

Impact of Urbanization on the Erosion of Identity of Historic Buildings in Vernacular Settlements: Insights from Kalan Masjid, Old Delhi, India

Shaila Naaz^{1*} & Samiuddin²

¹School of Architectural & Design, K. R. Mangalam University,
Gurugram-122103, Haryana, INDIA,

²Architect, Self-Practice, New Delhi, INDIA,

Emails: khanshailanaaz@gmail.com¹; smiudin@gmail.com²

Received	Accepted	Published
11.04.2023	15.10.2023	31.10.2023

<https://doi.org/10.61275/ISVSej-2023-10-10-04>

Abstract

Due to rapid urbanization, many of the historical buildings are losing their identity and the cultural values associated with them. India is no exception. There is rapid urbanization around the Kalan Masjid which is a historical mosque in Old Delhi, India. There are extensive encroachments near the historical mosque, which is located in the midst of a complex series of residential buildings. Unfortunately, some of these buildings have encroached on the mosque's land, resulting in its deterioration. Therefore, there is a need for proper guidelines to regulate these encroachments to prevent the destruction of the structure amidst the urban sprawl.

This paper investigates the effects of rapid urbanization on the Kalan Masjid in Old Delhi, India. It engages a literature study and site visits to ascertain the site-specific conditions and a context study to identify urban morphology and the changes.

The paper concludes that proper guidelines are needed to control rapid urbanization near historical buildings. Such guidelines should be implemented based on a thorough understanding of the factors that influence the encroachment, as well as the challenges faced by this historical structure in a complex urban setting. By taking a proactive approach to protect cultural heritage, one can ensure that historical buildings continue to serve as valuable cultural assets for generations to come. The paper argues that it will prevent the encroachment and deterioration of such structures and maintain their historical significance, which could serve as a cultural heritage and a source of national pride.

Keywords: Rapid Urbanization, Unregulated Expansionism, Deterioration of Structure, Sanctity, Sense of Enclosure, Encroachment.

Introduction

Prior to the 1950s, the area surrounding the Kalan Masjid and the Dargah was relatively sparsely populated. Today, it is surrounded by high-rise buildings, as evidenced by the first photograph taken in 1858 by Major Christopher Tytler and his wife Harriet, the area has also decreased in size. According to Unified Building Bye-Laws for Delhi-2016, the phenomenon of a Sense of Enclosure can be observed surrounding the area of the mosque. Indeed, to maintain the historical significance of the mosque, it is crucial to consider various factors that contribute to the sense of enclosure of its surroundings. These factors include the urban layout, street width, presence of parked vehicles, perceived values, the floor area ratio (FAR), and the architectural style of the surrounding buildings. In this context, proper regulations of the surrounding environment based on the guidelines provided by the Heritage Conservation Committee, Government of Delhi, becomes essential in preserving the monument's historical importance.

Establishing a connection between the impact of encroachment and the surroundings of a 14th-century monument is crucial. Therefore, a thorough study of the monument's architecture, materials used, and the immediate environment is necessary before establishing this connection.

The primary aim of this study is to comprehensively investigate and analyze the influence of urbanization on the preservation and identity of historic buildings, with a specific focus on Kalan Masjid in Old Delhi, India. The study aims to shed light on how rapid urban development and modernization have impacted the historical and cultural significance of this landmark.

Its objectives are:

1. To conduct a thorough historical and architectural analysis of Kalan Masjid to understand its original design, architectural elements, historical context, and cultural significance.
2. To document the current condition of Kalan Masjid, focusing on any alterations, deterioration, or modifications that have occurred over time due to urbanization and human activities.
3. To assess existing policies, regulations, and urban planning strategies related to heritage preservation in Old Delhi, analyzing their effectiveness in safeguarding the identity of Kalan Masjid.
4. To propose recommendations and strategies for sustainable preservation of Kalan Masjid, ensuring its historical, architectural, and cultural identity is preserved in the face of urbanization.

Theoretical Framework

This paper deals with two significant theoretical constructs: Urbanization and Identity. Urbanization, a multifaceted and dynamic process, encompasses the substantial growth of cities and urban areas due to factors such as population influx and rural-to-urban migration (Surya et al., 2005). This phenomenon inherently alters the physical, social, and economic landscapes of urban spaces, leading to significant changes in the built environment and the identity associated with historic structures. Historic buildings, representing the tangible remnants of a society's past, possess a distinct cultural, architectural, and historical identity (Alavi & Tanaka 2023). Urbanization often exerts pressures on these structures, potentially eroding their identity through alterations, encroachments, and incompatible modern developments (Surya et al., 2005). The transformation of the surrounding urban fabric can gradually disconnect these buildings from their historical contexts, resulting in a loss of authenticity and cultural significance. Urbanization pertains to the transformation and evolution of urban areas, encompassing changes in infrastructure, land use, social dynamics, and economic activities within a city. Henri Lefebvre, a notable French sociologist, proposed the concept of the "production of space" in urban development. Lefebvre's work emphasizes how the production

of space in urban areas is influenced by socio-political factors, power structures, and economic interests, ultimately shaping the identity of the urban environment (Lefebvre, 1991).

David Harvey, another influential urban theorist, in his book "The Condition of Postmodernity," discusses how capital flows and globalization impact urbanization. He highlights how cities have become key sites for the investment and accumulation of capital, resulting in uneven development and the creation of distinct urban identities reflective of economic structures (Harvey, 1990).

Identity

Identity, on the other hand, is a complex and multifaceted concept encompassing various elements such as cultural, social, and personal aspects that define an individual or a collective group. Stuart Hall, a pioneer in cultural studies, presents the idea of identity as a constantly evolving and negotiated process. He emphasizes that identity is not fixed but is constructed through discourses, social interactions, and historical contexts (Hall, 1990).

Furthermore, Benedict Anderson's theory of "imagined communities" underscores how shared experiences and narratives construct collective identities, especially within the context of nation-states. Anderson argues that urban spaces, as integral parts of nations, play a crucial role in shaping collective identities through the symbolism and representations embedded within these spaces (Anderson, 1983). Place identity theory posits that an individual's sense of self is partially shaped through their interactions with physical environments, suggesting that these environments are not merely backdrops for activities but are actively integrated into one's self-concept (Krupat 1983).

Proshansky et al. (1983) assert that place identity is constructed through emotional and perceptual processes as individuals engage with both natural and built environments. Memories, perceptions, interpretations, and associated emotions linked to specific locations contribute to the formation of an individual's place identity (Nachar & Abdel-Hadi 2018).

Place identity evolves over a person's lifetime through processes of observation and interpretation of the living environment (Proshansky & Fabian, 1987). This development is framed by achieving five central functions: recognition, meaning, expressive requirement, mediating change, anxiety, and defense function. Place identity establishes a cognitive database against which individuals experience every physical setting (Proshansky, Fabian, & Kaminoff, 1983). The theory acknowledges that characteristics of spaces and buildings, referred to as 'schemata,' play a crucial role. However, environmental psychologists have criticized the theory for its lack of detailed specification regarding the structure and processes involved in constructing place identity (Twigger-Ross, Bonaiuto & Breakwell, 2003). Furthermore, from an experiential standpoint, the place identity theory has faced criticism for a scarcity of empirical research and inadequate instruments to measure the concept in the study of urban identities (Lalli, 1992).

Co-relationship between Identity and Urbanization

The intricate interplay between identity and urbanization is a fundamental aspect of understanding the dynamics of modern cities and their evolving socio-cultural landscapes. Identity, a complex construct shaped by various social, cultural, and personal factors, is intimately connected to the development and transformation of urban spaces.

