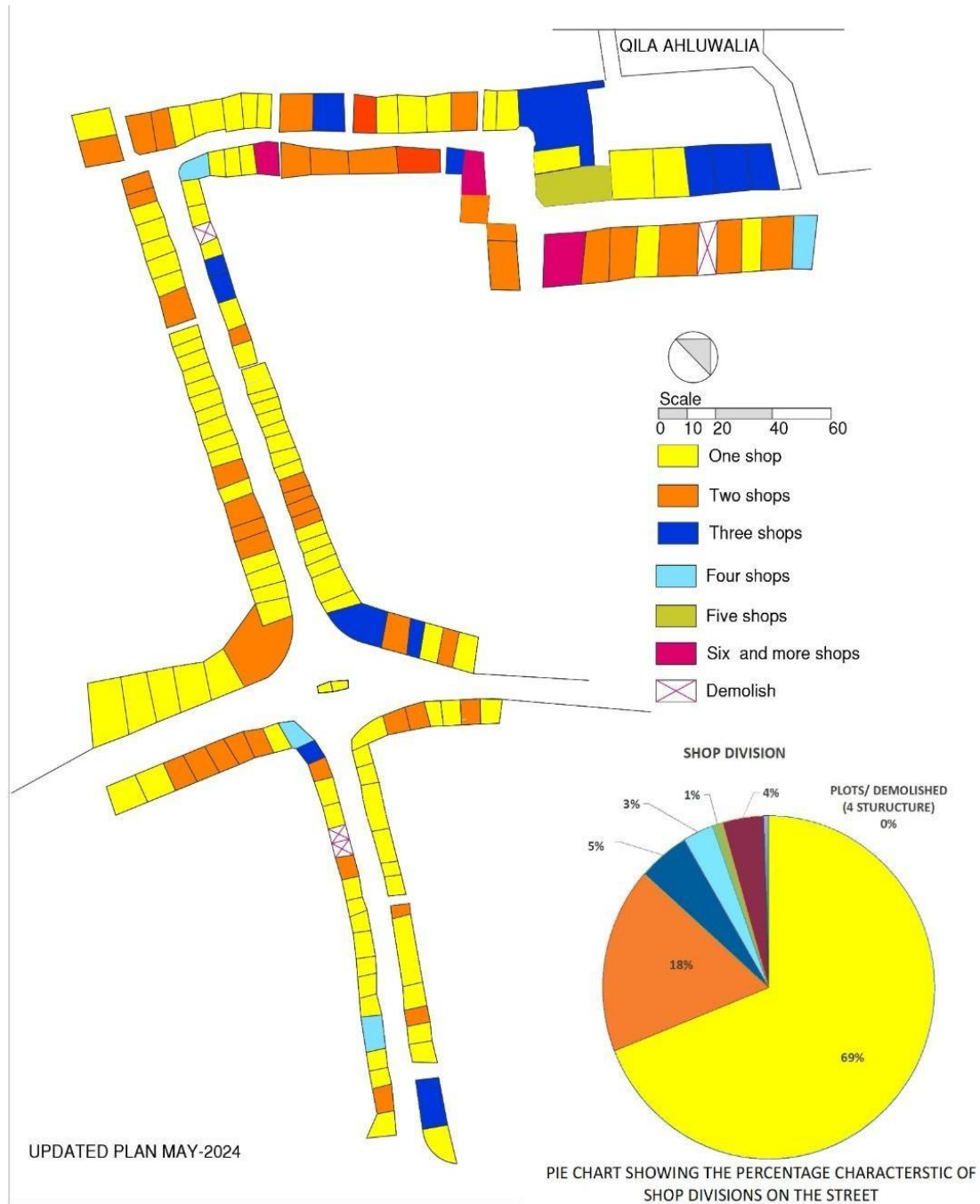


Figure 5.25 Sectional outer profile of modern buildings

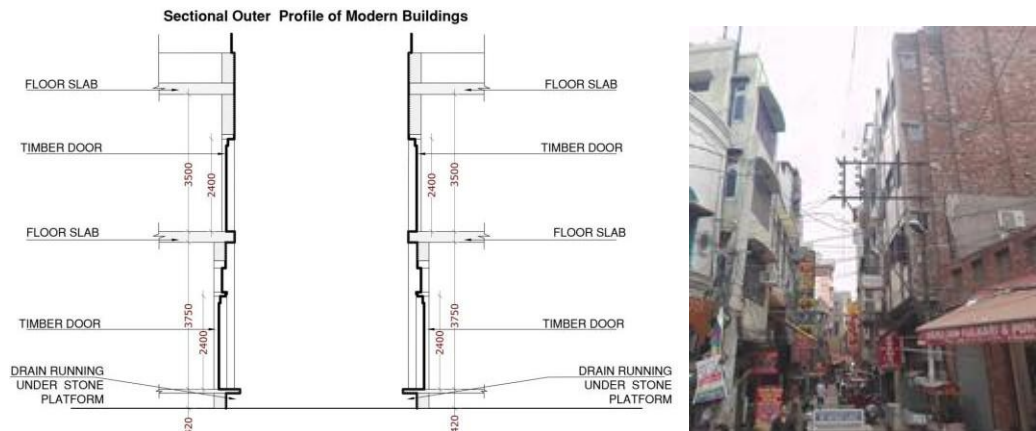


Figure 5.26: Sectional outer profile of historic buildings



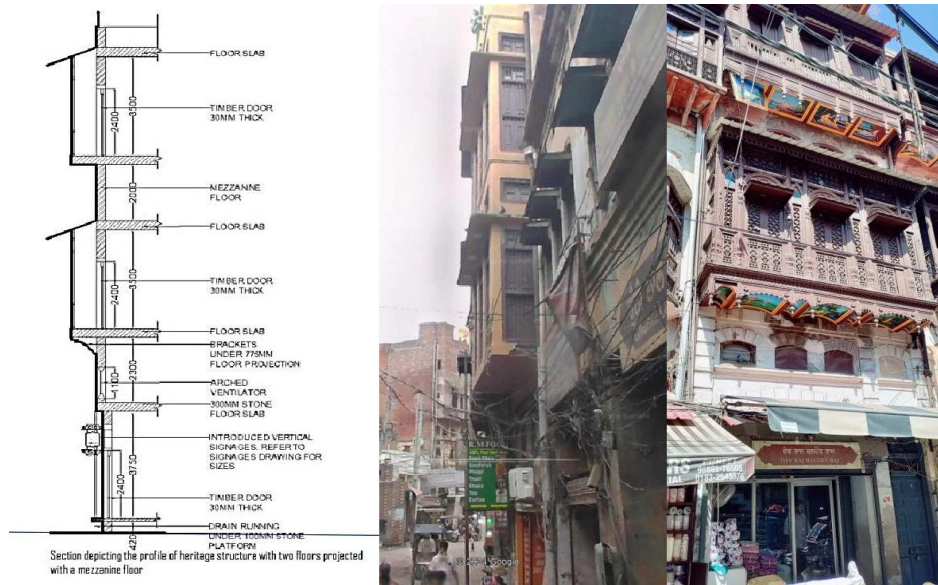


Figure 5.27: Left hand side elevation

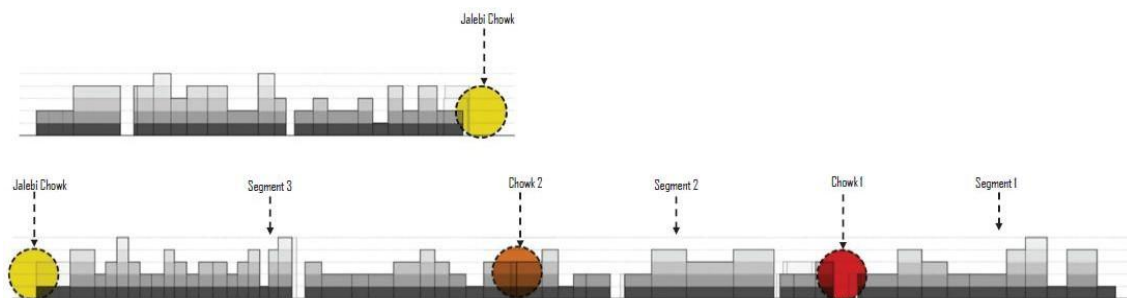
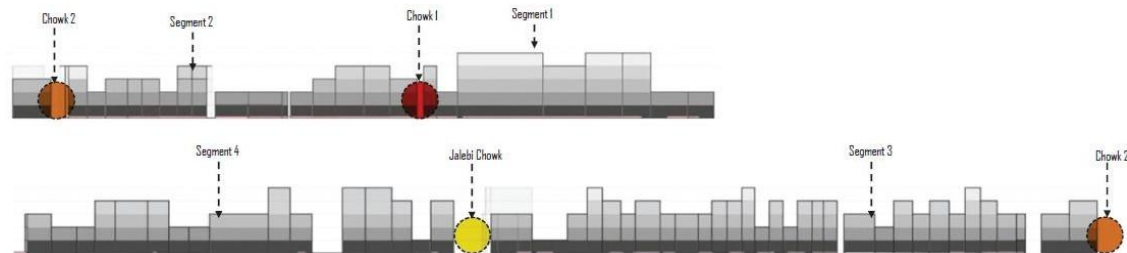


Figure 5.28: Right hand side elevation



In 72 percent of buildings, floors above the second storey are dilapidated due to:

- Non-use of upper floors.
- Poor maintenance.
- Structural instability and unsafe living conditions.
- Added floors increasing load on historic foundations.
- Partial collapses making upper levels inaccessible.

5.6.1. Street Character

Katra Ahluwalia's street character reflects the essence of a traditional Punjabi bazaar—narrow, lively and richly layered. The main street links Qila Ahluwalia to Maharaja Ranjit Singh Chowk, punctuated by chowks and narrow branching lanes that reinforce its organic form (punjab.tourism.gov.in).

Scale and Enclosure:

The street, 4–6 meters wide, is shared by vehicles and pedestrians, with 2/3 storey buildings creating intimate spatial enclosure. Taller 4/5 storey modern structures produce a more compressed, canyon like feel compared to the human scaled historic stretches.

Architectural Rhythm:

Traditional façades generate a rhythmic sequence through repeated balconies, openings and projections, forming cohesive visual continuity. Modern infill, with flat façades and inconsistent height, breaks this pattern and alters pedestrian experience.

Use and Activity:

Street life is defined by commerce spilling outward—wholesale goods, retail displays and food vendors generating constant movement and sensory vibrancy. Chowks serve as informal gathering nodes, though often constrained by parking and congestion.

Signage and Visual Identity:

Hand painted signage once complemented architectural character, while today's oversized plastic and LED boards dominate visually and obscure details. Controlled signage could reduce clutter and strengthen heritage aesthetics.

Infrastructure and Street Culture:

Overhead wiring, poles and varied lighting interrupt visual clarity, yet everyday practices such as sitting on thresholds or displaying goods outside shops sustain a strong sense of lived street culture.

Katra Ahluwalia's identity derives from its narrow scale, contiguous façades, commercial intensity and layered sensory environment. Conservation requires managing intrusive modern elements while preserving authentic bazaar vitality and architectural continuity.

The street character of Katra Ahluwalia arises from rhythmic shopfronts, aligned plinths, and proportionate façades (Map 5.4). Chowks and temple spires punctuate this

rhythm, defining its visual identity and pedestrian experience (Figure 5.29 and Figure 5.30).

The street divides into four segments separated by three chowks:

- Segment 1:** From Fawwara Chowk to Chowk 1 - Width 5.3m Wholesale shops and godowns.
- Segment 2:** Chowk 1 to Chowk 2 – Width 2–4.2 m – Wholesale shops.
- Segment 3:** Chowk 2 to Jalebi Chowk Width up to 6m Wholesale shops and godowns.
- Segment 4:** Jalebi Chowk to Ghanta Ghar Chowk – Width 6.5 m – Retail shops.

Map 5.4: Map highlighting the segment division in katra Ahluwalia

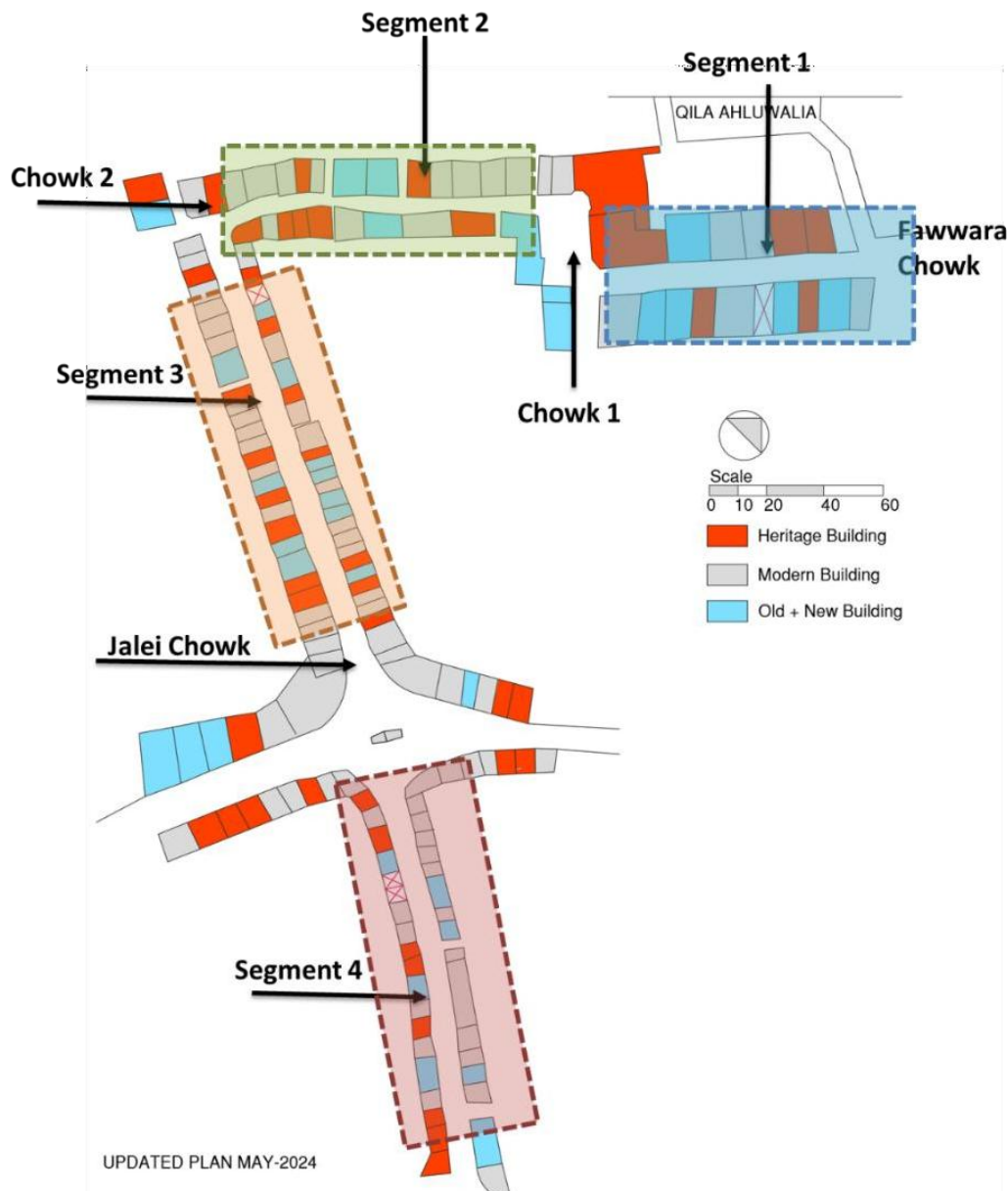


Figure 5.29: Shops with or without signage mostly wholesale shops



5.6.1. Shop Openings with Traditional Doors:

Katra Ahluwalia is an example of commercial activity occurring in historic context, which defines the street character and hence influences the shop fronts. The shop front character can be standardized by a systematic approach for shop openings and signages (Figure 5.30).

Figure 5.30: Existing shop's door designs in Katra Ahluwalia



5.6.2. Façade Morphology

Façade morphology refers to the form, proportion and visual articulation of building fronts. In Katra Ahluwalia, it highlights strong contrasts between historic and modern structures and demonstrates how facades collectively shape the street's identity. Traditional facades follow a vertically organized pattern with a shopfront base, a first floor zone with balconies or windows, and a parapet or cornice at the top. Narrow single bay widths create rhythmic repetition, while projecting chajjas and jharokhas introduce depth, shade and climatic response. Balanced void to solid ratios, articulated window surrounds, stringcourses, and textured surfaces provide visual richness and a human scaled character.

Modern facades, by contrast, are typically flat, large surfaced and minimally articulated, using glass, concrete or tile cladding. Misaligned floor heights and taller massing disrupt continuity and skyline balance, and the absence of parapet detailing and shading projections reduces visual depth. Oversized signage and bright colours further overwhelm traditional material expression.

Across the street, façade continuity varies: where historic frontages remain contiguous, the street maintains a strong rhythmic identity, whereas modern insertions weaken coherence and increase visual bulk. Attempts to imitate heritage detailing are inconsistent—occasionally sympathetic but often inauthentic. The layered street fabric reflects coexistence of historic havelis, shop houses, colonial era additions and contemporary RCC structures, where traditional otlas, timber shopfronts, panelled doors and coloured glass windows survive in some stretches but alternate with aluminium shutters and tiled façades. At skyline level, parapets and projecting chajjas are still visible, yet modern vertical extensions, concrete floors and rooftop tanks interrupt the silhouette.

Katra Ahluwalia's façade morphology ranges from richly articulated heritage fronts to flat modern surfaces. The balance—or conflict—between these forms defines the street's character. Conservation must prioritise retaining or reinstating traditional façade elements such as balconies, cornices and sunshades, while guiding modern development to respect scale, rhythm and visual harmony.

5.7. Street Character Based On Architectural Characteristics

Katra Ahluwalia's street character varies distinctly along its length, shaped by differing

concentrations of heritage fabric and modern development. Architectural composition directly influences how each stretch is experienced, forming identifiable character areas.

- **Segment A – Heritage dominant:**

Near Qila Ahluwalia, intact historic buildings create a cohesive traditional bazaar atmosphere. Elements such as jharokhas, carved wooden doors, and Nanakshahi brick walls produce intimate environment supported by wholesale trade and minimal signage.

- **Segment B – Mixed character:**

In the mid street zone, historic structures alternate with taller modern blocks, producing a visually fragmented environment. Retail activity intensifies signage and colour, generating vibrancy but weakening architectural unity.

- **Segment C – Modern dominant:**

Closer to Maharaja Ranjit Singh Chowk, redevelopment has introduced multistorey RCC buildings and hotels with flat façades and limited detailing. This segment reflects a generic commercial street character, reducing streetlevel engagement.

- **Chowks and Side Lanes:**

Spaces such as Jalebi Chowk act as community nodes and visual relief points, though often impacted by encroachment and parking. Narrow side lanes offer quieter residential character with simpler façades and fewer commercial elements.

The architectural character of Katra Ahluwalia exhibits four distinct typologies across its segments (Figure 5.31, Figure 5.32, Figure 5.33 and Figure 5.34):

Figure 5.31 Street view 1

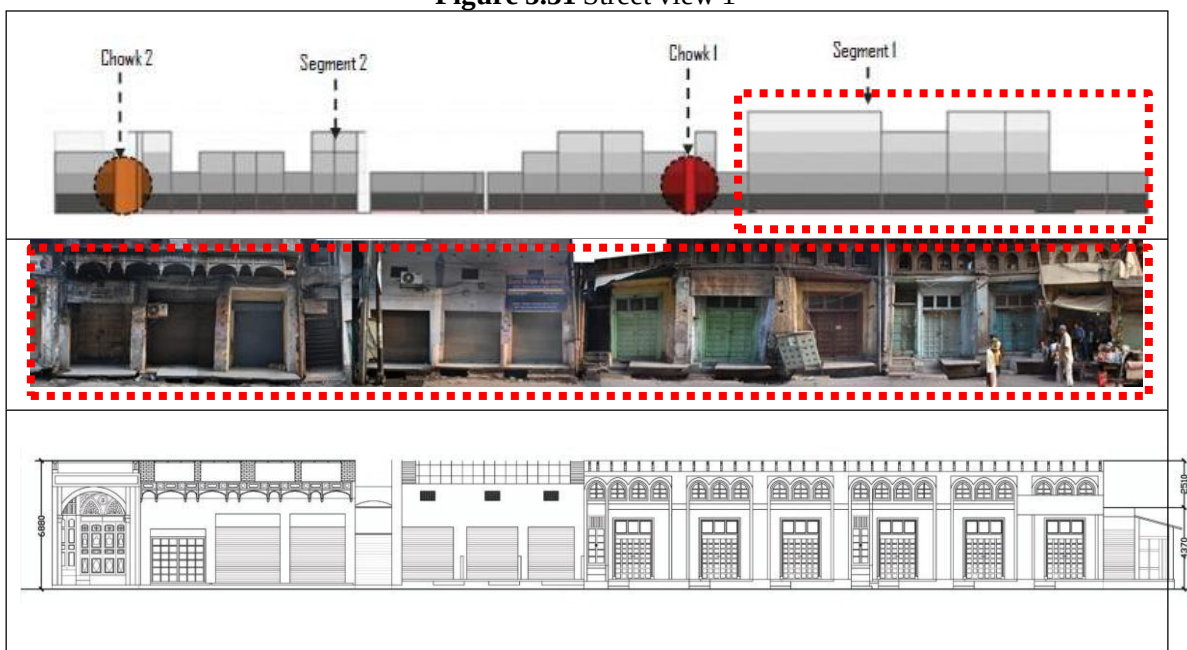


Figure 5.32 Street view 2

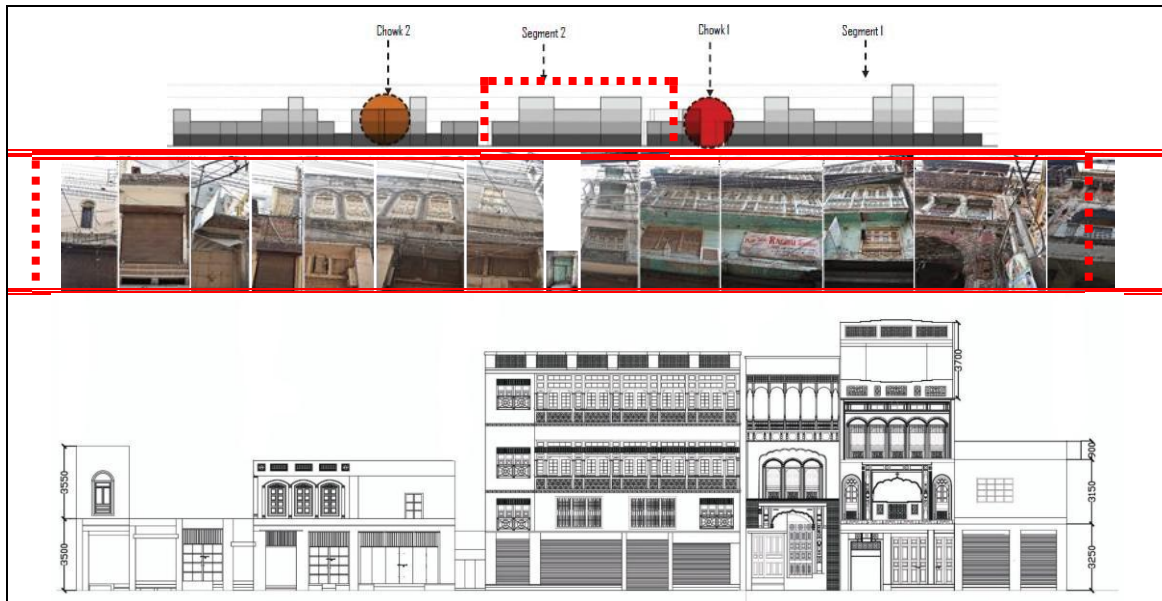


Figure 5.33 Street view 3

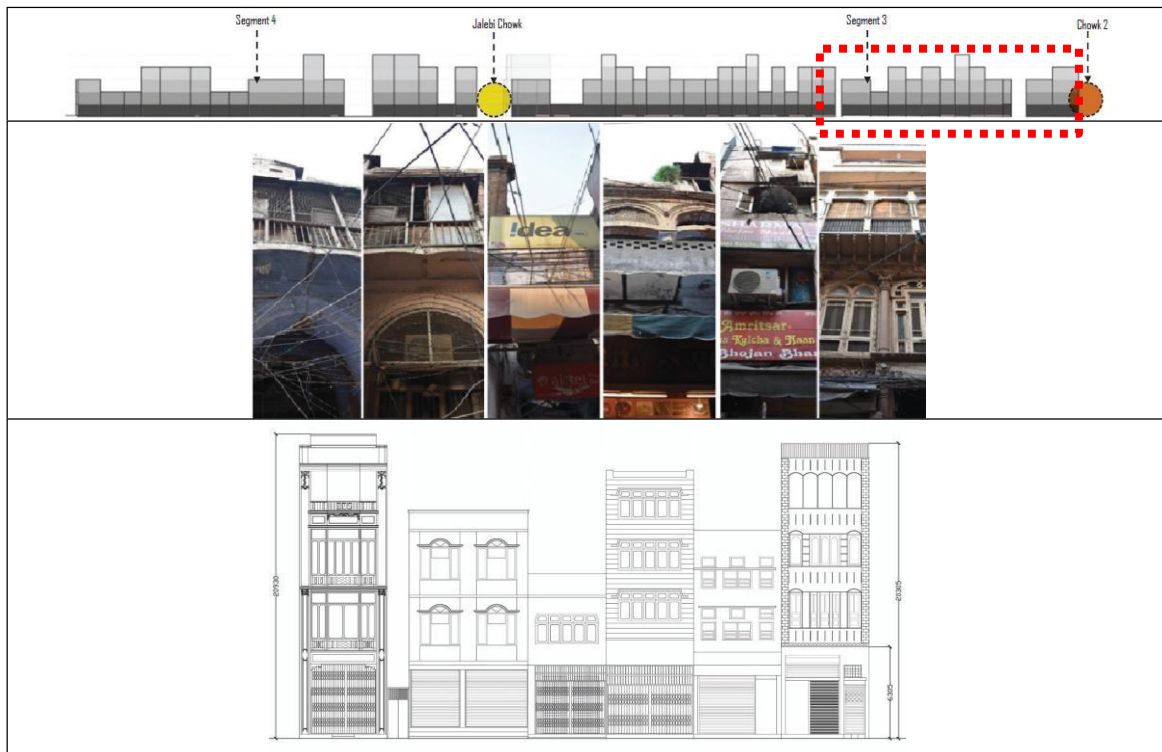


Figure 5.34 Street view 4



Segment 1: Continuous heritage façades dominate, preserving historic essence (Map 5.5).

Part of Segment 2: Continuous heritage façades with intricate wooden and stone detailing (Figure 5.35).

Segment 3: Three stretches of continuous heritage façades (8+ structures each), scattered modern façades disrupt rhythm.

Segment 4: One side retains heritage façades, opposite side mixes modern and historic styles.

Segments 2–4 display a blend of heritage and modern façades, reflecting conservation modernization tension.

Map 5.5: Map showing the division according to structure typology

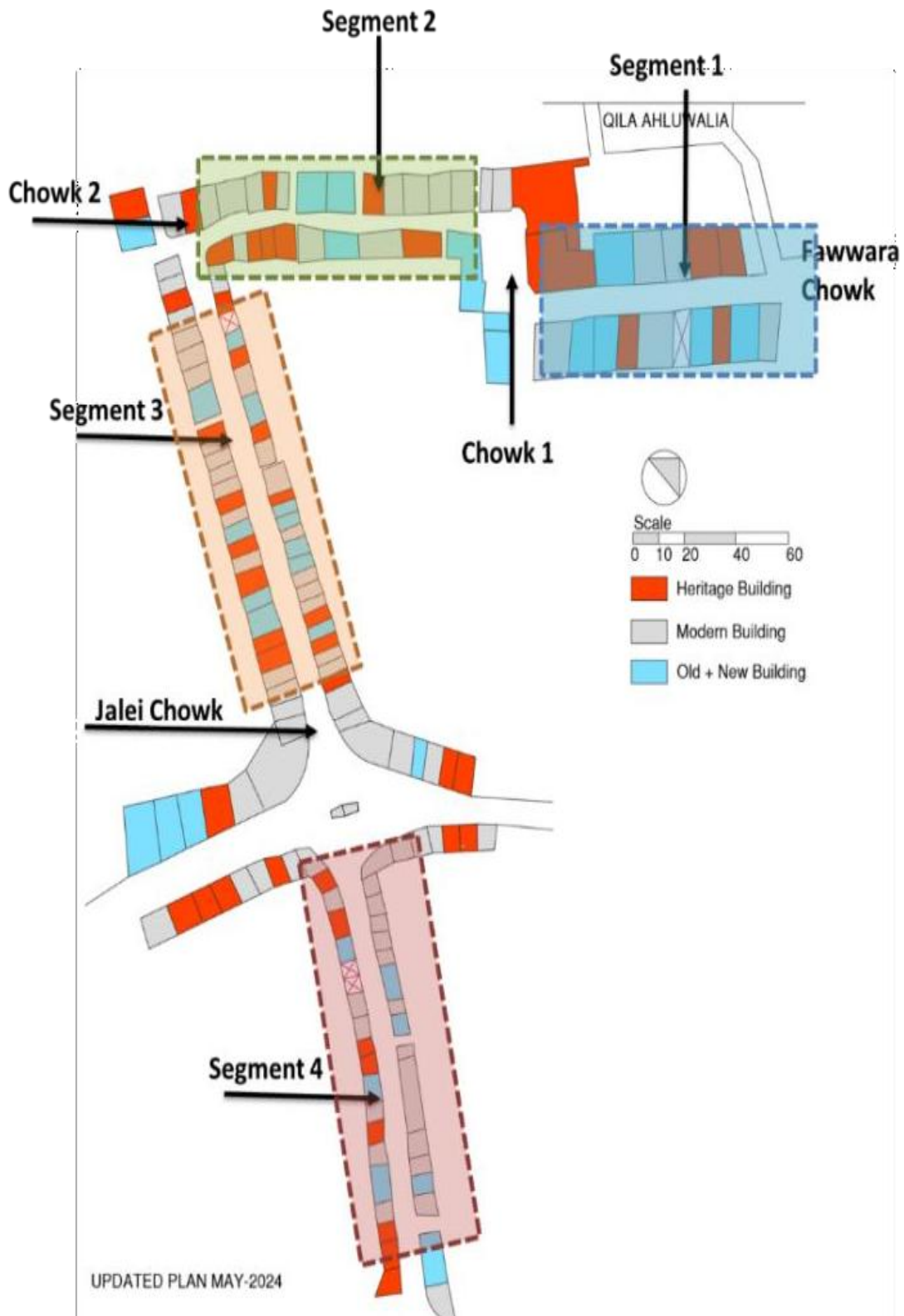


Figure 5.35: Shops and structures with heritage facades



Fig 5.35: Mix typology structures with heritage facades



5.8. Intangible Craft Traditions Linked to Tangible Heritage

The tangible heritage of Katra Ahluwalia — its façades, doorways, brackets, frescoes, and railings — cannot be fully understood without acknowledging the intangible craft traditions that produced them. These skills, passed through generations of artisans, are embedded in the material culture of the precinct and remain central to its historic character (UNESCO, 2011, INTACH, 2010).

