

Evolving morphologies: Public squares of the Walled City of Lahore

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Abstract

Historic cities are repositories of design knowledge [1], knowledge of their built environment and culture contain many lessons that could make future design decisions more relevant. The culture of a city has a strong connection with its built environment and one can only be understood in context of the other.

Lahore is one of the oldest cities of the Subcontinent, yet its urban evolution is not fully researched and understood. There is a need for an in-depth scholarship on the topic of urban evolution of Lahore in order to construct a meaningful discourse. In terms of urban historiography of the city of Lahore in general and the Walled City of Lahore in particular, we find inconsistent efforts. There are gaps in the recorded history of Lahore and few historians and experts have discussed the physical form of the city. Most of the Pre Colonial literature is based upon historical accounts written by the court historians in which the physical form of the city seldom appears. Books commissioned on the topic of Lahore during the British Period lack focus on the urban form and are mere compilations of various aspects of urban culture and prominent buildings without any defined critical framework. Things did not get any better after independence as most of the literature produced is a reworking and extension of the British Period projects. It is only around the start of the 21st Century that we see a growing interest regarding the physical form of the city and its built heritage among scholars, architects, conservationists, planners and historians. These later works are more focused on the subject of urban historiography with defined critical approaches. There is a need to develop a critical discourse on the evolution of the historic cities of this region, based upon systematic research in order to develop an understanding of the sensibilities that have shaped the built environment of these cities.

This research paper looks at the public squares of the Walled City of Lahore in terms of their emergence, evolution and transformation that took place especially after the partition. The Walled city is the oldest centre of Lahore that is still a living city, despite having transformed greatly over time. A broad based comparative analysis is conducted to theorise the pattern of emergence of public squares along with the concept of public space in the Walled City of Lahore. The analysis part relies mainly upon cartographic and historical references available from various sources and draws upon historical morphology, physical context and the strategic location of the public squares within the Walled City of Lahore. This study concludes in the light of available historical accounts to establish the historical evolution, character and significance of the public squares of the Walled City of Lahore.

Key words: urban archaeology, urban morphology, urban historiography, urban conservation, cartography, public space, public square

1. Research methodology

The research incorporates both quantitative and qualitative aspects. The quantifiable part includes location, proximity, morphology, scale, shape, geometry and is mainly built upon the available cartographic record from different time periods. Mapping based morphological analysis is used to draw conclusions. Comparative analysis of the existing situation is done with the help of record available from the 1988 PEPAC study for the sustainable development of the Walled City of

Lahore in order to identify transformations during the past three decades.

The qualitative aspect of this research mostly deals with the character of space, sense of enclosure and public activities defining the culture of the place that lead to place making. This aspect is covered with the help of archival references, historical accounts and study of the existing use and activities of the public space. The historical record has helped in defining the evolution of various squares of the Walled City of Lahore.

Archival photographs available from various sources have been used to define the historical urban and architectural character and the sense of enclosure which is then compared with the urban character at present to identify transformations that have taken place over time.

Both the aspects are seen in tandem to draw a clearer picture of the public squares of the Walled City of Lahore leading to a more informed theorising on the concept of public space in the Walled City of Lahore in the analysis and discussion section of the paper.

2. Historical cartographic record of Lahore

Documentation forms the basis of any urban research, lack and gaps in that was one main constraint in this research, a scarcity of evidence, both in terms of cartographic record and archival references. The major reason for that is a complete absence of any cartographic record of the city before the British Period. Other than a Sikh Period model of the Walled City, drawn on approximation, we find no attempt at preparing a scaled map of the city. The oldest map of the city and its environs, dating back to 1837 is more of a sketch than a map based upon approximation. The Walled City of Lahore remained completely neglected during the British Period because the English officers and planners did not venture inside the Walled City and declared it beyond the scope of any urban improvement [2]. The only intervention in the Walled City of Lahore from the British period is the waterworks project in Langa Mandi area, built to supply clean drinking water to the residents of the Walled City.

The first serious mapping and recording was done in the 1980's when PEPAC (Pakistan Environmental Planning and Architectural Consultants Limited) undertook a major project of conservation and planning of the Walled City of Lahore. PEPAC published their monograph in 1988 in which a number of important areas of the Walled City of Lahore have been documented. There is an inventory of major heritage sites and buildings of the Walled City of Lahore in this monograph. The monograph was later published in the book form in 1993 by LDA (Lahore Development Authority). The Punjab Government has now formed an independent Walled City of Lahore Authority (WCLA) for the sustainable development and conservation of the Walled City of Lahore. Since these efforts were rather late in time, therefore, much of architectural and urban heritage of the Walled City of Lahore was already lost by that time. We have no record of the lost

urban and architectural heritage except some pictures of places and buildings from various times that serve as a reference to trace changes in the physical space. It is also difficult to locate these buildings on the map because there are inconsistent gaps in cartography. We have, for example a picture of the Old Kotwali building inside the Walled City of Lahore from the British Period but we do not know its exact location because the very structure does not exist anymore and there is no map of the Walled City from that period available to us. Any change in the urban morphology, street patterns and their alignment or successive encroachments is virtually untraceable before 1988 because of complete absence of any cartographic record.

There is a need for detailed mapping and recording of whatever is left of the Walled City of Lahore's urban heritage. Urban archaeology plays a significant role in establishing successive layers of dwellings and layout patterns for the study of urban evolution but in case of the Walled City of Lahore, it is rather impossible because it's a densely populated living city.