Urbanization, as posited by Henri Lefebvre, a distinguished sociologist, is more than just a physical transformation of space; it's a socio-political and economic process that influences how spaces are produced and experienced (Lefebvre, 1991). This process, in turn, significantly influences the identity of individuals and communities within the urban milieu. The configuration of neighborhoods, the accessibility of amenities, and the overall structure of urban spaces contribute to the collective identity of a community.

David Harvey, a prominent urban theorist, underscores the role of capital and globalization in shaping urbanization (Harvey, 1990). Economic and social changes driven by globalization have a profound impact on urban landscapes, affecting employment patterns,

cultural amalgamation, and consequently, the identities of the people residing in those urban areas.

On the other hand, identity, as expounded by Stuart Hall, is not a fixed entity but a constantly evolving and negotiated concept (Hall, 1990). The urban environment provides a canvas for this negotiation. Individuals and communities negotiate and express their identities through their engagement with the urban space—whether it's in the establishment of cultural districts, reclaiming public spaces for artistic expression, or advocating for inclusive urban policies that align with their identities and values.

Furthermore, the works of Benedict Anderson on "imagined communities" offer insights into how shared experiences and narratives construct collective identities (Anderson, 1983). Urban spaces, being epicenters of diverse narratives and experiences, play a crucial role in the formation of collective identities. The narratives embedded in the urban fabric, the architecture, and the cultural institutions all contribute to shaping a sense of belonging and identity among the city's inhabitants.

The relationship between identity and urban development is a dynamic and reciprocal one. Urban development shapes the physical, economic, and social aspects of cities, subsequently influencing the collective and individual identities of their inhabitants. Conversely, identity plays a significant role in shaping the urban landscape, driving demands, and inspiring developments that resonate with the unique identities of the communities within the city.

Literature Review

According to the report of Delhi Urban Art Commission, 2017, the city of Old Delhi serves as an apt example, given its rich historical background and a vast array of architectural heritage. The juxtaposition of its historical structures with contemporary urbanization exemplifies the challenges in preserving the authentic identity of historic buildings in the face of rapid urban development. Sayeed (2017) states that Kalan Masjid in Old Delhi, stands as an epitome of architectural and historical heritage. The intricacies of architecture displayed in Kalan Masjid underline its unique identity. However, the forces of urbanization often encroach upon this identity, necessitating a closer examination of the impacts on its cultural and historical essence. Halim & Tambi (2021) states that community involvement and public awareness play pivotal roles in the preservation of historic building identity. Engaging local communities fosters a sense of ownership and responsibility, enabling a collective effort to preserve the heritage

Studies have shown that rapid urbanization often leads to increased pressure on urban spaces, resulting in alterations and encroachments on historic buildings. The growth of cities and subsequent changes in the built environment can cause a disconnect between the historic context and the present urban landscape. Preservation efforts in the face of urban development have been discussed in various research.

Kalan Masjid, an architectural marvel dating back to the Pre Mughal era, stands as a testament to the craftsmanship and culture of the time (Sayeed, 2017). The distinctive features of Mughal architecture, evident in Kalan Masjid, are characterized by intricate designs and imposing structures. Previous studies on Kalan Masjid have emphasized its architectural brilliance and historical significance. However, they have also pointed out the challenges it faces due to the encroachments and alterations resulting from urbanization. Engaging local communities in heritage preservation has been proposed as a crucial strategy.

According to Nath (1933), the metropolitan areas in India are currently experiencing significant changes. He talks about the case of Old Delhi. Old Delhi is categorized by high-density, low-to-medium-rise, mixed-use developments in areas that lie within the original walls of the old city of Shahjahanabad. Kalan Mosque, also known as Jama Masjid Kalan, is an ancient mosque situated in Turkman Gate, Old Delhi. It was built in the 14th century during the Tughlaq dynasty and is considered one of the oldest surviving mosques in Delhi.

Sayeed (2017) described in his report for Chiragh Dilli that the significance of the Kalan Mosque's faded appearance lies in its role as a tangible connection to the rich history and

cultural heritage of the city. Preserving the mosque in its optimal condition is essential for maintaining this connection and enabling future generations to appreciate and comprehend the city's past. Various factors have contributed to the mosque's diminished luster, including neglect, insufficient expert maintenance, and environmental elements such as pollution and weathering. The decline of the Kalan Mosque's identity raises concerns since it is a vital historical monument that embodies the architectural and cultural heritage of Delhi..

Overall, the lost identity of Kalan Mosque is an important issue that should be addressed in order to preserve the city's cultural heritage and ensure that it remains a symbol of Delhi's rich history and heritage for generations to come.



Fig. 1: Mosque Interior View

Source: Author

Research Methodology

The research methodology of this study is based on a case study research approach, with the Kalan Masjid precinct as the case study.

The data collection process consists of the following steps:

1. Conducting on-site visits to Kalan Mosque to observe and document the current state, architectural details, and surroundings of the building.
2. Conducting direct observations during on-site visits to note physical alterations, maintenance efforts, or encroachments on Kalan Mosque.
3. Administering structured questionnaires to residents and visitors to gauge public perceptions and awareness regarding the preservation of heritage during urbanization.
4. Capturing photographs of Kalan Mosque to visually document the changes and contextualize the impact of urbanization on their identity.
5. Conducting interviews with architects and local residents to understand their perspectives on how urbanization impacted the identity of Kalan Mosque.
6. Reviewing of literature and analysis of concepts, theories, and related research works related to urbanization and identity of historical buildings to establish the theoretical framework.
7. Creation of maps and drawings by the gathered and analyzed data.

Findings: Site Study

Location

Kalan Mosque is located at Muhammad Deen Ilachi Marg, Phatak Teliyan, Ahata Mir Bukhari, Old Delhi, Kalyanpura, Delhi. Kalan Mosque, also known as Jama Masjid Kalan, is an ancient mosque situated in Turkman Gate, Old Delhi.

