



Complete Streets - A Comparative Analysis

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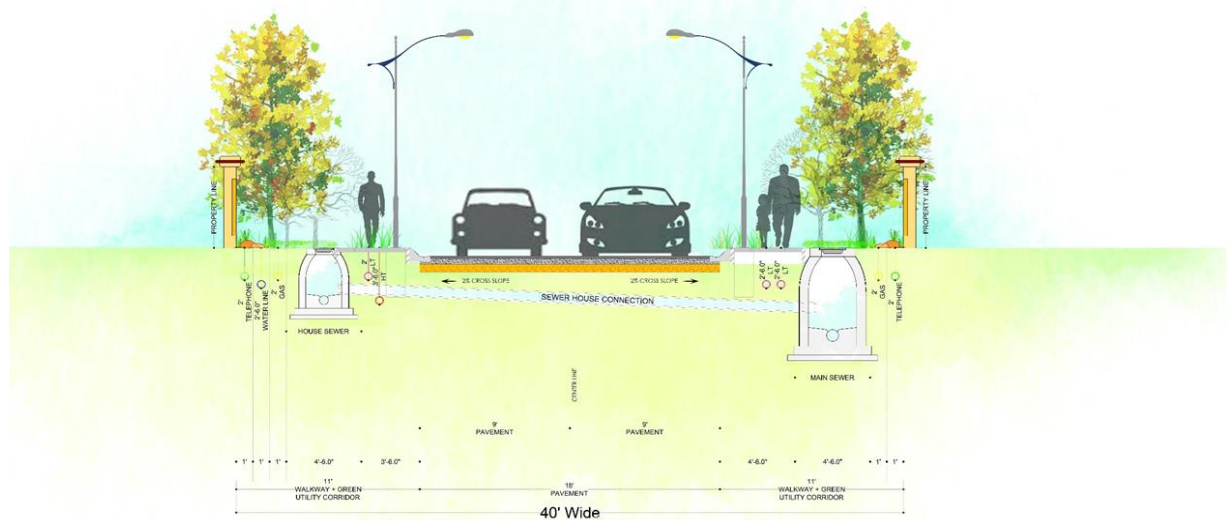
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Introduction:

Citizens of the downtown area in the cities are daily victims of the displeasures caused by patronage and congestion. Every resident of the city including the general public, taxi drivers, traffic police, traders everyone has their understanding of how their heritage is losing value and the culture and traditional lives in the cities is not been exercised nicely and being alive in the 21st century is not making our life easy and accessible. In our case study, we are highlighting the oldest cities of South Asia, two running big cities of Pakistan: Lahore, and Peshawar. Lahore has the second-highest population rate in Pakistan and Peshawar is still on its way to become one. Both of them are dealing with similar problems of congestion and over population, which act as the main hurdles in the development of urban infrastructure in these cities. Streets in Lahore and Peshawar are the fundamental building blocks of the urban design of these cities and urban sprawl continues to pose serious challenges for the street life in these cities.

The main reason is that these streets are poorly designed, planned, and demonstrated, making them unsafe for every traveler. Street space performs like a catalyst in urban advancements and can bring strength back to the urban environment. Social, cultural, and economic activities have always existed in the streets since the creation of cities, but with the initiation of modernism, the role of the street has completely changed, and since then it has been designed for the movement of automobiles. To get the national objective of urban revitalization, the design and management of our streets should take account of people, not just automobiles, and be considered holistically aware of the importance of risk in public space has important implications for street design. The complex and unpredictable outcomes of removing barriers illustrate how reconsidering long-standing assumptions about safety and behavior can provide opportunities for high-quality streets. However, research for the case studies indicates the comparative analysis of streets in Lahore and Peshawar knowing how the legal and regulatory framework remains widely misunderstood.

This paper is an attempt to explore the concept of “Complete Streets” as the ideal phenomenon while taking into account streets from different settings in Pakistan. Through a critical evaluation of the structure and function of the two types of streets in Lahore and Peshawar, this paper will determine the multidimensional loopholes in the Urban Design of our cities and propose recommendations accordingly.



According to the Global Street, Design Guide "streets should be used as a public space where multi-functional activities, urban furniture, green infrastructures, and social life promotion are included". These guidelines also referred to the notion of "streets are for everyone."

The concept of inclusivity resonates with the concept of Complete Streets that we will be exploring for this report. This includes the old housing schemes, daily wagers placements, major street widths that are considered to be 40 feet which are normally considered for the movement of transport vehicles but not used as public spaces and use the street as mobility towards neighborhood or nearby central business districts and recreational spaces. The design and management of an urban street must reflect and accommodate these diverse and competing uses. The layout and operation of streets can prioritize and enhance particular uses for the benefit of all. This report presents street development approaches and illustrates innovative designs that meet the varying and changing needs of urban streets which also includes the fundamental safety and operational strategies.