3. Lahore: historical origins

The exact origin and age of Lahore cannot be determined with absolute certainty because we do not have enough archaeological evidence [3]. The historical accounts that have some mention of a city that could possibly be Lahore take us as far back as 990 CE and not earlier, though some scholars like to believe that the town mentioned in the accounts of Ptolemy (150 CE) and Huan Thsang (630 CE) is Lahore [4]. Anything before the 10th century CE is either completely conjectural or mythic in nature. The physical remains of the city from older times do not go beyond the early Mughal times. Scholarly conjecture supported by evidence from some archaeological sites could be drawn to trace the Pre Mughal origin of the city. The main limitation is that Walled City of Lahore is a living city; therefore, any attempt at urban archaeology is almost impossible. There have been couple of attempts in the past; in 1959 a team of British archaeologists made an archaeological pit in the Lahore fort, which is topographically the highest mound of the Walled City area. The last level of excavation with evidence of human activity was found to be 4900 years old [5]. A recent excavation in the Mohalla Maulian inside the Lohari Gate, which is assumed to be one of the oldest quarters of the Walled City of Lahore, revealed numerous archaeological layers of dwellings and the pottery pieces found at

presumably the lowest level were carbon dated to be 4500 years old [6]. These two studies do give us a hint about the age of human activity in the area, but they do not confirm the existence of a proper Neolithic settlement like Harappa. A larger area has to be excavated to unearth the older street patterns and possible remains of any older settlement under the existing layer. Until then it will remain mostly conjectural.

There is a mention of the city in historical accounts with various names. Some of these names are quite close to the present name Lahore. These might be linguistic iterations of the same name in different languages [7]. From various historical references it could be assumed that the city was founded by the Rajputs [8]. In the 10th century it was taken by the Afghan rulers and Lahore acquired status of a provincial capital [9]. In the early 16th century it was conquered by the Mughals who came from Central Asia. Akbar made Lahore his imperial capital from 1584-1598 [10]. In the 18th century it was ruled by the Sikhs and finally conquered by the British in the middle of the 19th century. After the partition of the Subcontinent in 1947, Lahore became provincial capital of Punjab in Pakistan.

4. The Walled City of Lahore: historical morphology and evolution

The Walled City of Lahore is on the east bank of River Ravi on raised ground (Fig. 1). Till 1662 the river flowed right next to it along the walls of Lahore Fort. Emperor Aurangzeb constructed an embankment in the north-west of the city to save it from flooding. Aurangzeb's embankment changed the course of Ravi and it moved about a mile to the west. The shape of the Walled City of Lahore is roughly trapezoidal and it covers an area of 2.6 square kilometres [11]. Emperor Akbar built the present fort along with the defence wall around the city which was 30 feet in height [12]. During the Sikh Period this height was reduced to 15 feet. This fortification wall was demolished during the British Period and the moat around it was filled to make the Circular Gardens around the Walled City.

Geographically the city of Lahore lies on an important and strategic intersection of two major historical trade routes of the region. One follows the east-west axis from Delhi to Kabul and further on to Aleppo. Second is the north-south trade route between Kashmir and Multan [12]. This made Lahore a major trade market of the area and brought cultural impressions from various

connecting regions. This aspect played a significant role in the physical as well as cultural development of the city.

Historically, the area between Bhaati Gate in the west, Shah Alam Gate in east and Fort in the north is considered to be the limits of Ghaznavid period Lahore (Fig. 2) [13]. This area developed under the rule of Malik Ayaz who was the governor of Lahore during the Ghaznavid time and his tomb is in the Rang Mahal area on the eastern edge of the Ghaznavid part of the Walled City of Lahore. The area further east of Shah Alam was known as *Rarra Maidaan* (level ground) and was outside the city limits during the Ghaznavid time. It was included in the Walled City during Akbar's period expansion [12].

Three areas are thought to be the oldest part of the Walled City of Lahore; the first one is the citadel because it is on the highest mound (Fig. 2), the second one is on the second highest mound in the south of the citadel known as Langa Mandi where the British made their waterworks, the third and the most intriguing is Mohalla Maulian which is further south of Langa Mandi inside the Lohari Gate [14]. This area was also known as kacha Kot (mud fort) and points to the possibility of the existence of an older mud fort right in the centre of the settlement [13]. This pattern used to be a common planning feature of medieval cities. In the web of streets and houses, a centrally located fort would have been more protected. The intricate web of streets also meant that the security of the fort relied upon the nature of relationship the ruler had with the people. In order to keep the fort protected, an unsympathetic relationship had to be avoided.

The large-scale construction on the site of the present fort began in the early eleventh century after Lahore became part of the Ghaznavid Empire in 1002, it became the capital a decade later as a result of the conquests of the Turkic military commander Subuktigin (942-997 AD) and his son Mahmud Ghaznavi (967-1030 AD).

In terms of planning, the fortification wall of Lahore had thirteen gates. These gates faced the direction of the trade routes that connected to various important cities. These roads entered the Walled City and formed the major streets known as *Guzar* in the local vocabulary. These streets intersected at different points in the Walled City and divided it into nine zones. These zones contained residential quarters known as *mohallas* that were historically founded on the basis of cast or occupation of people residing in them [15]. Relative size and layout of *mohalla*, *gali*, *koocha*

and guzar defined the spatial hierarchy and level of privacy (Fig. 3). The intersecting points of Guzars formed major and minor public squares of the Walled City.