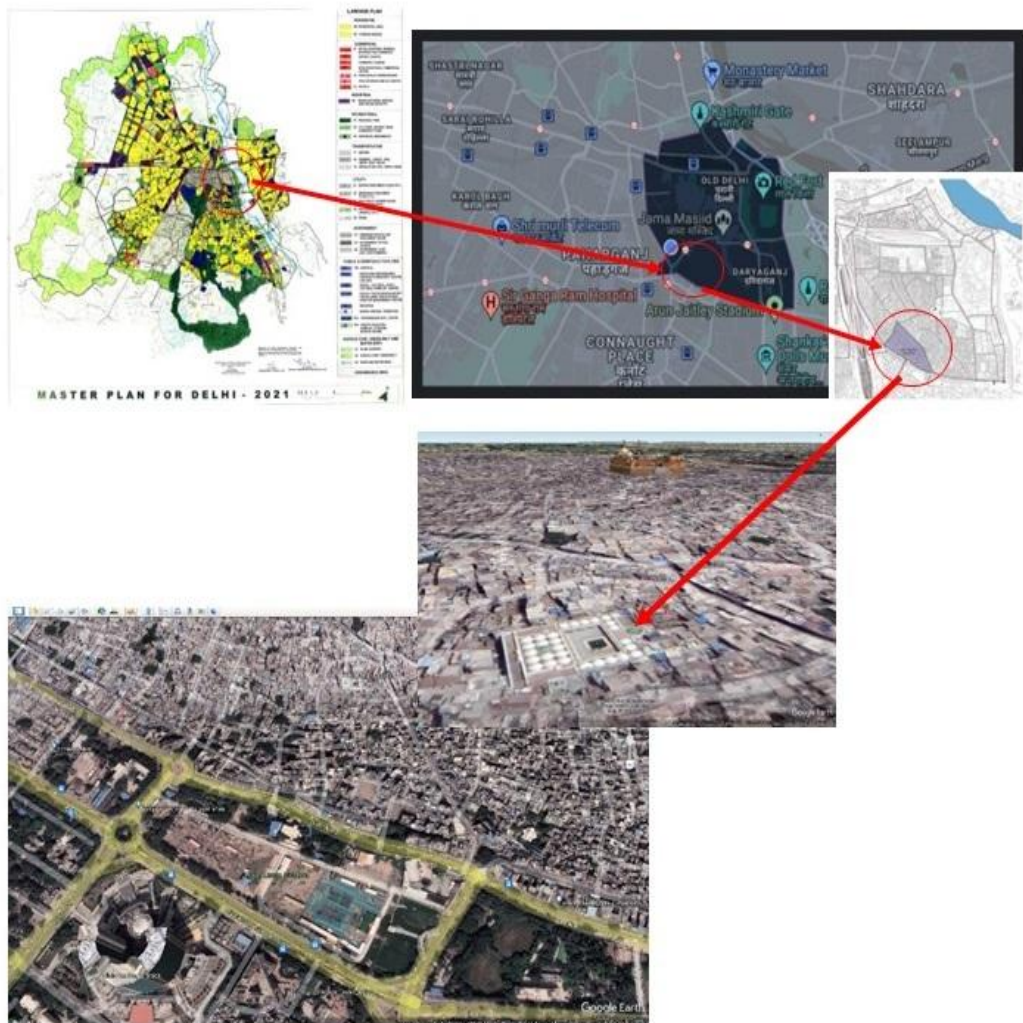


Fig. 2: Site Location

Source: Google Earth & Master Plan Delhi

Site Surroundings

Until 1814, the Kalan Masjid in Firuzabad was encompassed by low masonry structures, and by 1840, a thriving village had emerged in its proximity. Presently, the Kalan Masjid is situated within the economically disadvantaged quarter of the walled city of Shahjahanabad, with multi-story houses closely adjoining its outer boundaries. Access to the mosque is available through a narrow street branching off from the Sita Ram Bazar Road. Currently, the mosque remains active, serving the local community, and is directly administered by the Delhi Waqf board. This area of Kucha Patti Ram and Sita Ram Bazar in Delhi is a historically rich location, known for its cultural and architectural significance. It is home to several havelis that were built by Kashmiri migrants between the 1800s and the mid-1900s (D.U.A.C., 2017). In addition, two of the main gates of Shahjahanabad, Ajmeri Gate and Turkmani Gate, are also located in this area. Kalan Masjid, which is the oldest mosque within the Walled City of Delhi, is situated in this zone. It was built in 1378 and serves as a significant religious landmark.

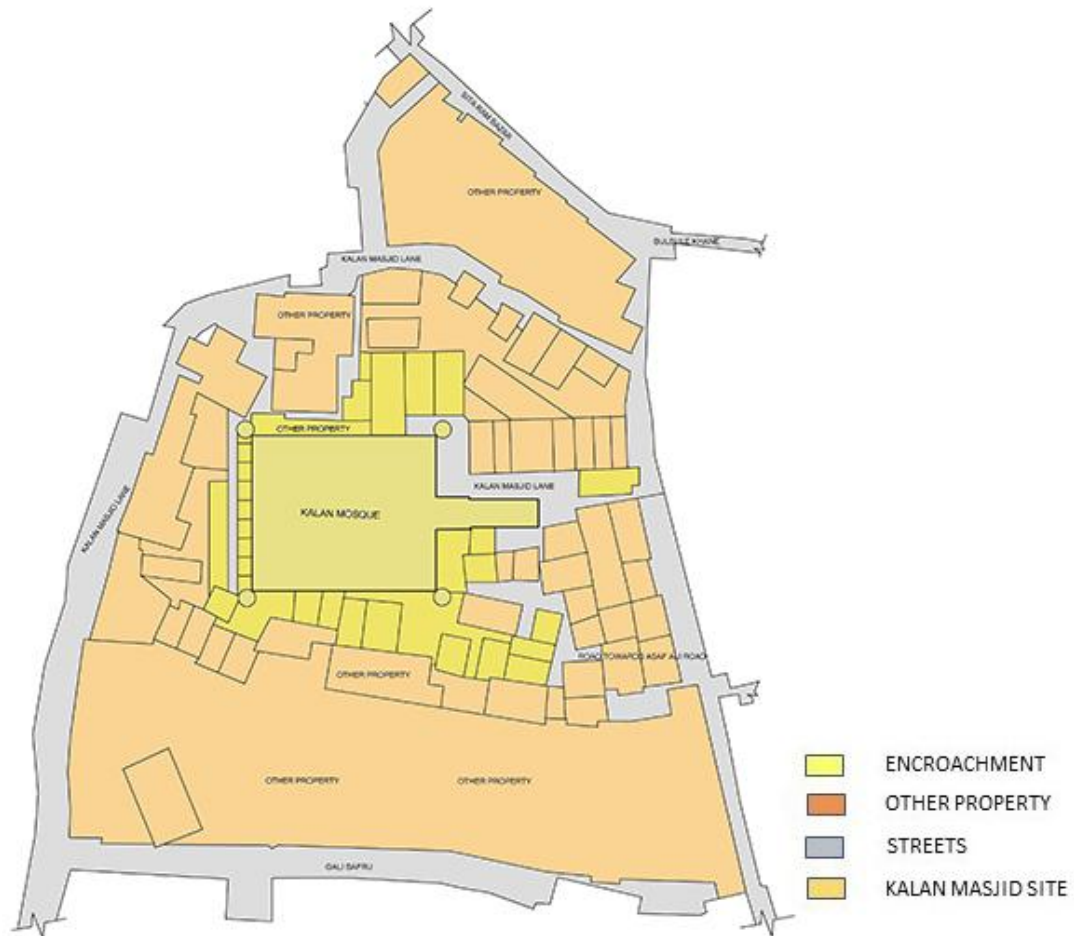


Fig:3 Site Surroundings
Source: Author

Site Context

The area represents the earliest phase of the Walled City's development, dating back to the Tughlaq Era. As a result, it is also the most densely populated area in the city. The market in this area is renowned for its accessories and sequins. It is one of the largest markets for handicraft materials in North India. The streets within the area vary in width, with roads ranging from 3 to 6 meters wide. Interior streets can be as narrow as 1 meter or less. The architecture of this area is characterized by katra and kuncha-type mixed-use developments. These buildings combine residential and commercial spaces, and many have vegetable markets on their ground floors. The area is an excellent example of traditional Indian urban design and reflects the vibrant cultural heritage of Delhi. (Delhi Urban Art Commission, 2017).