Complete Streets:

Like cities, street designing has also been considered a job of engineers whose main purpose was building streets for cars and streets for people were not prioritized. However, as these streets evolved with time, their purpose and their relationship with people have also been changed. Scholars such as Jane Jacobs who study the intrinsic relationship between streets and its residents have pointed out that streets are much more than travel lanes, they provide a sense of community and liveability to its residents. The way people of a street interact with it, is contingent on the elements of the street. Such an interaction has been crucial in defining how streets should be designed.

For the purpose of this research we are looking at the concept of complete streets as an ideal street phenomenon. According to the National Complete Streets Coalition, “Complete Streets are streets for everyone. They are designed and operated to enable safe access for all users. People of all ages and abilities are able to safely move along and across streets in a community, regardless of how they are traveling.” (National Complete Streets Coalition, 2010).

Some of the characteristics that are true to complete streets appear to be context specific, that is, they are designed to serve multi-faceted diverse functions which include mobility, accessibility, recreation, business and community activities (Litman, 2013). The potential benefits of a complete street involve an overall increased level of comfort and convenience for the user, greater accessibility for pedestrians and cyclist, cut down on transport costs, improved cohesion among the community which harbors social interactions and increased social security.

Allan Jacobs in his book, “Great Streets” studies the interplay of human activity with the physical space and the role it plays in determining the greatness of any street (Jacobs, 1993). His work also focuses on the key elements that make or break the street spaces. For him, streets are much more than mere places of mobility, i.e., streets are places which give rise to new community connections, memories, relationships, safety and security. Although, he does not classify his definition of great streets under the ambit of complete streets, still, the definition of complete streets exhibits significant similarities with Jacob’s values for Great Streets.

The concept of Complete Streets is context specific and may vary across neighborhoods. A complete street in an urban setting may appear different to a complete street in a rural area, similarly the definition of complete street may vary for a historical street and a modern street in the same city. However, the central elements such as safety and convenience stay consistent regardless of the context. One of the planning processes of complete streets includes focusing on the age, mode, mobility and ability of the users before designing a street. Streets are planned keeping in mind the demographics of the area and their modes of travel. People with special needs require special modes of mobility and for that, streets should be custom designed to accommodate wheelchairs, strollers, road signs etc.

This following section will focus on the case studies of Lahore and Peshawar with the intention to spot the difference in the concept of complete streets for the two cities and to comparatively analyze the elements of the streets in these diverse settings.

Streets in Walled City of Lahore

Lahore is a small world in itself. With the city being quite popular in the Mughal era as the capital, Lahore was the spotlight for various periods in history. The city not only exhibits magnificent architecture but also holds values and stories of people close to its heart. Known as one of the rich and vibrant cultural centers of the world, the historical part of the city consists of narrow streets connecting people and places together and creating a well knit community. Streets in the walled city of Lahore differ greatly to the streets of the modern housing societies of today. The street design in the walled city of Lahore provides intimacy and fosters greater community engagement. The typology of the streets is also such that different streets are named differently as Mohallas and Galis based on their size and function. “Band Gali” is a famous element of these streets where one end of the street is sealed through a wall to create an enclosed space for private social interactions among the groups of residents of the streets. This also makes streets secure from strangers. Streets in the old city of Lahore are mixed streets, they are multipurpose and cater to both residential and commercial needs of the people. They are not isolated as either residential or commercial streets only. Such robustness adds to the liveability of the streets and improves social interaction among people of different age groups and backgrounds.