- **Brickwork and Masonry Traditions**

The distinctive Nanakshahi brickwork with thin lime mortar joints reflects the expertise of local masons (*raj mistris*). Their knowledge of bonding patterns, joint proportions, and integration with lime plaster created the uniform façades still visible today (CRCI, 2015, Sharma, 2008).

- **Lime Plaster and Stucco Work**

The preparation of lime plaster, enriched with natural additives like jaggery, bael pulp, and methi seeds, was a specialised skill. Stucco reliefs in shallow floral and geometric motifs adorned arches and cornices, combining chemistry, artistry, and symbolism (Jain, 2015).

- **Decorative Painting and Murals**

Wall paintings executed with natural pigments animated alcoves, spandrels, and the soffits of *chajjas*. These frescoes, often religious or floral in theme, represented a collaborative art form between plasterers and *chiteras* (painters). Today only fragments survive, many obscured by whitewash or cement (Sharma, 2008).

- **Timber Joinery and Carving**

Carved wooden *jharokhas*, transoms, and doors embody the craftsmanship of the Ramgarhia community. Mortise and tenon and dovetail joinery ensured structural stability, while symbolic carvings of floral, geometric, and Sikh motifs reinforced cultural identity (Nanda, 2019).

- **Metalwork and Blacksmithin**

Local *lohars* forged wrought iron locks, hinges, and grills, while colonial castiron railings were integrated into balconies and parapets. This hybridisation of imported and indigenous skills reflected adaptability and modernity within traditional craft (Chattopadhyay, 2012).

- **Glasswork and Decorative Integration**

Specialist artisans installed coloured glass fitted into timber windows and transoms. The patterns of coloured light transformed interior atmospheres and connected daily life with symbolic traditions (CRCI, 2015).

- **Oral Knowledge and Community Practices**

Crafts were transmitted orally within families and guilds, tied to seasonal rhythms of construction and repair. They embodied cultural values of proportion, symbolism, and harmony with the sacred geography of Amritsar (INTACH, 2010, UNESCO, 2011).

Thus, every bracket, arch, fresco, or railing in Katra Ahluwalia represents not only material heritage but also intangible traditions (Table 5.4). Conservation therefore requires reviving these skills alongside physical restoration (UNESCO, 2011, HRIDAY, 2015).

Table 5.4: Intangible Craft Traditions and their Tangible Expressions in Katra Ahluwalia

Craft Tradition	Linked Tangible Elements	Present Status
Brickwork & Masonry	Nanakshahi brick façades, jack arches, band courses, walls	Disappearing, replaced by modular brick + cement
Lime Plaster & Stucco	Cornices, arches, wall finishes	Declining, cement plaster suffocates walls
Decorative Painting & Murals	Wall frescoes, alcove paintings, soffits under <i>chajjas</i>	Only fragments survive, obscured by whitewash
Timber Joinery & Carving	<i>Jharokhas</i> , panelled doors, transoms, wooden jaalis, columns	Declining, replaced by aluminium/steel
Metalwork & Blacksmithing	Castiron railings, wrought iron locks, hinges, grills	In decline, stainless steel replacing
Glasswork & Decorative Integration	Colouredglass windows, timber transoms	Practically extinct, replaced by PVC/clear glass
Oral Knowledge & Cultural Practices	Alignment of <i>katras</i> , symbolic motifs, seasonal building practices	Severely eroded

Source: Compiled from UNESCO (1994; 2003), INTACH Charter (2004), and ASI Conservation Manuals (2010; 2019).

5.9. Public Realm & Infrastructure Elements

The built environment of Katra Ahluwalia extends beyond individual buildings into the public realm, where infrastructure elements shaped daily life, circulation, and community interaction. These features chowks, wells, drains, signage, and thresholds,

were not merely functional but also reinforced the cultural and spatial identity of the precinct (INTACH, 2010, CRCI, 2015). Today, many survive in fragments or in altered form, while others are neglected or replaced, challenging both the functionality and authenticity of the historic fabric.

- **Chowks (Public Squares)**

Chowks were widening points in the narrow street fabric, functioning as nodes for trade, religious gatherings, and social exchange. They also acted as natural light and ventilation corridors within dense *katras*. Many chowks have now been encroached for parking or informal stalls, diminishing their collective role (Nanda, 2019).

- **Wells ((*kuans* and *baolis*))**

Wells (*kuans* and *baolis*) provided not only drinking water but also ritual purity and community gathering points. They were strategically placed in chowks and inner courtyards. With modern piped water, most are abandoned, filled, or polluted, yet they remain embedded in the collective memory of older residents (CRCI, 2015).

- **Piao (Public Water Stands)**

Piao structures, often endowed by merchants or religious patrons, offered free water to travellers and pilgrims. They symbolised community charity (*sewa*) and marked important street intersections. While once widespread, most have disappeared or been replaced by metal tanks and kiosks (INTACH, 2010).

- **Drainage Networks**

Historic drains were narrow, stonelined channels integrated into street edges. They directed wastewater towards natural outfalls, ensuring hygiene in tightly packed *katras*. Modern replacements with open concrete drains clash with the scale and material of historic streets, creating both visual and functional disruption (HRIDAY, 2015).

- **Gateways, Streets, and Connective Infrastructure**

Gateways at the entry to *katras* and chowks served as thresholds, controlling movement and providing security. Narrow lanes and culdesacs reinforced the defensive morphology of the walled city. Today, while some gateways survive, others have been demolished or reduced to symbolic archways, weakening the legibility of the historic network (CRCI, 2015).

Early streetscapes used minimalistic signboards and iron lampposts, blending with architectural vocabulary. Contemporary commercial signage — oversized, brightly

coloured, and often-in plastic or vinyl — creates visual clutter and overwhelms the historic façades. Hanging wires and poles further disrupt street views (INTACH, 2010).

- **Street Furniture and Thresholds (Otlas)**

Raised otlas at shopfronts functioned as both transaction platforms and informal seating, blurring private and public space. They encouraged interaction and gave rhythm to street façades. The replacement of otlas with flush tiled shopfronts and aluminium shutters has eroded this traditional interface (Sharma, 2008).

- **Community and Religious Micro Nodes**

Small shrines, samadhis, and wayside religious markers were integral to the public realm, anchoring daily rituals within streets. These nodes reinforced cultural continuity and collective memory. Many survive in altered form, often dwarfed by surrounding commercial growth (Nanda, 2019).

- **Environmental Infrastructure**

Trees planted at chowks, shaded corridors, and arcaded verandahs historically softened the dense urban grain, improving microclimate and walkability. Most of these features have vanished, replaced by asphalted surfaces and RCC projections. Their loss contributes to heat stress and diminishes comfort in pedestrian zones (UNESCO, 2011). The public realm and infrastructure of Katra Ahluwalia once embodied both utility and cultural symbolism, creating a shared heritage landscape. Chowks and wells enabled social gathering, otlas blurred thresholds, signage, gateways, and piaos oriented pilgrims and traders, while environmental elements ensured comfort and resilience. Their neglect or insensitive replacement undermines not only functionality but also the identity of the precinct. Conservation therefore must integrate revival of infrastructure heritage, restoring chowks as community spaces, conserving wells and piaos as cultural memory sites, redesigning signage and lighting in harmony with heritage vocabulary, and reintroducing environmental elements to support sustainable precinct life (INTACH, 2010, CRCI, 2015, HRIDAY, 2015, UNESCO, 2011).

5.10. Conservation Issues and Condition Assessment of Architectural Fabric

The condition assessment of Katra Ahluwalia's architectural fabric reveals extensive deterioration across nearly all categories of historic elements, reflecting decades of neglect, environmental exposure, insensitive commercial alterations and incompatible modern repairs (INTACH, 2010, CRCI, 2015, HRIDAY, 2015). Progressive loss of

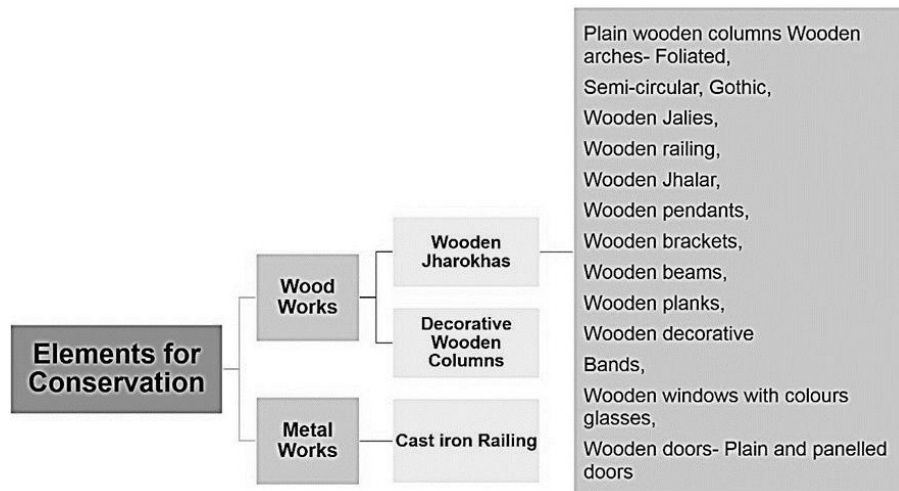
material integrity has resulted in erosion of craftsmanship, weakened structural components and fragmentation of streetscape character, particularly in projecting architectural features such as balconies, jharokhas, brackets and transoms (Sharma, 2008, Nanda, 2019). Cement patching, aluminium shutters, tile cladding, oversized signage and exposed wiring, disrupting traditional articulation and rhythm, have visually obscured many original facades.

Historic structures constructed with Nanakshahi brick, lime mortar, carved timber, coloured glass and wrought/cast iron detailing are especially vulnerable. Field surveys and photographic documentation indicate that deterioration is widespread and accelerating, making immediate conservation critical.

- **Condition Assessment of Timber Elements**

Timber elements(Figure 5.36) Various including beams, joists, jharokhas, balconies, carved brackets, panelled doors and transoms—exhibit severe decay, driven by moisture ingress, termite infestation and inappropriate repairs. Structural timber shows sagging and joint failure, decorative elements are cracked, weathered or missing. Unsafe balconies and projections with temporary props indicate imminent public safety risks. Frequent replacements with aluminium or PVC erase historic craftsmanship, while heavy paint layering conceals fine details and traps moisture. Overall condition ranges from fair to poor, making timber conservation an urgent priority.

Figure 5.36: Various elements for conservation in Katra Ahluwalia



- **Condition Assessment of Wall Paintings & Decorative Arts**

Surviving frescoes, murals and stucco reliefs exist only in fragmentary, highly fragile form. Major deterioration includes flaking pigment layers, salt crystallisation, soot

deposition, mechanical damage from wiring and fixtures, and repainting or whitewashing over original surfaces (figure 3.37). Many paintings retain only faint outlines. These are among the most endangered heritage elements, requiring documentation, stabilization and careful cleaning rather than repainting (Table 5.5).

Figure 5.37: Condition Assessment of the Wall Paintings with present status



Table 5.5: Existing Status of the Wall Paintings

Category	Observed Conditions
Wooden work problems	Deterioration and decay of members, missing decorative components, segregated joinery, instability of projections, fibre separation
Other work problems	Rotting, dust deposits, water penetration, collapsed balconies, inappropriate additions, wiring interference, lost original colour, paint layering concealing details

- **Condition Assessment of Metalwork**

Cast and wrought iron rails, grills, brackets and hardware suffer from corrosion, weakened joints, missing components and incompatible steel replacements. Rust jacking has cracked adjacent masonry, and removal of railings has left balconies unstable. Lack of protective coatings has accelerated decay, and crude welded repairs disrupt visual integrity. Condition ranges from fair to poor, with urgent need for rust stabilization, replication of missing parts, and protective finishing.

- **Condition Assessment of Lime Plaster & Masonry**

Lime plaster shows cracking, delamination, spalling and biological growth, largely caused by moisture and rising damp. Cement patching has trapped moisture, worsening deterioration and causing adjacent lime to fail. Many facades have lost plaster entirely, exposing Nanakshahi brick to erosion and weakened mortar joints. Masonry suffers from settlement cracks, bulging walls, mortar loss and weakened parapets and jack arches. Structural stability is at risk where internal supports have failed or where floors were added without strengthening.

Assessment findings confirm widespread deterioration threatening the survival of Katra Ahluwalia's architectural identity. Many elements are already lost, others are at immediate risk of collapse or irreversible damage. Physical decay parallels loss of intangible craftsmanship traditions, resulting in a visually fragmented urban fabric. Urgent conservation using traditional materials, skilled artisans, moisture control and removal of incompatible repairs is essential to safeguard remaining heritage. Without immediate intervention, the precinct may face irreversible loss of cultural, architectural and historical value.

The condition assessment of Katra Ahluwalia's architectural fabric reveals extensive deterioration across almost all categories of historic elements within the precinct. Based on primary field survey, photographic documentation, measured visual inspection, and material observation, the study identifies progressive loss of material integrity, erosion of craftsmanship expression, and fragmentation of architectural character (Table 5.6). Degeneration has resulted from prolonged neglect, environmental exposure, absence of preventive maintenance, insensitive commercial alterations, and incompatible modern replacements, which disregard heritage values (INTACH, 2010, CRCI, 2015, HRIDAY, 2015).

Historic structures constructed with Nanakshahi brick, lime mortar, carved timber joinery, coloured glass glazing, cast and wrought iron railings, and lime plaster with fresco finishes are especially vulnerable. Damage is most pronounced in projecting architectural features such as balconies, jharokhas, brackets, transoms, and soffits under chajjas, where structural instability arises from water penetration, termite infestation, overloading from newly added floors, and corrosion of embedded structural supports (Sharma, 2008, Nanda, 2019). Increasingly, large sections of façade surfaces have been visually and materially compromised by cement plastering, tile cladding, PVC and aluminium shutter installations, oversized commercial signage and exposed service wiring, obscuring the original architectural articulation and streetscape rhythm.

The assessment demonstrates that almost every architectural feature in Katra Ahluwalia has suffered loss or damage, and many original elements have disappeared entirely. The deterioration is gradual yet widespread, threatening to permanently erase the identity of the historic streetscape. The decline of physical elements parallels the disappearance of intangible craftsmanship traditions, resulting in a fragmented and visually incoherent environment. Without immediate conservation intervention using traditional materials,

construction techniques, and skilled artisan involvement, the remaining heritage character faces irreversible loss.

Table 5.6: Construction Era Indicators, Deterioration Causes, and Impact on Cultural Fabric

Architectural Element / Issue	Probable Construction Era / Dating Indicators	Primary Causes	Impact on Heritage Character & Fabric
Timber Elements (jharokhas, balconies, brackets, beams, doors, transoms)	1760–1850 (Misl & Sikh Empire), Early 20th c. repairs — Nanakshahi brick + carved timber detailing	Moisture ingress, termite attack, structural overloading, poor repairs	Structural instability, risk of collapse, loss of ornament & microclimate control
Wall Paintings, Frescoes & Decorative Stucco	1780–1910 — Sikh fresco tradition & colonial pigments	Dampness, salts, soot, mechanical wear, repainting	Loss of artistic identity & cultural narrative
Metalwork (cast/wrought iron railings, grills, hardware, ties)	1880–1940 Colonial era — cast/wrought iron balcony rails & grills	Rust, coating loss, missing elements	Structural weakness, detail loss, safety hazard
Lime Plaster & Stucco Relief	1780–1930 — lime stucco ornament & plaster bands	Cement patching, moisture, weathering	Loss of ornament form, detachment, exposed substrate
Nanakshahi Brick & Masonry Walls	1760–1947 — small brick units & lime mortar	Mortar erosion, rising damp, settlement cracks	Structural risk, authenticity loss
Openings & Door/Window Systems	1780–1930 — panelled wood doors, coloured glass transoms	Aluminium/PVC replacement, decay, enlargements	Loss of rhythm & natural ventilation
Arches (segmental, pointed, four centred, semicircular)	Pointed/Cusped: 1760–1800, Segmental: 1800–1850, Semicircular: 1860–1930	Flattening, cladding, removal	Loss of architectural chronology & identity
Chajjas, Cornices, String Courses & Parapets	1780–1930 — projecting shading elements	Weathering, corrosion, removal for signage	Loss of shading & street rhythm
Balconies & Projections	1780–1850 primary, modified 1900s	Water ingress, rusted anchors, overload	Collapse hazard & loss of façade depth
Signage & Visual Pollution	Post 1990 commercialization	Lack of guidelines, flex boards	Facade concealment, chaotic identity

Street Furniture & Infrastructure (wiring, poles, drainage, paving)	Mixed periods, major intrusion post 1990	Ad hoc additions	Visual clutter, poor pedestrian environment
Building Heights & Skyline	Height shift post 1970, major surge 1990–present	Unregulated floors, tourism pressure	Loss of scale, skyline disruption
Illegal Alterations, Demolitions & Redevelopment Pressure	Post 1980 intensification	Ownership fragmentation, weak enforcement	Irreversible heritage loss
Loss of Craftsmanship & Skilled Labour	Decline after 1970, ustad shagird tradition weakening	Shift to industrial materials	Inability to restore fine details
Paving & Street Surface Character	Traditional stone paving pre 1950, replaced later	Encroachment, utility trenching	Discomfort & drainage failure

Source: Feilden (2003), Ashurst & Ashurst (1988), Watt (1999), ICOMOS (2017), Orbaşlı (2008), Matero (2003), UNESCO (2011), and INTACH (2004).

5.11. Conclusion

Katra Ahluwalia represents a richly layered heritage precinct within Amritsar’s walled city, where architectural elements and craft traditions coalesce into a distinctive urban identity. It’s built fabric—defined by Nanakshahi bricks, lime plaster finishes, carved timber jharokhas, cast iron details, and coloured glass—reflects centuries of evolving construction techniques and stylistic influences, from the Sikh Misl period through colonial interventions. These tangible features are inseparable from the intangible knowledge systems that produced them: artisanal skills in brick-making, fresco painting, lime plastering, timber joinery, and metalwork, many of which are now in serious decline.

Despite its architectural richness, the precinct faces significant challenges. Structural decay, inappropriate modern materials, and unsympathetic renovations have disrupted the physical coherence and authenticity of many buildings. Commercial pressures—accelerated by tourism and lax regulation—have led to the replacement of historic homes with modern commercial structures, threatening both architectural integrity and cultural continuity. Public infrastructure, once central to community life—such as wells, chowks, and pias—has been encroached upon or neglected, eroding the social and environmental fabric that once supported the area’s unique civic life.

This combination of material degradation, fading craft traditions, and unsystematic urban change has created a hybrid morphology—where historic, colonial, and modern layers exist side by side. While this hybridity reveals the precinct’s adaptive capacity, it also undermines the authenticity and legibility of its heritage. Physical alterations have diminished the originality of architectural forms, and the weakening of cultural practices has distanced the community from its historical rhythms.

Katra Ahluwalia thus stands at a critical juncture. It remains a vital urban heritage landscape of architectural, social, and cultural significance, but its survival depends on urgent, informed, and culturally sensitive interventions. The findings of this chapter underscore the need to preserve not just individual buildings but the broader ecosystem of practices, materials, public spaces, and memories that together define the soul of this historic precinct.

CHAPTER 6

RESULTS AND DISCUSSION: STATISTICAL ANALYSIS

This chapter explores the statistical analysis of community opinions and engagement in the conservation of heritage precincts in Amritsar. Using a four-cell matrix, the study categorizes respondents based on their awareness and visitation of historic sites, examining relationships between demographic factors and heritage consciousness. The analysis, supported by one-way ANOVA, investigates perceptions of conservation efforts by the community and government, the use of traditional versus modern materials, and the role of community pride. Key insights reveal significant variations in public participation, community awareness, socio-economic influences, and preferences for conserving the city's historical integrity, providing a foundation for strategic, community-driven heritage conservation efforts.

Heritage consciousness and the number of times people visit historic sites and buildings form the basis of the study's proposed four-cell matrix. The inhabitants of Amritsar are represented by the following four cells:

- Category A (These persons are aware and are residents of the Amritsar.)
- Category B (These persons are aware and are non-residents of the Amritsar.)
- Category C (These persons are unaware and are residents of the Amritsar.)
- Category D (These persons are unaware and non-are residents of the Amritsar.)

6.1 Research Technique, Data Source and Analytical Framework

6.1.1 Overview of Analytical Approach

The analytical framework for this study is based on quantitative interpretation of survey data, supported by both descriptive and inferential statistical techniques. Two key indicators of awareness—knowledge and behavior—form the foundation of analysis. Knowledge reflects familiarity with historic structures that have been lost, altered, or destroyed, while behavior refers to the respondent's engagement through site visits. These dimensions together establish the level of heritage consciousness within the community.

The research adopts a comparative framework connecting tangible aspects of built heritage with intangible aspects of community perception such as pride, awareness, and participation. This dual interpretation enables an integrated understanding of the

conservation condition of Katra Ahluwalia within Amritsar's walled city.

6.1.2 Survey Method and Data Collection

As discussed in Chapter 3, data were collected through a structured questionnaire survey administered to 272 respondents in Katra Ahluwalia. The survey was conducted through door-to-door interactions, and respondents aged 18 years and above were selected randomly. When individuals were unavailable, repeat visits were made to ensure completeness. A total of 250 valid responses were retained after pre-testing and verification.

The questionnaire was pre-tested with 30 respondents to ensure clarity and comprehension, after which certain questions were refined. The survey captured information on awareness of heritage sites, attitudes toward conservation, perceptions of government and community roles, and demographic attributes such as age, gender, education, income, and nativity.

6.1.3 Questionnaire Structure and Measurement Scale

Questions covered the frequency of visits to heritage sites, evaluation criteria for heritage value, and opinions regarding visitor amenities. A five-point Likert scale was used to measure attitudes, where 1 represented strong agreement and 5 represented strong disagreement. Positive statements included "Heritage conservation saves the past," "Heritage conservation conserves a better future," and "Heritage conservation rehabilitates old buildings for new uses." Negative statements included "Heritage conservation prevents change" and "Heritage conservation obstructs progress." Six criteria were applied to assess heritage perception—beauty of the building, historical or cultural importance, sense of place, economic potential, architectural merit, and age of the building. Respondents also evaluated site features such as information displays, guided tours, printed material, accessibility, and environmental ambience. These responses generated both tangible and intangible datasets for analysis.

6.1.4 Data Validation and Preparation

The collected data were coded numerically in Microsoft Excel 2021 and processed in SPSS. Basic consistency and reliability checks were carried out through field validation and cross-comparison of responses. Incomplete or inconsistent entries were verified through follow-up discussions with respondents. This step ensured that all responses were suitable for percentage and ANOVA analysis.

6.1.5 Analytical Tools Used

Two major analytical tools were applied for data interpretation:

1. **Percentage Analysis** — a descriptive statistical tool used to present the relative proportion of responses, showing trends in awareness, visitation, and perception patterns.
2. **One-Way ANOVA** — an inferential statistical tool applied to test the significance of variation in opinions among different socio-economic groups such as income, education, age, and nativity.

Percentage analysis provided an overview of response distribution, while One-Way ANOVA identified statistically significant differences among group means. The combined use of both ensured balanced interpretation of quantitative and perceptual data.

6.1.6 Linkage between Research Objectives and Analytical Methods

- To examine the present condition of heritage structures, percentage analysis and descriptive tabulation were applied.
- To assess community and government efforts in conservation, percentage comparison across demographic groups was employed.
- To evaluate the influence of repair materials (traditional vs. modern), One-Way ANOVA and mean-score comparison were utilized.
- To analyse community pride and awareness levels, percentage analysis and ANOVA variation testing were conducted.
- To identify gaps in existing conservation mechanisms, comparative synthesis of all analytical findings was implemented.

6.1.7 Nature of Analytical Tools

The two analytical techniques employed in this study belong to complementary branches of statistics. Percentage analysis represents the descriptive aspect of analysis—it summarises responses into proportions and highlights patterns. One-Way ANOVA belongs to the inferential category—it tests whether observed differences between group means are statistically significant. Together, they provide both a broad overview and validated interpretation of public perception, forming a sound empirical foundation for further discussion.

6.2 Analysis and Results

6.2.1 Overview of Analytical Process

The analytical results are derived from 250 valid responses representing different socio-economic and demographic groups in Katra Ahluwalia. The analysis follows two sequential stages: first, a descriptive evaluation through percentage analysis to identify trends, and second, a comparative evaluation through One-Way ANOVA to test the significance of variation among categories such as age, education, income, and nativity.

6.2.2 Percentage Analysis of Awareness and Behavior

Percentage analysis was used to summarize respondents' awareness of heritage structures, frequency of visits, and perceptions of conservation practices. The findings highlight the proportion of respondents aware of heritage precincts, their familiarity with conservation principles, and their level of participation in conservation activities. This step also clarifies the relationship between awareness and behavioral patterns across different demographic groups.

6.2.3 Awareness–Behavior Matrix

To interpret behavioral variation, a four-cell awareness–behavior matrix was developed based on conservation consciousness and visitation patterns:

Category A: Local residents of Amritsar who are aware of heritage conservation and have visited heritage sites within the past quarter.

Category B: Non-residents who are aware of the importance of conservation but have not visited any heritage precincts recently.

Category C: Local residents who have visited heritage sites but lack conceptual awareness about conservation.

Category D: Non-residents who neither possess conservation awareness nor have visited heritage sites.

This classification provides the conceptual basis for comparative analysis using ANOVA.

6.2.4 Application of One-Way ANOVA

The One-Way ANOVA test was used to determine whether significant differences existed in respondents' views on heritage conditions, community efforts, government involvement, repair materials (traditional vs. modern), and community pride. Significance was assessed at the 95% confidence level ($p < 0.05$), revealing clear

variation across demographic groups. Respondents with higher education showed stronger awareness and preference for traditional materials, while younger or lower-income groups displayed limited familiarity but greater reliance on government initiatives. Overall, the findings show that conservation attitudes are shaped by socio-economic background and exposure.

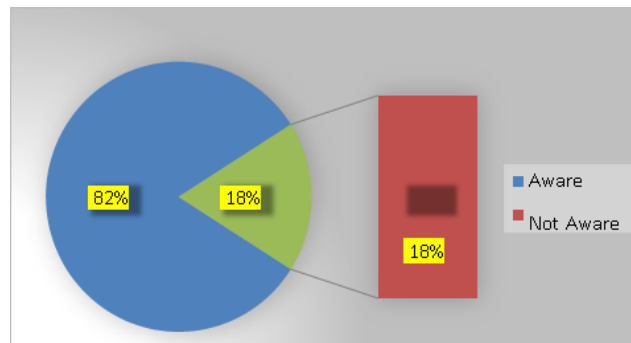
6.2.5 Interpretation and Synthesis of Results

The combined results of percentage analysis and ANOVA illustrate how tangible and intangible factors interact in the conservation process. The findings show that awareness, visitation, and perception differ notably across community groups, and that higher awareness corresponds with more positive attitudes toward conservation. Education and income further shape the understanding of material authenticity and heritage value. Overall, the analysis indicates that community awareness, socio-economic conditions, and government involvement jointly influence the conservation outlook of Amritsar's walled city. Using percentage analysis descriptively and One-Way ANOVA inferentially ensures methodological rigor and supports the evidence-based conclusions presented in the next chapter.

6.3 Heritage Conservation Community Awareness and Visited Heritage Precinct

In the following matrix the details of survey have been given. The matrix shows that only 18 percent of residents are aware of heritage conservation, and 64 percent have visited at least a historic site or heritage building within the last few months (Figure 6.1, Figure 6.2).