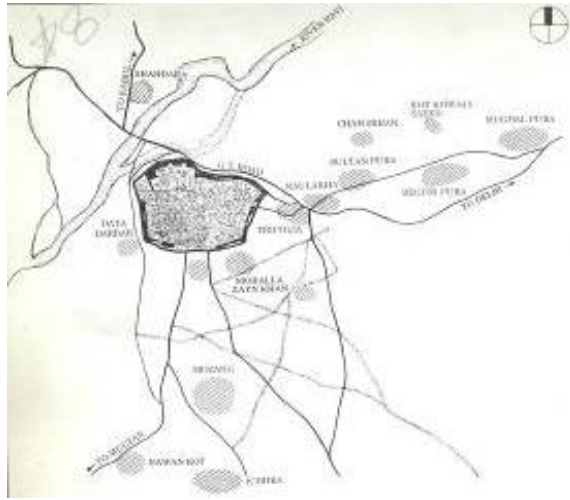


Fig. 1: Walled City Lahore, its principal routes (source: PEPAC monograph)

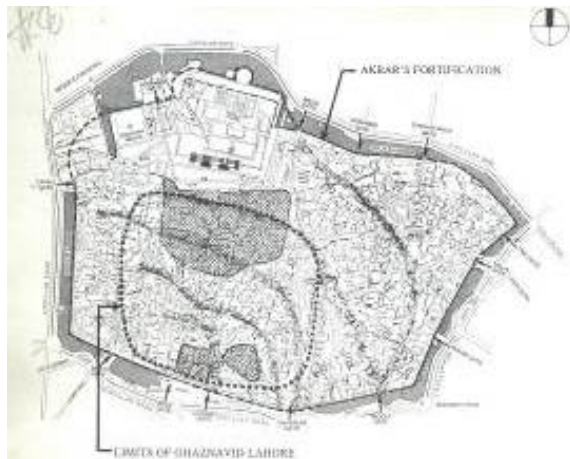


Fig. 2: Walled City Lahore, historical boundaries (source: PEPAC monograph)



Fig. 3: Mohalla, Koocha, Gali and Guzar (source: PEPAC monograph)

5. Public squares of the Walled City of Lahore

The main arteries called *Guzars* of the Walled City of Lahore were predominantly commercial in character, housing bazaars and specialised markets because they connected to the trade routes through the entrance gates (Fig. 4) [12]. This commercial character has persisted over time. These streets and their junction points served as communal spaces with bustling city life. The intersection points of main *Guzars* were called *chowk* (intersection); these were more spacious and served as market squares for the Walled City. These squares are not of uniform shape and scale due to organic layout of the Walled City; there are some common features though. Except three that are roughly rectangular or square in shape with a well-defined urban character and sense of enclosure, the rest of the squares are roughly triangular in shape. These are formed as a result of main streets forking off into two, each leading to one of the main gates of the city. These triangular spaces lack definition compared to the three rectangular squares (Fig. 5).

One has to understand these spaces keeping in mind that the Walled City of Lahore evolved as a pedestrian town and still retains that character. Its squares are therefore based on human scale and understandably much smaller in size compared to the ones planned outside the Walled City during the British period. The British period spaces have a scale that was based on the city for the automobile; therefore they are much bigger and have a completely different shape and form based upon the movement of the automobile.

The public squares of the Walled City of Lahore can be classified in number of ways; one criterion could be based on shape, scale and form, the other could be based upon the use, activities and significance, together they form the urban character of a square. As mentioned earlier, Lahore lies on the crossroads of two trade routes and developed as a *mundi*/trading town [16], therefore, most of its public squares evolved as market squares trading in specialised goods. This character gave them their identity, for example Chowk Sootar Mandi (cotton yarn market), Chowk Choona Mandi (lime market) etc. Only Chowk Masjid Wazir Khan has a completely different character because it is the forecourt of a principal mosque of the Walled City. This character is because to the fact that it is a Mughal Period development and during this time most of the urban and architectural inspiration was taken from Persia, therefore, the spatial typology of a forecourt is inspired from the Persian *Maidaan*.



Fig. 4: Main guzars of the Walled City of Lahore (source: PEPAC monograph)

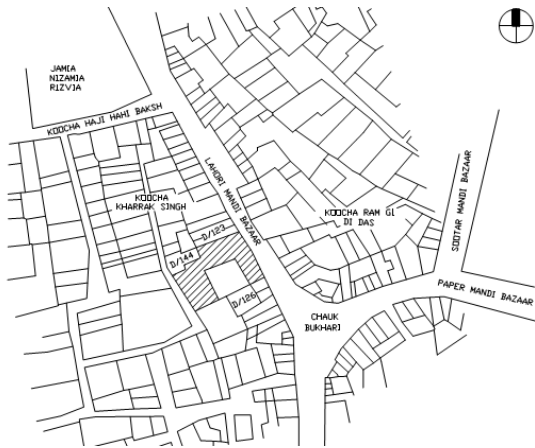


Fig. 5: Chowk Bukhari (source: PEPAC Monograph)