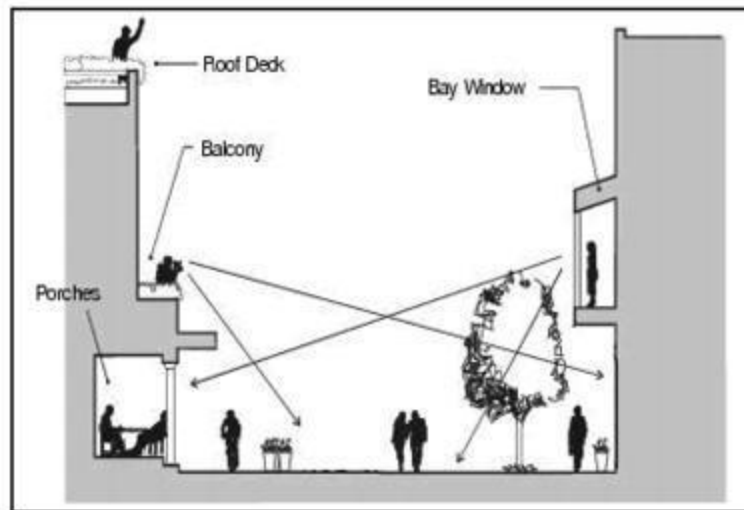
Self-sustained security is another important aspect of these old streets. More often, women of these streets spend their time standing in their balconies or doorsteps chatting with their neighbors while their kids play in the street. In the words of Jane Jacobs, such social surveillance is known by the concept of “Eyes on the Street”. The closely knit community also offers social surveillance as neighbors are more like family members of the same house. Day to day interaction creates a sense of harmony among the residents and so a stranger or any outsider can be easily spotted. Such communities where people themselves are responsible for their own

security are more secure than gated communities of today. Men also spend most of their time in interacting closely with other men of the street. “Baithak” is another important feature in these historical streets derived from the rural life where the men of the street sit together to eat, drink and have conversations while enjoying their traditional music, qawalis or poetry.

Closely knit communities not only foster social interaction but also create a sense of ownership among the people living in the street. Moreover, community engagement develops an intimate link between houses and streets such that houses are not viewed in alienation to the streets. The front elevation of the houses which includes doors, windows and balconies adds vibrancy to the street infrastructure. According to people living in the streets of the old city, they are more likely to retain a strong connection with their values and traditions. It is these people who uphold the historical norms and culture of our ancestors, which is only found in such streets today in our cities.

No doubt, historical streets are known for their robustness and multipurpose functions, however, they do lack some of the important elements of complete streets. Most of the streets inside the walled city of Lahore are quite narrow which makes it unfit for mobility. These streets are not ideal to be used as travel lanes, however, using them as public places and pedestrian places would do justice to such streets. Furthermore, these streets were intrinsically so connected that it failed to incorporate the idea of privacy and personal space.

As put forth by Jane Jacobs, streets are places of social interaction aimed at providing its people a sense of community, freedom and vitality. However, with the advent of modern streets, the traditional pattern of streets started transforming into travel lanes. This ruled out the difference between streets and roads. Streets are now considered to be places of mobility rather than being places of life. Further research on streets shows that, development of streets once prioritized by urban planners is no more, rather development of highways is the top priority of urban planning practices in our cities today. Streets today are not as diverse and multipurpose as historical streets. They cannot be classified as mixed streets, rather modern streets are mono-functional. They are either used as residential streets, roads or commercial streets.



Streets in the Urban areas of Peshawar

In contrast to historical streets which encouraged the formation of communities, streets in vehicle oriented cities of today are focused on streets for vehicles and not for people. In this defense, the idea of complete streets was introduced which meant “streets for everyone”. Therefore, the struggle began to make streets which have multiple means of transportation, are multifunctional, sustainable and interconnected.

Urbanization has posed serious challenges of congestion, air pollution, road accidents noise pollution etc in the capital of Khyber Pakhtunkhwa, Peshawar. Political unrest that arose due to the influx of Afghan refugees and internally displaced persons has resulted in a significant increase in the population of the city. Natural population growth and urban sprawl has increased the number of car owners in the city ultimately leading to congestion over population and pollution in different forms. Thus, the city administration was proactive enough to provide the urban infrastructure in the form of roads to assist the increasing rate of vehicles. However, these roads soon became the mono-functional urban spaces i.e., they were meant for cars only and not for people. This even lead to greater number of accidents ratio on roads every day as research has shown that over the last couple of years the number of accidents in the KPK Province has almost doubled, hence contributing to unsafe places for people to commute. (Aman et al 2019).

Streets in our urban cities today in Pakistan are far from being complete streets. Peshawar is no exception as well. Most of these streets are quite the opposite of what historical streets were. Historical streets were comparatively more people centric than streets of today. A close look at Peshawar being one of the most polluted and congested cities of Pakistan highlighted some critical aspects of streets in our cities. Like any other city in Pakistan, the rapid urban sprawl is leading to an increase in the number of vehicles on roads. Research showed that only 2% of the population used non-motorized means of transport, mainly due to the lack of adequate infrastructure conducive to walkability (Aman et al 2019). Lack of suitable infrastructure led to

