

Impact of Streetscape on the Image of a City: A study and analysis of streetscapes of Delhi, India

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Abstract - The streets of cities are the connecting elements that make urban life possible. They not only allow physical movement but also become vantage points for appreciating the urban environment including but not restricted to architecture alone. From the various tangible and intangible factors concerning the streets in an urban landscape, people draw a certain image of the city leading to visual and psychological associations. In India, streets have been not just a means to connectivity but also venues to myriad events and activities that affect the users in some way or the other. To understand and analyze whether or how the streetscape really impacts the image of a city, a survey was conducted with the reference of the streetscapes of two very prominent and commercially set streets of Delhi in India; Chandni Chowk from Old Delhi and Connaught Place from New Delhi. The survey was conducted in an online mode due to the pandemic with 107 responding participants last year before the redesigned Chandni Chowk was opened for public use. The diverse participants were questioned about different aspects of streetscape focusing on their preferences and opinions across factors including inclusivity, accessibility, safety, ambience, activities and variety of street elements. The results acquired from the survey showed how the elements of the streets, the streetscape design and the image of the city were related. Further analysis of the survey results led to conclusions about the preferences of the people regarding streetscape and their aspirational requirements concerning the streetscapes of the city.

Keywords - streetscape, urban identity, urban image, street elements, Connaught Place, Chandni Chowk

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INTRODUCTION

Urban identity is the significant premise that recognizes any city as distinct from others. It is the result of a people's experience of the city and that includes the interactions between the physical settings as well as the character and social aspects that are created through human activities.

Street as an element is the most identifiable and influential of the elements involved in making the

urban identity. They work as movement corridors while also serving as a background for myriad activities that contribute to the life of an urban city. Jane (Jacobs, 1961)¹ cited that streets, the main public place of a city is its most vital organ. When the streetscape is intriguing and spirited, the city itself seems fascinating however, if it is lacking life, the city seems uninteresting. As streets are the main channels of movement in an urban context that are used by people, streetscape becomes an instant source of imagery and perceptions of the urban

identity. The vibrancy of the streetscape, or lack thereof, transcends the urban identity.

Places evolve overtime to accommodate the needs and aspirations of the users to provide a better life and to keep up with the trends of ever-changing times, similarly, so do the streetscape. These changes can be natural or due to human interventions.

Streetscape plays an important role in increasing the experience of a person, visual image of the city and make the interaction with the city more comfortable. This helps in creating a stronger understanding of the relationships between the cities' open spaces. The pedestrian networks allow people to travel easily within the city and enable the use of public transportation. It connects open spaces, landmarks and nodes, allowing one to observe the city from different viewpoints.

Iconic streetscapes instilled with an eternal image and grounded sense of place is a vital component to all the urban and rural cities (Design, 2013).² However, not all streetscapes can have a unique identity and help in creating the urban identity. Streetscapes can have an attractive quality that interests people, business and commerce and makes them natural and appropriate venues for public events. The scale and character of these streetscapes differentiate them from others to create a sense of urban identity.

Hogg and Abrams proclaim that identity is 'people's concept' for self-recognition as well as a way to express the linkage to the others (Hogg, 1988).³ Identity would suggest the way that the connection between an individual and his society is dictated by social classifications which depict him in his surroundings.

Kevin Lynch defines the identity of a place as characteristics which provides the place an individuality or distinction from other places and forms the basis for its appreciation as a unique entity (Lynch, 1960).⁴ . As a result, the identity of a place depends upon the perception of people formed by their surroundings. Humans are more likely to recognize distinctive and unique elements in the environment as they tend to be more imageable. Urban identity is comprised of three basic components. First is the appearance or physical background, which refers to the physical structure of a place including buildings, landscape, and the climate. Second is the function which is concerned with how humans and a space interact. The third is the meaning and symbols, which are an outcome of human involvement and purpose of

a place as reaction to the physical setting and function of the place (Garnham, 1985).