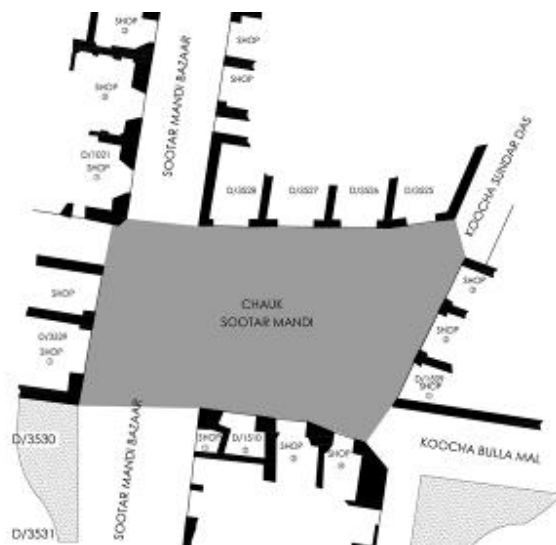


Fig. 6: Chowk Sootar Mandi (base map source: PEPAC monograph)

For this research, the sample selection criterion is based upon age and typology of the squares. If we look at different areas of the Walled City in terms of their age, the citadel and Langa Mandi areas are probably the oldest but they do not have any surviving public squares. Lohari Gate area on the other hand has two; one is Chowk Sootar Mandi on the northern tip of Mohalla Maulian, which according to PEPAC report is the possible site of the ancient mud fort, the second is Chowk Jhanda located slightly west of Chowk Sootar Mandi and is a Pre Mughal grain market of the Walled City. Along with these two squares, Chowk Masjid Wazir Khan has also been selected because it is the only surviving public square from the Mughal period. There is a mention of *Chowk Dara* outside the Delhi Gate in the historical accounts but there is no surviving physical evidence. Following is a brief history and description of these squares.

5.1 Chowk Sootar Mandi

Chowk Sootar Mandi might very well be one of the oldest open spaces of the Walled city. It is inside the Lohari gate, on the northern corner of Mohalla Maulian and reached through the Sootar Mandi Bazaar (Fig. 6). The main street opens up dramatically into the square. It is roughly rectangular or trapezoidal in shape and is the meeting point of five primary and secondary streets that form a spider web pattern [17]. It is a very interesting and unique example of a small medieval open urban space. It has a very intimate scale that corresponds to the scale of a much smaller settlement compared to the present Walled City. The spider web layout indicates that this open space was centrally located during the Pre-Mughal times. It might be slightly more spacious in the past but now it looks more squeezed because of encroachments and a transformer on a concrete platform almost in the centre of the open space.

The distinct architectural character of Chowk Sootar Mandi in the sketch (Fig. 7) shows axial orientation of structures with fine jharokas and wooden balconies. The square is characterized by two-storey buildings on its eastern, western and southern sides, while the northern side is formed by single-story shops and a three-storey building adjacent to the entrance of Sootar Mandi bazaar. It displays the typical evolutionary character of historical squares where we find fair historical consistency in urban morphology, however, due to continual reconstruction and renewal their architectural character display a mix of styles.

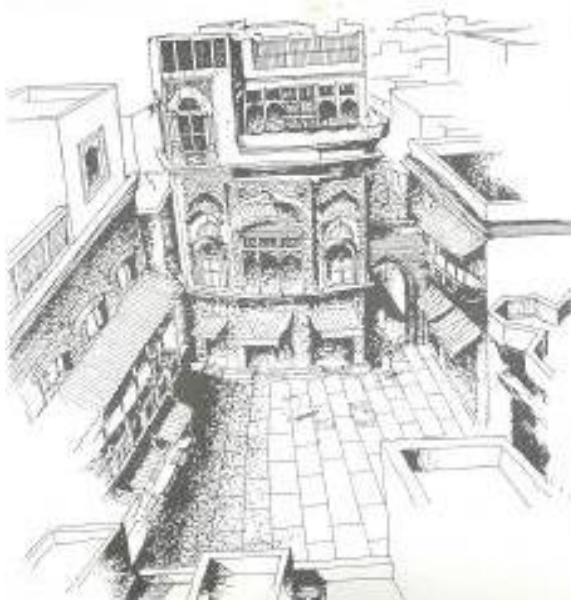


Fig. 7: Sketch of Chowk Sootar Mandi (source: PEPAC Monograph)



Fig. 8: Chowk Sootar Mandi (photo by the author, 2018)

The square has a well-defined sense of enclosure because of somewhat uniform height of the structures surrounding it (Fig. 7). It has shops all around on the ground level which makes it a very lively space. It is a culturally diverse urban space with Hindu dharamsalas, temples and *ganj ghar* (wedding hall) in the vicinity [17]. The *dharamsala* is in front of the entrance of Pir Bhola Street. The *dharamsala* with its somewhat preserved architectural details impart a spiritual character to the place. A heavily ornamented house on the southern side is a major contributor to the sense of enclosure and architectural character of the square. This architectural character is mostly lost now. The structures have survived but they have been stripped off their features and ornamental façades. Architecturally speaking, it is no more a charming urban space that it once was (Fig. 8), what is left is a historical intrigue in terms of its morphology that hints towards its medieval origins.

5.2 Chowk Jhanda

Chowk Jhanda is the grain market of the Walled City of Lahore. Two main arteries of the Walled City of Lahore lead to Chowk Jhanda; the *Guzar* of Mori Gate Bazaar that connects to the south western corner of the square and the *Guzar* Lohari Gate Bazaar connecting with the north eastern corner of the square (Fig. 9). These routes are in alignment with the main trade route that connected Lahore with Multan [18]. As trade in agricultural produce flourished, the area of Chowk Jhanda developed into a thriving grain market.