gender segregation in the city because women mobility was extremely restricted due to lack of footpaths and safe places in the city. Street activity in the Saddar Bazar area was found to be negligible, since there were narrow pavements, no sitting areas and lack of vibrant commercial areas. Streets were highly unequipped to cater to people with special needs, mothers and children. Encroachments from the vendors restricted the pavements which made it extremely difficult for walking. With regards to the street furniture, there were no sitting areas or open spaces provided to the citizens. Placement of huge billboards was another major concern for drivers since it served as a distraction to them and was a cause of accidents. The existing street furniture was never maintained and so it just added to the pollution in streets. One of the major concerns for people in the streets of Saddar Bazar was traffic congestion which gave rise to many other issues. Among the street furniture issues, lack of proper lighting was one, which made it unsafe for women and children. Moreover, people are willing to use bicycles as a mode of transport but the infrastructure is not supportive. It was observed that people were willing to make their streets liveable but the infrastructure was a roadblock to improve the street design. However, the citizens can only do so much to change the environment in the streets. It should be the role of the developing authorities of the city to prioritize the significance of non-motorized modes of mobility. To make streets more safer and vibrant, streets should be made more appealing for pedestrians rather than vehicles.

Analysis:

The concept of Complete Streets appears to be a holistic approach to streets since it provides streets for everyone. However, in reality, there are various impediments in the implementation of such a concept in our streets today. Upon reconciling the above case studies on modern and historical streets, it can be inferred that none of them fits in the definition of complete streets. Firstly, Streets are not isolated elements of cities and their planning and development cannot be done in isolation to the Urban Planning at large. Data on Spatial Plans availability gap in the four provinces showed that “the widest gap exists in the Baluchistan and KP provinces, where only 3% of the urban areas have got their plans. In Sindh, 88% of the urban areas do not have a plan, in AJK it is 65%, while in Punjab, 46% of the urban areas do not have a future spatial plan.” This presents an alarming picture of the state of development authorities in our cities. (Hussnain et al, 2020). Secondly, the concept of complete street seems a bit vague as it sometimes becomes ambiguous to describe whether a certain street is a complete street or not. To a layman, a street can never be complete as there will always remain a room for improvement, so no street can ever be a complete street unless there is a clearly defined list of elements that classify a street as complete street. The context- specific dimension of the complete street makes it problematic to generalize its definition. Thirdly, while a complete street is a street for everyone, people from different professions such as urban planners and transport engineers try to customize streets according to their own expertise. This leads to an increased level of diversity which just adds to the complexity of the street with no clearly defined purpose.

Recommendations:

Street design in Pakistan is one of the crucial areas where the promotion of non-motorized transport can be promoted to reduce the congestion of traffic in our cities. There is a need for a broader vision for streets in our cities. Streets are to be considered much more than places of travel, they are places to develop communities and foster community engagement. There is a need for a multi sectoral approach from the relevant authorities to bring attention to the development of streets. It should be recognized that every street cannot be used as a mixed street and every street has its own specific purpose to serve and it should be treated as such. Among the various purposes that streets are used for, cycling and walking should be prioritized.

In order to implement a complete street design, the first and foremost priority should be to accommodate all the users of the street. For this, there should be a fixed speed limit for each street at which every person can move freely whether they are walking, cycling or driving.

Calming down traffic congestion in streets is another area where policies should be formulated to encourage people to walk, cycle and limit the use of motorized vehicles.

Streets in New York can act as perfect models to emulate in Pakistan. In New York, the streets have been transformed greatly according to the needs of its people. New York streets were able to bring in the concept of street porches whereby pedestrian plazas and street porches were created which replaced the havoc of parking in streets. This greatly helped them calm traffic in their streets. They increasingly focused on developing street furniture to create spaces fit for public use. These pedestrian plazas also provide places to people to socialize and interact with each other. One of the designs implemented by streets in New York was that of creating seating areas under shade. One such design can be implemented in Pakistan as well where it will not only provide people a space to relax but also provide space to the street vendors.

One such project was designed as a part of this report in context of providing a proper place for a street vendor. Street vendors are the prime natural proprietors of a street. This proposed designed public space is an example of creating a street intervention. The basic concept was creating a third space for a street vendor which can adapt into different spaces according to requirements of street vendors. The space is also designed in such a way that pedestrians can also sit in this space in scorching heat for a few minutes. The character of the space changes throughout the day with respect to time. This proposed space serves as a pavilion for street vendors and for pedestrians.