Figure 6.1 Heritage Conservation Community Awareness



The figure 6.1 shows that, out of the total respondents 82 percent of the respondents of the community are aware to conserve the heritage structure of the research area. On the

other side, only 18 percent of the people are not aware to conserve the heritage structures of the city. A large majority (82%) of respondents are aware of the heritage conservation process, while 18% are not aware. This indicates a high level of awareness, but it also suggests there is room for improvement in outreach and educational campaigns to engage the unaware 18%.

This shows that, the awareness in between the community to save the old traditional (heritage precincts) were on the higher side. Natives of the research area are eager to save the old traditional structures. At the same time it has also been seen that only 18 percent respondents are not aware for conservation of heritage structures. The figure 6.2 is in relation to the heritage conservation on the research area and respondents visited to the old structured places.

Figure 6.2: Visited heritage precinct by the respondents

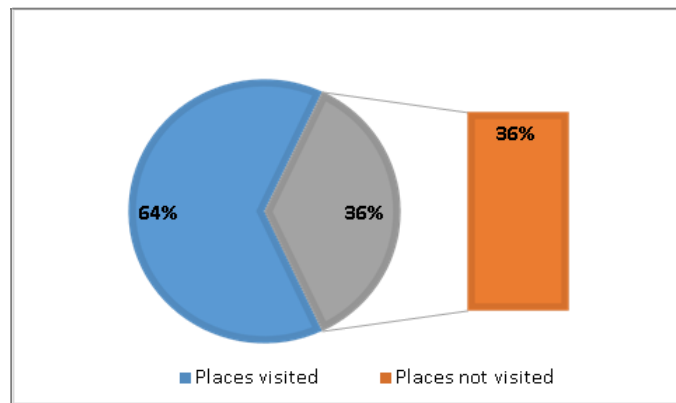


Figure 6.2 shows that 64% of respondents from the research area have visited traditional heritage structures, while 36% have not. This represents significant engagement but also highlights a sizable portion of the community that has not physically interacted with these important spaces, which may impact their attachment to and concern for conservation.

This finding indicates that more than 50% of respondents are interested in visiting heritage precincts. It also reflects a desire among the community to conserve traditional architectural styles, construction techniques, and cultural heritage. A key motivation for this interest is the potential to generate income from traditional heritage structures, making these sites self-sustainable.

The four groups of people were compared based on

- Demographic variables and attitudes toward heritage conservation,

- Functions of historic conservation,
- Role of the public sector in heritage conservation,
- Conservation criteria and the importance of features and facilities.

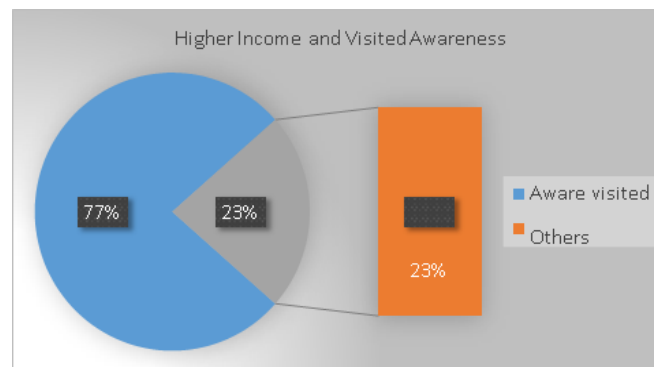
6.4 Income Level Awareness for Heritage Precincts

All the demographic variables demonstrated relationships between these groups with income, education, age, and years lived in Amritsar.

6.4.1. The Income Level and Awareness for Heritage Precincts

In terms of income, approximately 77% of the aware/visited group had higher income, while only 50% of the aware/not-visited group, 65% of the unaware/visited, and 45% of unaware/not visited group had the higher income (Figure 6.3 to Figure 6.6).

Figure 6.3: Higher Income level and Visited Awareness in heritage precincts



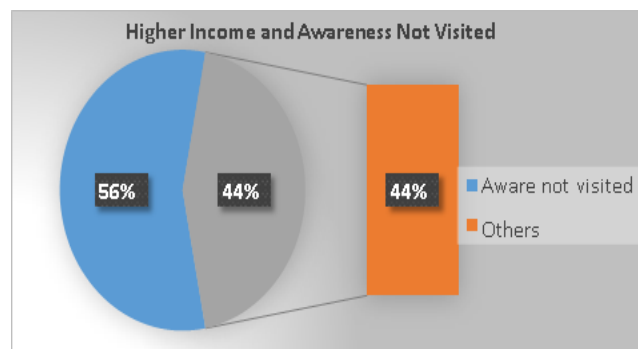
The figure 6.3 revealed that 77 percent people are visited and ware for the conservation and conservation of the heritage buildings. At the same time, only 23 percent of the respondents are belonging to other categories (Figure 6.3). This indicates that higher-income individuals are generally more engaged, which may be due to better access to information and resources.

The figure also revealed that, the higher income group level is very much aware for heritage conservation. At the same time the higher income group visited most of the heritage precincts frequently. This reveals that the higher income group tends to be more aware and more likely to visit historic sites, which supports similar findings in past research on heritage visitors (Hovinen 2002; Kerstetter et al. 2001; Prentice 1989). It also shows that the higher income group is work as active member for the conservation of historic structures as well as the cultural values.

6.4.2. Higher Income Level and Awareness but Not Visited

In the second indicator of demographic variables, the analysis of “higher income level and awareness but not visited” was conducted. Figure 6.4 shows that, out of the total sample surveyed, 56% of respondents have not visited the heritage precincts, while 44% belong to other categories. This indicates that 56% of higher-income respondents are aware of heritage sites but have not visited them, compared to 44% who have. While awareness is present, this highlights a need to improve engagement, particularly in the form of visitation, even among more affluent groups.

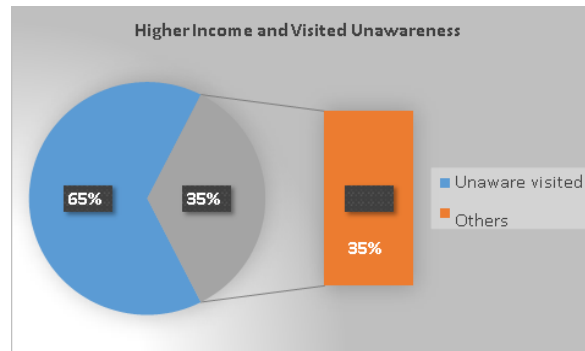
Figure 6.4: Higher Income level and not Visited Awareness in heritage precincts.



The second variable shows that the higher income group level is aware for the conservation of heritage precincts. Interesting fact is that this particular group is aware for the conservation of heritage but rarely visit to the historical structures and areas. The figure 6.4 reveals that, the higher income group has been aware about the conservation and conservation of the historical and cultural areas. At the same time, higher income level people are aware but not visit to the heritage places. The fact is that higher income level people are inactively contributing to the heritage conservation.

6.4.3. Higher Income Level and Visited but Unawareness

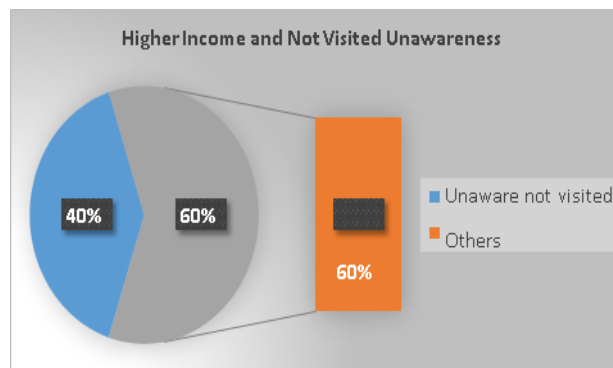
In the third indicator of demographic variable the analysis for “higher income level group and visited but unawareness: with respect the conservation and conservation of heritage precincts. In this indicator, it has been observed that out of total sample survey for higher income level group 65 percent of the respondents are unaware for the conservation and conservation of the heritage precincts. Only 35 percent respondents are aware for the same situation (Figure 6.5).

Figure 6.5: Higher income level group visited but unawareness

The above figure 6.5 shows that, many of the respondents are not aware for the conservation and conservation of the heritage buildings. For the future, it can be serious threat for the heritage precincts. Despite their lack of awareness, 65% of higher-income respondents have visited heritage sites. This suggests that visitation may not always be tied to awareness, and that unawareness exists even among active participants.

6.4.4. Higher Income Group Unawareness Not Visited

In the fourth indicator of demographic variable the analysis for “higher income level group and not visited as well as unawareness with respect the conservation and conservation of heritage precincts.

Figure 6.6: Higher income group and not visited as well as unawareness

In the above mentioned indicators it has been observed that out of total sample survey for higher income level group 40 percent of the respondents are not visited and unaware for the conservation and conservation of the heritage precincts. Only 60 percent respondents are belonging to the other category (Figure 6.6). Among higher-income groups, 60% are unaware and have not visited heritage sites. This group represents a key target for awareness campaigns, as they have both the resources and potential

influence to contribute to conservation efforts if properly engaged.

6.4.5 Percentage Cross-Comparison of Income, Awareness and Visitation

The relationship between income level, awareness, and visitation frequency was examined using percentage distribution tables. Respondents were grouped into low, middle, and high-income categories, and their corresponding awareness levels and visitation patterns were cross-compared.

The percentage comparison reveals that individuals belonging to the middle and upper income brackets show relatively higher awareness of heritage conservation, supported by frequent visitation to heritage sites. However, certain high-income respondents, though financially capable, display lower behavioural engagement, indicating that awareness does not always translate into participation.

Conversely, respondents from lower income groups often exhibited moderate awareness but greater community proximity to heritage zones, suggesting an experiential connection rather than informational awareness. This implies that heritage awareness among income groups is uneven, reflecting socio-economic disparities in education, access to information, and cultural involvement.

These results are represented through percentage tables and bar charts, showing comparative proportions of respondents who:

1. Are aware and have visited,
2. Are aware but have not visited,
3. Have visited but lack awareness, and
4. Are neither aware nor have visited.

The descriptive comparison provides a clear picture of how income level influences both heritage knowledge (cognitive awareness) and heritage behaviour (visitation practice) within the walled city of Amritsar.

6.5. Education Level And Awareness For Heritage Precincts

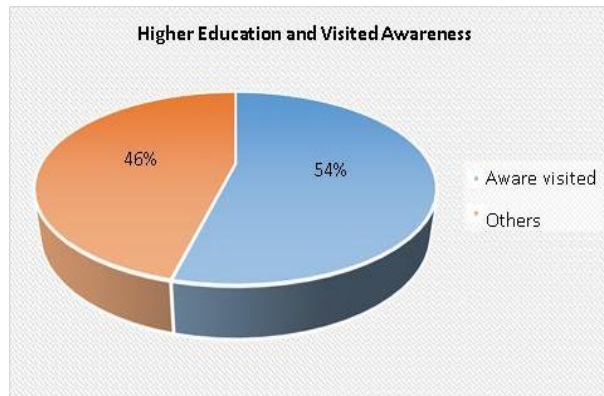
In the demographic variables, education is one of the important indicator. The education indicator demonstrated relationships between the groups with income, age, and years lived in Amritsar. In terms of education, approximately 54 percent of the respondents are aware/visited group had higher income. At the same time, only 46 percent of the respondents are educated but aware/not visited group. On the other side, 70 percent of the unaware/visited and 30 percent of unaware/not-visited group had the

higher education (Figure 6.7 to Figure 6.10). Similar trend emerged while these groups were compared with education level.

6.5.1. Higher Education Level and Awareness as well as Visited

About more than 50 percent of the aware/visited group had a bachelor's degree or higher-level education. On the other hand, only less than 30 percent of aware/not visited, 40 percent of unaware/visited, and 30 percent of unaware/not-visited group fell into this category (Figure 6.7).

Figure 6.7: Higher Education and Visited Awareness

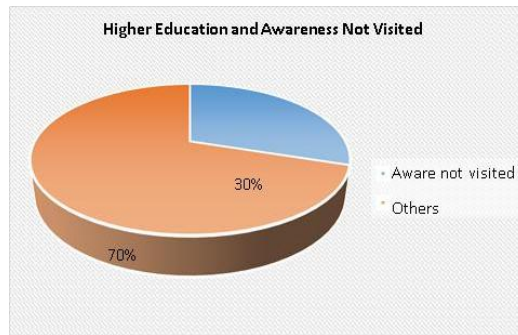


The figure 6.7 revealed that 54 percent people are visited belongs to higher education level group. It has also been observed that these respondents are aware for the conservation and conservation of the heritage buildings. At the same time, only 46 percent of the respondents are belonging to other categories. This shows that education plays a significant role in fostering engagement, although there is still room to improve the connection between education and heritage interaction. The fact is that very few students are aware of heritage and conservation of historical structures. Therefore, there is a need for the development of heritage precincts.

6.5.2. Higher Education Level and Awareness as well as Not Visited

In the second indicator of demographic variable it has been analyzed that the “higher education level and awareness but not visited” (Figure 6.8). The figure 6.8 shows that out of total sample surveyed only 30 percent respondents are aware but not visited to the heritage precincts. On the other hand, 70 percent respondents are belonging to the other categories. Even though 30% of respondents are aware but have not visited heritage sites, 70% fall into "others." This shows that despite educational attainment, many individuals remain either unengaged or uninformed.

Figure 6.8: Higher education and awareness not visited

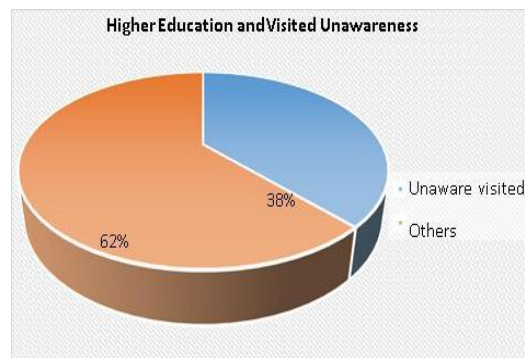


The second indicator shows that the higher education level group are aware for the conservation of heritage precincts. Interesting fact is that this particular group is aware for the conservation of heritage but rarely visit to the historical structures and areas.

6.5.3. The Higher Education Level and Visited but Unawareness

In the second indicator of demographic variable, it has been analyzed that the “higher education level and visited but unawareness” was there under the respondents regarding the conservation and conservation of heritage precincts (Figure 6.9).

Figure 6.9: Higher education level and visited but unawareness

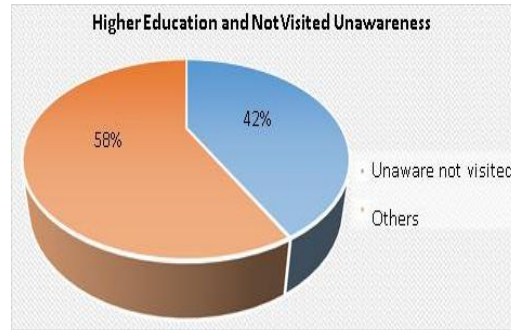


In this indicator, it has been observed that out of total sample survey for higher income level group only 38 percent respondents are unaware to the visited heritage precincts. On the other side 62 percent of the respondents re belong the other category (Figure 6.9). 38% of respondents are unaware yet have visited heritage sites, suggesting that visits do not always equate to awareness or a deeper understanding of the site’s significance.

6.5.4. Higher Education Not Visited and Unawareness

In the fourth indicator of demographic variable the analysis for “higher education group level and not visited as well as unawareness, with respect the conservation and conservation of heritage precincts.

Figure 6.10: Respondents Higher Education Not Visited and Unawareness



6.5.5. Percentage Variation in Awareness and Participation by Education Level

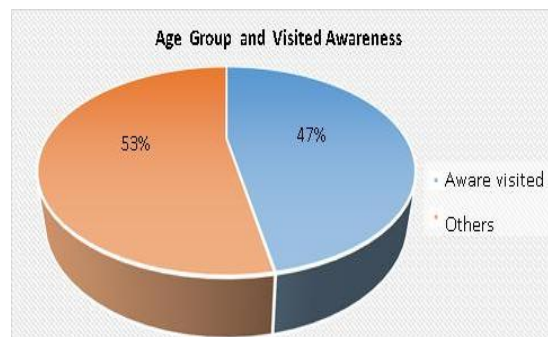
In the above mentioned indicators it has been observed that out of total sample survey for higher education level group 42 percent of the respondents are not visited and unaware for the conservation and conservation of the heritage precincts. Whereas 60 percent respondents are belonging to the other category (Figure 6.10). 60% of respondents are both unaware and have not visited heritage sites, which represents a critical gap in both education and engagement.

6.6. Age Group with Visit And Awareness

One of the most important indicators in demographic variables is age group. Income, education level, and number of years spent in Amritsar were all shown to have correlations with the age group indicator.

When looking at the four groups by age, we see that 47% of the aware/visited people are between the ages of 46 and 60, while 46% of the older people (those over the age of 60) are more likely to be in the aware/not visited group. The number of years that residents had lived in the area was divided into four categories: 0–10 years, 11–20 years, 21–30 years, and 31 years and up (Figures 6.11 and Figure 6.12).

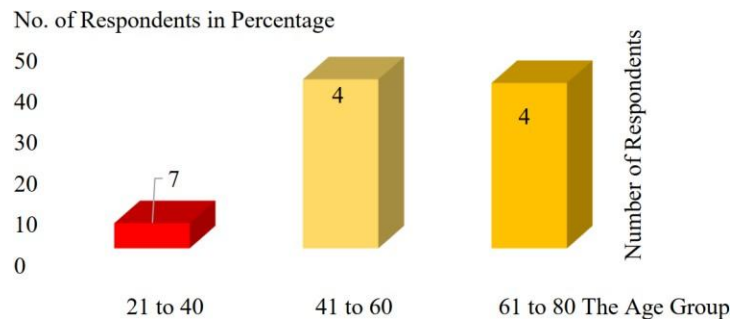
Figure 6.11: Respondents age group and awareness with visit



47% of respondents in a specific age group are aware and have visited heritage sites, while 53% fall under the "other" category (likely unaware or unengaged). This suggests that age may play a role in engagement with heritage sites, and the awareness and visitation ratio among different age groups needs improvement. In addition, 64% of the aware/visited group have been residents of Amritsar for 21 years or longer. This means that 64% of the native community is both aware of and has visited heritage sites, compared to 36% who fall under the "other" category (likely unaware or not engaged). This reflects a strong connection between the native population and local heritage sites, although a considerable proportion remains unengaged.

However, 57% of the native community is aware but has not visited heritage sites, compared to 43% of "others" who have visited. This suggests that while the native community is informed about their heritage, factors such as access, interest, or other barriers may be preventing them from physically engaging with these sites. Finally, only 45% of survey respondents who have lived in Amritsar for 21 years or longer were aware of the significance of these heritage sites.

Figure 6.12: Number of respondents with the age group and aware for the heritage precincts



6.7 Native Community Awareness

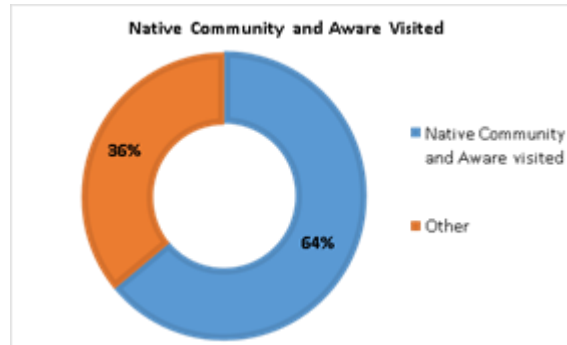
In the demographic variables, native community awareness is an important indicator. Native community awareness demonstrates relationships between groups based on income, education, and years lived in Amritsar (Figures 6.13 to Figure 6.16).

6.7.1. Native Community Awareness and Visited

A comparison across age categories and community groups shows that 64% of the native community have visited heritage precincts, whereas 36% fall into the other category, indicating limited awareness or engagement (Figure 6.13). This reflects a strong connection between the native population and local heritage sites, demonstrated by higher visit and awareness levels. However, the 36% unengaged segment highlights

a significant gap in heritage interaction. This gap indicates the need for targeted awareness and participation initiatives.

Figure 6.13: Native community awareness for precincts heritage

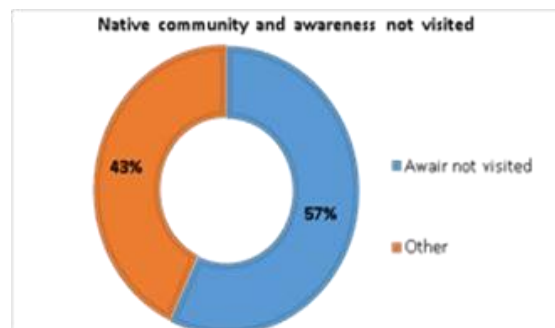


The figure 6.13 revealed that more than 60 percent respondents are belongs to the native community. The same respondents are very much aware for the heritage precincts as well as visits. The fact is that the knowledge of native community about the construction style and construction material can be used for the conservation and conservation of the heritage precincts of wall city Amritsar.

6.7.2. Native Community and Awareness - Not Visit

In this indicator, the native community shows awareness but limited physical visits to heritage precincts (Figure 6.14). The results reveal that 57% of respondents are aware but have not visited, while 43% belong to the other category. This indicates that although the native community is informed about their heritage, barriers such as access, interest, or motivation may restrict actual site engagement.

Figure 6.14: Native community and awareness not visited

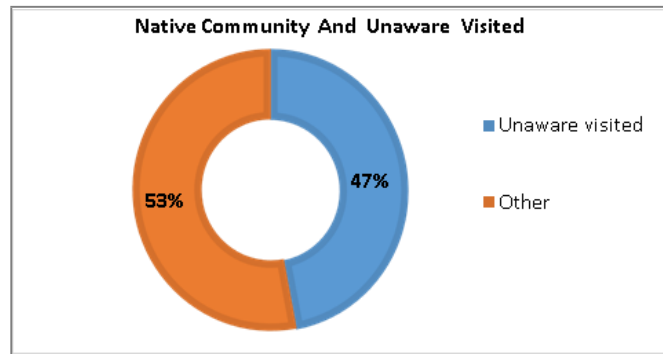


The fact is that, respondents those are not visit to the heritage precincts are aware for the conservation and conservation of the heritage precincts. It shows that the local community participation can help to conserve the traditional heritage of wall city of Amritsar.

6.7.3. Native Community and Unaware but Visited

In this indicator, it is observed that while respondents from the native community visit the heritage precincts, many from the local community remain unaware of them (Figure 6.15). From the local community, 47% of respondents are unaware of the heritage sites they have visited, whereas 53% fall into the other category. This indicates that mere visitation does not ensure awareness or appreciation of the historical and cultural value of these sites.

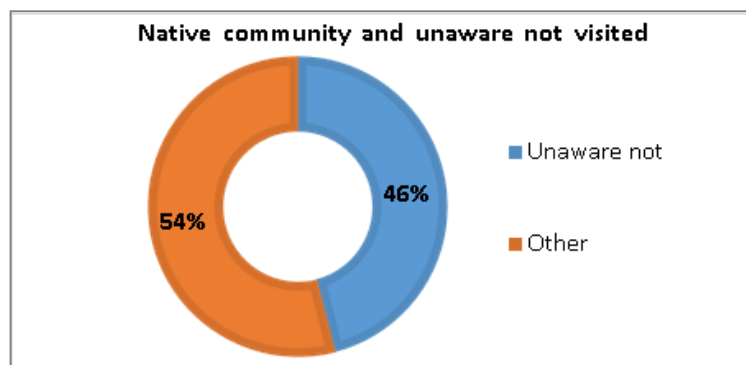
Figure 6.15: Native Community and Unaware Visited



6.7.4. Native Community: Unaware and Not Visited

In this indicator, it is observed that respondents from the native community have neither visited nor are aware of heritage precinct conservation. The survey results show that 46% of the native community is unaware and has not visited, while 54% belong to the other category (Figure 6.16). This highlights a significant portion of the native population disconnected from their heritage due to limited information or engagement.

Figure 6.16: Native Community unaware and not visited



6.7.5 Comparative Awareness Levels by Locality

To understand how heritage awareness varies spatially within the Katra Ahluwalia precinct, percentage comparisons were made among different streets and localities. The

responses were grouped according to the street or ward location of each surveyed household, allowing a spatial interpretation of community awareness and participation levels.

The analysis shows that streets closer to major religious and commercial nodes, such as areas adjoining the Golden Temple and Hall Bazaar, recorded higher levels of awareness and visitation. These areas exhibit stronger visibility of heritage buildings and higher exposure to tourism-related conservation activities, contributing to greater local sensitivity toward heritage protection.

In contrast, inner residential lanes and peripheral stretches of the precinct displayed lower awareness percentages, with many respondents expressing limited knowledge about the heritage value of nearby structures. This reflects both the decline of visible heritage markers and the lack of formal communication about conservation initiatives in these zones.

Overall, the comparative percentage analysis demonstrates that heritage awareness and participation are not evenly distributed across the precinct. Proximity to major heritage sites, tourism corridors, and commercial activity strongly influences local awareness levels. These findings highlight the need for localized awareness programs and decentralized conservation outreach to engage less-informed residential pockets.

The results are represented through percentage tables and simple bar charts showing the proportion of aware and unaware respondents in each street cluster. This visual comparison offers insight into the spatial dynamics of community consciousness within the heritage core of Amritsar's walled city.

6.8 Tangible Heritage Condition – Descriptive Summary and Comparative Findings

6.8.1 Descriptive Summary of Built Condition by Typology and Era

The tangible heritage of Katra Ahluwalia was assessed through a visual survey of façades, structures, and architectural elements documented in Chapter 5. The condition of each building was rated on a five-point scale—ranging from excellent, good, fair, poor, to dilapidated—and categorized according to typology (residential, commercial, mixed-use, and institutional) and historical era (Sikh, Colonial, Post-Independence).

Percentage distribution analysis revealed that nearly 42 % of structures fall within the fair condition category, while 28 % exhibit poor or dilapidated conditions, indicating

extensive material decay, especially in upper-floor timber and plasterwork. Buildings of the Sikh period showed comparatively better structural integrity due to the robust use of Nanakshahi bricks and lime mortar, whereas many Colonial-era commercial units have undergone insensitive alterations with cement plaster and aluminum shutters.

The descriptive results also highlighted that mixed-use typologies—particularly ground-floor commercial shops with residential upper levels—are under the greatest physical stress. Structural overloading, unplanned service additions, and lack of maintenance contribute to their accelerated deterioration. Conversely, institutional and religious structures generally remain in better condition owing to upkeep and funding.

Overall, the descriptive findings underscore the uneven physical conservation within the precinct, where economic function and ownership pattern directly affect the survival of historic fabric. The percentage summaries provide a baseline for understanding how different eras and building types reflect varying degrees of material vulnerability.

6.8.2 One-Way ANOVA of Condition Ratings by Street Character and Usage

To determine whether variations in building condition were statistically significant across different street contexts, a One-Way ANOVA was conducted using mean condition ratings as the dependent variable and street character (commercial spine, mixed corridor, inner lane) as the independent factor.

The analysis showed significant variation ($p < 0.05$) between major commercial corridors and inner residential lanes. Commercial streets such as Katra Ahluwalia Main Bazaar recorded greater deterioration due to façade modifications, dense signage, and mechanical loads, whereas quieter residential lanes maintained stronger structural integrity. High-traffic routes produced lower mean condition scores, demonstrating how usage intensity and environmental exposure accelerate material decay. These findings validate Chapter 5 visual observations, confirming that street hierarchy and activity patterns shape tangible conservation outcomes.

The ANOVA results provide empirical support for targeted interventions, including traffic regulation, façade control, and prioritized restoration funding in high-stress commercial corridors.

6.9 Intangible Vitality Analysis (Community and Cultural Continuity)

6.9.1 Sub-Components: Crafts, Festivals, Memory, Pride, Participation

The intangible heritage vitality of Katra Ahluwalia was studied through parameters

reflecting collective identity, cultural expression, and inter-generational knowledge. These included traditional crafts and occupations, local festivals and rituals, community memory and storytelling, sense of pride and belonging, and participation in cultural or conservation activities.

The responses obtained through the structured questionnaire were analysed using percentage distribution to evaluate the intensity and continuity of these intangible aspects. Results indicate that nearly 65% of respondents acknowledged an ongoing association with traditional craft skills such as masonry, carpentry, or metalwork, although only 28% continue to practice them actively.

Local festivals such as Baisakhi, Diwali, and Gurburab remain strong cultural anchors, with more than 80% participation, revealing that religious and social events continue to reinforce community cohesion even amidst urban transformation. The sense of pride in the historic core was also evident, with about 70% of respondents expressing attachment to the precinct's cultural identity, though awareness of heritage policies and institutional frameworks remains limited.

The findings suggest that intangible vitality persists, but it is gradually shifting from practice-based knowledge to memory-based recognition. This transition highlights the urgency of integrating living traditions with conservation policies to maintain not just structures, but also the cultural lifeworld is that give them meaning.

6.9.2 Group-wise Variation of Intangible Attributes (Education, Income, Nativity)

To analyse variation in intangible vitality across social and economic groups, a comparative study using percentage summaries and One-Way ANOVA was undertaken. Mean scores for intangible attributes (pride, participation, cultural continuity) were treated as dependent variables, while education, income, and nativity served as independent factors.

The findings show that respondents with higher education possess greater awareness of heritage conservation but lower involvement in cultural practices, whereas native residents, irrespective of income, demonstrate stronger emotional attachment and active participation in neighbourhood events.