This Chowk is named after Pir Hassan Shah or commonly known as Pir Hassu Teli. He was an oil trader with his shop in Chowk Jhanda during the time of Emperor Jahangir. He was a pious man and preached honesty to the traders. There are legends of miracles associated with him. Though he is buried outside the Walled City but there is a symbolic shrine with a mast to mark his spiritual presence in the Chowk. There used to be water well in the chowk which has now been filled up [19]. The water well is a particularly important medieval urban feature because life in any area depended upon water and urban culture thrived around these wells.

The exact age of Chowk Jhanda cannot be established with absolute certainty because this area has gone through morphological changes over time. Based upon the alignment and spider web layout of the streets around the chowk, it is assumed that Chowk Jhanda might be a central and a bigger open space than it is today (Fig. 9) [20]. Topographically, there is a down slope to the north west of the Chowk determining its drainage pattern. Since Akbar period or perhaps even earlier, the Chowk Jhanda served as the central grain market of the Walled City. It has shops all around on the ground floor level, many of which still deal in wheat and rice.

PEPAC survey notes that the *haveli* of Kharrak Singh, heir of Maharajah Ranjit Singh, was originally on the southern side of this *Chowk* and according to Kanhaiya Lal, the young prince was especially fond of the early 17th century Masjid Kharasian present near Chowk Jhanda. This mosque was probably a successor of the Masjid-i Sadar Jahan that belonged to the early Mughal Period. He prevented its destruction in the Sikh period, when many mosques were destroyed, and incorporated it into his *haveli*. The present Masjid Kharasian, which is a post partition structure on probably the same site, contains only a commemorative tablet taken from the old Masjid-i Sadar Jahan, which by all accounts was a

much larger mosque. It was built eight years before the Mariam Zamani mosque, in the second year of Jahangir's reign. Near this mosque and close to *Chowk Jhanda* there was once a small garden called the *Baghicha Masjid Kharasian*, probably the *Bagh Nihal Chand* of the 19th century. There are no remains or sign of this urban garden now and we have no surviving reference to determine the exact location of this garden.

Pictures from the PEPAC monograph show fine buildings from the Sikh Period as well as early 20th Century surrounding the Chowk and defining its architectural character (Fig. 10). The height of the buildings, their function as trade inlets and outlets, the spatial expanse of the square, and the spiritual significance, all contribute to a unique cultural character of the place that was conducive for a pedestrian trade market in pre-Mughal period.

Chowk Jhanda still displays a well-defined sense of enclosure and considerable architectural character despite the fact that there has been loss of architectural heritage. When we compare it with the present situation, we can see that some of the buildings have survived but they have been either stripped off their ornamentation or changed beyond recognition (Fig. 11). Some of the structures are a later addition and completely out of character. The present alignment of shops shows some indications of encroachments. The ground-floor of almost every building has shops, some with *kharas* or small flour mills.

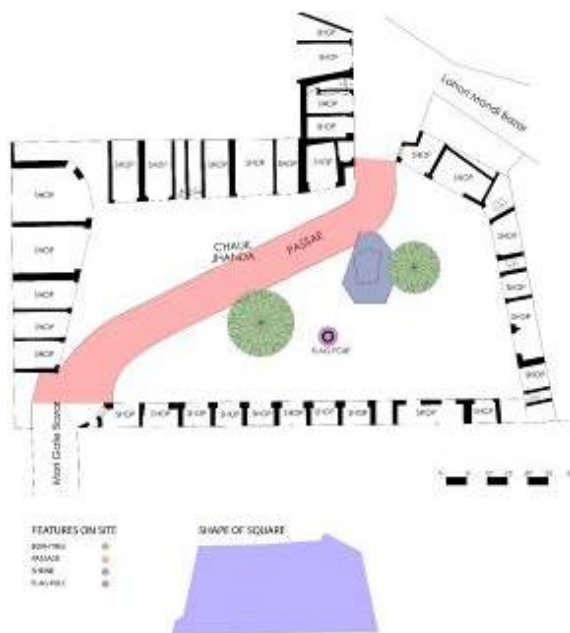


Fig. 9: Chowk Jhanda (base map source: PEPAC Monograph)



Fig. 10: Chowk Jhanda in 1980s (source: PEPAC Monograph)



Fig. 11: Chowk Jhanda (photo by the author, 2018)

The main spatial and visual obstruction is a big transformer on a concrete platform in the centre of the chowk and behind it there is a structure for a tube well along with two small shops. These are encroachments that are destroying the spatial character of the square.

5.3 Chowk Masjid Wazir Khan

The only public square that expresses the political and cultural character of Mughal period Lahore is the forecourt of Wazir Khan Mosque which was built under the patronage of ShahJahan by his governor Wazir Khan. An old photograph of the mosque shows its grandeur and architectural character (Fig. 12). Kamran and Talbot mention that merchants and traders from as far afield as Central Asia were drawn to the city, and to the bazaar adjacent to the Wazir Khan Mosque, where there was an international trade in books and writing materials.