In context of the natural environment and topography, every city has opportunities and limitations to develop its setting to give a unique identity although some cities are much luckier to have a special topography or landscape. Landscape plays an essential role in forming the identity. An identifiable landscape can be highly effective for urban identity as it can give any space a distinct quality and character. The aspect of urban identity also comprises of the social environment, including the psychological and cultural dimensions (Bala, 2015).⁶ A city is for people and their interaction hence the identity must be seen as a collective framework of identity that is readable and recognizable.

The perception of the physical context strongly affects how the users make use of the city and relate to the qualities of form, proportions and built form along with their relationship to other urban spaces, their colour and texture as well as the landmarks, vistas, meeting places and the streetscape. As identified by Dr. Derya (Oktay, 2002)⁷ the 'district' and 'the public domain' devise the most setting to give a effect on urban identity. Hence, it is assumed that if a city has some identifiable districts and public spaces especially streetscape, the city can be conceived as one with strong identity even if there are weaknesses in other parts of the urban environment.

MATERIALS AND METHODS

This study examines the various tangible and intangible elements of streetscape and its influence in forming a distinct urban identity especially focusing on the case of Delhi. This helped identify how these elements relate to each other to form a distinct character and perceivable differences in the urban-identity and how the streetscape can be improved to better the urban-identity.

This study concentrates on the city of Delhi, the capital of India, known as one of the most populous cities of the country and one which has gone through rapid urbanization. The study particularly focuses on the influence of streetscape in forming the urban identity in the context of the arterial roads, namely, Chandni Chowk Road and Rajiv Chowk Road of Connaught Place, Delhi. The study was conducted two research methods. In the first part, the literature available on the topic was used to understand the streets for their character, streetscape elements, fringe areas and the urban context along with how

these have evolved over time. For the second part of the study, a qualitative survey was used as a research method by collecting data pertaining to both the streets and hence their different impacts in forming people's perception subsequently influencing the urban identity. The survey is limited to online participants and the questionnaire was based on pictorial references about the visual characteristics of the streets and their influence.

Delhi comprises of two parts: Old Delhi, which is the historic city and New Delhi which was constructed in the beginning of the last century as a part of British India. The streets of Delhi have a variety of characteristics ranging from calm and composed to chaotic and dense. In the same city one can find lively streets that are created for pedestrian movement only, as seen in Hauz Khas along with the newly redeveloped streets of Dwarka that have been designed with keeping in mind the various users[8]. For the purpose of this study, the Rajiv Chowk inner circle road and the Chandni Chowk main Road have been chosen for their contrasting settings and characters.

CHANDNI CHOWK ROAD: Chandni Chowk is one of the busiest and oldest markets of Delhi. The market's history dates all the way back to the 17th Century and the founding of the capital city of Shahjanabad by the Mughal Emperor Shah Jahan when he changed the capital of his empire from Agra to Delhi. It remained the capital and of paramount importance until the fall of the Mughal empire in 1857, when the British took over as the dominant power of India. Despite having become crowded with the increasing population, the city still serves as a symbolic heart of Delhi and is greatly famous for its markets, street food, shopping and architecture.

The streets of the Mughal Capital were generally narrow and crooked however, the major streets in the capital were designed as straight and wide and were developed as processional routes while the rest were mainly designed as access roads to the residential areas.

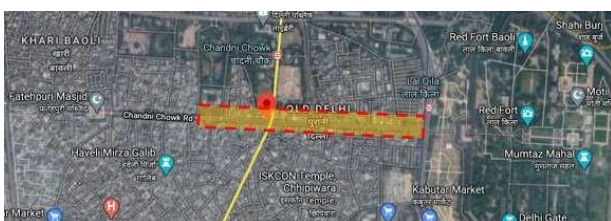


Fig 1: Shajahnabad with Chandni Chowk Road highlighted (Source: Google Earth 2020)

The main Chandni Chowk Road begins in front of the Red fort and terminates at Fatehpuri Masjid. The street is approximately 1.3km long and is well connected with three metro station lines.