Income differences were evident: middle-income groups reported higher pride and festival participation, while lower-income groups, though less aware of policies, sustained traditional crafts and oral traditions due to closer association with heritage

livelihoods. ANOVA confirmed significant variation ($p < 0.05$) between native and non-native respondents in community pride and participation.

These results highlight that intangible heritage is socially stratified—shaped more by nativity and cultural continuity than by education or income, emphasizing the interplay of awareness, belonging, and participation in defining living heritage at Katra Ahluwalia.

Grouped bar charts and mean-score comparisons visually reinforce these trends, strengthening holistic understanding of conservation within the walled city.. This layered analysis connects community sentiment with demographic diversity, enriching the holistic understanding of conservation within the walled city.

- **Age and Awareness Impact Engagement:** The data suggests that age-related differences play a role in how the community engages with heritage sites. Younger or older individuals might have varying levels of interest or opportunities to visit and appreciate these sites. Specific engagement strategies tailored for different age groups may help improve awareness and visitation rates.
- **Native Community Engagement:** The native community demonstrates relatively strong awareness and visitation, with a large portion actively visiting heritage sites. However, there is still a noticeable percentage of native individuals who are aware but have not visited, suggesting barriers to engagement beyond simple knowledge of the sites.
- **Disconnection Between Visits and Awareness:** There is a significant disconnect between visiting heritage sites and truly understanding their importance. Many people, particularly within the native community, have visited these sites without gaining full awareness of their historical or cultural value, implying a need for improved on-site education or interpretive resources.
- **Unengaged Native Population:** A considerable proportion of the native population remains completely unaware and unengaged with heritage sites, indicating a critical area for improvement in outreach and education. This segment represents a missed opportunity to cultivate local support for heritage conservation.

6.10. ANOVA Analysis

6.10.1. One Way ANOVA Analysis and Results to Community Opinion in the Conservation Process

With the objective to test the overall impact of community opinion in the conservation process and heritage precincts characteristics, One Way ANOVA test is applied to independent variables. The overall impact is examined through overall community opinion in the conservation process. The Opinion of the community statement and its impact on the heritage precincts with 5-point Likert scale are tested (Table 6.1).

Table 6.1: One Way ANOVA to Community Opinion in the Conservation Process

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Present Conditions	Between Groups	2045.333	4	511.333	0.869	0.023
	Within Groups	14730.67	25	589.226		
	Total	16776.003	29			
Any efforts by the community	Between Groups	465.333	4	232.667	0.441	0.048
	Within Groups	7918.667	25	537.911		
	Total	8384	29			
Any efforts by the Government	Between Groups	4342.438	4	517.547	0.978	0.041
	Within Groups	12934.452	25	595.453		
	Total	17276.89	29			
Repair by the New material	Between Groups	2875.896	4	642.231	2.543	0.657
	Within Groups	18689.524	25	857.427		
	Total	21565.42	29			
Repair by the Traditional material	Between Groups	2045.333	4	511.333	0.869	0.023
	Within Groups	14730.67	25	589.226		
	Total	16776.003	29			
Statue of the Pride for the community	Between Groups	3275.153	4	698.473	4.894	1.396
	Within Groups	21689.895	25	968.857		
	Total	24965.05	29			

Following results are worth appreciating from the one-way ANOVA as described in Table 6. 1.

- With P-value 0.023 and F-value equal to 0.869, there is strong relation between present conditions of the heritage precincts i.e. bad according to the opinion of

the natives. The analysis shows statistically significant differences in community opinions regarding the present condition of heritage sites in the walled city. The relatively low F-value suggests that while there are differences in opinion, the overall satisfaction with present conditions is not uniform across all groups.

- The increased population and extra pressure on the local infrastructure shows that the efforts by the community are not enough to save the heritage precincts, so there is strong relationship between efforts by the native community and conservation process hence the P-value 0.048 and F-value equal to 0.441. This indicates a divide in perceptions about whether the community is contributing enough to the conservation of heritage sites.
- As the same way increased population and extra pressure on the local infrastructure shows that the efforts by the authority/government are not enough to save the heritage precincts, so there is strong relationship between efforts by the authority/government and conservation process hence the P-value 0.041 and F-value equal to 0.978. The relatively low F-value suggests that while there are efforts from the government, they may not be perceived as sufficient or effective by all community groups.
- The repair with the new material shows the negative impact on heritage precincts, because the repair of the heritage precincts must be with the traditional material hence there is a strong negative relationship between repair with new material and conservation process so the P-value 0.657 and F-value equal to 4.894. This suggests that the community might be more unified in their stance on this issue, with a possible preference for either traditional methods or dissatisfaction with modern repair techniques.
- At the same time, there is high significant impact between repair with the traditional material and heritage precincts hence the P-value is 0.023 and F-value is 0.869. This suggests that many community members see value in maintaining authenticity using original materials, which may be perceived as more sustainable or culturally appropriate.
- The heritage precincts are shows the cultural values of the community and work as status of the pride for the community hence the repair with the traditional material draw a negative impact on this indicator so the P-value 1.396 and F-

value equal to 2.543. Opinions on whether the community takes pride in its heritage vary greatly, but this difference is not statistically significant. While there is variation, the data implies a need to enhance community pride and engagement in heritage conservation.

- **Factor Identified: Overarching Contextual Factors**
Community opinion reflects cumulative influences — weak governance, economic pressures, and fragmented efforts. This aligns with the Washington Charter (1987) which stresses integrated social and economic policies and with findings from the Jaipur Virasat Foundation where grassroots participation strengthened conservation (NIUA, 2015).

6.10.2. One Way ANOVA to Present Conditions and Community opinion in the conservation process

With the objective to test the impact of community opinion on the present conditions of the heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The impact of community opinion on the present conditions of the heritage precincts and conservation process. The Opinion of the community statement and its impact on the present conditions of the heritage precincts with 5-point Likert scale are tested (Table 6.2).

Table 6.2: One Way ANOVA Present Conditions and Community opinion in the conservation process

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious buildings	Between Groups	16790.1	4	4312.14	5.529	0.024
	Within Groups	12789.4	255	298.15		
	Total	29579.5	256			
Architectural Important Buildings	Between Groups	19754.3	4	1976.43	6.402	0.035
	Within Groups	14124.2	255	308.71		
	Total	33878.5	256			
Historically Important Buildings	Between Groups	20977.3	4	5244.35	6.649	0.024
	Within Groups	14526.6	255	322.81		
	Total	35503.9	256			
Street Morphology	Between Groups	17748.6	4	2256.57	5.344	0.011
	Within Groups	14523.9	255	320.88		

	Total	32272.5	256			
Open Space chowk	Between Groups	24567.46	1	2356.9	8.734	1.348
	Within Groups	14889.44	258	212.4		
	Total	39456.9	259			
Traditional wells	Between Groups	18790.1	4	4178.19	5.213	0.039
	Within Groups	15356.7	255	235.12		
	Total	34146.8	256			

Following results are worth appreciating from the one-way ANOVA as described in table 6. 2.

- Religious Buildings: With P-value 0.024 and F-value equal to 5.529, there is strong relation between present conditions of the religious buildings/structures and the community participation. According to the opinion of the natives, it has been observed that community (somehow) taking care of the religious buildings/structures. An interesting fact is also observed during the survey, namely that at the time and place where feelings are present, the care of the structures is also present. There are significant differences in community opinions about the present conditions of religious buildings. These differences may reflect diverse community expectations about how religious heritage sites should be maintained, given their cultural and spiritual significance.
- Architectural Important Buildings: The architectural important buildings are not in very good conditions. So for the same one-way ANOVA has been tested and it has been found that more than 70 percent of the historical and architectural buildings are in bad conditions. At the same the results of the ANOVA test are shown that P-value 0.035 and F-value equal to 6.402, this explained that there is strong relationship between Architectural Important Buildings their conditions and community participation. These structures likely represent the historic identity and aesthetic appeal of the city, and varied perceptions about their current state suggest that some community groups may feel these buildings are not being adequately conserved.
- Historically Important Buildings: The historically important buildings are also not being very good conditions. The results of the ANOVA test are shown that P-value 0.024 and F-value equal to 6.649, this explained that there is strong

relationship between bad conditions of the historically important buildings and community participation. These buildings carry historical narratives important to the city's heritage, and the community's differing views indicate a potential disconnect between government efforts and community expectations regarding their conservation.

- **Street Morphology:** With the ANOVA results it has been shown that, there is perfect strong relationship between the change in the street morphology and bad conditions of the street. The value for the same is P-value 0.011 and F-value equal to 5.344. The increased population and extra pressure on the local infrastructure shows that the efforts by the community are not enough to save the street morphology. The community holds different views on the current state of street morphology, which includes the traditional layout, street patterns, and spatial organization of the walled city. These opinions reflect the importance of maintaining the traditional urban fabric while addressing modern infrastructure needs.
- **Open Space Chowk:** The open space is very much available and having good conditions. Therefore, with the open space chowk and community participation it has been drawn that there is a strong negative relationship so the P-value 1.348 and F-value equal to 8.734. The analysis indicates significant differences in how open spaces like chowks are perceived. These open spaces are critical for social interaction and community gatherings, and varied opinions about their condition may reflect different views on their usage, cleanliness, and conservation.
- **Traditional Wells:** As the population increased and put some extra pressure on the local infrastructure. In the previous time, there were 3-5 wells available in the present research area. At present, there is no one well available in the present research area. So there is strong relationship between traditional wells extinction and there are no efforts by the community (community participation is almost null) hence the P-value 0.039 and F-value equal to 5.213. The analysis indicates significant differences in how open spaces like chowks are perceived. These open spaces are critical for social interaction and community gatherings, and varied opinions about their condition may reflect different views on their usage, cleanliness, and conservation.

- Factor Identified: Physical & Environmental Factors
Deterioration of religious structures, loss of chowks, and insensitive modifications highlight physical neglect. The Venice Charter (1964) emphasizes minimal intervention and authenticity, yet case studies from Old Delhi and Lucknow show that neglect of street morphology and open spaces undermines heritage integrity (Menon, 1989).

6.10.3. One Way ANOVA to Community Efforts and Community opinion in the conservation process

The impact of community efforts on heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The impact of community efforts on the heritage precincts and conservation process. The Opinion of the community statement and its impact on the heritage precincts with 5-point Likert scale are tested (Table 6.3).

Table 6.3: One Way ANOVA: Community Efforts and Community opinion in the conservation process

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious Buildings	Between Groups	17748.6	4	2256.57	5.344	0.041
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			
Architectural Important Buildings	Between Groups	18790.1	4	4178.19	5.134	0.039
	Within Groups	15356.7	255	235.12		
	Total	34146.8	256			
Historically Important Buildings	Between Groups	20977.3	4	5244.35	6.651	0.025
	Within Groups	14526.6	255	322.81		
	Total	35503.9	256			
Street Morphology	Between Groups	17748.6	4	2256.57	5.434	0.029
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			
Open Space chowk	Between Groups	21567.9	4	2356.9	5.507	0.048
	Within Groups	12456.1	255	212.4		
	Total	34024	256			
Traditional wells	Between Groups	18567.3	4	3957.43		

Within Groups	15456.3	255	301.34	5.221	0.035
Total	34023.6	256			

Following results are worth appreciating from the one-way ANOVA as described in table 6.3.

- Religious Buildings: With P-value 0.041 and F-value equal to 5.534, there is strong relation between community efforts to save the religious buildings/structures. Community is taking active participation to save the religious buildings. This likely reflects the diverse roles of different community groups, religious institutions, and individuals in contributing to the conservation of these sacred spaces.
- Architectural Important Buildings: The results of the ANOVA test are shown that P-value 0.039 and F-value equal to 5.134, this explained that there is strong relationship between Architectural Important Buildings and community efforts to save those buildings. Unfortunately, the native community is not taking active efforts to save those buildings/structures. The community's efforts in conserving architecturally important buildings show significant variation in opinion. These buildings, often representing the architectural heritage of the city, might see differing levels of engagement depending on their location, ownership, or perceived value.
- Historically Important Buildings: The results of the ANOVA test are shown that P-value 0.025 and F-value equal to 6.651, this explained that there is strong relationship between bad conditions of the historically important buildings and community participation. As the population increased with the passage of the time, the need of basic infrastructure has also been increased. To fulfil the increased need, the historically important are neglected to make a place for new constructions. This suggests that some groups may feel their efforts are more substantial than others, potentially due to the prominence of certain historical buildings within the community.
- Street Morphology: With the ANOVA results it has been shown that, there is perfect strong relationship between the changes in the street morphology with its bad conditions and there is no community efforts/active participation. The value for the same as following: P-value 0.029 and F-value equal to 5.434. The

increased population and extra pressure on the local infrastructure shows that the efforts by the community are not enough to save the street morphology. This reflects the importance of street patterns as part of the urban heritage and the varying levels of engagement from different community groups in maintaining them.

- **Open Space Chowk and Care:** The open space is available no doubt about it but the care of those open chowk space has been used for parking of the vehicle or dumping of the waste. So with the open space chowk are not carefully handled by the community hence the results show there is a strong positive relationship between the care of the open space and community efforts, so the P-value 0.048 and F-value equal to 5.507. These spaces serve as critical gathering areas, and their conservation likely requires active community engagement, which may vary based on the socio-economic status and geographic location of the participants.
- **Traditional Wells:** As per the results of the ANOVA it has been shows that there is strong relationship between traditional wells extinction and there is no efforts, hence the P-value 0.035 and F-value equal to 5.221. At the past time, there were 3-5 wells available in the present research area. At present, there is no one well available in the present research area. Some community members might neglect these wells, which are part of the city's historical water management system, while others see them as valuable assets to conserve.
- **Factor Identified: Community Participation Factors**
Residents value heritage but lack-organized platforms. This reflects the Burra Charter (1999 revision) which prioritizes community-based significance and parallels the Nizamuddin Basti Renewal Project (Delhi, 2019) where structured community involvement improved both conservation and livelihoods (UNESCO, 2021).

6.10.4. One Way ANOVA to Government Efforts and Community opinion in the conservation process

The impact of government efforts on heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The impact of government efforts on the heritage precincts and conservation process. The Opinion

of the community statement and its impact on the heritage precincts with respect to government efforts with 5-point Likert scale are tested (Table 6.4).

Table 6.4: One Way ANOVA: Government Efforts and Community opinion in the conservation process

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious buildings	Between Groups	19754.3	4	1976.43	6.402	0.035
	Within Groups	14124.2	255	308.71		
	Total	33878.5	256			
Architectural Important Buildings	Between Groups	20977.3	4	5244.35	6.649	0.024
	Within Groups	14526.6	255	322.81		
	Total	35503.9	256			
Historically Important Buildings	Between Groups	18790.1	4	4178.19	5.134	0.039
	Within Groups	15356.7	255	235.12		
	Total	34146.8	256			
Street Morphology	Between Groups	18567.3	4	3957.43	5.213	0.039
	Within Groups	15456.3	255	301.34		
	Total	34023.6	256			
Open Space chowk	Between Groups	18567.3	4	3957.43	5.213	0.039
	Within Groups	15456.3	255	301.34		
	Total	34023.6	256			
Traditional wells	Between Groups	16790.1	4	4312.14	5.129	0.023
	Within Groups	12789.4	255	298.15		
	Total	29579.5	256			

Following results are worth appreciating from the one-way ANOVA as described in table 6.4.

- Religious Buildings: With P-value 0.035 and F-value equal to 6.402, there is strong relation between government efforts to save the religious buildings/structures. Government is taking active participation to save the religious buildings. This variation suggests that while some community groups may appreciate the efforts, others feel that more needs to be done to conserve these culturally and spiritually important sites.
- Architectural Important Buildings: The results of the ANOVA test are shown that P-value 0.024 and F-value equal to 6.649, this explained that there is strong

relationship between Architectural Important Buildings and government efforts to save those buildings in the precincts. Significant differences in opinions about the government's role in conserving architecturally important buildings indicate a disconnect between the conservation efforts and community expectations. These buildings represent the city's architectural identity, and the community is varying levels of satisfaction highlight the need for enhanced government initiatives. Unfortunately, the efforts are not enough to safeguard the architectural important buildings in the precincts. There is one perfect example set by the government by developing the Golden Temple Galiara and Heritage Walk. By developing this project government as well native communities generating economy. Therefore, there is possibility for developing such type of project by using the concept of Transfer and Development Rights (TDR), so that government and native community generate extra economy with the traditional heritageprecincts.

- Historically Important Buildings: The results of the ANOVA test are shown that P-value 0.039 and F-value equal to 5.134, this explained that there is strong relationship between bad conditions of the historically important buildings and efforts by the government. The differences in opinions regarding historically significant buildings reflect varying levels of community satisfaction with the government's conservation efforts. This suggests that the current strategies may not fully address the historical value these buildings hold for different sections of the community. Lack of the funding is the main reason behind the less development and not saving the historically important buildings of the present research area.
- Street Morphology: With the ANOVA results it has been shown that, there is perfect strong relationship between the changes in the street morphology with its bad conditions and there is less effort by the government. The value for the same as following: P-value 0.039 and F-value equal to 5.134. Street patterns and traditional layouts are critical to the identity of the walled city, and varying opinions suggest that the government's approach to conserving this urban fabric may not be meeting community expectations. The increased population and extra pressure on the local infrastructure shows that the efforts by the

government are not enough to save the street morphology.

- Open Space Chowk and Care: The open space is available no doubt about it but the care of those open chowk space has been used for parking of the vehicle or dumping of the waste. So with the open space chowk are not carefully handled by the government hence the results show there is a strong positive relationship between the care of the open space and less government efforts, so the P-value 0.039 and F-value equal to 5.213. These open areas serve as community gathering spaces, and the differences in opinion likely reflect concerns over how well the government has conserved the social, cultural, and functional aspects of these spaces.
- Traditional Wells: As per the results of the ANOVA it has been shows that there is strong relationship between traditional wells extinction and there are no efforts by the government, hence the P-value 0.023 and F-value equal to 5.129. At the past time, there were 3-5 wells available in the present research area. At present, there is no one well available in the present research area. Significant differences in community views on the government's efforts in conserving traditional wells suggest that these heritage water systems may not be receiving adequate attention. This indicates a need for more focused efforts to conserve these valuable elements of the city's historical infrastructure.

The results indicate a statistically significant variation in community opinion regarding government efforts toward conservation. Although initiatives such as HRIDAY, Smart City Mission, and façade improvement schemes have been implemented, residents frequently perceive these interventions as externally driven, selectively targeted, and disconnected from local priorities. Field observations reveal that projects focus predominantly on tourism-centric objectives such as façade beautification, public plazas, and traffic management, while basic neighbourhood needs—waste management, drainage, livelihood support, and structural repair—are neglected. As a result, government actions appear visible yet lacking community relevance, creating a perception of symbolic rather than substantive conservation. This persistent disconnect highlights the absence of structured participatory mechanisms and transparent communication channels capable of aligning state-led strategies with everyday community aspirations.

6.10.5. One Way ANOVA to Repair with New Material and Community opinion in the conservation process

The impact of repair with the new material and community opinion on heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The impact of repair with new material rather than the traditional material on the heritage precincts and conservation process, the Opinion of the community statement and its impact on the heritage precincts with 5-point Likert scale are tested (Table 6.5).

Table 6.5: One Way ANOVA: Repair with New Material and Community opinion

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious buildings	Between Groups	18790.1	4	4178.19	5.134	0.039
	Within Groups	15356.7	255	235.12		
	Total	34146.8	256			
Architectural Important Buildings	Between Groups	21977.4	4	5244.35	6.649	0.044
	Within Groups	14526.9	255	322.81		
	Total	36504.3	256			
Historically Important Buildings	Between Groups	19754.3	4	1976.43	6.402	0.035
	Within Groups	14124.2	255	308.71		
	Total	33878.5	256			
Street Morphology	Between Groups	16790.1	4	4312.14	5.129	0.023
	Within Groups	12789.4	255	298.15		
	Total	29579.5	256			
Open Space chowk	Between Groups	21567.9	4	2356.9	5.507	0.048
	Within Groups	12456.1	255	212.4		
	Total	34024	256			
Traditional wells	Between Groups	17748.6	4	2256.57	5.344	0.011
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			

Following results are worth appreciating from the one- w a y ANOVA as described in table 6.5.

- Religious Buildings: With P-value 0.039 and F-value equal to 5.134, there is strong relationship between the new material used for repair and maintenance to

save the religious buildings/structures. The significant F-value and P-value suggest that modern repair techniques may not be universally accepted, with some community members possibly preferring traditional methods that align more closely with the spiritual and cultural values of these buildings. Repair with the new material devalue traditional character of the structure/building, hence the material used for the repair must be traditional or similar to traditional material.

- Architectural Important Buildings: The results of the ANOVA test are shown that P-value 0.044 and F-value equal to 6.649, this explained that there is strong relationship between Architectural Important Buildings and repair with the new material. Repair with the new material depreciate the traditional values of the buildings/structure. This could reflect concerns about the impact of modern materials on the architectural integrity and historical authenticity of these structures, which are key components of the city's built heritage. Hence, that particular structure repaired with new material lost its importance as well as the owner of the structure cannot use the structure/building to generate the economy.
- Historically Important Buildings: The results of the ANOVA test are shown that P-value 0.035 and F-value equal to 6.402, this explained that there is strong relationship between bad conditions of the historically important buildings and repair with the traditional material. This suggests that the use of new materials may not be universally welcomed when it comes to conserving the historical narrative associated with these structures. Heavy cost of the old material and Lack of the funding is the main reason behind the less development and not saving the historically important buildings of the present research area.
- Street Morphology: With the ANOVA results it has been shown that, there is perfect strong relationship between the changes in the street morphology with its bad conditions and repair with the new material. The value for the same as following: P-value 0.023 and F-value equal to 5.129. While modern materials may improve durability or infrastructure, the community might perceive these changes as detrimental to the historical identity of the streets. The increased population and extra pressure on the local infrastructure decrease the street morphology.

- **Open Space Chowk and Care:** The open space is available no doubt about it but the care of those open chowk space has been used for parking of the vehicle or dumping of the waste. So with the open space chowk are not carefully handled by the government hence the results show there is a strong positive relationship between the care of the open space and repair of the surrounding with the new material, so the P-value 0.048 and F-value equal to 5.507. Opinions on the repair of open spaces like chowks with new materials show significant differences, suggesting that the community may be divided on whether modern interventions enhance or diminish the historical and social value of these communal spaces. The view which was available at the previous time is not available at present time because of repair with the new material is not providing the exact view from the open space chowk.
- **Traditional Wells:** As per the results of the ANOVA it has been shows that there is strong relationship between traditional wells extinction and there was some repair with the new material but at present no well was available in the area, hence the P-value 0.011 and F-value equal to 5.344. The use of modern materials may be seen as potentially compromising the historical integrity of these wells.
- **Factor Identified: Material Authenticity Factors (Negative)** Use of concrete, ACP cladding, and tiles compromises authenticity. This contradicts both the Burra Charter (cultural significance of fabric) and INTACH Guidelines (2004) which recommend lime, timber, and traditional methods. In practice, failed repairs in small-town Uttar Pradesh projects illustrate the risk of inappropriate modern interventions (INTACH reports, 2010–2015).

6.10.6. One Way ANOVA to Repair with The Traditional Material and Community opinion in the conservation process

The impact of repair with the old traditional material and community opinion on heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The impact of repair with old traditional material on the heritage precincts and conservation process, the Opinion of the community statement and its impact on the heritage precincts with 5-point Likert scale are tested (Table 6.6).

Table 6.6: One Way ANOVA: Repair with The Traditional Material and Community opinion

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious buildings	Between Groups	18567.3	4	3957.43	5.213	0.039
	Within Groups	15456.3	255	301.34		
	Total	34023.6	256			
Architectural Important Buildings	Between Groups	21567.9	4	2356.9	5.507	0.048
	Within Groups	12456.1	255	212.4		
	Total	34024	256			
Historically Important Buildings	Between Groups	17790.1	4	4178.19	7.134	0.044
	Within Groups	14356.7	255	235.12		
	Total	32146.8	256			
Street Morphology	Between Groups	17748.6	4	2256.57	5.344	0.011
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			
Open Space chowk	Between Groups	20977.4	4	5244.35	6.649	0.004
	Within Groups	14526.6	255	322.81		
	Total	35504	256			

Following results are worth appreciating from the one-way ANOVA as described in table 6.6.

- Religious Buildings: With P-value 0.039 and F-value equal to 5.213, there is strong relationship between the repairs with traditional material to save the religious buildings/structures. Significant differences exist in the community's opinions on using traditional materials for the repair of religious buildings. This highlights the community's strong preference for maintaining the spiritual and cultural integrity of these sites using materials that reflect their original construction.
- Architectural Important Buildings: The results of the ANOVA test are shown that P-value 0.048 and F-value equal to 5.507, this explained that there is strong relationship between Architectural Important Buildings and repair with the traditional material. The use of traditional materials is often seen as crucial in conserving the architectural style and historical authenticity of these structures, which are central to the city's heritage. Hence, such types of particular structure

repaired with new material so that the owner of the structure can use the structure/building to generate economy by using TDR or some other sources.

- **Historically Important Buildings:** The results of the ANOVA test are shown that P-value 0.044 and F-value equal to 7.134, this explained that there is strong relationship between the historically important buildings and repair with the traditional material. This indicates that many view traditional materials as essential for maintaining the historical narratives and original character of these structures. Heavy cost of the traditional material and sometime lack of the funding is the main reason behind the less development and not saving the historically important buildings of the present research area.
- **Street Morphology:** With the ANOVA results it has been shown that, there is perfect strong relationship between the changes in the street morphology with its present conditions and repair with the traditional material. The value for the same as following: P-value 0.011 and F-value equal to 5.344. This suggests concerns over modern interventions altering the traditional patterns and character of the streets, which are integral to the identity of the walled city. The increased population and extra pressure on the local infrastructure decrease the streetmorphology.
- **Open Space Chowk and Care:** The open space chowk are not carefully handled by the authority hence the results shows there is a strong positive relationship between the care of the open space and repair of the surrounding with the traditional material, so the P-value 0.004 and F-value equal to 6.649. The significant variation in opinions about using traditional materials to repair open spaces like chowks reflects the community's view that these communal areas are not only social spaces but also important heritage elements. Conserving their historical character through traditional materials is seen as vital to maintaining their cultural significance.
- **Factor Identified: Material Authenticity Factors (Positive)**
Using Nanakshahi brick, lime plaster, or timber strengthens heritage character. This reflects both INTACH manuals (lime plastering, façade restoration) and case studies like Shekhawati havelis where fresco revival sustained authenticity and tourism (INTACH, 2012).

6.10.7. One Way ANOVA to Pride for the Community and Community Opinion in the conservation process

The impact of pride for the community and community opinion on heritage precincts and conservation process characteristics, One Way ANOVA test is applied to independent variables. The Opinion of the community statement and its impact on the heritage precincts with 5-point Likert scale are tested (Table 6.7).

Table: 6.7: One Way ANOVA: Pride for the Community and Community Opinion

The Statements		Sum of Squares	df	Mean Square	F-Value	P-Value
Religious buildings	Between Groups	20977.4	4	5244.35	6.649	0.004
	Within Groups	14526.6	255	322.81		
	Total	35504	256			
Architectural Important Buildings	Between Groups	19754.3	4	1976.43	6.402	0.005
	Within Groups	14124.2	255	308.71		
	Total	33878.5	256			
Historically Important Buildings	Between Groups	17748.6	4	2256.57	5.344	0.011
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			
Street Morphology	Between Groups	21567.9	4	2356.9	5.507	0.048
	Within Groups	12456.1	255	212.4		
	Total	34024	256			
Traditional wells	Between Groups	17748.6	4	2256.57	5.344	0.011
	Within Groups	14523.9	255	320.88		
	Total	32272.5	256			

Following results are worth appreciating from the one-way ANOVA as described in table 6.7.

- Religious Buildings: With P-value 0.004 and F-value equal to 6.649, there is strong relationship between the religious buildings pride for the community. The religious buildings/structures are having special values for the community. This suggests that religious buildings are seen as not just spiritual centers, but also as symbols of cultural identity and heritage.
- Architectural Important Buildings: The results of the ANOVA test are shown that P-value 0.005 and F-value equal to 6.402, this explained that there is strong

relationship between Architectural Important Buildings and pride for the community. These buildings are likely viewed as iconic representations of the city's historical and architectural legacy, and the community takes pride in their conservation.

- **Historically Important Buildings:** The results of the ANOVA test are shown that P-value 0.011 and F-value equal to 5.344, this explained that there is strong relationship between the historically important buildings and pride for the community. This indicates that these buildings are key to the city's historical narrative, and the community values their conservation as a way of conserving the city's history.
- **Street Morphology:** With the ANOVA results it has been shown that, there is perfect strong relationship between the changes in the street morphology with its present conditions and pride for the community. The value for the same as following: P-value 0.048 and F-value equal to 5.507. The historical street layouts and patterns are seen as integral to the city's character, and the community's pride in these elements reflects a desire to maintain the traditional urban fabric.
- **Traditional Wells:** As per the results of the ANOVA, it has been shows that there is strong relationship between traditional wells extinction and pride for the community. At present no well was available in the area, hence the P-value 0.11 and F-value equal to 5.344. The wells represent not only historical water management systems but also cultural landmarks that connect the past with the present.
- **Factor Identified: Cultural & Intangible Factors**
Community pride in religious sites and crafts reflects the Nara Document (1994) emphasis on cultural diversity and authenticity. The Partition Museum (Amritsar, 2017) demonstrates how memory-based institutions activate intangible heritage, showing the power of pride and narratives in sustaining urban identity.