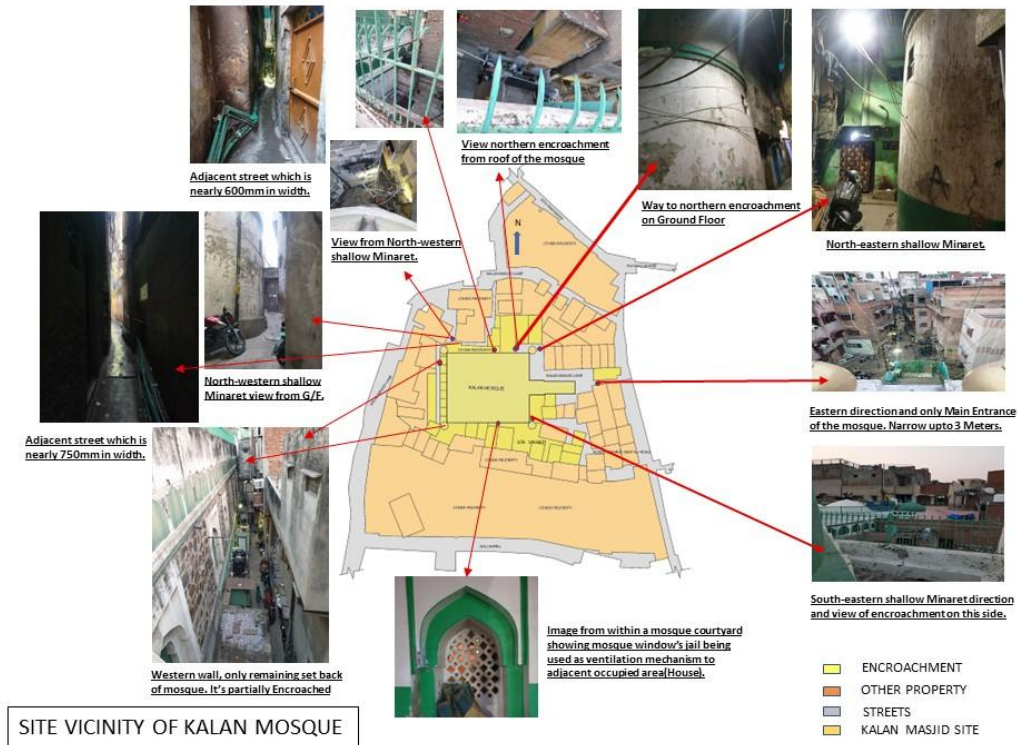


Fig. 4: Site Context

Source: Author

Delhi Urban Arts Commission Guidelines for KALAN MASJID

According to the Delhi Urban Art Commission, there is a historical monument located in Sub-zone A-13, specifically in the area of Kucha Patti Ram and Sita Ram Bazar. This monument falls under the categories of INTACH - Grade A and Grade II HCC Heritage Buildings. HCC Grade II refers to buildings and areas that hold regional or local significance due to their special architectural, aesthetic, cultural, or historical values. While they may be of a lower scale compared to the Grade I Heritage buildings, they are important local landmarks that contribute to the region's image and identity. These buildings may showcase skilled craftsmanship, exhibit well-proportioned designs or decorative elements, or be tailored to suit specific climates. It is essential to conserve and protect Heritage Grade II buildings intelligently. Grade II (A) allows for internal changes and adaptive reuse with careful scrutiny. However, Grade II (B) ensures the conservation of all special aspects that led to its inclusion in Heritage Grade II. In certain circumstances, the construction of extensions or additional buildings on the same plot or compound may be permitted as long as they are in harmony with and do not detract from the existing heritage buildings or areas, especially in terms of height and facade. The Heritage Conservation Committee provides guidance and advice on development permissions for such changes. Furthermore, any development in the surrounding areas of Heritage Grade II must be regulated and controlled to ensure it does not diminish the grandeur or views associated with the heritage site (<https://hccdelhi.in>).

Spatial Organization

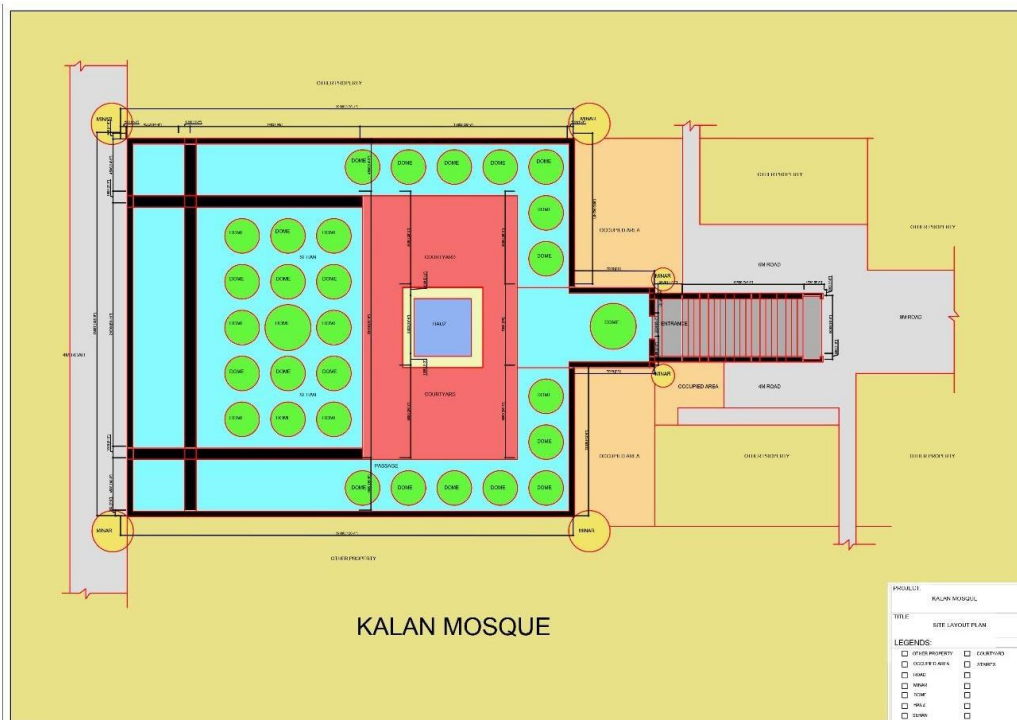


Fig. 5: Spatial Organization

Source: Author

Kalan Mosque was constructed by Khan-i Jahan Junan Shah, who served as the Prime Minister (Wazir) at the law court of FiruzShah III (Tughluq) from 1368-1387.

The mosque measures approximately 1400 Sq. meters (41 meters X 34 meters) excluding the area of the outer wall. It is mostly a building of rectangular shape and the longitudinal axis of the mosque is oriented in the East-West direction. The height of the mosque is 21 meters and (8.5 M or 28 feet) approximately. This also contains many vaulted cells in a series that is accessible with its periphery side and the masjid is situated in the above level. The walls on the outer periphery of the mosque are of stone rubble masonry of 1.65 meters thick. They are battered in the 1950's to the very top where they are joined by a line by merlon form in plaster relief painted white and emerald green. As per the observations, the mosque has towers that are conical in shape at its four corners and a complete square with the dome. An entrance gateway is coming out from its eastern side. This entrance can be accessed along a flight consisting of 32 steps which is mounted at a sharp edge from the East.

The mosque consists of structural bays of different sizes which are 9 by 7. The plan of the mosque is divided into two equal halves along a central North-South axis. The eastern side has 5 bays by 7 bays, while the western side has 4 bays by 7 bays. Western bays are larger than the eastern bays in size. The courtyard has a square Hauz pool of approximately 25 Sq. Meter (5 meters X 5 meters) with a 1-meter setback from every side for seating for wazu and old Fountain is at the center of this hauz. Surrounding the courtyard, within the walls on the outer side, on the northern direction, South, and East sides. There is a single row consisting of arcades with fifteen domed bays of square shape. The North side of the mosque has four bays. The same case is with the South side, while the East side has five bays. The central entrance bay is dominating from those on both sides.