Lahore, due to its imperial and later provincial character with its thriving trade markets, had to have a *serai*. The other important thing was the establishment of *maktabs* and *madrassas* in the mosques, mausoleums and

khanqahs with exclusive focus on the teaching of theology.

During the Mughal period, new trends emerged which were inspired from the Persian cities. This can be witnessed in the design of Mughal period public squares with *Serai* as the new building typology to accommodate traders. These were planned around the squares of the city near the entrance gates with the facility of public *Hammam*. The Wazir Khan Mosque and Square lies on the east-west *guzar* of the walled City that connects Delhi Gate with Taxali Gate. The Delhi Gate is the eastern entrance to the Walled City of Lahore that connects to the road coming from Delhi which was the capital of the Mughal Empire and the Taxali Gate route leads further on to Kabul in the west. The Wazir Khan Square is on the eastern end near the Delhi Gate. It was a newly developed area of *Guzar Rarra* which was outside the limits of Sultanate Period Walled City. It was included in the Walled City during Akbar Period when the population of Lahore became twofold because of flourishing trade [21]. Wazir Khan was able to build this large mosque along with forecourt in the traditional formal Persian style only because there was lot of land available in this newly developed area of the city [21].



Fig. 12: The forecourt of Wazir Khan Mosque and the view of shrine (source: Aijazuddin, F. S. 2004)

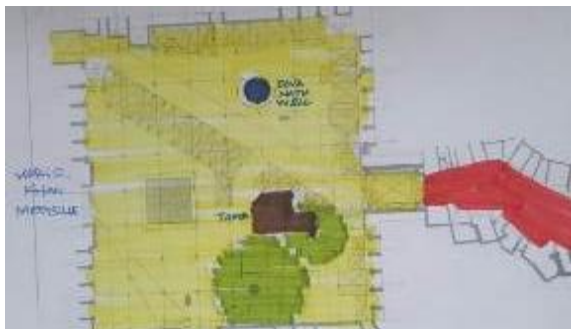


Fig. 13: Chowk Masjid Wazir Khan (base map source: PEPAC Monograph)



Fig. 14: The tomb of Syed Ishaq Gazeruni (photograph by the author, 2018)



Fig. 15: The tomb of Syed Suf (photograph by the author, 2018)



Fig. 16: Chowk Masjid Wazir Khan (source: PEPAC Monograph)

There were two shrines of Persian saints from the Tughlaq Period on the site of Wazir Khan Mosque and forecourt. The mosque was built during the ShahJahan time in 1634 by Ilmuiddin Ansari who was commonly known as Wazir Khan and was the governor of Lahore [22]. It included one of these shrines belonging to Syed Ishaq Gazeruni. Syed Ishaq Gazeruni's tomb is still present in the courtyard of the mosque at the basement level and is frequented by devotees (Fig. 14). The second tomb is present in the *Jilu Khana* or the forecourt of the mosque; it belongs to Syed Suf who was a contemporary of Syed Ishaq Gazeruni [23]. This tomb structure is unique because it was built on the pre-existing grave by

the British in the middle of the 19th Century (Fig. 15) [24].

Wazir Khan Mosque served as the principal mosque of Lahore before the construction of Badshahi Mosque by Aurangzeb Alamgir. This mosque complex acted as a magnet and settlements started to appear around it [21]. The mosque complex includes a prayer hall and a large courtyard of almost square proportions, the entrance portico of the mosque along with a corridor has small cubicles in it. These cubicles were built for calligraphers, scribes, illuminators and book binders [21]. Income from these cubicles was endowed upon the mosque. Outside the mosque, at a lower level, reached through stairs there is a *Jilu Khana*, audience hall or the forecourt of the mosque. Originally this forecourt had square proportions and there were double storied cubicles on the three sides. Historians are divided on the actual purpose and use of these cubicles. Some are of the opinion that these cubicles were shops that generated income for the mosque. The other group strongly thinks that this structure in the forecourt was the original *Serai* of Wazir Khan [21]. There were five entrance gates to the square, four in the centre of each side following classical symmetry and one in the north western side leading to another triangular public space presently known as Chowk Purani Kotwali [21]. This would continue to form the east west axis of the Walled City of Lahore through the busy bazaar.

The two structures in the forecourt of Chowk Wazir Khan are the tomb of Syed Suf and water well of Dina Nath in the northern side, both built in the mid-19th Century (Fig. 16) [25]. Of the surviving historical structures, we have the mosque that has been conserved by experts to a large extent. Dina Nath well and the Chitta Gate leading to Chowk Purani Kotwali are in the process of being conserved. The changing morphology of the open space of Chowk Wazir Khan is an interesting case in point. In the otherwise congested Walled City of Lahore, Chowk Wazir Khan was a large open space (it measures 53 meters by 47 meters today) [21]. Within a settlement that appears to be rather organic in nature, such large open spaces on a regular geometric layout are susceptible to encroachments, yet these encroachments are easily identifiable because anything irregular would stand out in a classical geometric planning and layout.

Despite the regular shape of the chowk with entrance gates in the centre of each side, the shortest route that follows the alignment of the

guzar was diagonal connecting the central entrance on eastern side with Chitta gate in the north-west. With the commercial activity spilling in from the direction of Chowk Purani Kotwali in the west and Delhi Gate Bazaar in the east, the diagonal connection over time developed into encroachments comprising of semi-permanent shops (Fig. 16) [23]. These semi-permanent structures changed into permanent ones later on. These encroachments were removed in the conservation project.