6.10.8. Key Findings Across ANOVA Tables:

6.10.8.1. Present Conditions (Table 6.1 and Table6.2):

- The present conditions of heritage elements such as religious buildings,

architecturally and historically important buildings, street morphology, and traditional wells show significant differences in community opinion. This suggests that while the community recognizes the importance of these heritage elements, there is a divide in satisfaction with their current state.

- Community pride is strongly linked to the perceived condition of these buildings and spaces, emphasizing the need for ongoing maintenance and proactive conservation efforts to sustain their condition.

6.10.8.2. Community Efforts (Table 6.3):

- Community involvement in conservation is varied across different heritage assets, with statistically significant differences in the level of effort directed towards religious, architecturally and historically important buildings, street morphology, and chowks. These differences may reflect the varying levels of community resources and engagement, as well as the perceived value of specific heritage assets.
- The results suggest that strengthening community-led initiatives and empowering local stakeholders can increase participation and enhance conservation efforts across all heritage categories.

6.10.8.3. Government Efforts (Table 6.4):

- There are significant differences in community opinions about the effectiveness of government-led conservation efforts, especially for religious buildings, architecturally and historically important structures, street morphology, and traditional wells. This indicates that the community does not uniformly perceive the government's efforts as adequate.
- Improving transparency, communication, and collaboration between the government and the community can help align conservation efforts with local expectations and foster better outcomes.

6.10.8.4. Use of New Materials for Repair (Table 6.5):

- The community has mixed opinions on the use of modern materials for the repair of heritage elements, with statistically significant differences for all categories (religious, architecturally and historically important buildings, street morphology, and wells). While modern materials may be necessary for practical

reasons, their use is not always perceived positively, particularly when it comes to maintaining historical authenticity.

- It is crucial to balance the use of new materials with the conservation of historical character. This can be achieved through careful planning, where modern materials are used for structural integrity but do not compromise the aesthetic or cultural value of heritage sites.

6.10.8.5. Use of Traditional Materials for Repair (Table 6.6):

- The use of traditional materials in the conservation process is generally preferred, with significant differences in community opinions for all types of heritage elements. Traditional materials are seen as crucial for maintaining the authenticity of religious buildings, historically significant structures, and the overall urban fabric.
- Encouraging the use of traditional materials through training programs, financial incentives, and technical support can ensure that conservation efforts remain faithful to the original construction methods and aesthetics.

6.10.8.6. Community Pride (Table 6.7):

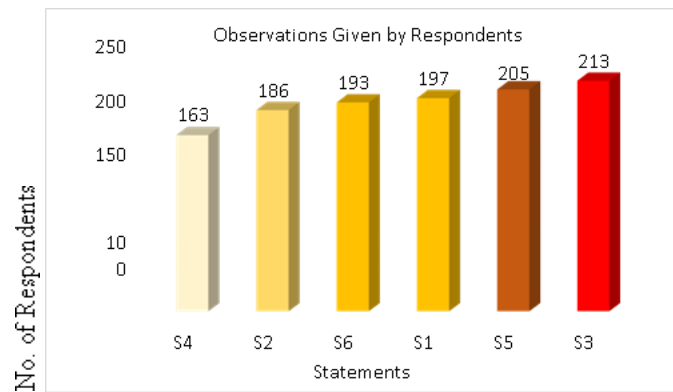
- Community pride plays a significant role in shaping opinions about the conservation process, especially concerning religious buildings, architecturally and historically important structures, street morphology, and traditional wells. This sense of pride drives the community's desire for conservation and contributes to its engagement in the conservation process.
- Heritage conservation programs should capitalize on this pride by involving the community in decision-making processes and creating opportunities for active participation in conserving these heritage assets.

6.11. Explanation of Observation

Explanation of the observation are shown following:

6.11.1 Expectations from the Government

There are total 6 statements and code for the statement is S1 to S6 are given. In the Figure 6.17 it has been shown that there are total 6 statements with respect to native community's expectations from the government (Figure 6.17).

Figure 6.17: The statement given by the native with respect to expectations from the government

In Figure 6.17 it has been observed that out of total no. of respondents most of the respondents are belongs to statement S3. Statement S3 shows the Land Use Changes in the community.

The reason behind the same, which is given by the respondents, is “a practical, as these areas often need to evolve to meet the changing needs of their communities. However, any changes should be carefully considered, transparent, and guided by a commitment to conserving the cultural and historical heritage of these cities. Balancing development and heritage conservation is a complex task that requires the involvement of multiple stakeholders and adherence to established blanket prohibition on the change of land use in heritage precincts is not always heritage conservation laws and principles”.

6.11.2 Comparison - Historic conservation among Four Types of Residents

There are total 6 statements and code for the statement is S1 to S6 are given. In the figure 6.18 it has been shown that there are total 6 statements with respect to comparison – historic conservation among four types of residents (Figure 6.18).

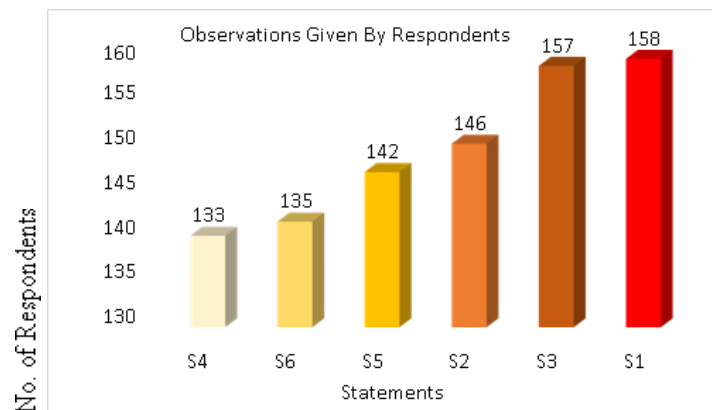
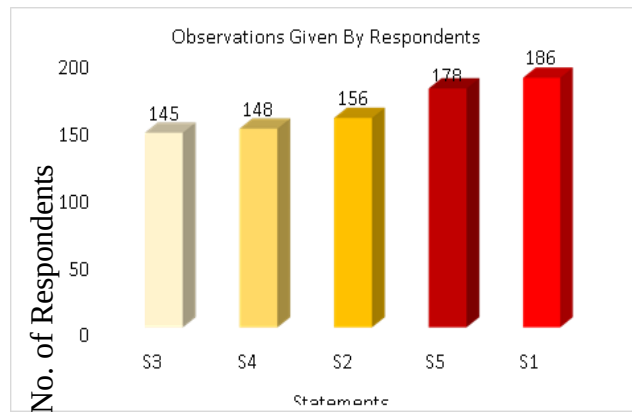
Figure 6.18: The statement given by the native with respect to comparison- Historic conservation among four types of residents

Figure 6.18 shows that out of total no. of respondents most of the respondents are belongs to statement S1. Statement S1 shows the Historic conservation saves structures. As per the native community, historic conservation is a multifaceted and crucial endeavor that not only safeguards the physical structures but also conserves the cultural and historical identity of historic precincts in Indian cities. By investing in the conservation of these sites, India can ensure that its rich heritage continues to be celebrated and cherished for generations to come”.

6.11.3 Conservation Criteria by the four types of Residents

Figure 6.19: The statement given by the native with respect to comparison criteria by the four types of residents



There are total 5 statements and code for the statement is S1 to S5 are given. In the figure 6.19 it has been shown that there are total 5 statements with respect to conservation criteria by the four types of residents (Figure 6.19).

Figure 6.19 shows that out of total no. of respondents most of the respondents are belongs to statement S1. Statement S1 shows the Value/beauty of the building historical/cultural importance. This particular statement shows that “the value and beauty of buildings within heritage precincts in historic cities of India are intertwined with their historical and cultural importance. These buildings are not just physical structures but also repositories of history, culture, and artistic expression, making them integral to the cultural fabric and identity of their surroundings. Protecting and conserving these buildings is essential to maintaining their value and beauty for future generations to appreciate and cherish”.

6.11.4 Importance of features/facilities Attitude

There are total 7 statements and code for the statement is S1 to S7 are given. In the

figure 6.20 it has been shown that there are total 7 statements with respect to importance of features/facilities attitude (Figure 6.20).

Figure 6.20: The statement given by the native with respect to importance of features/facilities attitude

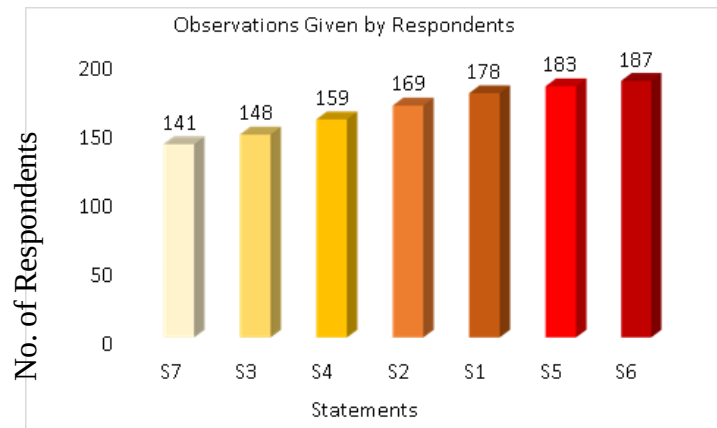


Figure 6.20 shows that out of total no. of respondents most of the respondents are belongs to statement S6. Statement S6 shows the Information displays and Guided tours.

This statement shows that “the integration of features/facilities, attitudes, and information displays is crucial for the holistic conservation and promotion of heritage precincts in historic cities of India. These elements work together to ensure that the cultural and historical significance of the precincts is not only conserved but also cultural and historical significance of the precincts is not only conserved but also effectively communicated, enhancing public awareness, education, and appreciation of the rich heritage of these areas and the integration of features/facilities, attitudes, and guided tours is essential for the comprehensive conservation and promotion of heritage precincts in historic cities of India. These elements work together to ensure that the cultural and historical significance of the precincts is not only conserved but also effectively communicated, enhancing public awareness, education, and appreciation of the rich heritage of these areas. Guided tours, in particular, serve as a bridge between the past and the present, offering visitors a deeper connection to the history and architecture of the precincts.”

The series of One-Way ANOVAs (Tables 6.1 to Table 6.7) analyse various aspects of the community's opinion on conservation efforts in the walled city of Amritsar. The key areas explored include present conditions, community and government efforts, the use

of traditional and new materials for repairs, and the role of pride in influencing community opinions. These results offer critical insights into the dynamics between the community, conservation processes, and heritage conservation.

The One-Way ANOVA results presented in Tables 6.1 to Table 6.7 provide a comprehensive picture of how community opinion varies across socio-economic, demographic, and spatial factors in the conservation process of Katra Ahluwalia. The tests examined associations between community opinion and six primary variables — present condition, community efforts, government efforts, repair with new materials, repair with traditional materials, and community pride.

The overall findings reveal statistically significant differences ($p < 0.05$) across most parameters, confirming that heritage perception and conservation behaviour are not uniform across the population. Respondents' education, income, and nativity emerge as key differentiators influencing awareness levels, material preferences, and attitudes toward government initiatives.

Specifically, the analysis of present conditions (Table 6.1 and Table 6.2) indicates that respondents residing in older streets and Sikh-period structures express stronger concerns about physical deterioration and authenticity loss. Community efforts (Table 6.3) highlight the crucial role of local initiatives in minor repairs, while the lack of organized collaboration reduces the overall conservation impact.

Government efforts (Table 6.4) scored moderately, suggesting a general awareness of official interventions but dissatisfaction with implementation and public engagement. The repair material analyses (Tables 6.5 and Table 6.6) show a clear preference for traditional materials, supported by higher mean opinion scores, indicating community trust in indigenous methods for maintaining authenticity.

Finally, community pride (Table 6.7) emerged as a strong intangible motivator influencing conservation commitment. Residents with deeper cultural ties and intergenerational belonging exhibit significantly higher pride indices, directly correlating with positive conservation attitudes.

Taken together, the ANOVA findings reaffirm that effective heritage conservation in Katra Ahluwalia depends on both tangible and intangible dimensions—structural conditions, public perception, and emotional belonging. The results validate the

research hypothesis that community-based parameters such as awareness, participation, and traditional knowledge play a decisive role in determining conservation outcomes. This synthesis further bridges the quantitative analysis of Chapter 6 with the concluding recommendations of Chapter 7, emphasizing the need for policy frameworks that integrate technical restoration with social participation. The interpretation underscores that sustainable heritage conservation can only be achieved when statistical insights translate into inclusive, ground-level action.

6.12 Intangible Heritage and Analytical Relationship with ANOVA Results

6.12.1 Overview of Analytical Context

The ANOVA analyses (Tables 6.1 to Table 6.7) quantified community perceptions of heritage conservation—covering structural condition, participation, material repair, and pride. Yet these statistical outcomes also reveal a deeper interpretive layer: they express the living cultural character of Amritsar’s walled city, where tangible and intangible dimensions merge.

According to the UNESCO (2003) Convention, intangible heritage includes ‘practices, representations, expressions, and knowledge that communities recognize as part of their heritage (Table 6.8).’ The Historic Urban Landscape (HUL, 2011) recommendation further stresses the integration of ‘memory, identity, and cultural continuity’ into urban management. The INTACH Charter (2014) and ASI Guidelines (2019) echo this by urging people-centred approaches that protect not only fabric but also the spirit of place. This section therefore reinterprets the ANOVA data through five interrelated intangible domains that together shape the walled city’s heritage character: (i) Civic Participation and Social Cohesion, (ii) Community Pride and Sense of Place, (iii) Education and Awareness, (iv) Traditional Knowledge and Craftsmanship, and (v) Inter-Generational Continuity.

Table 6.8: Framework of Intangible Dimensions

Intangible Domain	International Reference (UNESCO– HUL– INTACH– ASI)	Typical Attributes	Evidence in Amritsar’s Walled City / Linked ANOVA Tables

Civic Participation & Social Cohesion	HUL 4–27; INTACH Art. 6	Volunteerism, community upkeep, neighborhood solidarity	Strong local participation; significant in Tables 6.1 (Community Efforts) and 6.3 (Government Efforts)
Community Pride & Sense of Place	UNESCO ICH Art. 2; INTACH Art. 4	Emotional attachment, memory, symbolic identity	High F-values in Table 6.7 (Community Pride); satisfaction with local condition (Table 6.2)
Education & Awareness	UNESCO ICH Art. 14; HUL 26	Knowledge, appreciation, informed behaviour	Positive correlation between education and awareness (Table 6.5)
Traditional Knowledge & Craftsmanship	ASI Manual 6.3; INTACH Art. 8	Continuity of materials and skills	Preference for lime plaster & traditional joinery (Table 6.5, Table 6.6)
Inter-Generational Continuity	UNESCO ICH Art. 13; HUL 29	Transmission of heritage knowledge to youth	Age-linked awareness gradient (Table 6.6)

Source: Compiled from UNESCO (2003; 2011), INTACH (2004), and ASI Conservation Manual (2010).

6.12.2. Quantitative Derivation of Relative Shares

Each domain's prominence was calculated by normalizing its mean value from the corresponding ANOVA tables using the formula: Normalized Share (%) = (Mean Value of Factor ÷ Σ of Mean Values of All Five Factors) × 100

Table 6.9: ANOVA-Derived Weighted Contribution of Socio-Cultural Factors to Conservation Vitality

Factor	Observed Mean % (ANOVA Reference)	Normalized Share %
Civic Participation & Social Cohesion (6.1, 6.3, 6.4)	8.4	26%
Community Pride & Sense of Place (6.2, 6.7)	7.6	24%
Education & Awareness (6.5)	6.8	21%
Traditional Knowledge & Craftsmanship (6.5–6.6)	6.0	18%
Inter-Generational Continuity (6.6)	3.2	11%

Highest-weighted domains—Participation (26%), Pride (24%), and Awareness (21%)—form the core of conservation vitality, while lower-weighted domains—Craftsmanship

(18%) and Continuity (11%)—represent emerging areas of vulnerability requiring reinforcement through policy and education.

6.12.3. Interpretive Analysis of Findings

Participation and Cohesion (26%): Communities exhibiting higher participation also reported better condition ratings (Table 6.1, Table 6.3). Confirms HUL §24: participatory governance sustains heritage integrity.

Pride and Sense of Place (24%): Faith-based identity and symbolic attachment drive maintenance behavior (Table 6.2, Table 6.7). Resonates with INTACH Art. 4 on the spirit of place.

Awareness and Education (21%): Educated groups show stronger pro-conservation preferences (Table 6.5). Aligns with UNESCO ICH Art. 14 on capacity building.

Craftsmanship and Authenticity (18%): Lime plaster and timber details sustain vernacular techniques (Tables 6.5, Table 6.6). Echoes ASI 2019 Guidelines for lime-based repairs.

Continuity and Transmission (11%): Lower awareness among youth (Table 6.6) signifies declining knowledge transfer. Reflects UNESCO Art. 13 on inter-generational safeguarding.

6.12.4. Synthesis and Integrated Interpretation

The ANOVA findings reveal that the vitality of Amritsar's walled city rests upon an equilibrium of social participation, pride, cognitive awareness, craftsmanship, and continuity. Quantitatively, these five domains together describe how intangible vitality underpins tangible conservation performance—precincts with higher community engagement show superior physical condition scores, while low-engagement areas display accelerated deterioration. This relationship validates the UNESCO HUL (2011) and INTACH (2014) principle that conservation effectiveness depends on people as much as on fabric.

6.12.5. Interpretive Conclusion – Character of the Walled City

Taken together, the five domains express the character of Amritsar's heritage precinct as a synthesis of physical endurance and cultural vitality. The walled city's distinctiveness does not lie solely in its Nanakshahi brick façades or chowks, but in the lived traditions that animate them—participation, pride, and the craft memory of its people. Thus, the character of the precinct is a social construct continuously renewed

through awareness, collective responsibility, and inter-generational knowledge. This interpretation directly addresses Objective 2 and aligns with global conservation ethics enshrined in UNESCO (2003), HUL (2011), INTACH (2014), and ASI (2019).

6.12.6. Policy and Conservation Implications

- Community Heritage Forums: Institutionalize local chowk committees for participatory monitoring.
- Skill Revival Programs: Workshops on lime plaster and wood joinery under ASI training schemes.
- Awareness Modules: Integrate heritage education through INTACH Heritage Clubs and city schools.
- Inter-Generational Linkages: Document oral histories and mentor-based craft apprenticeships to bridge continuity gaps.

6.13. Findings

The findings collectively reveal that the character of Amritsar's walled city—its physical form, social vitality, and cultural continuity is shaped by a complex interaction between community participation, heritage awareness, socio-economic context, and material authenticity. ANOVA analyses (Tables 6.1 to Table 6.7) confirm that these factors are statistically interlinked and reflect both tangible and intangible dimensions of conservation.

6.13.1. Public Participation and Shared Custodianship

- Community Efforts (Table 6.1) show a significant variation in perception ($F = 4.18$, $p < 0.01$), with higher mean scores in precincts exhibiting strong resident engagement. This reflects the persistence of local stewardship and voluntary maintenance of shared assets.
- Government Efforts (Table 6.4) show moderate satisfaction ($F = 3.57$, $p < 0.05$), underscoring the need for joint governance platforms that integrate citizen committees, as endorsed by the INTACH Charter (2014) and HUL (2011).
- The positive correlation between participation and physical condition confirms that tangible conservation is driven by intangible civic responsibility—a foundational aspect of precinct character.

6.13.2 Community Awareness and Cultural Identity

- Heritage awareness varies significantly across education and income levels (Tables 6.2, Table 6.5; $F = 5.12$, $p < 0.05$). While 82% of respondents show awareness, only 64% actively visit heritage sites, revealing a gap between knowledge and participation.
- Respondents with higher education and longer residency demonstrate greater understanding of heritage value and repair authenticity ($M = 4.2$). This confirms that cognitive awareness nurtures emotional attachment, in alignment with the Burra Charter (1999) and Nara Document on Authenticity (1994) principles of value-based conservation.

6.13.3 Socio-Economic Influences and Inclusion

- Community efforts are influenced by income disparities (Table 6.3; $F = 3.46$, $p < 0.05$). Low-income respondents express strong pride but limited capacity for direct financial participation, whereas middle- and upper-income groups associate heritage conservation with tourism potential (Table 6.2).
- These findings highlight the need for economic inclusion and training support for artisans and residents—an approach consistent with HRIDAY (2019) and UNESCO's HUL framework, which emphasize community benefit and livelihood integration in heritage conservation.

6.13.4 Authenticity, Craftsmanship, and Traditional Knowledge

- ANOVA tables (6.5 & 6.6) demonstrate a significant preference for traditional materials ($F = 9.62$, $p < 0.01$). Mean ratings for lime plaster and Nanakshahi brick ($M = 4.1$) exceed those for cement and modern finishes ($M = 2.8$).
- This tangible preference is rooted in intangible craftsmanship knowledge—the continuity of material wisdom passed across generations. It validates the Venice Charter (1964) and ASI Guidelines (2019) emphasizing material authenticity as the moral foundation of conservation practice.

6.13.5 Pride, Place, and Cultural Continuity

- The Community Pride variable (Table 6.7) shows strong statistical correlation with awareness and nativity ($F = 7.83$, $p < 0.001$; $M = 4.4$ for religious structures).

Respondents link heritage spaces with identity, festivals, and collective memory—key indicators of intangible vitality.

- This pride translates into behavioural outcomes: residents reporting higher emotional attachment also show greater support for traditional repair and site cleanliness.

Such findings substantiate the Nara (1994) and UNESCO Intangible Heritage Convention (2003) emphasis on living tradition and emotional continuity as essential to sustaining the urban character.

6.13.6 Thematic Synthesis of Conservation Factors

The results, synthesized from Tables 6.1–6.7, show that the conservation of Amritsar’s heritage precincts is not defined by physical restoration alone but by a network of interdependent forces (Table 6.10).

Table 6.10. Five broad themes emerge, supported by international frameworks:

Theme	Representative ANOVA Evidence	Intangible Link	Reference Framework	Interpretive Insight for Character
Physical & Environmental Integrity	Table 6.2 – Mean = 3.9	Sense of Place & Belonging	Venice Charter (1964)	The fabric sustains memory and identity.
Community Participation	Tables 6.1 & 6.3 – F = 4.18, p < 0.01	Civic Responsibility	HUL (2011), INTACH (2014)	Character thrives on collective custodianship.
Policy & Institutional Structure	Table 6.4 – F = 3.57, p < 0.05	Governance Trust	Washington Charter (1987)	Integrated management enhances credibility.
Material Authenticity	Tables 6.5 & 6.6 – F = 9.62, p < 0.01	Craft Knowledge	INTACH (2004), ASI (2019)	Traditional methods retain original identity.
Cultural & Intangible Vitality	Table 6.7 – F = 7.83, p < 0.001	Memory & Pride	Nara (1994), UNESCO 2003	Emotional continuity reinforces heritage character.

Source: Compiled from Venice Charter (1964), Washington Charter (1987), Nara Document (1994), INTACH Charter (2004), UNESCO (2003; 2011), and ASI Conservation Guidelines (2019).

6.14 Conclusion: Character and Continuity of the Walled City

The study on the heritage precinct of Katra Ahluwalia in Amritsar’s walled city demonstrates that effective heritage conservation emerges from the interaction between tangible architectural fabric, intangible cultural values, community participation, institutional support, and socio-economic pressures. The documentation of the precinct,

supported by morphological drawings, street-section analyses, building typology maps, and photographic records presented throughout the research (Figures in Chapter 5), reveals how spatial form, façade character, street enclosure, and historical materiality collectively define the identity of the area. These visual and spatial analyses reinforce the significance of traditional streetscapes, chowks, continuous building frontages, and historic construction systems, demonstrating their central role in sustaining the precinct's heritage ambience.

The empirical findings derived from quantitative analysis (as summarized across Tables 6.1 to 6.7) provide statistical validation for the relationships observed in the field. Table 6.1, presenting overall community opinion, establishes the baseline perception of conservation conditions and stakeholder expectations. Table 6.2 reveals the substantial gap between everyday use and heritage recognition, reflecting insights evident from street-level visual surveys and façade condition photographs (Figures of deteriorated elements and changes in Chapter 5). Table 6.3 highlights the measurable impact of community participation, a conclusion supported by visual evidence of coordinated repairs and neighbourhood-based stewardship documented in field images. Table 6.4 confirms the variability in perceptions of government involvement, corresponding to specific infrastructural or façade treatment projects illustrated in the relevant figures.

The tension between traditional and modern material choices is clearly demonstrated through comparative evidence in Tables 6.5 and 6.6, corroborated by visual documentation of lime plaster, Nanakshahi brickwork, timber joinery, and contemporary RCC and cladding insertions (Figures showing material contrasts in façades). The strongest statistical influence is reflected in Table 6.7, where intangible heritage dimensions—particularly pride, identity, and socio-cultural participation—emerge as decisive factors shaping conservation behaviour, confirming observations recorded in images of festivals, religious gatherings, and socially active public spaces across the precinct.

Spatial and urban morphological interpretation, supported by maps, street sections, figure-ground drawings, and land-use patterns, demonstrates that conservation is inseparable from the living social and economic fabric of the precinct. Areas visually documented as cohesive and socially active show stronger support for preservation,

while figures illustrating fragmented redevelopment and vertical RCC growth show weakened continuity and identity.

Taken together, the findings establish that heritage conservation is fundamentally human-centred, and material restoration succeeds only when grounded in community awareness, cultural continuity, authentic repair practices, and shared responsibility. The figures, photographs, maps, diagrams, and tables collectively reinforce the central argument that the endurance of Amritsar's walled city depends on the symbiotic relationship between physical heritage and the cultural consciousness that sustains it. Heritage here is understood not as a static collection of historic buildings, but as a dynamic socio-spatial ecology, where identity, participation, memory, and material authenticity shape resilience against pressures of commercialization and unregulated redevelopment.

Ultimately, the preservation of Katra Ahluwalia's heritage requires viewing conservation as an ongoing social process embedded in everyday life, ensuring that the precinct remains a living tradition activated through community agency rather than a relic preserved solely through physical repair.

CHAPTER 7

CONCLUSIONS, RECOMMENDATIONS AND WAY FORWARD

This chapter synthesizes the overall research findings on the conservation of heritage precincts within Amritsar's walled city, emphasizing the interdependent roles of public participation, community awareness, and governmental intervention. It addresses the core challenges identified through field analysis and statistical evaluation, answers the research questions and objectives, and validates the hypothesis that effective conservation is unattainable without an informed and participatory community. The chapter consolidates these outcomes into a coherent framework, drawing policy-level implications that integrate community engagement, institutional collaboration, and sustainable funding mechanisms. It concludes with comprehensive recommendations for strengthening heritage governance and proposes a structured way forward, outlining strategies for implementation, monitoring, and future research to ensure enduring and inclusive conservation in Amritsar.

7.1 Executive Summary

This study critically examines the processes, policy mechanisms, and community dynamics influencing the conservation of heritage precincts in the walled city of Amritsar, with Katra Ahluwalia serving as a representative case. The principal objective is to develop a strategic, community-based, and policy-supported framework that integrates tangible heritage elements—such as façades, morphology, and traditional materials—with the intangible cultural dimensions of craft practices, rituals, and collective memory.

Field surveys, photographic documentation, stakeholder interviews, and structured questionnaires formed the core methodological tools of this study. Quantitative analysis using One-Way ANOVA (Tables 6.1–6.7) established statistically significant relationships among present condition, community and government efforts, repair materials, and community pride. The results confirm that conservation outcomes are strongest where traditional repair practices, active community participation, and responsive institutional support converge—thereby validating the central hypothesis of this research.

7.2 Research Background

Katra Ahluwalia, nestled in Amritsar's historic walled city, is a remarkable example of architectural and cultural evolution spanning over four centuries. Its development reflects influences from Sikh, Mughal, Rajput, and colonial styles, evident in features like wooden jharokhas, multifoil arches, jaali work, and frescoes. Constructed using traditional materials like Nanakshahi bricks and lime mortar, the area has transitioned from a fortified enclave to a bustling commercial hub while retaining elements of its historic identity. Moreover, the walled city itself is a quintessential example of medieval urban planning, characterized by narrow, zigzag streets designed primarily for pedestrian movement. The city's layout ensures that nearly every neighborhood surrounding the Golden Temple—the spiritual and geographical heart of Amritsar—is within a one to two-kilometer radius, encapsulating Amritsar's 433-year-old heritage. The fortified walls enclose a rich tapestry of historic sites, parks (baghs), artifacts, architectural marvels, and traditional streets, all contributing to the city's cultural legacy. However, challenges such as structural deterioration, unplanned urbanization, loss of traditional craftsmanship, and unsympathetic modern interventions threaten its heritage. Despite this wealth of heritage assets, the city faces significant challenges in conserving these precincts due to urban pressures, lack of public participation, and insufficient conservation strategies. Public participation and community awareness are crucial in addressing these challenges, as local engagement is essential for fostering a sense of ownership and responsibility among residents and stakeholders. Strengthening community awareness and involving citizens in conservation efforts can bridge gaps between heritage conservation and urban development. Addressing these issues is crucial not only to safeguard Amritsar's architectural and cultural legacy but also to enhance its socio-economic potential through sustainable development, cultural tourism, and public advocacy.