The half portion of the western side of the plan is occupied by a hall used for prayer, which is nearly as big as the courtyard. The hall is a vaulted part supported on enormous piers of stones divided into 5 rows and 3 aisles. The western (qibla) wall has five mihrabs that are corresponding to the centers of these rows. The hall is surrounded by seven vaulted rooms

which are square and rectangular. The bay thickness of all these rooms are the same which is contained within the walls on western, southern, and northern directions. Three rooms are of square shape out of these seven rooms and lead the way to the corner tower, measuring approximately 9 Sq. Meters (3x 3). The spaces adjacent to the hall has the rest of the rectangular rooms, adding additional space. In the North and South side of the hall, there are two rooms which are rectangular measuring 36 Sq. Meters (11.8 meters X 3 meters) approximately, while two rectangular rooms are of size 21 Sq. Meters (7.1 meters X 3 meters) approximately are located in between those three rectangular rooms on the West side. However, two sections of the wall which are in between the hall and the rectangular rooms contain a staircase that leads up to the roof of the hall.

Walking in the lane from Bulbule Khane to Turkman Gate, one will probably miss what is perhaps the oldest pre-Mughal surviving structure in Shahjahanabad. Now hidden in narrow back lanes and surrounded by tall buildings, Kalan Masjid used to be known as one of the tallest mosques in the city before the Jama Masjid. Unlike other royal mosques, we can't see its minarets from a distance. subsequently it has not got any. Two noteworthy topographies of mosques of the Tughlaq dynasty are the absence of huge minarets and the use of shallow domes not large as in Mughal-era mosques. Other noticeable mosques without minarets are Khirki Masjid and Begumpur Masjid 1. ² <https://www.archnet.org/sites/6444>.



Fig. 6: Board showing establishment of Kalan Mosque

Source: Author

Urban Morphology

The bustling streets, vibrant old city life, and strong sense of community make up the heart of Delhi. However, the rapid urbanization that has occurred in recent decades as part of the city's development has caused significant changes. The historic center of Shahjahanabad has been particularly affected by this population explosion, as thousands of people from both rural and urban places have migrated to the city, putting a strain on its civic infrastructure and challenging its resilience (Preserving the history of the city while accommodating increased density has become a critical issue, as the existing high-density urban form of Old Delhi is permanent and the shortage of living space continues to worsen. The conflict between the crucial need to preserve the city's history and the need to accommodate rapid growth and continuous development has intensified, posing a significant challenge for the city's future.

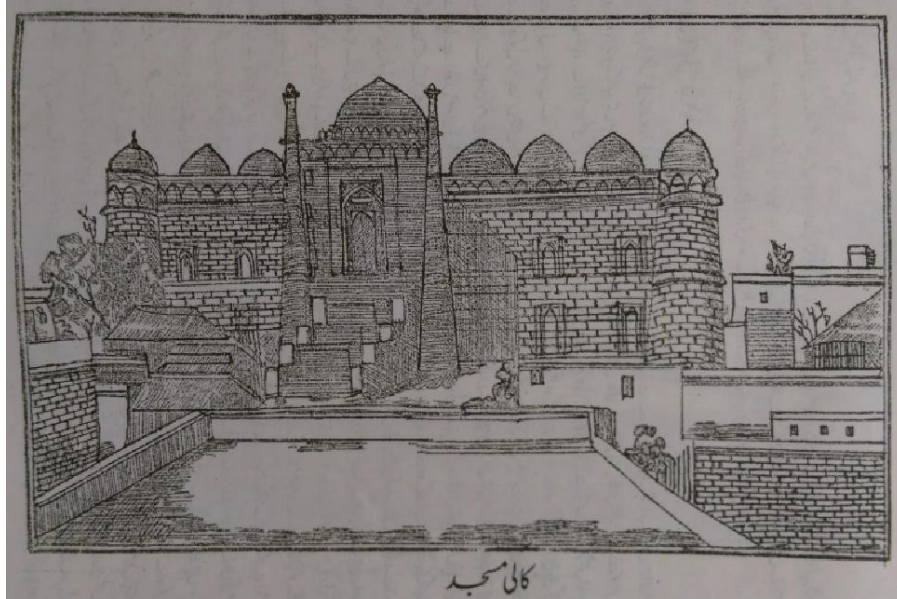


Fig. 7: A sketch of Kalan Mosque
Source: Sayeed, 2017

5. Rapid Urbanization

Rapid and haphazard growth of urban areas without urban planning and management in a proper manner, often results in the growth of slums and informal settlements, inadequate infrastructure, and increased social and environmental problems. Uncontrolled urbanization has always been a significant issue in Old Delhi, which is one of the oldest and most densely populated areas of the city. It has thus faced significant issues. The area is characterized by narrow streets, old buildings, and a lack of adequate infrastructure, leading to various social and environmental problems. Many people who migrate to Delhi for better economic opportunities end up living in these settlements, which lack basic services like potable water, sanitation and electricity.

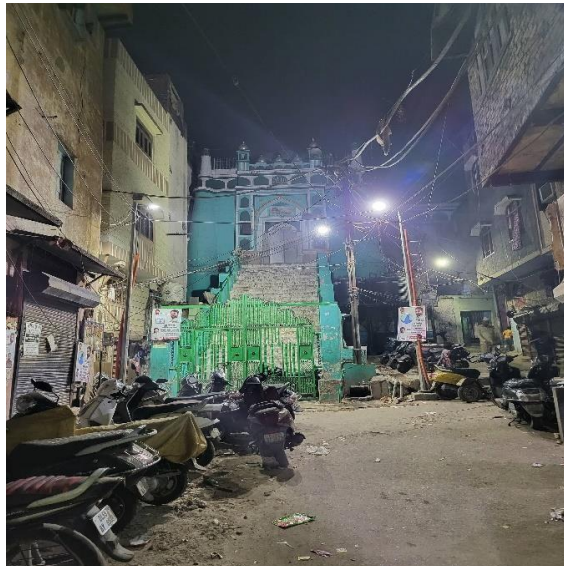


Fig. 8: Uncontrolled Urbanization
Source: Author

Unregulated Physical Expansions

The rapid growth of these ghettos or informal settlements has resulted mostly in the destruction of green spaces and natural habitats, which can lead to environmental degradation and increased pollution levels. Additionally, the lack of proper waste management systems in these settlements contributes to the problem of garbage accumulation and disposal. Another significant consequence of uncontrolled urbanization in Old Delhi is traffic congestion. The narrow streets and alleys of the area were not designed to accommodate modern traffic volumes, leading to frequent traffic jams and increased air pollution.



Fig. 9: Uncontrolled Urbanization in the vicinity of the monument.

Source: Author

Encroachment of the Structure

Over the past few decades, the landscape of this area has undergone a significant transformation. Back in the 1950s, this area was relatively sparsely populated, and there were not many tall buildings in the vicinity. However, today, it is surrounded by high-rise structures on all sides. This urbanization has had a significant impact on the landscape of the area, including its size.



Fig. 10: Occasion of Bakr Eid.

Source: Sayeed (2017)



Fig. 11: The first Photograph taken of this area back in 1858 by Major Christopher Tytler and his wife Harriet.

Source: Image from British Library (Robert & Harriet Tytler: Photo 53/(26) no. 5326
[http://t.co/bHT1WOjczX.](http://t.co/bHT1WOjczX))

In the first photograph taken of this area back in 1858 by Major Christopher Tytler and his wife Harriet, the area was much larger than it is today. Over the years, due to the construction of new buildings and the expansion of existing ones, the area has shrunk significantly. This has had a profound impact on the people, including its cultural and historical significance. The transformation of this area is not unique, and it is a trend that can be seen in urban centers around the world. As cities continue to grow and expand, areas that were once sparsely populated or relatively untouched become prime real estate for development. This can lead to rapid urbanization, which in turn can have both positive and negative impacts on the community.