Succeeding the British Rule, Delhi saw major changes in politics, culture, way of life and urban form. Legislative bodies with representation from the local population were formed to control development and regulate the deteriorating city. Infrastructure up gradation became the top priority of the authorities. Many roads were built to connect parts of New Delhi to the older parts of the city and ease of mobility became a major concern. Housing in the new capital complex was restricted to high officials causing over-densification of Old Delhi. Closeness to the railway station and ease of access for goods and passengers, further increased the problem. The services were inadequate due to rapid population growth, which Delhi saw post-Independence. A new perspective on Old Delhi was needed. Hence, major sections in the Master Plan were dedicated to the Old City (Commission, 2017)

RAJIV CHOWK ROAD (INNER CIRCLE):

Connaught Place (CP) is one of the most prominent commercial centre in New Delhi. Originally a ridge, covered with kikar (*Vachellia nilotica*) trees, the space was planned as a business district as the construction of the new capital of Imperial India began (Roy, 2011).9

Today, this area is constantly recognized on the map of Delhi as a large circle in the middle with radial roads that spread out in all directions. To understand the road better, the evolution of the circle is studied which has undergone a remarkable series of changes.



Fig 2: Connaught Place with Inner Circle Road highlighted (Source: Google Earth 2020)

In 1931, the development of the residential cum commercial center took place. CP became a commercial center selling high-end goods for the elite class living in Lutyens bungalow zone. There was provision for residences for the shopkeepers on

upper floors to ensure proximity to their workplace. In the early 1950s, right after India gained freedom, the character of CP began changing with the arrival of informal vendors in the inner circle for the relatively less wealthy people who could now access CP. The arrangement of residences for shopkeepers' families above the respective shops continued. In around 1980 temporary markets settled around CP at Janpath, Shankar Market and Yusuf Sarai Market. Verandahs were declared public property and temporary markets were formalized. High rise buildings started coming up around CP and changing the skyline. CP and its extensions were identified as one of the Central Business Districts in MPD 2021. In 2016, due to the introduction of metro railway connectivity, the earlier immobile section of the population such as school and college students, women and elderly from middle class families could now access CP. CP received a makeover for the Commonwealth Games 2010 (Commission, 2018).¹⁰



Figure 3: Connaught Place with Inner Circle Road
(Source:

<https://i.ytimg.com/vi/FQ0HkBsPjjo/maxresdefault.jpg>) on the left and Chandni Chowk Road on the right (Source: https://images.livemint.com/img/2020/07/30/600x338/OD1-U20573096912xsD--920x613@LiveMint_1596105238849.jpg)

THE SURVEY: To understand how the public does perceive the selected streets and which elements most influence the perception a random qualitative online survey was conducted. The medium used was google forms distributed through email and social media platforms of WhatsApp and Facebook. 600 internet literate people conversant in either English language or Hindi language or both were approached for the online survey out of which 107 people responded. The online survey was conducted last year right before the second Covid 19 wave hit India and was completed before the redesigned Chandni Chowk was opened for public use. With the help of pictorial representation / photographs of both the streets, the participants of the survey were questioned about various aspects and elements of streetscape focusing on their preferences and opinions across many factors, some of which are inclusivity, accessibility, safety, ambience, activities and variety of street elements. These participants fulfilled various

criteria of age group, sex, occupation, residency and usual mode of transport.