The Street Intervention Project:



A Watch Seller (Street Vendor) with no proper place
In a busy commercial street



Site Analysis in context of traffic and pedestrian flow

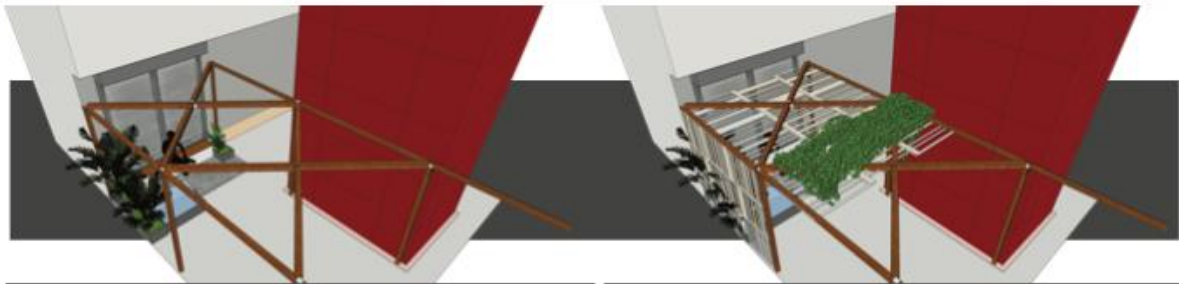


Site Photographical Analysis before street intervention



- Creating sitting through ergonomical study

- Adding Local vegetation for aesthetics/function



- Erecting frame structure for shading device

- Recycling fruit crates as shading devices

Reimagining and designing a public space as a street intervention



Play of light throughout the day

Conclusion:

The concept of the complete streets we try to give through comparative analysis is based on the developing world, with less focus on urbanization. We highlighted the metropolitan cities and the importance of complete streets in them. In today's time, we see how the world is in a fast-moving phase, where everyone is in the rush. The report identifies the need for a supportive environment, compact development, concepts of access to the streets of all, special mention to the disabilities, and creating manageable walking paths, cycling lanes, and places for street vendors. The design we explained on efficient use of land, not making wasteful to any area, proper infrastructure for access of cars, people and buses with creatively and friendly design of their terminal. Moreover, we try to give the impression of neighborhood street movement and functions related to landscape work, signs and pavement marks, and lighting. This is the main challenge of the urban planners to perform in balancing the potential to these objectives to come together and operates well. The main sentiment of the complete street is about ensuring a supportive environment which enhances the automobilist streetscape in the residential neighborhood, with undervaluing the clutter of traffic and air and noise pollution and improving to energy-efficient and eco-friendly mechanisms.

The achievement of these goals can create social surveillance and make it a livelihood. The streets have their significance, no one can skip the feel. It is a part of living in the place. This report is an attempt to understand the relationship between the streets and its residents, the significant impact a street can have on the life of human beings residing in it and how important it is to have the opportunity to access the activities of liveability.

"One man requires lives in urban areas requires the essentials of life to be well developed and make the living worth spending".

References

- Aman, Maryam, et al. "Implementing the living streets concept by transforming streets in the central business district of Peshawar, Pakistan." *Urbani Izziv* 30.1 (2019): 75-86.
- Bain, Lesley, Barbara Gray, and Dave Rodgers. *Living streets: Strategies for crafting public space*. John Wiley & Sons, 2012.
- Fambro, Sonya. "A Case Study on Street Design." (2013).
- Gehl, J. (1994) *The Challenge of Making Human Quality in The City*. (Seminar held at the Faculty of Architecture and Building Estate Management, National University of Singapore.) Singapore.
- Harirchian, Minoo, and Maral Esmaeili. "A NEW PERSPECTIVE ON URBAN STREET DESIGN."
- Ali, Zoya. *City Planning and Urban Design Guide*. PIDE, Islamabad, 2015, <https://www.pide.org.pk/pdf/PIDE-Knowledge-Brief-13.pdf>. Accessed 6 Feb 2021.
- Hussnain, Muhammad Qadeer ul et al. "Shaping up the Future Spatial Plans for Urban Areas in Pakistan". *Sustainability*, vol 12, no. 10, 2020, p. 4216. *MDPI AG*, doi: 10.3390/su12104216.
- Jacobs, Allan B. *Great streets*. No. qt3t62h1fv. University of California Transportation Center, 1993.
- Lang, J. (1994) *Urban Design: The American Experience*. Van Nostrand Reinhold, New York.
- Malik et al., *The Sustainable Ethnicity Of Old Founded Streets Of The Lahore - A Case Study Of Walled City*. *Int'l Journal Of Advances In Agricultural & Environmental Engg*, 2021, <https://iicbe.org/upload/77434.pdf>. Accessed 7 Feb 2021.
- National Complete Streets Coalition. (2010). *Fundamentals*. Smart Growth America. Retrieved January 2015, from: <http://www.smartgrowthamerica.org/completestreets/complete-streets-fundamentals>