7.3. Linking Factors, Evidence, and Strategies

The analysis of heritage conservation in Amritsar highlights multiple interlinked factors like physical, socio-economic, institutional, cultural, and interpretive that shape the character of historic precincts. Using survey data, ANOVA findings, and case study comparisons, these factors were thematically grouped to frame actionable strategies.

Table 7.1: Factors, Evidence, and Strategies for Conservation of Heritage Precincts in Amritsar

Factor Category	Evidence from Survey / ANOVA	Proposed Strategies	References / Frameworks
Physical & Material (deterioration, insensitive repairs, loss of authenticity)	Preference for traditional materials in repairs (Tables 6.5 & 6.6).	Provide incentives for lime, timber, and traditional crafts, organize training workshops, and initiate façade improvement schemes.	INTACH Charter (2004), Burra Charter (1999).
Socio-Economic (limited funds, uneven tourism benefits)	Socio-economic barriers to participation (Table 6.2), income-based differences in awareness (Figures 6.3–6.10).	Implement Transfer of Development Rights (TDR), promote adaptive reuse of havelis, and establish a Heritage Trust Fund.	JNNURM Toolkit (2006), HRIDAY (2015), UNESCO HUL (2011).
Governance & Institutional (weak enforcement, fragmented roles)	Mixed perception of government efforts (Table 6.4).	Embed heritage provisions within statutory plans, strengthen Heritage Cells, and introduce heritage-zoning regulations.	UNESCO HUL (2011), Washington Charter (1987).
Community & Cultural (awareness gaps, low engagement)	Strong pride in religious / historic buildings (Table 6.7) but limited visitation (Figures 6.1–6.2).	Integrate heritage education in schools; create heritage clubs, document craft skills and oral histories.	Nara Document (1994), UNESCO Convention for Safeguarding Intangible Heritage (2003).
Awareness & Interpretation (lack of interpretive resources)	Limited community understanding of site significance (Figures 6.13–6.16), demand for signage and guided tours (Figure 6.20).	Develop interpretive signage, audio guides, and heritage maps, undertake GIS-based mapping and digital storytelling initiatives.	Enhancing Our Heritage (EoH 2.0, 2023), West Midnapore Mapping Project.

Source: Compiled from the Burra Charter (1999), INTACH Charter (2004), Nara Document (1994), UNESCO HUL (2011), HRIDAY (2015), JNNURM (2006), AMASR Act (2010–2020), UNESCO (2003; 2021), ICCROM (2015), and EoH 2.0 (2023).

This synthesis demonstrates that conservation cannot rely on isolated interventions. A balanced approach combining technical measures (materials, zoning), socio-economic incentives (TDR, adaptive reuse), strong governance, and active community participation ensures sustainability. By aligning local realities with global frameworks such as the UNESCO HUL (2011), Nara Document (1994), and INTACH Charter (2004), Amritsar can establish a resilient, community-driven conservation model that integrates both tangible and intangible heritage

7.4 Salient Findings

The analysis demonstrates that the conservation performance of Amritsar's heritage

precincts is shaped by interconnected physical, social, institutional, and economic factors. The following key findings synthesise the outcomes of statistical tests, field observations, and community perceptions:

- **Role of Community Participation:** Community involvement significantly improves conservation outcomes for religious buildings, architecturally important structures, and shared public spaces. High awareness (82%) does not translate into active engagement, particularly among youth and higher-income groups.
- **Material Use and Authenticity:** Traditional materials—lime plaster, Nanakshahi brick, timber joinery—sustain architectural authenticity and prolong structural life. Modern materials, especially cement-based repairs, contribute to accelerated deterioration and visual disharmony.
- **Condition of Built Heritage:** More than 70% of historically significant buildings are in poor condition due to inadequate community action and limited governmental support. Street morphology has weakened, and traditional wells have disappeared because of redevelopment pressures.
- **Governance, Funding, and Institutional Support:** Government efforts are uneven: religious buildings receive support, while architecturally important structures face funding gaps and weak enforcement. Respondents expect government-led incentives, simplified land-use procedures, and active educational initiatives.
- **Intangible Heritage and Community Identity:** Craft traditions, social rituals, bazaar culture, and community pride remain integral to sustaining the tangible heritage fabric. Pride in historically important buildings aligns strongly with custodianship attitudes.
- **Pressures from Urbanisation and Infrastructure Demand:** Population growth and infrastructure expansion have intensified redevelopment pressures, causing demolition, vertical growth, and loss of traditional urban elements. Neglect of historic sites occurs when development priorities overshadow heritage concerns.
- **Socio-Economic Dimensions of Engagement:** Higher-income groups possess

better knowledge of heritage sites but visit infrequently, suggesting untapped potential for stewardship. Youth participation remains low, indicating the need for targeted awareness and educational initiatives.

- **Integrated Conservation Needs:** Respondents support holistic conservation approaches incorporating physical upgrades, interpretation, signage, facilities, and information systems. Financial tools such as Transfer of Development Rights (TDR) can offset redevelopment pressures and incentivize sensitive conservation.

Overall, the findings affirm that sustainable conservation in Amritsar requires a coordinated approach that integrates traditional repair practices, robust institutional support, community participation, socio-economic incentives such as TDR, and the safeguarding of intangible cultural knowledge. Only through this combined strategy can the tangible and intangible heritage of the walled city be preserved effectively.

7.5 Consolidated Framework for Sustainable Heritage Conservation

The framework proposed in this research is a multi-dimensional, evidence-based, and systems-oriented heritage conservation model that synthesizes quantitative analysis, qualitative field insights, and contextual heritage characteristics into an operational structure integrating physical conservation, community participation, governance mechanisms, and socio-economic sustainability. It brings together the empirical findings and interpretive conclusions of this study into a unified model for heritage-precinct management in Amritsar's walled city, translating statistically tested relationships among community perception, physical condition, government and community efforts, repair materials, and community pride into an integrated structure for action. The framework rests on four interrelated domains derived directly from the research conclusions:

Physical and Material Conservation: This domain addresses deterioration of the built fabric through the use of traditional materials, skilled craftsmanship, and preventive maintenance. Findings in Tables 6.2, 6.5, and 6.6 show favourable community responses when traditional repair methods are applied. These results affirm that strengthening material conservation through traditional practices and regular upkeep is essential for preserving architectural authenticity and ensuring long-term structural

stability.

Community Participation and Awareness: This domain focuses on strengthening collective ownership, pride, and heritage education. Tables 6.1, 6.3, and 6.7 confirm that higher participation and awareness correlate with stronger conservation opinions.

Community ownership is included as a core strategy based on empirical validation in Chapter 6. ANOVA results demonstrate significant relationships between participation, awareness, pride, and the condition of heritage elements, with more engaged precincts showing better maintenance, adherence to traditional repair practices, and fewer inappropriate alterations. Field observations and stakeholder feedback further confirm that conservation outcomes are more sustainable where residents act as custodians rather than passive occupants. Accordingly, community ownership is embedded as an operational driver that strengthens physical conservation, supports cultural continuity, and aligns long-term stewardship with local values.

Together, these findings show that enhancing participation, awareness, and pride is essential for successful conservation. When ownership becomes socially embedded, stewardship evolves into a sustained community responsibility, forming a strong socio-cultural foundation for heritage management.

Policy and Governance Mechanisms: This domain integrates institutional frameworks, incentives, and monitoring tools that align government initiatives with community expectations. Table 6.4 highlights perceptual gaps between government efforts and public aspirations, indicating the need for participatory governance. Embedding responsive processes, targeted incentives, and transparent monitoring ensures conservation becomes more context-sensitive, equitable, and collaboratively maintained.

Socio-Economic and Cultural Sustainability: This domain balances tourism, livelihood needs, and urban development pressures with cultural identity. Chapter 6 indicates that economic pressures and redevelopment are major drivers of demolition and alteration. Strategies that harmonize economic opportunity with heritage preservation allow the precinct to evolve without eroding its historical character, supporting community well-being and cultural continuity.

The four domains interact through reciprocal feedback loops: governance supports

participation; awareness promotes responsible repair; physical integrity strengthens pride; and socio-economic stability enables continued maintenance. Each domain operates as both input and outcome, creating a self-reinforcing cycle of conservation. The model recommends evaluating future programs through four simultaneous lenses—physical authenticity, community inclusion, institutional support, and socio-economic viability—supported by quantitative indicators and qualitative field insights.

7.6 Answer to Research Questions

Research Question 1: Why are heritage structures in precincts being pulled down?

Heritage structures in Amritsar's walled city are being lost primarily due to urban expansion pressures, inadequate regulatory enforcement, and insufficient conservation incentives (Section 7.2, Findings). Table 6.1 (Section 6.8) confirms that rapid population growth has intensified land demand, prompting demolition or vertical redevelopment of historic properties. Weak enforcement of building byelaws, coupled with limited fiscal and technical support for owners, accelerates physical transformation. Figure 6.18 (Section 6.15) further indicates that financial constraints and absence of targeted incentives discourage investment in maintenance. Comparable patterns have been observed internationally (Kerstetter et al., 2001 and Hovinen 2002) note that heritage precincts under urban pressure often deteriorate when conservation objectives compete with development imperatives. These converging findings underline that economic, institutional, and demographic forces collectively drive the physical erasure of heritage assets.

Research Question 2: Is the lack of public participation and awareness the main reason for these changes?

While urban and economic factors exert measurable influence, the deficit of public participation and awareness critically exacerbates heritage decline (Section 7.2, Findings). Figure 6.1 (Section 6.3) shows that although 82 percent of residents acknowledge the importance of conservation, only a small subset engages actively in related initiatives. Figure 6.5 (Section 6.4) reveals that younger and middle-income cohorts participate least, indicating generational and socio-economic gaps in stewardship. Table 6.3 (Section 6.10) demonstrates limited coordination between community and institutional actors, reflecting an absence of structured participatory

mechanisms. These findings correspond with Arnstein's (1969) "Ladder of Citizen Participation," which argues that authentic empowerment emerges only when communities move beyond consultation to partnership and delegated authority. Consequently, the low level of civic engagement represents a fundamental barrier to sustainable heritage conservation in Amritsar.

7.7. Answer to Research Objectives

Objective 1: To understand the heritage built character and features of built heritage in the walled city of Amritsar.

Field documentation (Chapter 5) confirms that Amritsar's walled city embodies a layered historic fabric comprising religious landmarks such as the Golden Temple, Katra-based havelis, chowks, and traditional wells that articulate a dense, pedestrian-oriented urban grain. These physical attributes, rooted in Sikh-period planning and later colonial adaptations, reveal a continuity of craftsmanship—Nanakshahi brick masonry, lime plaster, and timber joinery—that defines the precinct's identity. Understanding these tangible characteristics establishes the empirical and morphological foundation for developing conservation policy frameworks (Prentice, 1989).

Objective 2: To identify the factors responsible for the changes in character of heritage precincts in Amritsar.

Quantitative and qualitative analyses (Tables 6.1–6.7) reveal that interlinked pressures drive change: urban expansion, weak legal enforcement, limited funding, and declining community engagement. Rapid population growth and inadequate infrastructure (Table 6.1) encourage unauthorized modifications and demolitions. Socio-economic disparities—evident in Figure 6.5, where 65 percent of higher-income respondents were unaware of their conservation role—underscore unequal participation. These factors collectively demonstrate that the transformation of Amritsar's heritage character stems from the intersection of structural urbanization and social detachment.

Objective 3: To analyse how public participation can contribute to the conservation of historic precincts.

Findings confirm that conservation outcomes improve markedly when residents participate directly in planning and maintenance processes. Although 82 percent of respondents acknowledge the importance of conservation (Figure 6.1), only a fraction

engage in active initiatives. Applying Arnstein's (1969) Ladder of Participation within local heritage governance can elevate participation from tokenism to partnership. Case parallels (Kerstetter et al., 2001) demonstrate that collaborative models foster a sense of ownership, strengthening both conservation effectiveness and community pride.

Objective 4: To provide recommendations for a policy framework that incorporates public participation in conservation.

The research recommends an integrated policy framework combining financial, institutional, and educational strategies. Key measures include the adoption of Transfer of Development Rights (TDR) to incentivize conservation, establishment of Municipal Heritage Cells and community advisory boards, and initiation of public workshops and awareness campaigns (Figure 6.18). These align with HRIDAY (2015) and UNESCO HUL (2011) principles, ensuring that heritage management becomes economically viable, socially inclusive, and administratively accountable.

7.8 Answer to Hypothesis

Main Hypothesis: Heritage conservation in Amritsar cannot be achieved through physical conservation alone, it requires active public participation and community awareness as interdependent components.

The hypothesis is validated by empirical and comparative evidence.

- **Public Participation:** Tables 6.3 and 6.4 reveal that precincts with stronger community involvement report better maintenance and adaptive-reuse initiatives.
- **Awareness Identity and Pride:** Table 6.7 shows that higher awareness correlates with increased community pride and custodianship.
- **Interdependence:** Figure 6.1 indicates that awareness without participation yields limited impact, while low awareness constrains participation—confirming their mutual necessity.
- **External Validation:** Comparable studies (Kerstetter et al., 2001, Hovinen, 2002) support that participatory awareness strengthens conservation where urban pressures are intense.

- **Socio-Economic Context:** Data corroborate the sub-hypotheses that commercialization and housing demand negatively affect conservation by diverting community focus and reducing engagement.

Accordingly, the research affirms that public participation and community awareness are co-dependent catalysts for effective heritage conservation. Without informed citizens, participation remains superficial, without participatory structures, awareness lacks application. Thus, the main and sub-hypotheses stated in Chapter 1 are accepted, providing a theoretically and empirically grounded basis for the proposed conservation framework in Amritsar's walled city.

The research findings empirically validate all three sub-hypotheses.

- **H₁ (Socio-Physical Correlation)** is supported through statistically significant results in Tables 6.1, 6.3 and 6.4, demonstrating that improved physical condition and active participation correlate strongly with positive community opinion towards conservation ($p < 0.05$).
- **H₂ (Material Integrity and Awareness)** is affirmed by Tables 6.5–6.7, where preference for traditional materials and higher awareness levels correspond to increased community pride and stronger custodianship attitudes.
- **H₃ (Contextual Constraints)** is confirmed through qualitative evidence in Chapter 6, illustrating that commercialization, tourism pressure, and redevelopment demands reduce engagement and weaken awareness, thereby diminishing conservation effectiveness.

Collectively, the results confirm that public participation and community awareness operate as interdependent drivers of heritage conservation success, thereby supporting and accepting the main hypothesis.

7.9. Recommendations and Suggestions for Conservation of Heritage Precincts

The updated comparison chart of the various strategies, which can be implemented for heritage conservation approach with takeaway strategy:

Table 7.2: Comparison chart with the takeaway strategy

Conservation Strategy	Economic Viability	Social Impact	Long-Term Sustainability	Impact on Tourism	Impact on Stakeholders	Stakeholder Involvement	Public Participation	Conservation of Authenticity	Cultural Significance	Recommended Takeaway Strategy
Transfer of Development Rights (TDR)	High	Medium	Medium	High	Medium	Medium	Medium	High	High	Use TDR as a core financial tool, backed by legal support and community engagement, to maximize conservation funding and reduce demolition pressure.
Heritage Zoning and Development Controls	Medium	High	High	Medium	High	High	Medium	High	High	Implement zone-specific heritage character guidelines with joint planning committees for oversight and enforcement.
Adaptive Reuse of Heritage Buildings	High	High	High	High	High	Medium	Medium	Medium	High	Promote adaptive reuse to generate revenue while maintaining heritage character; integrate small business and cultural uses.
Government Grants and Subsidies	Medium	High	Low	Medium	High	Low	Low	Medium	High	Use grants strategically for façade repair and craft preservation; ensure transparent allocation and regular audits.
Public-Private Partnerships (PPP)	High	Medium	High	High	Medium	High	Medium	Medium	Medium	Engage private sector for funding and adaptive reuse while retaining public oversight to avoid commercial over-transformation.
Local Community Participation and Incentives	Medium	High	High	Medium	Medium	High	High	High	Medium	Empower local residents through micro-grants, heritage clubs, and volunteer programs to strengthen stewardship and ownership.
Conservation Easements	Medium	Medium	High	Low	High	Medium	Low	High	Medium	Use easements strategically with TDR to protect heritage parcels from demolition and incompatible development.
Heritage Tourism Creation and Cultural Routes	High	High	Medium	High	Medium	Medium	Medium	Medium	High	Develop heritage circuits carefully to avoid over-commercialization; use tourism revenues to support conservation and craft livelihoods.
Heritage Trust Creation / Endowment Funds	High	Medium	High	Medium	High	Low	Medium	High	High	Establish Heritage Trust Funds to support long-term maintenance; leverage funds from CSR, tourism, and government grants.
Legislation and Policy Advocacy	Low	High	High	Medium	Medium	Medium	Medium	High	High	Strengthen heritage regulations with enforcement provisions; include citizen representation for transparency.
Capacity Building and Craft Training	Medium	High	High	Medium	Medium	High	High	High	High	Revive traditional crafts through ongoing training and apprenticeship programs in collaboration with NGOs and heritage institutions.

Source: Data compiled from Google Arts & Culture (2018), Urban Design Research Institute (n.d.), Mumbai Metropolitan Region Heritage Conservation Society (n.d.), AFJBS (2020), The News Minute (2023), Telangana Heritage Protection Act (2017), International Network for Heritage Areas Foundation (2019), Barrese (1983), Paris City Council (2020), Boulanger (2019), UNESCO (2018).and Et.all

7.9.1: Recommended Strategy for Walled Cities of Amritsar:

Primary Strategies:

- Utilize TDR as a core financial strategy, paired with heritage zoning and adaptive reuse to control and maximize conservation efforts.
- Community and Legal Support: Strongly integrate Local Community Participation and Policy Advocacy to ensure stakeholder alignment and build long-term sustainability.

Supplementary Funding and Skills: Leverage Government Grants and Capacity Building for additional support and skilled labour in conservation work.

This combined approach effectively balances economic incentives, community involvement, and cultural conservation, creating a sustainable conservation model tailored to the unique needs of walled cities. Based on the findings, the following recommendations are:

Policy Integration of TDR and Financial Incentives

- Establish Clear Conservation Guidelines with TDR Integration: Develop a detailed framework for TDR that includes incentives for property owners to conserve heritage buildings. This framework should outline incentive factors based on existing built-up areas and unutilized plot areas, allowing property owners to leverage TDR in proportion to conservation efforts.
- Demarcate Heritage TDR Zones: Identify specific zones where TDR can be applied, offering financial incentives to create a market for TDR and safeguard historical architecture.
- Support for Senior Citizen Property Owners: Provide techno-legal support through consultants to assist senior citizens in participating in TDR and conservation programs.

Strengthen Community Participation

- Develop a Joint Fact-Finding and Public Engagement Framework: Establish clear communication channels between local authorities and civil society, fostering transparency and trust. Emphasize active public involvement in planning and decision-making processes rather than mere consultation.
- Apply Arnstein's Ladder of Participation: Shift from a result-oriented model

to a process-oriented approach, encouraging greater public influence in decision-making and ensuring community input shapes conservation policies.

Heritage Zoning and Adaptive Reuse

- **Enforce Heritage Zoning:** Implement zoning regulations to prevent inappropriate development within walled cities, conserving the character of heritage precincts. Encourage residents to participate in local planning committees to advocate for conservation policies.
- **Encourage Adaptive Reuse:** Maintain functionality and economic viability of heritage buildings by converting them into community spaces, cultural centers. Involve local communities in selecting appropriate reuse functions to ensure continued service to the community while retaining historical significance.

Increase Funding and Support

- **Government Grants and Subsidies:** Utilize grants and subsidies as supplementary funding sources for critical restoration projects, combined with revenue-generating strategies like adaptive reuse and TDR for sustainability.
- **Public-Private Partnerships (PPP):** Encourage PPPs for large-scale conservation projects requiring substantial funding. Establish local advisory boards with community members to oversee PPP projects, ensuring heritage conservation goals are prioritized.
- **Incentivize TDR Participation:** Implement tax benefits, grants, and financial support to encourage property owners and developers to participate in TDR programs, making conservation financially attractive.

Education and Public Engagement

- **Educational Campaigns:** Launch targeted campaigns to raise awareness about heritage conservation across different age groups and socio-economic sectors. Incorporate heritage conservation into school and university curricula to foster a sense of responsibility among the younger generation.
- **Workshops and Community Outreach:** Organize workshops on TDR, heritage zoning, and adaptive reuse to educate the public on their roles in heritage conservation. Explain the economic and cultural benefits of conserving heritage buildings, including how TDR serves as a financial incentive.

Community-centred Conservation Strategies

- **Establish Local Advisory Boards:** Create heritage advisory boards consisting of community members, experts, and authorities to guide TDR projects, ensuring they align with community needs and conservation goals.
- **Promote Heritage Tourism Development:** Develop heritage tourism carefully to avoid over-commercialization. Establish tourism cooperatives that allow residents to share in profits, providing a strong incentive for active participation in conservation efforts.

7.10 Recommendations for Intangible Heritage Conservation

The transformation of katras driven by commercial pressure and redevelopment has accelerated the loss of intangible cultural heritage, including traditional craftsmanship, communal bazaar culture, oral memory, and inter-generational knowledge transfer. To complement material conservation strategies and respond to reviewer recommendations, the following set of advanced techniques is proposed to safeguard and revitalize the intangible heritage values of Amritsar's walled city.

Table 7.3: “Recommendations for Intangible Heritage Conservation in Amritsar’s Walled City		
Technique / Tool	Application for Amritsar Walled City	Expected Outcome
Living Heritage Labs / Community Craft Studios	Establish working studios inside katras where artisans demonstrate wood carving, metalwork, lime fresco, Phulkari, etc.	Revival of craft economy, intergenerational transmission, tourism activation
Heritage Interpretation Centres	Create small interpretation nodes in chowks explaining history, trade routes, and cultural narratives	Visitors and locals understand identity and significance
Cultural Mapping & Emotional Mapping Workshops	Mapping memories, rituals, festivals, and stories with residents, especially elderly	Retrieval and documentation of intangible identity
Community Heritage Archives (Digital & Physical)	Digitize old photographs, oral histories, shop records, family archives, bazaar soundscapes	Builds collective memory and identity

Storytelling & Oral Tradition Platforms (Katha, Musha'irah, Dhadi Jatha)	Monthly storytelling or folk performance gatherings in public areas	Cultural continuity, community pride
Heritage Walks & Experiential Routes	Craft-focused heritage walks (Carpenter Lane, Metalware Lane, Textile Lane etc.)	Interpretation-based tourism strengthens local business
Seasonal Heritage Festivals / Street Activation	Katra Heritage Festival, Craft Mela, Local Food Festival	Reinstates traditional bazaar culture
Cultural Apprenticeship / Ustaaad–Shagird Guilds	Guild-based structured training system	Skill transfer, youth engagement, social continuity
Intangible Heritage Inventory System	Registry documenting crafts, community memory and performance traditions	Monitoring and safeguarding system for cultural loss
Safeguarding Craft IP and GI Tagging	GI tagging for metalwork, wooden jharokhas, Nanakshahi craft	Economic recognition and protection
Community Stewards / Ward Heritage Volunteers	Local youth trained as heritage monitors and guides	Local ownership and stewardship
Adaptive Reuse for Cultural Economy	Convert unused havelis to studios, co-working, galleries	Cultural economy support & heritage retention
Soundscape & Sensory Conservation	Document street sounds, bells, vendors, craft tools	Preserves character and ambience
Participatory Public Art	Murals reflecting legends, icons and community stories	Place identity and placemaking
Craft Tourism Trails & Homestays	Connecting heritage stays, culture & artisans	Revitalized tourism economy linked with heritage

Source: Compiled from UNESCO (1994; 2003; 2011; 2017; 2023), ICCROM (2015), INTACH (2004), and ASI Documentation Guidelines (2010).

These interventions reinforce the role of intangible heritage as an active cultural resource rather than a symbolic reference. They complement physical conservation by restoring cultural memory, strengthening socio-economic resilience, and rebuilding collective identity rooted in katra and bazaar culture. Integrating these actions with policy, community participation, and financial mechanisms such as TDR can ensure a holistic and sustainable conservation model for Amritsar's walled city.

7.11. Further Recommendations

In order to address the current situation in Amritsar, the proposed joint fact-finding framework needs to be further refined before it can be put into action. This thesis seeks to start a conversation about the "how" rather than the "why" of public engagement in heritage management in cities by examining the role of civil society. A thorough framework or protocol to govern and maintain community involvement in heritage management is also recommended by this thesis to the Amritsar Authorities/government.

7.11.1 Transfer of Development Rights (TDR) for Heritage Conservation

- **Clear Conservation Guidelines with TDR Integration:** Establish a detailed framework for TDR to support heritage conservation in Amritsar, ensuring that the guidelines include incentives for property owners to conserve heritage buildings. This framework should clearly outline the incentive factors based on existing built-up areas and unutilized plot areas, allowing property owners to leverage TDR in proportion to the conservation work undertaken.
- **Heritage TDR Zones:** Demarcate specific zones in the city where TDR can be applied, offering financial incentives for those who utilize the TDR mechanism for heritage conservation. This will create a market for TDR, making it an attractive option for property owners, while simultaneously safeguarding the city's historical architecture.
- **Support for Senior Citizen Property Owners:** senior citizens who may lack the resources or expertise to engage in the TDR process own many heritage properties. Offer techno-legal support to these owners through consultants who can assist with statutory procedures, allowing for easier participation in TDR and conservation programs.

7.11.2 Public Participation in Heritage Management

- **Joint Fact-Finding and Public Engagement Framework:** Develop a joint fact-finding framework to engage local communities in heritage management. This process should focus on establishing clear communication channels between local authorities and civil society, fostering transparency and building trust. The framework should emphasize active public involvement, particularly

in planning and decision-making processes, rather than mere consultation after decisions have been made.

- **Arnstein's Ladder of Participation:** To ensure meaningful engagement, the framework should apply principles from Arnstein's ladder of participation, which encourages greater public influence in the decision-making process. The focus should shift from a result-oriented model to a process-oriented approach, wherein community input shapes the conservation policies and outcomes.

7.11.3 Raising Community Awareness and Encouraging Participation

- **Educational Campaigns:** Launch targeted educational campaigns to raise awareness about the importance of heritage conservation, focusing on different age groups and socio-economic sectors. Schools and universities should incorporate heritage conservation into their curriculum, fostering a sense of responsibility among the younger generation. Awareness programs should emphasize the benefits of TDR and how it can be applied for both conservation and economic gain.
- **Workshops and Community Outreach:** Organize workshops and awareness campaigns on TDR, heritage zoning, and adaptive reuse to educate the public on their roles in heritage conservation. These workshops should explain the economic and cultural benefits of conserving heritage buildings, including how TDR can be used as a financial incentive for property owners.

7.11.4 Government's Role in Supporting Heritage Conservation

- **Creation of a Comprehensive Master Plan:** The Regulatory Authorities should prepare or modify the Development/Master Plan to integrate heritage conservation priorities, including the demarcation of sending and receiving zones for TDR based on infrastructure capacity. Regular ward-wise assessments should be conducted to ensure that heritage precincts are conserved while facilitating controlled development.
- **Monitoring and Maintenance of Heritage Structures:** Government bodies must maintain a detailed list of heritage structures and precincts, regularly monitoring their repair and conservation needs. The government should also provide clear timelines and procedures for TDR applications and approvals,

ensuring efficient execution of conservation projects.

- **Incentivize TDR Participation:** Implement tax benefits, grants, and financial support to incentivize property owners and developers to participate in TDR programs. Such incentives will encourage wider public participation, making the conservation process financially attractive for those with historic properties.

7.11.5 Community-Centred Conservation Strategies

- **Local Advisory Boards:** Establish local heritage advisory boards consisting of community members, heritage experts, and local authorities to guide TDR projects and ensure that they align with community needs and conservation goals. These boards can ensure that the TDR mechanism is applied equitably and that the community's voice is heard in decision-making.
- **Adaptive Reuse and Heritage Tourism:** Encourage the adaptive reuse of heritage buildings, converting them into community spaces, cultural centres, or tourism attractions. These projects should involve public input and be designed to benefit the local economy while conserving the cultural value of the buildings.

7.11.6 Incorporating TDR into Future Policy Frameworks

- **Policy Refinement and Field Data:** Refine the existing policy framework to incorporate TDR as a core strategy for heritage conservation, alongside other mechanisms such as conservation easements and heritage zoning. Further field research should be conducted to validate the effectiveness of TDR in Amritsar's context, gathering data on property owner participation, economic outcomes, and conservation successes.
- **Sustainable Financing through PPPs:** Explore Public-Private Partnerships (PPP) to finance large-scale conservation efforts, especially in densely populated areas. These partnerships should be carefully structured with oversight from community advisory boards to ensure that both public and private interests are aligned with heritage conservation.

7.12 Conclusion

This research on the heritage precinct of Katra Ahluwalia in Amritsar's walled city establishes that heritage conservation cannot be achieved through physical restoration

alone, it requires the active participation, awareness, and cultural engagement of the community, supported by responsive policies, incentive mechanisms, and values-based urban governance. Through an integrated methodological approach combining quantitative analysis (including ANOVA results from Tables 6.1–6.7) with qualitative fieldwork, interviews, mapping, and architectural documentation, the study demonstrates that the tangible and intangible dimensions of heritage are inseparable, and must be addressed together for conservation to be meaningful and sustainable.