Deterioration of the Structure

During a conversation with a local resident, it was revealed that the ground floor has been occupied for centuries and used as a residential area for nearby people who have lived there for generations. However, this has resulted in significant encroachment, with the compound being used for multiple purposes by the people who live nearby. As a result, many of the structures within the compound have deteriorated over time.

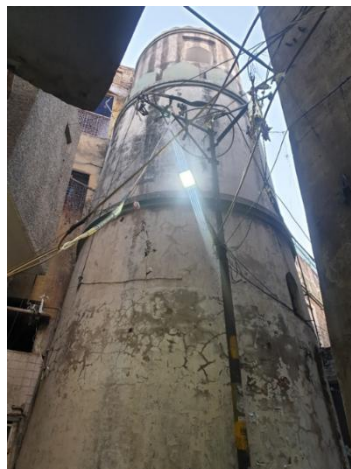


Fig. 12: Deterioration of the structure.

Source: Author

One example of this deterioration is the constant moisture within the compound, which has resulted in the deterioration of its plaster and the loss of bricks. The moisture is likely due to the location of the compound and its proximity to bodies of water or heavy rainfall. Over time, this moisture has seeped into the structures within the compound, causing damage to the plaster and weakening the bricks. Another example of the deterioration is the falling of sand and bricks. The constant use of the compound and the heavy foot traffic it experiences have caused wear and tear on the structures, resulting in the falling of sand and bricks. This poses a safety hazard for those who frequent the compound and could potentially cause injury. It is clear that the compound has suffered from a lack of maintenance and upkeep over the years, which has resulted in the deterioration of its many structural elements. It is important for the local community and the government to take action to address these issues and preserve the historical and cultural significance of the compound for future generations to enjoy. This could include regular maintenance and restoration efforts, as well as limiting the use of the compound to prevent further encroachment and damage to its structures.

Significance of the Landmark & Contemporary Utilization

For centuries, the Kalan Masjid has been a significant religious and cultural center, playing a vital role in the lives of the people who live nearby. It is a prestigious place of worship that has brought together the local community for generations, serving not only as a mosque, but also as a hub for social gatherings and education. As a mosque, the Kalan Masjid has provided a spiritual home for countless Muslims over the centuries, offering a place for prayer, reflection, and community. Its grand architecture and intricate design reflect the importance of the space as a center of religious devotion and spiritual connection. Beyond its role as a place of worship, the Kalan Masjid has also served as main social gathering space, bringing together people from all walks of life to connect and share in community. The mosque has been a hub for cultural events, celebrations, and festivals, fostering a sense of belonging and unity among the local population.

The Kalan Masjid has also played a vital role in education, serving as an Islamic school where students can learn about their faith, study Arabic, and deepen their knowledge of the Quran. This has allowed generations of young people to develop a deeper connection to their faith and their community. Finally, the Kalan Masjid has been a special place during the month of Ramadan, with people gathering to watch the moon and breaking their fasts together during iftar. On the occasion of Eid, the mosque comes alive with festivities, including feasts, prayer, and celebration Overall, the Kalan Masjid has been a central part of the local community for centuries, serving as a place of worship, community, education, and celebration.

Hidden Between Urban Sprawl



Fig. 13: Hidden between Urban sprawl.

Source: Author

Mosque Site is between the towering 6-floor unrestricted height of neighboring residential buildings and bustling streets lies a building hidden among the concrete jungles of the old city. Despite being overshadowed by the surrounding tall plastered building, this building holds its own unique charm and allure. As one approaches the building, one may notice the intricate details etched into the walls and the ornate carvings adorning the doorways. Perhaps they catch a glimpse of a green-painted building or a hidden courtyard, offering a moment of respite from the busy narrow lanes outside. Inside, the building reveals even more surprises, with winding staircases, domes, vaults and arches. Despite its hidden location, this building is a testament to the enduring beauty and character of the past. It stands as a reminder of a time when buildings were crafted with care and attention to detail on rock, and when architecture was seen as a form of art.

The Tughlaqs were known for their innovative architectural style, which combined elements of Islamic, Hindu, and Persian architecture. Their structures were notable for their strong, bold lines and impressive scale. The house and the entrance of the mosque are excellent examples of the Tughlaq style's distinct features. The simplicity of the mosque's exterior design reflects the Tughlaq dynasty's practical approach to governance and the utilitarian nature of their architecture.

The word "Kalan" originally meant "big," although some have since misinterpreted it to mean "Kali" or "black." The Kalan Masjid is one of the few functional medieval mosques in Delhi, with the mosque in Firoz Shah Kotla also being functional, despite being in ruins. An idealized view of the entrance courtyard and east facade of the Kalan Masjid is depicted in the drawing, with a group of elephants, soldiers, and attendants in the foreground. The Kalan Masjid's architecture is an excellent example of the Tughlaq style, which was prevalent in the 14th century during the Tughlaq dynasty's reign. The dynasty was known for its innovative architectural style, which blended elements of Islamic, Hindu, and Persian architecture, resulting in structures with strong, bold lines and an impressive scale.

Remodeling of its Elements

It was observed that some significant changes have been made to the structure. The most notable change is in the member of the mosque, which has been replaced with a new white marble structure that features flower engravings in the typical Mughal style.



Fig. 14: Old Member.

Source: Author

The old member, which had six steps, has been replaced with this new. The intricate floral engravings on the white marble add an ornamental touch to the mosque and showcase

the exquisite Mughal style of architecture. The replacement of the old member with this new structure not only enhances the aesthetics of the mosque but also reflects the cultural significance of the Mughal era.



Fig. 15: New Mimir.

Source: Author

Overall, the replacement of the old mimber with the new white marble structure is a transition of Delhi Sultanate Tughlaq style into Mughal Era. It adds to the beauty and cultural significance of the mosque, and demonstrates a dedication to preserving the mosque's heritage while also adapting to changing times. Secondly, the Hauz water drainage system is facing a secondary issue of being choked due to which seepage and continuous leakage of water from the drainage system of hauz into ground floor. As a consequence, the drainage has turned into a cesspool, further exacerbating the problem. The clogged drainage has also resulted in the formation of moss and the water has turned green in color.

Surveys & Interviews

The target population for the study are the individuals who are directly impacted by urbanization around Kalan Masjid, who are local residents. A survey has been conducted during the site visit involving the people who were available on the site and the nearby surrounding to know if the local residents had enough information about the mosque or not. If they are aware of the significance of the mosque. The history of the mosque is known to people or not. What is their perspective on the development of the area? Their view about the conservation of cultural heritage and what role the local area committee has in the decision-making. The responses were as follows:

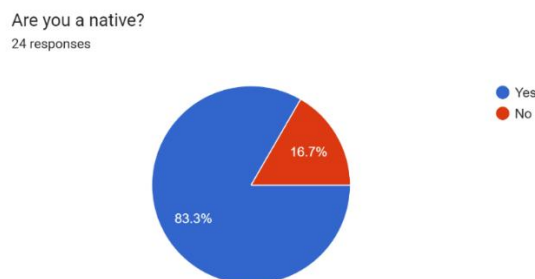


Fig. 16: Responses for Native Status

Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons are native of the area or not. The findings reveal that a significant majority, 83.3% of participants are native to the area. On the other hand, a smaller percentage, 16.7%, persons are not native to the area.