A valuable research on the Walled City of Lahore was conducted by the Agha Khan Cultural Program under the leadership of Prof. Masood Khan and Rashid Makhdum. This research started with the initiation of the 'Shahi Guzargah' Project inside Delhi Gate and included the Wazir Khan Mosque complex. The main focus and purpose of this research was architectural and urban conservation. This initiative, for the first time in Pakistan, focused on area conservation, an approach to conservation that was neglected earlier.

In 2016-17 conservation of the Chowk Wazir Khan was carried out by the WCLA (Walled City of Lahore Authority) and AKCSP (Agha Khan Cultural Support Program) as part of the *Shahi Guzargah* Project. Before commencing with urban interventions, conservation of the Shahi Hammam and the Wazir Khan Mosque was completed. Encroachments around these monuments were removed which exposed near original morphology of the square. In the second stage the square was excavated as part of urban archaeology exercise to determine the original level. During this excavation, lower level cubicles of the eastern wall of the Wazir Khan Mosque were also discovered, buried under the debris (Fig. 17).



Fig. 17: Cubicles revealed after excavation of Wazir Khan square (photograph by the author, 2018)



Fig. 18: Dina Nath Well (photograph by the author, 2018)

The original level of forecourt was found to be eight feet below the present street level. A concrete retaining wall has been built on the southern, eastern and northern side. This has divided the square into two parts; the northern part of the square is the present street level with the well of Dina Nath along with part of eastern side with the tomb of Syed Suf, the remaining part in front of the mosque is eight feet down. The central part of the square has been cut off from the main route because of the level difference. One has to climb down almost eight feet into the square and then take the flight of stairs to enter the mosque from the eastern side whose plinth is much higher than the square (fig. 18).

The sense of enclosure and spatial definition of the Chowk Wazir Khan is very strong because of well-defined geometrical layout of the square that has become more noticeable after clearing the encroachments. The architectural character of the square is also very consistent, firstly because of the imposing and highly classical façade of Wazir Khan Mosque and secondly because of intricate facades of surrounding houses belonging to the 19th and early 20th Century.

6. Analysis and discussion

From the above account on the evolution and transformation of the Walled City of Lahore and its public squares, we can explore certain patterns of evolution and the factors informing them. From the historical accounts, it can be analysed that Lahore remained insignificant till the time it emerged as a centre of trading activity because of its strategic location on the crossroads of trade routes during Akbar Period. This is the time when European towns saw economic growth and development leading to a thriving trade with the East. The sea routes were all too dangerous and land routes was the only option available to the traders [16]. This provided impetus to local

and international trade in the area located on these trade routes. We witness the development of existing and emergence of new market squares in Lahore at that time. This trade brought along new knowledge and cultural influences to the city that impacted the urban growth in terms of new spatial typologies [26]. We have seen from the earlier description that the Pre-Mughal squares of Lahore were predominantly Mandi or market squares dealing in specialised items which is evident from their names like Chowk Sootar (yarn) Mandi, Choonna (lime) Mandi etc. This activity defined the cultural character of these squares. Wazir Khan Square is the only *Jilu Khana* or forecourt of a principal mosque based on the Persian classical tradition that came to the Subcontinent with Emperor Humayun. Wazir Khan Complex is Provincial Mughal in character and was built during the time of Emperor Shahjahan and had a predominantly institutional character.

We notice an incremental increase in size, and evolution of the shape and layout of squares of the Walled City of Lahore (Fig. 19/20). As mentioned earlier, most of these spaces are roughly triangular in shape and fairly small in size, formed as a result of a main *guzar* forking off in two directions, each leading to one of the gates of the Walled City.

Chowk Sootar Mandi is more complex in nature because it is formed by the meeting of four streets along a *guzar*. It is roughly a rectangle, intimate in character and slightly more spacious than the triangular chowks. Chowk Jhanda is comparatively bigger than Chowk Sootar Mandi and is also rectangular because it was the main grain market situated almost in the centre of the then city where two main *guzars* converged to form this open space (fig. 19). Out of all the squares of the Walled City of Lahore, Chowk Wazir Khan that appeared last has an altogether different character. It is part of a much larger mosque complex which is monumental in scale, especially in context of the Walled City. The square itself is much bigger than Chowk Sootar Mandi and Chowk Jhanda (fig. 20).

In case of Chowk Sootar Mandi, successive changes have over time altered the urban form and architectural character of its surrounding buildings. Encroachments, banners, hoardings, electricity cables and transformers have converted this place into something that is difficult to define. Sketch of Chowk Sootar Mandi from the PEPAC monograph can serve as a working reference for conservation and regeneration of the square.