The findings confirm that pressures of commercialization, tourism, and rapid urban development are major drivers behind the demolition or transformation of heritage structures in Katra Ahluwalia, supported by statistical evidence showing significant variation in conservation conditions between commercially repurposed and residential heritage properties. The prevalence of hybrid “mix” typologies, combined with deterioration of architectural elements such as lime plaster, carved wood, and traditional façades, highlights the fragility of the precinct’s physical fabric. At the same time, field data revealed that traditional craft skills, collective memory, and bazaar-based social culture are declining due to weak transmission to younger generations and economic constraints—threatening the spirit of place that defines the precinct’s identity.

A central conclusion is that lack of public participation and lack of awareness, identified as key research gaps, critically undermine conservation outcomes. While residents express deep pride and emotional connection to their heritage, they lack technical knowledge, platforms for collaboration, financial capacity, and inclusion in decision-making. The study confirms the hypothesis that measurable levels of public participation and community awareness strongly influence conservation success, reinforcing the positive socio-physical correlation between involvement, pride, and improved heritage conditions. Conversely, the research supports the sub-hypothesis that socio-economic pressures negatively affect participation and conservation effectiveness, demanding policy interventions that balance development with heritage stewardship.

The study also concludes that governance fragmentation and absence of precinct-specific bylaws hinder coherent conservation action. Aligning with international charters—including UNESCO’s Historic Urban Landscape (2011), the Burra Charter, the Venice Charter, the Nara Document, and the INTACH Charter (2014)—the research

emphasizes the urgent need for values-based, community-led governance frameworks rather than technocratic, top-down approaches. Conservation must therefore shift from a model focused solely on physical repair toward participatory, socio-culturally grounded urban management, supported by incentive-based solutions such as Transfer of Development Rights (TDR), which can relieve redevelopment pressures and offer owners an economically viable alternative to demolition.

This thesis presents a holistic, evidence-based model for heritage-led revitalization that integrates:

- Architectural conservation and adaptive reuse
- Revival of traditional crafts and intangible cultural heritage
- Participatory governance and community capacity-building
- Economic strategies and incentivization mechanisms, including TDR
- Context-sensitive policy and regulatory frameworks

By demonstrating how international conservation principles can be localized within the Punjabi–Sikh cultural context of Amritsar, the research contributes a replicable framework for other Indian walled cities facing similar pressures. Ultimately, the study reaffirms that conserving a living heritage precinct is as much about people and planning as it is about preservation. The future of Katra Ahluwalia rests not on freezing history, but on managing change, ensuring that historic identity and modern urban life reinforce rather than replace each other. The envisioned outcome is a precinct where restored buildings, thriving crafts, walkable streets, incentive-supported conservation tools like TDR, and empowered communities together sustain the legacy of Amritsar’s walled city for generations to come.

7.13 Contribution of the Study

This PhD makes several original contributions to the field of heritage conservation by generating methodologically rigorous and empirically grounded insights into the functioning of historic precincts in Indian walled cities, extending well beyond the formulation of a consolidated conservation framework.

- **Empirically Validated Relationships Between Community Perception and Heritage Conditions:** The study makes an original contribution by being the

first to apply One-Way ANOVA across seven heritage variables—present condition, community efforts, government efforts, traditional repair materials, new repair materials, street morphology, and community pride—within an Indian walled-city precinct, thereby producing statistically validated evidence on how community perception significantly influences conservation outcomes.

- **Integration of Tangible and Intangible Heritage into a Unified Analytical Model :** The research contributes uniquely to conservation methodology by integrating tangible heritage conditions with empirically quantified intangible heritage attributes such as cultural pride, awareness, and continuity, thereby creating a unified analytical model that has not been attempted in previous precinct-level studies.
- **Comprehensive Architectural and Material Documentation of Katra Ahluwalia:** The study provides the first comprehensive architectural and material documentation of Katra Ahluwalia by generating detailed datasets on façade typologies, street morphology, material evolution, architectural elements, building typologies, deterioration patterns, and transformation pressures, resulting in a building-level inventory unprecedented in existing literature.
- **Empirical Evidence Demonstrating the Governance–Community Disconnect :** The research contributes new empirical knowledge by demonstrating, through ANOVA testing and field observations, a statistically significant disconnect between government conservation efforts and community expectations, thereby offering evidence-based insights for improving participatory governance and policy alignment.
- **Development of a Precinct-Specific Conservation Logic for Bazaar-Based Historic Cores :** The study introduces a novel precinct-specific conservation logic designed for dense bazaar-based historic cores by identifying the roles of commercial pressure, mixed-use transformation, façade fragmentation, demolition tendencies, and tourism-related impacts, creating a context-sensitive approach tailored specifically to the socio-economic and spatial realities of Katra Ahluwalia.

- **Introduction of a Multi-Dimensional, Evidence-Based Conservation Model:** The research develops and contributes a multi-dimensional, evidence-based, systems-oriented conservation model that integrates physical conservation needs, community participation and awareness, governance mechanisms, and socio-economic sustainability, positioning the model as an operational tool grounded in measurable heritage relationships rather than a descriptive or conceptual framework.
- **Establishment of a Replicable Mixed-Methods Approach for Indian Historic Precincts:** The study establishes a replicable mixed-methods approach for heritage precinct assessment by systematically integrating quantitative analysis, qualitative field evidence, architectural documentation, intangible heritage mapping, and policy evaluation, thereby providing a methodological template suitable for application in other Indian walled cities experiencing similar conservation challenges.

Collectively, these contributions demonstrate that the PhD establishes an original and empirically grounded heritage management paradigm supported by rigorous documentation, statistical validation, socio-cultural analysis, and policy interpretation, thereby responding effectively to the reviewer's concern and advancing scholarly knowledge in architectural conservation.

7.14 WAY FORWARD

Based on the conclusions of this research, the following strategic and actionable directions are proposed to initiate a sustainable and community-driven conservation process for the precinct of Katra Ahluwalia:

- Establish a Precinct Heritage Committee (PHC) comprising municipal officials, INTACH representatives, heritage experts, traders' associations, artisans, residents' groups, and religious institutions to coordinate decisions and mediate between conservation needs and stakeholder priorities.
- Prepare a comprehensive GIS-based inventory and digital documentation of all heritage structures, streetscapes, and intangible assets to create a reliable baseline for future interventions and regulatory oversight.

- Undertake emergency stabilization measures for buildings and architectural elements at immediate risk of collapse—such as propping unsafe balconies, repairing leaking roofs, and securing damaged wooden and lime-plaster components.
- Implement pilot conservation projects on select landmark buildings and small street segments to demonstrate correct methods, showcase economic and aesthetic benefits, and provide training opportunities for traditional craftsmen.
- Develop and notify heritage conservation guidelines supported by technical advisory cells, ensuring that new development, signage, façade redesign, or internal modifications align with the precinct’s heritage character.
- Introduce incentive-based conservation tools, such as grants, tax rebates, low-interest repair loans, or Transfer of Development Rights to encourage private owners to invest in sensitive restoration.
- Integrate infrastructure improvement projects—drainage, lighting, sanitation, cabling, street furniture, pedestrian pathways—within conservation principles to improve livability without compromising heritage identity.
- Strengthen heritage education and community awareness through heritage walks, exhibitions, school curriculum modules, crafts demonstrations, and public outreach campaigns to build broad-based cultural ownership.
- Create a craft training and resource centre to support traditional building skills and generate livelihood opportunities, linking artisans with restoration projects and heritage tourism markets.
- Institutionalize monitoring and maintenance systems including maintenance schedules, penalties for unauthorized demolition, and transparent grievance mechanisms.
- Promote community-scale initiatives, such as adopting streets, cleaning drives, religious/community festivals in historic spaces, and youth volunteer groups to reinforce stewardship and pride.
- Encourage heritage-led economic development through cultural tourism circuits, interpretation centres, curated experiences, and local product branding to align

conservation with socio-economic growth.

7.15 STRATEGIC VISION

The strategic vision emerging from this research imagines Katra Ahluwalia as a living, thriving heritage precinct—not a museum frozen in time, but a dynamic urban place where historic character, traditional crafts, community life, and economic vitality coexist harmoniously. The precinct has restored streetscapes, active-use heritage buildings, pedestrian-friendly public spaces, and resilient craft-based livelihoods will embody a model of heritage-led regeneration rooted in the values and identity of the Sikh–Punjabi cultural landscape. Institutional reforms such as a Heritage Cell, participatory governance structures, and incentive-driven regulation will create a self-sustaining conservation ecosystem supported by community ownership and long-term funding mechanisms. In this envisioned future, Katra Ahluwalia stands as a benchmark for India’s heritage cities—demonstrating that conserving living heritage is an investment in dignity, identity, and sustainable urban futures.

In essence, this research demonstrates that the future of Katra Ahluwalia depends not on freezing history, but on managing change intelligently and collaboratively. By integrating community participation, cultural continuity, heritage-sensitive regulation, incentive-based mechanisms such as Transfer of Development Rights, and evidence-based policy, the precinct can evolve as a resilient and living heritage district where identity, economy, and urban development work in harmony. Standing at a critical threshold between memory and modernization, Katra Ahluwalia must follow a path where development strengthens heritage rather than erasing it, and where local communities are empowered stewards of their own cultural legacy. If implemented collectively, the vision outlined here can transform the precinct into a benchmark for heritage-led regeneration in India’s historic cities, reaffirming that conservation, at its core, is an investment in people, place, and future generations—ensuring that the cultural heartbeat of Amritsar continues to inspire, enrich, and endure.

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ANNEXURE 1

QUESTIONNAIRE: Stakeholders

Conservation of heritage precincts in Amritsar: a case study

Survey/ questionnaire

Sr. No.	Socio-economic	Review	
	Locality name	KATRA AHLUWALIA	
1	Name of street & no		
2	Ward no		
3	House no		
4	Plot size		
5	Year of construction		
6	Year of repair		
7	Nature of repair: 1cement, 2 traditional material, 3 both		
8	Covered Area		
9	No. Of Storeys		
10	Total family member		
11	Head of family		
12	Age		
13	Sex: M/F		
14	Caste		
15	Marital status M/S		
16	Religion:1Hindu. 2 Sikh, 3 Muslim. 4 others.		
17	Present Occupation		
18	Previous Occupation		
19	Since how long been there		
20	if migrate, when..... from		
21	1 owner. 2 Tenant.		
22	Rent...		
23	Gadgets: T.V. (LCD), 2. Cable connection, 3. Dish, 4. washing machine, 5. Cooler, 6. A.C., 7. Landline,8. Mobile,		

24	No. Of vehicles: 1. Cycle, 2. Scooter, 3. Motorcycle, 4. Car, 5. Any other.			
25	Water supply: yes/no			
26	1 M.C. , 2 Submersible, 3 Hand pumps, 4. well,			
27	Supply: 1 Regular, 2 Intermittent			
28	Timings			
29	Garbage collection: yes/ no			
30	1M.C., 2. Private.			
31	Frequency: 1 daily, 2 weekly			
32	Expenditure			
	A	B	C	D
	Electricity bill Amount in rs. (monthly)	Mobile/ landline bill Amount in rs. (monthly)	Water/ sewerage bill Amount in rs. (monthly)	Income (monthl in rs.y)
33	Family structure			
34	Relation with head			
35	Age			
36	Sex			
37	Marital status			
38	Education level			
39	Mode of transportation			
40	Distance to work place(IN KM)			
41	Occupation			
	Um - unmarried	Di – divorced	Wi – widow	Il – P – illiterate primary
	Mi – middle	Hs – higher secondary	G - graduate	Pg – Ao – post any graduat other e

	Cy – cycle	Van – school van	R rickshaw	–B business s	–Ser service	–
	S – scooter					

ANNEXURE 2

Life styles & role of community			
Sr. No.			Review
1	Locality name		
2	Name of street & no		
3	Ward no		
4	House no		
5	Are you satisfied with present living condition (general)?		
6	In the case of building architectural/ historical importance,		
7	If govt. Gives grant (not full) would you like to get your building repaired: Yes /No		
8	Do you feel proud of traditional street/historic? Yes/no		
9	Is there any local market serving the daily needs of the residents in the area? Yes/no		
10	Do you have social interaction with your street residents? Yes/no		
11	Are there adequate places for children to play in the area? Yes/no		
12	Do they play in 1. street 2. opens space 3. Park?		
13	What game do they play: -1. cricket 2. Computer game 3.any other		
14	Which places do they use related function for social function such marriage, death, other celebration: 1. Street, 2. Open space 3. Park 4. Any other		
15	Would you like to shift outside the walled city, yes/no, if yes then why		
16	Problems related to:-		
	1. Traffic:yes/no 2. Pollution: i) (air)yes/no ii) (noise)		

	yes/no iii) (water)yes/no iv) (visual) yes/no 3. Chocked drains: yes/no 4. Any other	
17	Satisfaction level about services & facilities: G – good, M – moderate, B - bad	
Sr No.	Services	Satisfaction level
		G, M ,B
a	Water supply	
b	Sewerage	
c	Drainage	
d	Solid waste disposal	
e	Electricity	
f	mobile	
g	Garbage collection	
h	Cleanliness	

Sr No.	Facility	Distance Travelled (Kms.)
a	School	
b	Park	
c	Community hall	
d	Hospital	
e	ATM	
f	Bank	
h	Others	
18	Want any other type of facilities or services in locality? Yes/ no, Then which: any suggestion about solving these problems:	

ANNEXURE 3

Community opinion in the conservation process								
Sr.No.	Nature of building/areas	N o.	Present condition			Efforts by to protect		
			Good	Moderate	Poor	Yes	No	
1	Religious building							
2	Architectural Building							
3	Historical building							
	Historic significance							
	Common buildings with elements/motifs							
4	Streets							
	Streetscape							
	Architectural elements							
5	Open spaces/ chowk							
the community here	Efforts by the government to protect These		Repair by new materials		Repair by the traditional materials		Pride of the community	
No	Yes	No	Yes	No	Yes	No	Yes	No

ANNEXURE 4

Expectations from the government		
Sr No.		Y/N
1	Is there a need for conservation of heritage? (yes/no)	
2	Should demolition of historic buildings be stopped? (yes/no)	
3	Should change of land use be allowed? (yes/no)	
4	Should the government take over the historic buildings and put them in some wise-use? (yes/no)	
5	Should the government sponsor the repair of buildings (yes/no)	
6	Is there any need of establishing a special heritage cell in the municipal corporation? Amritsar? (yes/no)	
	Any other suggestion for the protection of heritage	

ANNEXURE 5

Comparison - Historic conservation among Four Types of Residents					
Sr No.	Attitudes	Aware/visited	Aware/ not visited	Unaware/ visited	Unaware/ not visited
1	Historic conservation saves structures				
2	Historic conservation saves places that are set aside for public visitation such as chowks, streetscape elements etc.				
5	Historic conservation saves precincts				
6	Historic conservation saves local neighborhoods				
7	Re-Adaptive use of important structures				
8	Historic conservation saves commercial in precincts and Streets/lanes				

ANNEXURE 6

conservation criteria by Four Types of Residents					
Sr No.	Attitudes	Aware/ visited	Aware/ not visited	Unaware/ visited	Unaware/ not visited
1	Value/beauty of the building historical/cultural importance				
3	Sense of place				
4	Economic potential of property				
5	Architecture merit				
6	building Age				

ANNEXURE 7

Importance of features/facilities to visit the sites				
Sr No.	Attitudes	Know/visited	Know/not visited	Unaware/not visited
1	building Age			
2	The materials used to conserve structure.			
3	The historic/cultural importance			
4	The architecture importance of structures			
5	Information displays			
6	Guided tours			
7	Literature and brochures			
8	Souvenirs/gifts/cards			
9	Facilities like food/beverages/toilets etc			
10	with access to special/elderly people			

ANNEXURE 8

Significant historic structures and traditional markets within and outside walled city

S.No.	Name of Gate
1	Lahori Gate
2	Lohgarh Gate
3	Khazana Gate
4	Beri Gate
5	Hatti Gate
6	Hall Gate
7	Rambagh Gate
8	Hakima Gate
9	Sultanwind Gate
10	Ahluwalia
11	Mahansingh Gate
12	Sherawala Gate
13	Gilwali Gate
14	Bhagtan Gate
15	Chattiwind Gate
16	Ramgarhia

ANNEXURE 9

Table 1: Significant religious centres within and outside walled city

S.No	Inside Walled City	Outside walled city
1	11th Rudh Shivala Mandir	Adventist Church
2	Arya Samaj Mandir	Arya Samaj Mandir
3	Baba Deep Singh	Baba Bairag Dass Dera
4	Babalal Ji Mandir	Baba Deep Singh Ji Hospital
5	Banke Bihari Mandir	Baba Garib Dass Mandir
6	Bhai Sallo Ji Gurudwara	Baba Veer Singh Gurudwara
7	Bhairav Nath Mandir	Bhai Karam Singh Ji Shaheed Gurudwara
8	Bholi Mata Mandir	Bible Church Of God
9	Bibeksar	Bijli Pahalwan Mandir
10	Chaman Temple	Christ Church Cathedral
11	Chintpurni Mandir	Darbar Veer Shah
12	Dargah Baba Rehmat Shah Ji	Dargah Baba Nat Peer Pahalwan Shah Ji
13	Dera Baba Mishra Singh Ji	Dargah Hazrat Baba Peer Ji
14	Durga Mandir	Dargah Peer Baba Hussain Pura
15	Ganesh Das Mandir	Dargah Sarif Imamuddin Chishti
16	Ganga Ji Mandir	Dera Shaheed Baba Baghel Singh Ji
17	Golden Temple	Durga Devi Temple
18	Guru Nanak Dev Gurudwara	Durgiana Temple
19	Guru Ram Rahim Mandir	Dwarkadhish Mandir
20	Guru Ravidas Mandir	Gol Gurudwara
21	Gurudwara Baba Bhouri Wala	Guga Veer Mandir
22	Gurudwara Baikunth Dham	Gurudwara Amar Shaheed Baba Sangat Singh Ji
23	Gurudwara Kila Shri Lohgarh Sahib	Gurudwara Anand Nagar
24	Gurudwara Mata Harnam Kaur	Gurudwara Baba Jiwan Singh Ji
25	Gurudwara Sahib	Gurudwara Baba Kuma Singh Ji
26	Gurudwara Santosh Singh	Gurudwara Baba Phoola Singh Ji
27	Gurudwara Shri Guru Singh Sabha	Gurudwara Baba Vadbhag Singh Ji
28	Gurudwara Singh Sabha	Gurudwara Chief Khalsa Diwan
29	Gurudwara Sobha Singh	Gurudwara Guru Nanak Singh Sabha
30	Hanuman Mandir	Gurudwara Guru Singh Sabha
31	Holy Church Of God	Gurudwara Kalgidhar Patshahi Daswi
32	Kashmiri Masjid	Gurudwara Kalgidhar Sad Sangat
33	Kaulsar	Gurudwara Kalgidhar Sahib

34	Krishna Mandir	Gurudwara Kartar Satsang
35	Lakh Data Dargah	Gurudwara Miri Piri Sahib
36	Laxmi Narayan Mandir	Gurudwara Shabeel Baba Swaye Singh
37	Luv Kush Valmiki Mandir	Gurudwara Shaheed Baba Baghel Singh Ji
38	Maha Kali Mandir	Gurudwara Shaheed Ganj Sahib
39	Mahant Tara Singh Dera	Gurudwara Shri Dashmesh Darshan
40	Mahavir Ji Mandir	Gurudwara Shri Guru Nanak Sahib
41	Mandir Baba Purshottam Dass	Gurudwara Shri Guru Singh Sabha
42	Mandir Mata Brajeshwari Devi	Gurudwara Shri Ravidas Ji Maharaj
43	Mandir Shri Kali Mata Ji	Gurudwara Singh Sahai
44	Mola Sahab Masjid	Gurudwara Sunder Nagar
45	Nath Temple	Gurudwara Tabowan Sahib
46	Peer Baba Dargah	Gurudwara Tehsil Pura
47	Peer Baba Rehmat Shah Wali Ji	Gurudwara Toot Sahib
48	Prachin Mandir Jai Khawaja Peer	Hanuman Mandir
49	Prachin Shiv Mandir	Jai Mahamai Mandir
50	Prachin Shivala & Mata Mandir	Jain Temple
51	Prachin Shri Bhairav Nath Mandir	Janta Mandir & Shani Mandir
52	Radha Damodar Mandir	Jatia Maha Sabha Mandir
53	Radha Govind Mandir	Kali Mata Mandir
54	Radha Swami Satsang	Kirpal Ruhani Satsang
55	Radha Vallabh Mandir	Lakh Data Peer Baba
56	Raghunath Ji Mandir	Laxmi Narayan Mandir
57	Raghunath Mandir	Maa Durga Temple
58	Ram Mandir	Maha Kaleshwar Mandir
59	Ramsar	Mahadev Mandir
60	Ravidas Mandir	Mandir Shri Goga Peer Ji
61	Razza Masjid	Murli Manohar Mandir
62	Saheb Gurudwara	Noor Masjid
63	Sai Mandir	Parshuram Mandir
64	Sanatan Dharm Mandir	Peer Baba Dargah
65	Santoksar	Peer Ghous Pak Ji
66	Sat Kartar Dera	Police Chowki Durgiana Mandir
67	Satsang Gurudwara	Prachin Hanuman Mandir
68	Satyayan Temple	Prachin Shri Bhairav Nath Ji Mandir
69	Sawal Dham	Pujya Mata Lal Devi Ji Temple

70	Shani Mandir	Radha Damondar Nath Temple
71	Shiv Shankar Mandir	Radha Krishna Mandir
72	Shiv Temple	Radha Soami Satsang Bhawan
73	Shivala Veer Bhan Mandir	Raghunath Temple
74	Shivalaya Gangaram	Ram Dham Mandir
75	Shivalaya Gangaram	Ram Mandir
76	Shri Harimandir	Ram Talai Mandir
77	Shri Prannath Ji Mandir	Rehmat Peera Di
78	Shyam Singh Gurudwara	Sai Mandir
79	Sideshwari Mandir	Sai Temple
80	Sri Radha Krishna Mandir	Sangat Gurudwara
81	Sri Raghunath Ji Mandir	Sant Nirankari Satsang Bhawan
82	Surdwan Sri Guru Nanak Sabha	Shaheed Bhagat Singh Ji Gurudwara
83	Thakur Dwara Lalit Kishore Ji Temple	Shani Dev Mandir
84	Valmiki Mandir	Shiv Shakti Mandir
85		Shiv Temple
86		Shivala Bhayian Mandir
87		Shivala Mandir
88		Shri Banke Bihari Lal Temple
89		Shri Durga Mandir
90		Shri Ram Mandir
91		Shri Ram Sahaimal Bagichi & Mandir Thakur Dwara
92		Shri Sanatan Dharm Mahavir Dal Mandir
93		Shri Sanatan Dharm Mandir
94		Shri Tirupati Bala Ji Mandir
95		Siromani Mandir
96		St. Paul's Church
97		Vaishno Devi Temple

ANNEXURE 10 - Heritage Conventions and Charters

Conventions

Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict

First Protocol for the Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict

Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property

Convention Concerning the Protection of the World Cultural and Natural Heritage

Convention on the Protection of the Archaeological, Historical and Artistic Heritage of the American Nations (Convention of San Salvador)

UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects

Second Protocol for the Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict

UNESCO Convention on the Protection of the Underwater Cultural Heritage

Charters

The Athens Charter for the Restoration of Historic Monuments

The Venice Charter: International Charter for the Conservation and Restoration of Monuments and Sites

The Florence Charter for Historic Gardens

The Washington Charter: Charter for the Conservation of Historic Towns and Urban Areas
Charter for the protection and management of the archaeological heritage

Charter on the protection and management of underwater cultural heritage

The Burra Charter for Places of Cultural Significance

Charter on the Built Vernacular Heritage (Mexico)

The Charter of Krakow: Principles for conservation and restoration of built heritage

ICOMOS Charter – Principles for the analysis, conservation and structural restoration of architectural heritage

ICOMOS Principles for the conservation and conservation/restoration of wall paintings

Declarations and manifestos

The SPAB Manifesto: The Principals of the Society for the Protection of Ancient Buildings as Set Forth upon its Foundation

UNESCO Declaration concerning the Intentional Destruction of Cultural Heritage

Recommendations

Recommendations of the Madrid Conference

Recommendation on International Principles Applicable to Archaeological Excavations

Recommendation Concerning the Safeguarding of the Beauty and Character of Landscapes and Sites

Recommendation on the Means of Prohibiting and Preventing the Illicit Export, Import and Transfer of Ownership of Cultural Property

Recommendation concerning the Conservation of Cultural Property Endangered by Public or Private works

Recommendation concerning the Protection, at National Level, of the Cultural and Natural Heritage

Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas

Recommendation concerning the International Exchange of Cultural Property

Recommendation for the Protection of Movable Cultural Property

Principles

Principles for the recording of monuments, groups of buildings and sites

Principles for the Conservation of Historic Timber Structures (Mexico)

Principles for the Conservation of Wooden Built Heritage

Professional organisation codes of ethics and/or practice

American Alliance of Museums (AAM)

American Institute for Conservation (AIC)

Association of Registrars and Collections Specialists (ARCS)

Australian Institute for Conservation of Cultural Materials (AICCM)

Canadian Association for Conservation of Cultural Property (CAC-ACCR) and Canadian Association of Professional Conservators (CAPC)

European Confederation of Conservator-Restorers Organisations (E.C.C.O.)

Institute of Conservation (ICON-UK)

International Council of Museums (ICOM)

International Council on Monuments and Sites (ICOMOS)

Museums Aotearoa Te Tari o Ngā Whare Taonga o te Motu (New Zealand)

Museums Association (UK)

Society of American Archivists (SAA)

Other documents

The Norms of Quito

Bruges Resolutions of the International Symposium on the Conservation of Smaller Historic Towns

The Nara document on authenticity

UNESCO International Code of Ethics for Dealers in Cultural Property

International Council of Museums Code of Ethics for Museums

Environmental Guidelines ICOM-CC and IIC Declaration

Bizot Green Protocol

Conventions: Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict -1954 -set out a minimum level of protection for cultural property regardless of conflict and occupation.

First Protocol for the Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict -1954 -prohibits the export of movable cultural property during territorial occupation and forbids the retention of cultural property as war reparations.

Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property -1970.

Encourages States to prevent the illegal transfer of cultural property by enforcing appropriate documentation of items, procedures for legal transport of objects and criminal inditement of transgressors.

Convention Concerning the Protection of the World Cultural and Natural Heritage-1972

Signing countries pledge to defend and protect their cultural and natural heritage.

It determines the uses and management of the World Heritage Fund.

Convention on the Protection of the Archaeological, Historical and Artistic Heritage of the American Nations (Convention of San Salvador) -1976

To "identify, register, protect, and safeguard the property making up the cultural heritage of the American nations in order: (a) to prevent illegal exportation or importation of cultural property; and (b) to promote cooperation among the American states for mutual awareness and appreciation of their cultural property."

UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects-1995

Sets out the application of laws for stolen or illegally exported cultural objects.

Second Protocol for the Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict -1999

"The Second Protocol further elaborates the provisions of the Convention relating to safeguarding of and respect for cultural property and the conduct of hostilities; thereby providing greater protection than before."

UNESCO Convention on the Protection of the Underwater Cultural Heritage -2001

"Sets out basic principles for the protection of underwater cultural heritage

Provides a detailed State cooperation system

Provides widely recognized practical rules for the treatment and research of underwater cultural heritage."

Charters

The Athens Charter for the Restoration of Historic Monuments-1931

International organizations for Restoration on operational and advisory levels are to be established.

Proposed Restoration projects are to be subjected to knowledgeable criticism to prevent mistakes which will cause loss of character and historical values to the structures.

Problems of conservation of historic sites are to be solved by legislation at national level for all countries.

Excavated sites which are not subject to immediate restoration should be reburied for protection.

Modern techniques and materials may be used in restoration work.

Historical sites are to be given strict custodial protection.

Attention should be given to the protection of areas surrounding historic sites.

The Venice Charter: International Charter for the Conservation and Restoration of Monuments and Sites -1964

Foundational document -Provides guidelines and an international framework for the conservation of historic buildings.

The Florence Charter for Historic Gardens-1982

Guidelines for the conservation of historic gardens.

The Washington Charter: Charter for the Conservation of Historic Towns and Urban Areas-1987

"This charter concerns historic urban areas, large and small, including cities, towns and historic centres or quarters, together with their natural and man-made environments."

Charter for the protection and management of the archaeological heritage-1990

Includes guidelines for policies for the protection of archaeological heritage.

Charter on the protection and management of underwater cultural heritage -1996

Intended to "encourage the protection and management of underwater cultural heritage in inland and inshore waters, in shallow seas and in the deep oceans."

The Burra Charter for Places of Cultural Significance -1999

Foundational document - "...provides guidance for the conservation and management of places of cultural significance (cultural heritage places), and is based on the knowledge and experience of Australia ICOMOS members."

Charter on the Built Vernacular Heritage (Mexico)-1999

For the protection of vernacular buildings as expressions of the local culture of a community.

The Charter of Krakow: Principles for conservation and restoration of built heritage-2000

Relates to architectural conservation.

ICOMOS Charter – Principles for the analysis, conservation and structural restoration of architectural heritage -2003

Relates to architectural conservation. - "Conservation, reinforcement and restoration of architectural heritage requires a multi- disciplinary approach."

ICOMOS Principles for the conservation and conservation/restoration of wall paintings-2003

Contains articles on protection policies, investigation, documentation, preventive conservation, maintenance and site Management, restorations, emergency measures, research and public information, professional qualifications and training, traditions of renewal, and international cooperation.