RESULTS

The following results could be obtained from the study:

- A total of 17.83% showed interest by responding to the survey out of which 77.7% participants were females and 23.3% were male members. 94.4% among the participants were bracket of 18-30 years of age, 2.80% participants were above 50 years, 1.90% were within the 30-50 years age group and a 0.90% received by the participants below 18 years group.
- 75.7% respondents were permanent residents of Delhi. 17.8% were associated with Delhi as its temporary residents, 4.5% as tourists, 0.9% currently as outside Delhi students and 0.9% had never visited Delhi
- Among the occupation groups that responded, 78.5% were students, 12.1% were salaried individuals doing jobs in various sectors such as the service industry, education etc., 6.5% were self-employed and 2.8% were unemployed
- With respect to the street users amongst the participants, their acquaintance with the streets on a day to day basis, 60.7% walked them, 6.5% bicycled through them, 60.7% used private motorised vehicles and 25.2% of them used public transport. It was clear that no single user group was using a single mode of travel exclusively.
- 61.2% participants showed higher preference of open and lesser crowded streets and preference of streets with trees and plantations that create a more pleasant environment.
- 50.50% participants stated that streets that cater to all users (inclusive, disable friendly, vehicular, bicycle, pedestrian) equally with well landscaped streets including proper designated paths and shaded spaces and appropriate street furniture and elements are of greater preference.
- For choosing a city purely based on a street, the greatest preference is given to streetscape, closely followed by ambience of the street and the ease of navigation which points to the connectivity. Activities happening on the street become of least

importance to the participants.

- Most people configure the image of the city as very open, visually unobstructed and fast paced from the images (of CP) that were given. With the Chandni Chowk Road, it was opposite.
- This kind of an image is formed greatly because of the traffic visible on these streets as well as the streetscape of Connaught Place inner circle road. The openness, visibility and streetscape cause the streets to be also perceived safe with easy to navigate. The ambience of the street is given less consideration. Main reasons for the image formation of the city as open and culturally rich or chaotic and overcrowded are due to the activities happening along the street, amount of traffic, density of street users and the streetscape which comprises of the character.
- Whether defined or undefined user trails, optimum or excessive hoardings and signages, unhindered or obstructed visibility, universally accessible or not, inclusive or not, organized or haphazard street design, sparsely or densely crowded – all these factors along with ease of navigation lead to the perception of safety and ambience.

DISCUSSION

The conclusions from the survey and streetscape analysis are drawn to provide with necessary insights.

- People mostly prefer streets with all streetscape elements present and clear legibility along with streets that are accessible to and accommodate all users across all demographics, whether able or disabled, whether pedestrians, cyclists, cycle rickshaw users, motorized 2, 3 or 4 wheeler users, private or public vehicle users etc.
- Streets with dense crowds, excessive hoardings and signages create confusion and chaos. For choosing a city based purely on its streets, the dominant preferences are given to streetscape followed by ambience and the ease in navigation with activities taking last preference.
- For the street of Connaught Place Inner Circle Road and Chandni Chowk Main Road, the survey was done on the basis of visual analysis and the image of the city formed was based purely on the basis that the street was fast paced and open for CP whereas for the

same city the image formed on the basis of Chandni Chowk Main Road (before its redevelopment) was chaotic and overcrowded.

- Upon further investigation it could be seen that the reasons behind formation of these images was the traffic and the activities taking place along the street as well as the streetscape, the latter of which influences the two former components also.
- The Connaught place road was ranked high in terms of the ease of navigation and safety and people feel a great sense of belonging to the place. But the ambience is rated relatively low which may stem from an overall commercial character which is constantly changing and evolving. The Chandni Chowk Road, on the other hand, was ranked especially low in terms of safety and the ease of navigation.
- Consequently, we could deduce that the image of the city was greatly influenced by changes in just the streetscape which is especially visible in the case of Chandni Chowk Main Road. The space already held a distinct cultural importance but could not be enjoyed due to the lack of organized and inclusive design, non-accessibility and lack in legibility of the street.

CONCLUSION

From the collective analysis drawn from the literature and the survey, it can be easily concluded that the image of a city is greatly influenced by its streetscape. Successively it can be inferred that by enhancing and creating an all-round better streetscape the image of any city can be changed and improved. Consideration of a similar methodology which takes into account similar parameters in the literature study and the survey as was done in this research may provide firm predesign inferences subsequently leading to superior streetscapes that indicate a better image of a city. This in turn can have various benefits in social, cultural and economic aspects of the city.

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