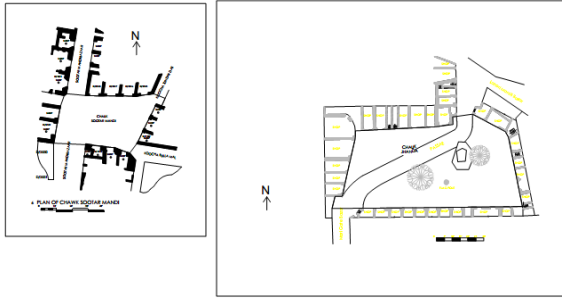


Fig. 19: Scale comparison of Chowk Sootar Mandi and Chowk Jhanda

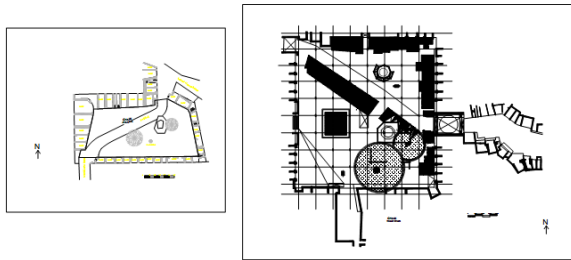


Fig. 20: Scale comparison of Chowk Jhanda and Chowk Masjid Wazir Khan

The character of Chowk Jhanda remained that of a market square and its evolution took place at an important point in the history of Lahore, shaping its historical geography. The Chowk lies at the intersection of major trade routes of old Lahore and has a defined sense of enclosure. It developed in an organic way and was mainly pedestrian in character. The loss in the sense of place is due to encroachments and construction of buildings during and after the Sikh period. The well for example has now turned into a motorcycle stand and in the middle of the square there is a tube well installed by WASA. The banners and hoardings on the facades of surrounding buildings do not allow one to imbibe the visual form. The haphazard electricity cables, transformers and piles of waste have turned the Chowk into a place where a spiritual interaction is unthinkable.

The symbolic shrine of Pir Hassan Shah exists till date but its cultural and spiritual significance that imparted a sense of place to this square is fading. The present character is of a market place where interaction takes place only in terms of trade activity. Serious attempt towards improvement should be made in order to restore the character of the square.

The forecourt of Masjid Wazir Khan was a new type of public space with an institutional character instead of only a trade oriented

marketplace. It housed and presented characteristics of both. The earlier spiritual character can be established from the two shrines that were already present on the site. The sacred and profane came together as the mosque and its forecourt created space for the educational and religious discourse while the serais and adjacent bazaars were hosting worldly public activities. Its plan is based on sacred geometry which is a reflection of the cosmic order on earth. There is no public sculpture or art in the square because in the Islamic Persian tradition the façade of the mosque serves the aesthetic function. It forms the optical centre of the square; therefore, any other art form in this space would be a distraction.

From the perspective of Space Syntax theory, the urban environment had a dynamic connection with the built environment and both influenced each other. The theory holds that most people, most of the time, will take the simplest route to their destination. That route tends to involve the fewest changes of direction. The more changes of direction, the more complex the system, and therefore the more ineffective or inefficient the network design becomes. The forecourt of Wazir Khan Mosque was easily accessible due to its location and therefore a perfect venue for social and cultural activities.

Recent conservation of Wazir Khan Mosque square by WCLA and AKCSP successfully removed various encroachments. The forecourt was also excavated to explore the original level of the square and a concrete retaining wall was built around the forecourt, this wall and the level difference has divided up the space and isolated the forecourt of the mosque from its surrounding areas and activities. The activities planned in the forecourt by WCLA and AKCSP are promoting gentrification in the area leading to alienation of local residents from their social and cultural space. There should be a more comprehensive plan with focus on restoring the cultural character of this place.

The Walled City of Lahore is very interesting in its urban morphology as it presents a striking dichotomy. There are two distinct and contrasting planning types that are present side by side: the citadel containing the fort and the imperial mosque with a perfectly formal layout based upon formal Islamic geometry and below it is the rest of the Walled City with its almost organic labyrinthine morphology interspersed with examples of formal geometry like the Wazir Khan Mosque complex. This dichotomy raises certain very pertinent questions regarding the purpose and use of geometry as a tool for the structuring of the

built environment. Especially in the case of public squares of Lahore in which squares that are vernacular in character are based on organic layout and the provincial and imperial ones are based on formal geometry.

Urban conservation of historical areas in cities where record and documentation is not readily available becomes a tricky situation, especially if the spaces to be conserved are based on informal and organic layouts like in the case of Chowk Sootar Mandi and Chowk Jhanda. It becomes difficult to identify successive change in their morphology. In the absence of any possibility of urban archaeology, the only option one is left with is to base the study on historical conjecture. On the other hand, it becomes relatively easier in the case of formal geometric layouts because morphological changes and encroachments can be easily identified. In case of a missing part or information a complete picture can be constructed taking reference from the surviving parts because such design are based upon bilateral or quadrilateral symmetry, like we see in the case of Wazir Khan Complex.

A theory that describes the condition of the public squares of the Walled City says that the physical deterioration of the surrounding buildings of a public square creates an impression that furthers the deterioration of the space in general. It shows that the negligence of government and of local authorities has been mimicked by the residents, resulting into further run down. The essential connection between the maintenance of space and its perceived quality and use becomes severed and hence not even local efforts are made to improve the quality of a public space.

In the case of public squares of the Walled City of Lahore, the residual spaces are a frequent occurrence. These spaces, filled with trash, can be found at the corners of streets, or in abandoned buildings, or around the corners of a public square. It is important to note that the rundown of a public square in terms of its physical structure is not something happening in isolation; it affects the inhabitants and visitors through changes in cultural practices. In the case of the squares of the Walled City, the physical structure is transformed to an extent that one cannot distinguish between a square and a residual space.

The conservation and regeneration efforts hold great importance because of the fact that cities and their spaces are repositories of cultural and design knowledge and other than satisfying a scholarly quest, they help in identifying the

historical process involved in the shaping of cities for future reference.

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