Do you have any resident welfare associate or mosque committee?
24 responses

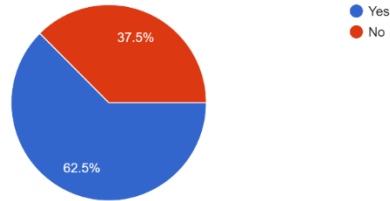


Fig. 17: Responses for Association with local committees
Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons are part of the local committee of the area or not. The findings reveal that a significant majority, 62.5% of participants are involved in the decision-making process, On the other hand, a relatively smaller percentage, 37.5%, persons are not a part of local committees.

Are you a part of meeting which are held for any changes in the area?
24 responses

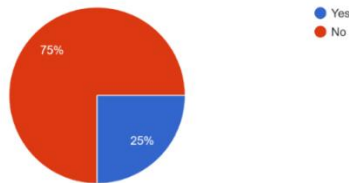


Fig. 18: Responses for participation in decision making
Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons are part of the decision-making for the development of the area or not. The findings reveal that a significant majority, 75% of participants are involved in the decision-making process, On the other hand, a relatively smaller percentage, 25%, persons are not a part of such meetings.

Do you know the history of this Mosque?
24 responses

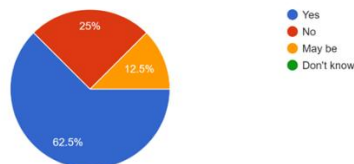


Fig. 19: Responses for Awareness about the history of the mosque
Source: Google Form questionnaire_by Author

Through this question, the authors investigate if the persons are aware of the history of the Kalam Mosque or not. The findings reveal that a significant majority, 62.5% of participants

are aware of the history, On the other hand, a relatively smaller percentage, 25%, of participants are not aware of the history and 12.5% of the participants are confused about the details of the history.

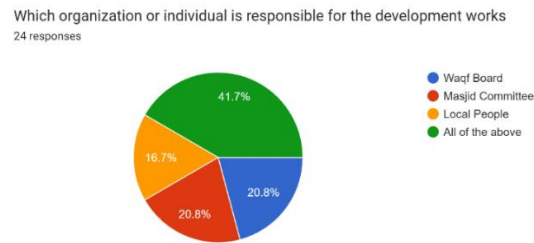


Fig. 20: Responses for organizations roles in development works
Source: Google Form questionnaire by Author

Through this question, the authors investigate which organizations are responsible for the development works in the neighborhood. The findings reveal that the Waqf board, local masjid committee and the local people are involved in the development works in the area.

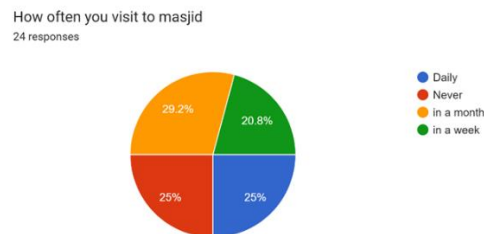


Fig. 21: Responses for use of the mosque
Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons regularly visit the Kalan Mosque or not. The findings reveal that 25% of the participants are going to the mosque daily to offer namaz. 20.8% visit it in a week and 29.2% visit it once a month. This reveals that Kalan Mosque is in frequent use by the local people.

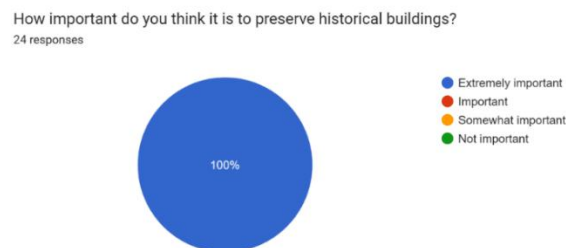


Fig. 22: Responses for importance of preserving historical buildings
Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons think that the preservation of historical buildings is important or not. The findings reveal that the significance and importance of historical buildings are known to all the participants. They have the opinion that historical buildings should be preserved.

Do you believe that historical buildings contribute to the overall character and charm of the neighborhood
24 responses

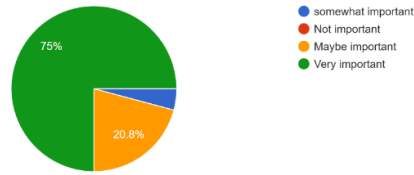


Fig. 23: Responses for role of historical buildings in neighborhood
Source: Google Form questionnaire by Author

Through this question, the authors investigate if the persons are aware of the roles of historical buildings in the overall character and imageability of the neighborhood or not. The findings reveal that a significant majority, 75% of participants think that it is very crucial and important. On the other hand, a relatively smaller percentage, 25%, of participants think it is somehow important. That means all of them think it is relevant and important to some extent.

What measures do you think should be taken to ensure the preservation and maintenance of Kalan Masjid?
24 responses

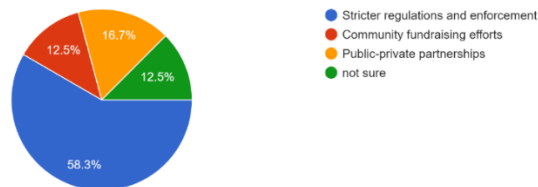


Fig. 24: Responses for measures to be taken for Kalan Mosque
Source: Google Form questionnaire by Author

Through this question, the authors investigate whether according to the community living in the area, which type of measures should be taken to ensure the preservation of the Kalan Mosque. of the area or not. The findings reveal that 58.3% of participants think that stricter regulations and enforcement are the most important measures. 12.5 % of the participants think that community fundraising efforts are the most important. 16.7% of the participants think that public partnerships are the most important. On the other hand, a relatively smaller percentage, 12.5% of the participants are not sure what measures can be taken for the preservation of historical buildings.

How do you think the conservation of historical buildings can contribute to the cultural and educational value of the neighborhood?
24 responses

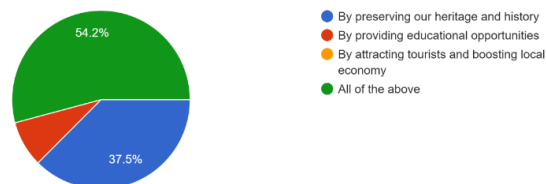


Fig. 25: Responses for the importance of conservation of historical buildings for cultural and educational values
Source: Google Form questionnaire by Author

Through this question, the authors investigate whether according to the community living in the area, how the conservation of historical buildings can contribute to the cultural and educational value of the neighborhood. The findings reveal that 54.2% of participants think that preserving our heritage and history, providing educational opportunities, by attracting tourists, and boosting the local economy, all can be boosted by the conservation of historical buildings for cultural and educational values. 37.5% of the participant think that preserving our heritage and history can contribute in the conservation of historical buildings for cultural and educational values... On the other hand, a relatively smaller percentage, 8.3% of the participants think they are important for providing educational opportunities.

Conclusions

Based on careful observations, extensive research, on-site studies, and interviews conducted through questionnaires, the following crucial points have been identified for immediate implementation. The Kalan Masjid, with its rich architectural and cultural significance, faces challenges as urbanization progresses. This research paper has examined these challenges and drawn conclusions based on a thorough analysis of relevant data and scholarly works.

Urbanization, characterized by rapid population growth and urban expansion, has significant consequences for historic buildings like Kalan Masjid. The pressure to accommodate modern infrastructure and urban amenities led to alterations and encroachments, jeopardizing the authenticity and historical essence of the mosque.