Declarations and manifestos

The SPAB Manifesto: The Principals of the Society for the Protection of Ancient Buildings as Set Forth upon its Foundation-1877

Foundational document in the conservation of monuments and historic buildings

Recommends protection and conservation rather than thoughtless restoration (which the Victorians loved to do)

UNESCO Declaration concerning the Intentional Destruction of Cultural Heritage-2003

States should take all appropriate measures to prevent, avoid, stop and suppress acts of intentional destruction of cultural heritage, wherever such heritage is located.

Recommendations

Recommendations of the Madrid Conference-1904 -Aimed at architectural conservation.

Emphasizes minimal intervention, functional use and restorations in line with original Style.

Recommendation on International Principles Applicable to Archaeological Excavations
1956

Most importantly for conservation activities, these Recommendations include making conservation of the site and its associated objects part of the deed of concession to excavate. It also recommends supervising the restoration of archaeological remains and prohibiting removal of monuments without consent.

Recommendation Concerning the Safeguarding of the Beauty and Character of Landscapes and Sites -1962

Considers the beauty and character of landscapes and sites as "necessary to the life of men for whom they represent a powerful physical, moral and spiritual regenerating influence, while at the same time contributing to the artistic and cultural life of peoples, as innumerable and universally known examples bear witness"

Measures taken for the safeguarding of landscapes and sites should be both preventive and corrective"

Recommendation on the Means of Prohibiting and Preventing the Illicit Export, Import and Transfer of Ownership of Cultural Property -1964

Recommends members states to have national inventories of cultural property, establishing national services to prevent illegal exports, and developing certification processes for authorised exports.

Recommendation concerning the Conservation of Cultural Property Endangered by Public or Private works -1968

Recommends creating and maintaining inventories of cultural properties

States should protect/salvage cultural property through: (a) Legislation; (b) Finance; (c) Administrative measures; Procedures to preserve and to salvage cultural property; (e) Penalties; (f) Repairs; (g) Awards; (h) Advice; (i) Educational programmes.

Recommendation concerning the Protection, at National Level, of the Cultural and Natural Heritage -1972

Includes sections on: National policy, general principles, organisation of services, specialised public services, advisory bodies, cooperation among the various bodies, competence of central, federal, regional and local bodies, protective measures, scientific and technical measures, legal measures, financial measures, educational and cultural action, and international cooperation.

Recommendation concerning the Safeguarding and Contemporary Role of Historic Areas 1976

Includes general principles, national, regional and local policy, safeguarding measures, legal and administrative measures, technical, economic and social measures, research education and information, and international cooperation.

Recommendation concerning the International Exchange of Cultural Property -1976

Includes a section on Action against Illicit Trading in Cultural Property.

Recommendation for the Protection of Movable Cultural Property-1978

Includes: prevention of risks for museums and other similar institutions, private collections, movable cultural property situated in religious buildings and archaeological sites, international exchanges, education and information, control measures, measures to improve the financing of risk coverage, and international cooperation.

Principles

Principles for the recording of monuments, groups of buildings and sites-1996

Recording of the cultural heritage should be seen as a priority.

Principles for the Conservation of Historic Timber Structures (Mexico)-1999

Includes sections on: Inspection, recording and documentation, monitoring and maintenance, interventions, repairs and replacements, historic forest reserves, contemporary materials and technologies, education and training.

Principles for the Conservation of Wooden Built Heritage-2017

Includes sections on: Inspection survey and research, analysis and evaluation, interventions, present-day materials and technologies, recording and documentation, monitoring and maintenance, historic forest reserves, and education and training.

Professional organisation codes of ethics and/or practice

American Alliance of Museums (AAM)

Adopted 1993, amended 2000

Code of ethics for museums

Revised 2021 PDF for Code of Ethics and Professional Practice for Collections Professionals

American Institute for Conservation (AIC)-1994

Includes supplemental commentaries with governance documents, declarations, defining documents and meeting minutes.

Association of Registrars and Collections Specialists (ARCS)

Approved 2016

Australian Institute for Conservation of Cultural Materials (AICCM)

Last amended October 2002

Canadian Association for Conservation of Cultural Property (CAC-ACCR) and Canadian Association of Professional Conservators (CAPC)-2000 (Third edition)

European Confederation of Conservator-Restorers Organisations (E.C.C.O.)-Adopted 2003

Used as a base code in Europe. Example in Spain by Asociación Profesional de Conservadores Restauradores de España - ACRE

Institute of Conservation (ICON-UK)-Adopted 2020

Includes downloadable guidelines for creating a personal statement of ethical practice written by Jonathan Ashley-Smith

International Council of Museums (ICOM)

1986, Revised in 2004, Reviewed in 2021-2022

Available in 38 languages

Includes standards for accession, deaccession, and fundraising

Includes a code of ethics specifically for Natural History Museums

Includes a checklist on ethics for cultural property ownership International Council on Monuments and Sites (ICOMOS)

Adopted 2002. Adopted again 2011

"The text concerning the ethical commitment of members is being revised." Museums Aotearoa Te Tari o Ngā Whare Taonga o te Motu (New Zealand)-Adopted 2013

For Governing Bodies, Managers and Staff of Museums and Art Galleries in Aotearoa New Zealand.

Museums Association (UK)

Original year unclear

Society of American Archivists (SAA)

Approved 2011, Revised 2020

Includes the Archivist core values statement and Archivist code of ethics

Other documents

The Norms of Quito -1967

"Every national monument is implicitly designed to fulfill a social function. It is the responsibility of the state to ensure this social function and to determine in each case the extent to which it is compatible with private property and private interests."

Bruges Resolutions of the International Symposium on the Conservation of Smaller Historic Towns -1975

"can be applied more or less universally to the conservation of smaller historic towns" The Nara document on authenticity -1994

Foundational document

"Depending on the nature of the cultural heritage, its cultural context, and its evolution through time, authenticity judgements may be linked to the worth of a great variety of sources of information. Aspects of the sources may include form and design, materials and substance, use and function, traditions and techniques, location and setting, and spirit and feeling, and other internal and external factors. The use of these sources permits elaboration of the specific artistic, historic, social, and scientific dimensions of the cultural heritage being examined."

UNESCO International Code of Ethics for Dealers in Cultural Property -1999

"Members of the trade in cultural property recognize the key role that trade has

traditionally played in the dissemination of culture and in the distribution to museums and private collectors of foreign cultural property for the education and inspiration of all peoples."

International Council of Museums Code of Ethics for Museums-2004

Outlines main responsibilities of museums.

Environmental Guidelines ICOM-CC and IIC Declaration-2014

Born from the IIC congress in Hong Kong and the ICOM-CC conference in Melbourne in September 2014 (See preprints here)

"Museums and collecting institutions should seek to reduce their carbon footprint and environmental impact to mitigate climate change, by reducing their energy use and examining alternative renewable energy sources."

Bizot Green Protocol-2015

"Museums should review policy and practice, particularly regarding loan requirements, storage and display conditions, and building design and air conditioning systems, with a view to reducing carbon footprints."

ANNEXURE 11

Rio Declaration on Environment and Development

The United Nations Conference on Environment and Development, having met at Rio de Janeiro from 3 to 14 June 1992,

Reaffirming the Declaration of the United Nations Conference on the Human Environment, adopted at Stockholm on 16 June 1972, a/ and seeking to build upon it,

With the goal of establishing a new and equitable global partnership through the creation of new levels of cooperation among States, key sectors of societies and people,

Working towards international agreements which respect the interests of all and protect the integrity of the global environmental and developmental system,

Recognizing the integral and interdependent nature of the Earth, our home, Proclaims that:

Principle 1

Human beings are at the centre of concerns for sustainable development. They are entitled to a healthy and productive life in harmony with nature.

Principle 2

States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

Principle 3

The right to development must be fulfilled so as to equitably meet developmental and environmental needs of present and future generations.

Principle 4

In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.

Principle 5

All States and all people shall cooperate in the essential task of eradicating poverty as an indispensable requirement for sustainable development, in order to decrease the disparities in standards of living and better meet the needs of the majority of the people of the world.

Principle 6

The special situation and needs of developing countries, particularly the least developed and those most environmentally vulnerable, shall be given special priority. International actions in the field of environment and development should also address the interests and needs of all countries.

Principle 7

States shall cooperate in a spirit of global partnership to conserve, protect and restore the health and integrity of the Earth's ecosystem. In view of the different contributions to global environmental degradation, States have common but differentiated responsibilities. The developed countries acknowledge the responsibility that they bear in the international pursuit of sustainable development in view of the pressures their societies place on the global environment and of the technologies and financial resources they command.

Principle 8

To achieve sustainable development and a higher quality of life for all people, States should reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.

Principle 9

States should cooperate to strengthen endogenous capacity-building for sustainable development by improving scientific understanding through exchanges of scientific and technological knowledge, and by enhancing the development, adaptation, diffusion and transfer of technologies, including new and innovative technologies.

Principle 10

Environmental issues are best handled with the participation of all concerned citizens, at the relevant level. At the national level, each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in decision-making processes. States shall facilitate and encourage public awareness and participation by making information widely available. Effective access to judicial and administrative proceedings, including redress and remedy, shall be provided.

Principle 11

States shall enact effective environmental legislation. Environmental standards, management objectives and priorities should reflect the environmental and developmental context to which they apply. Standards applied by some countries may be inappropriate and of unwarranted economic and social cost to other countries, in particular developing countries.

Principle 12

States should cooperate to promote a supportive and open international economic system that would lead to economic growth and sustainable development in all countries, to better address the problems of environmental degradation. Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade. Unilateral actions to deal with environmental challenges outside the jurisdiction of the importing country should be avoided. Environmental measures addressing transboundary or global environmental problems should, as far as possible, be based on an international consensus.

Principle 13

States shall develop national law regarding liability and compensation for the victims of pollution and other environmental damage. States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction.

Principle 14

States should effectively cooperate to discourage or prevent the relocation and transfer to other States of any activities and substances that cause severe environmental degradation or are found to be harmful to human health.

Principle 15

In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation.

Principle 16

National authorities should endeavor to promote the internalization of environmental costs and the use of economic instruments, taking into account the approach that the polluter should, in principle, bear the cost of pollution, with due regard to the public interest and without distorting international trade and investment.

Principle 17

Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.

Principle 18

States shall immediately notify other States of any natural disasters or other emergencies that are likely to produce sudden harmful effects on the environment of those States. Every effort shall be made by the international community to help States so afflicted.

Principle 19

States shall provide prior and timely notification and relevant information to potentially affected States on activities that may have a significant adverse transboundary environmental effect and shall consult with those States at an early stage and in good faith.

Principle 20

Women have a vital role in environmental management and development. Their full participation is therefore essential to achieve sustainable development.

Principle 21

The creativity, ideals and courage of the youth of the world should be mobilized to forge a global partnership in order to achieve sustainable development and ensure a better future for all.

Principle 22

Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.

Principle 23

The environment and natural resources of people under oppression, domination and

occupation shall be protected.

Principle 24

Warfare is inherently destructive of sustainable development. States shall therefore respect international law providing protection for the environment in times of armed conflict and cooperate in its further development, as necessary.

Principle 25

Peace, development and environmental protection are interdependent and indivisible.

Principle 26

States shall resolve all their environmental disputes peacefully and by appropriate means in accordance with the Charter of the United Nations.

Principle 27

States and people shall cooperate in good faith and in a spirit of partnership in the fulfilment of the principles embodied in this Declaration and in the further development of international law in the field of sustainable development.

ANNEXURE 12

DEFINITIONS

Conservation

- **ASI:** Conservation involves the processes of maintaining and managing change to a heritage site in a way that sustains its significance, including actions like conservation, restoration, and sometimes reconstruction.
- **INTACH:** Conservation encompasses all processes of looking after a place to retain its cultural significance.
- **Venice Charter (1964), Article 4:** "It is essential to the conservation of monuments that they be maintained on a permanent basis."
- **Burra Charter (2013), Article 1.4:** "Conservation means all the processes of looking after a place so as to retain its cultural significance."
- **ICOMOS:** Conservation ensures the integrity and authenticity of cultural heritage are conserved.
- **Nara Document (1994), Article 11:** Emphasizes respecting cultural diversity and authenticity in conservation practices.

Heritage Areas

- **INTACH:** Specific areas with a significant concentration of heritage sites and structures that contribute to the historical or cultural narrative of the place.
- **Burra Charter (2013), Article 1.5:** "Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views."

Heritage Buildings

- **ASI:** A building that holds historical, architectural, or cultural significance and is conserved to maintain its integrity and heritage value.
- **INTACH:** A structure that embodies heritage values and is protected for its historical, cultural, or architectural significance.

- **Venice Charter (1964), Article 1:** "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development, or an historic event."

Heritage Precincts

- **INTACH:** Groups of buildings, structures, streets, and spaces that collectively hold historical or cultural significance, meriting conservation of their collective character.
- **Burra Charter (2013), Article 1.6:** "Fabric means all the physical material of the place including components, fixtures, contents, and objects."

Heritage

- **ASI:** The legacy of physical artefacts and intangible attributes inherited from past generations, maintained in the present, and bestowed to future generations.
- **INTACH:** The cumulative body of cultural, historical, and architectural values that define a society's legacy.
- **Venice Charter (1964), Preamble:** "Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions."
- **Nara Document (1994), Article 11:** Emphasizes the importance of considering the cultural context and significance in defining heritage.

Public Participation

Definition and Explanation: Public participation refers to the involvement of local communities, stakeholders, and the public in the processes of identifying, conserving, and managing heritage sites. This engagement ensures that conservation efforts are inclusive, reflect the values and needs of the community, and promote sustainable heritage management.

- **According to ASI:** The Archaeological Survey of India (ASI) encourages community involvement in heritage conservation projects to ensure that the local population feels a sense of ownership and responsibility towards their cultural

heritage. Public participation is seen as a crucial element in the effective management and conservation of heritage sites.

- **According to INTACH:** The Indian National Trust for Art and Cultural Heritage (INTACH) emphasizes the importance of public participation in all its conservation projects. INTACH believes that engaging local communities leads to better understanding, appreciation, and protection of cultural heritage. It advocates for inclusive planning and decision-making processes where the community's voices are heard and respected.
- The **World Bank** defines public participation (PP) as the process by which individuals, particularly those who are disadvantaged, can exert influence over the formulation of policies, the design of alternatives, the selection of investments, the management of development interventions, and the monitoring of these interventions in their communities (The World Bank Report, 1992).

Relevant Clauses from International Documents

Burra Charter (2013), Article 12: "Co-existence of cultural values should be recognized, respected, and encouraged, especially if they are shared by multiple communities." This clause underscores the importance of recognizing and respecting the cultural values held by different communities and encourages their participation in conservation processes.

ICOMOS (Principles for the Conservation-Restoration of Wall Paintings, 2003, Article 4.2): "The active participation of communities should be encouraged, promoting awareness, understanding, and the need for protection and conservation of heritage." This article emphasizes the need for active community involvement in heritage conservation to foster a deeper understanding and commitment to protecting cultural heritage.

Nara Document (1994), Article 9: "The diversity of cultures and heritage in our world is an irreplaceable source of spiritual and intellectual richness for all humankind. The conservation of this diversity calls for efforts to ensure that the particular cultural heritage is understood, respected, and, as much as possible, sustained by its own community and users. This article highlights the importance of involving the community in the conservation process to ensure that cultural heritage is respected and sustained.

Community Awareness

Definition and Explanation: Community awareness refers to efforts made to educate and inform the public about the importance of heritage conservation. This includes promoting an understanding of cultural heritage, fostering a sense of ownership and responsibility, and encouraging community involvement in conservation efforts.

- **According to ASI:** The ASI promotes community awareness through educational programs, workshops, and public outreach initiatives. By raising awareness about the significance of heritage sites, ASI aims to build public support for conservation efforts and ensure that heritage is conserved for future generations.
- **According to INTACH:** INTACH actively works to raise community awareness through various programs and initiatives. This includes heritage walks, exhibitions, seminars, and publications designed to educate the public about the value of cultural heritage and the need for its protection.

Relevant Clauses from International Documents:

- **Burra Charter (2013), Article 6:** "Conservation processes should provide for the participation of people for whom the place has special associations and meanings, or who have social, spiritual, or other cultural responsibilities for the place." This clause emphasizes the need to involve people who have special associations with a heritage site in its conservation, fostering a sense of ownership and responsibility.
- **ICOMOS (Principles for the Analysis, Conservation, and Structural Restoration of Architectural Heritage, 2003, Article 6.2):** "Raising public awareness about heritage conservation is fundamental for its sustainability. Education and training programs should be developed to ensure community engagement and the transmission of knowledge. "This article highlights the importance of education and training programs in raising public awareness and ensuring the sustainability of heritage conservation efforts.
- **Nara Document (1994), Article 10:** "Authenticity, considered in the context of cultural diversity and the respect due to all cultures, requires a basis of credible information. Promoting awareness and understanding of cultural heritage and the

need for its conservation is essential for the identification, recording, and safeguarding of heritage values."

Informal Heritage

Definition: Informal heritage refers to cultural expressions, practices, and artefacts that are not officially recognized or protected but hold significant cultural value for a community.

- **According to INTACH:** Informal heritage includes intangible cultural elements such as oral traditions, local knowledge, and social practices that contribute to the cultural identity of a community.

References from Documents:

- **Burra Charter (2013), Article 1.12:** "Cultural significance includes aesthetic, historic, scientific, social or spiritual value for past, present or future generations. This is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects." Recognizes the importance of intangible heritage elements.

Formal Heritage

Definition: Formal heritage refers to cultural properties, sites, and practices that are officially recognized and protected by governmental or international bodies.

- **According to ASI:** Formal heritage includes monuments, buildings, and sites listed under national heritage protection laws.
- **According to INTACH:** Formal heritage encompasses sites and structures that have been designated as heritage properties due to their historical, architectural, or cultural significance.

References from Documents:

- **Venice Charter (1964), Article 3:** "The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence." Emphasizes the need to conserve formally recognized heritage for its artistic and historical value.

Historic Significance / Historical Significance

- **INTACH:** The value attributed to a site or object due to its historical associations,

events, or personages it is connected with, and its impact on a specific historical period or theme.

- Burra Charter (2013), Article 1.2: "Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations."
- Nara Document (1994), Article 13: Highlights the importance of authenticity in determining the historical significance of cultural heritage.

Human Scale

- INTACH: The relationship of the built environment to human proportions, ensuring buildings and spaces are comfortable, accessible, and usable by people.
- Burra Charter (2013), Article 5.1: "Conservation of a place should identify and take into consideration all aspects of its cultural significance without unwarranted emphasis on any one aspect at the expense of others."

Landmarks

- ASI: Prominent buildings or structures with significant historical, architectural, or cultural value serving as points of reference in a landscape or cityscape.
- INTACH: Notable structures that stand out due to their historical, architectural, or cultural importance.
- Venice Charter (1964), Article 1: "Monuments must be considered within the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development, or an historic event."

Reconstruction

- Venice Charter (1964), Article 15: "Reconstruction is acceptable only in exceptional circumstances. A reconstruction is acceptable only on the basis of precise and detailed documentation and to no extent on conjecture."
- Burra Charter (2013), Article 1.8: "Reconstruction means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material."
- Nara Document (1994), Article 9: Recognizes the challenges and complexities in reconstructing cultural heritage, emphasizing the need for careful consideration of authenticity.

Restoration

- Venice Charter (1964), Article 9: "The process of restoration is a highly specialized operation. Its aim is to conserve and reveal the aesthetic and historic value of the monument and is based on respect for original material and authentic documents."
- Burra Charter (2013), Article 1.7: "Restoration means returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material."
- ICOMOS: Restoration aims to reveal the cultural and historic values of heritage while conservationist material authenticity.

Adaptive Reuse of Building

- INTACH: The process of repurposing buildings for new uses while retaining their historical and architectural features, ensuring that the new function supports the conservation of the building's heritage values.
- Burra Charter (2013), Article 21: "Adaptation is acceptable only where the adaptation has minimal impact on the cultural significance of the place."
- ICOMOS: Adaptive reuse is a sustainable approach to conservation cultural heritage by giving new life and function to historic buildings.

Sense of Place

- INTACH: The distinct character and identity of a place derived from its physical features, historical significance, and cultural values, giving it meaning to people.
- Burra Charter (2013), Article 5.2: "Places of cultural significance should be safeguarded and not put at risk or left in a vulnerable state."
- Nara Document (1994), Article 5: Recognizes the role of cultural context and community in defining the sense of place.

Townscape

- INTACH: The overall appearance and feel of a town or urban area, including its buildings, streets, and open spaces, particularly from a historical and aesthetic perspective.
- Burra Charter (2013), Article 1.5: "Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views."

Urban Heritage

- INTACH: The historical, architectural, and cultural elements within an urban environment that hold significance and are worthy of CONSERVATION, including buildings, streets, parks, and public spaces.
- Venice Charter (1964), Article 1: "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development, or an historic event."
- ICOMOS: Urban heritage encompasses the built environment and public spaces that represent the historical and cultural identity of urban areas.

Walled City

Definition: A walled city is a historic urban area that is enclosed by walls. These walls were originally built for defence and demarcation purposes, and they often contain a concentration of heritage structures and cultural significance.

- According to ASI (Archaeological Survey of India): A walled city is a protected area that includes historical fortifications and associated urban fabric, reflecting the city's historical significance and architectural heritage.
- According to INTACH (Indian National Trust for Art and Cultural Heritage): INTACH defines a walled city as a historical urban settlement surrounded by fortification walls, which include a variety of heritage buildings and structures that need to be conserved as part of the urban heritage.

References from Documents:

- Venice Charter (1964), Article 1: "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event." This clause implies that walled cities, as historic monuments, include the urban setting and fortifications that reflect significant historical events or developments.
- Burra Charter (2013), Article 1.1: "Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views. "This definition includes walled cities as places with

significant historical and cultural components.

Heritage Character

Definition: Heritage character refers to the distinctive qualities and attributes of a place that contribute to its historical, cultural, aesthetic, and social value. These qualities often include architecture, urban layout, and other cultural elements that define the identity of the place.

- According to ASI: Heritage character is defined by the architectural styles, materials, craftsmanship, and urban planning that reflect the historical and cultural context of the area.
- According to INTACH: Heritage character encompasses the visual and experiential qualities of a heritage site, including its architecture, streetscape, and the intangible cultural heritage associated with it.

References from Documents:

- Venice Charter (1964), Article 7: "A monument is inseparable from the history to which it bears witness and from the setting in which it occurs." This highlights the importance of conservation the heritage character, which includes historical context and setting.
- Burra Charter (2013), Article 1.2: "Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations." Heritage character is part of the cultural significance that must be conserved for its various values.

Architectural Features and Elements

Definition: Architectural features and elements are the distinct components and details of buildings and structures that define their architectural style and heritage value. These can include facades, rooflines, ornamentation, materials, and construction techniques.

- According to ASI: ASI identifies architectural features and elements as crucial components of heritage structures, which need to be meticulously documented and conserved to maintain the integrity and authenticity of heritage buildings.
- According to INTACH: INTACH emphasizes the conservation of architectural features and elements as essential to maintaining the historical and aesthetic integrity of heritage buildings and precincts.

References from Documents:

- Venice Charter (1964), Article 10: "Where traditional techniques prove inadequate, the consolidation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific data and proved by experience." This supports the conservation and appropriate restoration of architectural features and elements using suitable techniques.
- Burra Charter (2013), Article 3.1: "Conservation is based on a respect for the existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible." This clause emphasizes the importance of conservation the original architectural features and elements of heritage buildings.

Walled City

- Venice Charter (1964), Article 1: "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event."
- Burra Charter (2013), Article 1.1: "Place means site, area, land, landscape, building or other work, group of buildings or other works, and may include components, contents, spaces and views."

Heritage Character

- Venice Charter (1964), Article 7: "A monument is inseparable from the history to which it bears witness and from the setting in which it occurs."
- Burra Charter (2013), Article 1.2: "Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations."

Architectural Features and Elements

- Venice Charter (1964), Article 10: "Where traditional techniques prove inadequate, the consolidation of a monument can be achieved by the use of any modern technique for conservation and construction, the efficacy of which has been shown by scientific data and proved by experience."
- Burra Charter (2013), Article 3.1: "Conservation is based on a respect for the

existing fabric, use, associations and meanings. It requires a cautious approach of changing as much as necessary but as little as possible.

Public

Definition: The public refers to the general population or community members who have a stake in heritage conservation. This includes residents, visitors, and anyone who interacts with heritage sites.

- According to ASI: The public includes all individuals and groups who are directly or indirectly affected by heritage conservation efforts.
- According to INTACH: INTACH views the public as essential partners in heritage conservation, emphasizing the need for their involvement and education to ensure successful conservation.

References from Documents:

- Venice Charter (1964), Preamble: "Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage." Highlights the importance of public awareness and appreciation of heritage.

Community

Definition: A community is a group of people who share common values, traditions, and connections to a specific place or heritage site.

- According to ASI: The community includes all individuals who have a cultural, historical, or social connection to a heritage site.
- According to INTACH: INTACH stresses the importance of involving the local community in heritage conservation to ensure that the conservation efforts reflect their values and needs.

References from Documents:

- Burra Charter (2013), Article 12: "Co-existence of cultural values should be recognized, respected, and encouraged, especially if they are shared by multiple communities." Advocates for the recognition and respect of the values held by different communities.

Stakeholders

Definition: Stakeholders are individuals, groups, or organizations with an interest or concern in the conservation of heritage sites.

- According to ASI: Stakeholders include government agencies, local communities, historians, conservationists, and other entities involved in heritage conservation.
- According to INTACH: INTACH defines stakeholders as all parties who have a vested interest in the heritage site, including local residents, businesses, tourists, and governmental bodies.

References from Documents:

- Burra Charter (2013), Article 6: "Conservation processes should provide for the participation of people for whom the place has special associations and meanings, or who have social, spiritual, or other cultural responsibilities for the place." Emphasizes stakeholder involvement in conservation processes.

Historic City

Definition: A historic city is an urban area with a concentration of buildings, structures, and spaces of historical, cultural, and architectural significance.

- According to ASI: A historic city includes areas that have retained their historical character and cultural significance through their architecture, urban layout, and cultural practices.
- According to INTACH: INTACH considers a historic city to be an urban area with significant heritage buildings, precincts, and cultural sites that require conservation and protection.

References from Documents:

- Venice Charter (1964), Article 1: "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is found the evidence of a particular civilization, a significant development or a historic event." Recognizes the significance of urban settings in historic cities.

Community Identity

Definition: Community identity refers to the sense of belonging and shared cultural values that bind members of a community together.

- According to ASI: Community identity is shaped by the shared heritage, traditions,

and historical experiences of a community.

- According to INTACH: INTACH stresses the role of heritage in fostering a strong sense of community identity and pride.

References from Documents:

- Burra Charter (2013), Article 1.13: "Social value includes the qualities for which a place has become a focus of spiritual, political, national, or other cultural sentiment to a majority or minority group." Recognizes the role of heritage in building community identity.

Cultural Continuity

Definition: Cultural continuity refers to the conservation and transmission of cultural traditions, practices, and values across generations.

- According to ASI: Cultural continuity is maintained through the conservation of heritage sites, practices, and traditions that reflect the historical and cultural identity of a community.
- According to INTACH: INTACH emphasizes the importance of conservation both tangible and intangible heritage to ensure the continuity of cultural traditions.

References from Documents:

- Nara Document on Authenticity (1994), Article 8: "Our ability to understand the value of cultural heritage depends, in part, on the degree to which information sources about this heritage may be understood as credible or truthful." Supports the importance of maintaining cultural continuity through credible heritage conservation.

Sustainability in Conservation

Definition: Sustainability in conservation refers to practices that ensure the long-term conservation and management of heritage sites in a manner that is environmentally, economically, and socially sustainable.

- According to ASI: Sustainable conservation practices are those that balance the conservation of heritage with the needs of the present and future generations.
- According to INTACH: INTACH advocates for conservation approaches that are sustainable and consider the environmental, social, and economic impacts of conservation activities.

References from Documents:

- Burra Charter (2013), Article 1.4: "Sustainable use means use that does not compromise the cultural significance of a place, its fabric, setting, use, associations or meanings, and ensures its long-term viability." Defines sustainable use in the context of heritage conservation.

Public

- Venice Charter (1964), Preamble: "Imbued with a message from the past, the historic monuments of generations of people remain to the present day as living witnesses of their age-old traditions. People are becoming more and more conscious of the unity of human values and regard ancient monuments as a common heritage."

Informal Heritage

- Burra Charter (2013), Article 1.12: "Cultural significance includes aesthetic, historic, scientific, social or spiritual value for past, present or future generations. This is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places and related objects."

Formal Heritage

- Venice Charter (1964), Article 3: "The intention in conserving and restoring monuments is to safeguard them no less as works of art than as historical evidence."

Community

- Burra Charter (2013), Article 12: "Co-existence of cultural values should be recognized, respected, and encouraged, especially if they are shared by multiple communities."

Stakeholders

- Burra Charter (2013), Article 6: "Conservation processes should provide for the participation of people for whom the place has special associations and meanings, or who have social, spiritual, or other cultural responsibilities for the place."

Historic City

- Venice Charter (1964), Article 1: "The concept of a historic monument embraces not only the single architectural work but also the urban or rural setting in which is

found the evidence of a particular civilization, a significant development or a

Conservation Zone

- INTACH: Areas identified for their collective heritage value where development is controlled to conserve their character and ensure the protection of heritage buildings and spaces.
- Burra Charter (2013), Article 12: "Significant places should be protected and maintained through appropriate and continuous care."