Regulatory frameworks emerge as critical factor in mitigating the erosion of identity faced by Kalan Masjid. Zoning regulations that specifically address the unique needs of heritage structures can provide a safeguard against indiscriminate alterations and encroachments, ensuring the preservation of the mosque's original architectural and cultural identity.

Public awareness and community involvement play a pivotal role in the preservation of Kalan Masjid's identity amidst urbanization. Educating the public about the historical, cultural, and architectural significance of the mosque fosters a sense of pride and responsibility within the community, encouraging active participation in preservation initiatives.

The impact of urbanization on the erosion of identity of Kalan Masjid underscores the necessity for a comprehensive approach that includes robust preservation policies, community engagement, public education, and adaptive strategies. By embracing these measures, we can ensure the preservation and continued appreciation of Kalan Masjid's historical and cultural legacy amidst the urbanization challenges of the modern era.

An urgent emphasis must be placed on safeguarding encompassing architectural marvels, precincts adorned with historic monuments. To achieve this, the adoption and enforcement of Annexure 2 of the Heritage Conservation Code (HCC) are imperative. Recognizing the paramount significance of community involvement, the implementation of programs aimed at fostering community development is crucial. These initiatives, guided by the HCC committee, will engender a sense of ownership and shared responsibility among the populace.

It is imperative to impose appropriate restrictions on development, redevelopment, and repair activities that may jeopardize the identity of Kalan Mosque. Prior to finalizing any decisions, active solicitation of public input is essential. Welcoming and duly considering objections and suggestions from the public will ensure a comprehensive and inclusive approach, garnering support and fostering a sense of collective ownership. To reinforce the preservation efforts, authorities must establish robust bylaws that can be periodically supplemented in response to proposals received from relevant agencies and authorities. When contemplating road widening projects outlined in the master plan or layout plan, meticulous consideration must be given to the factor tampering with the identity of Kalan Mosque. Maintaining the visual coherence and architectural harmony of the surrounding environment should be a guiding principle during any development or construction activities near Kalan Mosque. This will help preserve the unique character and identity of the area.

Acknowledgements: This research did not receive any financial grants. However, the authors wish to acknowledge the support offered by the School of Architectural & Design, K. R. Mangalam University, Gurugram-122103, Haryana, INDIA

References

- Abdulali, H.A. & AL Shamari, H.A.H. (2023) Lost and Added Values in Conserving Architectural Heritage: Insights from Iraq, *ISVS e-journal*, 10(1),135-152.
- Albabely, S. & Alobaydi, D. (2023) Impact of Urban Form on Movement Densities: The Case of Street Networks in AlKarkh, Baghdad, Iraq. *ISVS e-journal*, 10 (7),147-163.
- Alavi, S.F. & Tanaka, T. (2023) Analyzing the Role of Identity Elements and Features of Housing in Historical and Modern Architecture in Shaping Architectural Identity: The Case of Herat City. *Architecture*, 3(3),548–577. DOI: <https://doi.org/10.3390/architecture3030030>.
- Ali, A. (2012) Mosque Architecture in Delhi: Continuity and Change in its Morphology, *ATEET: Special Issue*,40-57.
- Anderson, B. (1983) *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. London: Verso.
- El Menchawy, A., Aly, S. S. & Hakim, M.A. (2011) The impact of urban sprawl on the heritage areas through the urban fabric of cities, *WIT Transactions on Ecology and the Environment*, 150, 299 - 314
- Gbran, H. & Sari, S.R. (2023) The Visual Impact of Modern Constructions on the Old Cities in Indonesia: The Lawang Sewu Building in Semarang, *ISVS e-journal*, 10(4),71-90
- Hall, S. (1990) Cultural Identity and Diaspora. In J. Rutherford (Ed.), *Identity: Community, Culture, Difference*, 222-237.
- Halim, U.L. & Tambi, N. (2021) Awareness of Community on The Conservation of Heritage Buildings In George Town, Penang. *Planning Malaysia, Journal of the Malaysian Institute of Planners*, 19(15),114-126. DOI: <https://doi.org/10.21837/pm.v19i15.929>.
- Kiruthigan, K. & Thirumaran, K. (2019) Effects of urbanization on historical heritage buildings in Kumbakonam, Tamilnadu, India, *Frontiers of Architectural Research*, 10(8), 94-105. DOI: <https://doi.org/10.1016/j.foar.2018.09.002>
- Krupat, E. (1983) A place for place identity. *Journal of Environmental Psychology*, 3(4), 343–344. DOI:[https://doi.org/10.1016/S0272-4944\(83\)80037-1](https://doi.org/10.1016/S0272-4944(83)80037-1)
- Lalli, M. (1992). Urban-related identity: Theory, measurement, and empirical findings. *Journal of Environmental Psychology*, 12(4),285–303. DOI: [10.1016/S0272-4944\(05\)80078-7](https://doi.org/10.1016/S0272-4944(05)80078-7).
- Mahmood, H.M., Ouf, A. & Heidishalaby (2021) Urban Management of Historical City Centers Between the Old And The Modern (Al-Khulafaa Street: (The Mosque Of The Caliphs: A Case Study), *Management of Historic Baghdad, Palarch's Journal Of Archaeology Of Egypt/Egyptology*,18(7), 200-213
- Mi, F. & Wang, Y. (2021) A Summary of the Study on the Authenticity of Traditional Village Architecture Space. *Open Journal of Social Sciences*, 9(6),228-240. DOI: [10.4236/jss.2021.96018](https://doi.org/10.4236/jss.2021.96018).
- Nath, R. (1978) *History of Sultanate Architecture*. New Delhi: Abhinav Publications, pp.66-69.
- Nachar, E. & Abdel-Hadi, A. (2018) Place identity/place-making in the built environment—towards a methodological perspective. *In Designing Cities with Children and Young People: Beyond Playgrounds and Skate Parks Cities' Identity Through Architecture and Arts*, London, Taylor & Francis, 119-137. DOI: [10.1201/9781315166551-7](https://doi.org/10.1201/9781315166551-7).
- Peck, L. (2005) *Delhi: A Thousand Years of Building: An INTACH Roli Guide*. New Delhi: The Lotus Collection, Roli Books Pvt. Ltd., 80-83, pp.209-211.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983) Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3(1),57-83. DOI:[https://doi.org/10.1016/S0272-4944\(83\)80021-8](https://doi.org/10.1016/S0272-4944(83)80021-8).

- Proshansky, H. M. & Fabian, A. K. (1987) The Development of Place Identity in the Child. In C. S. Weinstein & T. G. David (Eds.), *Spaces for Children*, New York, Plenum Press. Springer, 21-40. DOI: [10.1007/978-1-4684-5227-3_2](https://doi.org/10.1007/978-1-4684-5227-3_2).
- Surya, B., Ahmad, D.N.A., Sakti, H.H. & Sahban, H. (2020) Land Use Change, Spatial Interaction, and Sustainable Development in the Metropolitan Urban Areas, South Sulawesi Province, Indonesia. *Urban Contexts and Urban-Rural Interactions*, *Land*, 9(3),1-43. DOI: <https://doi.org/10.3390/land9030095>.
- Twigger-Ross, C., Bonaiuto, M. & Breakwell, G. (2003) Identity theories and environmental psychology. *Psychological Theories for Environmental Issues*, pp. 203-234.
- Welch, A. & Crane, H. (1983) The Tughluqs: Master Builders of the Delhi Sultanate, *Muqarnas*, 1,123 -166. DOI: <https://doi.org/10.2307/1523075>