

Imageability Analysis of Contemporary Indian Cities- The Case of Gurugram

Vishek Yadav¹, K. Sengupta²

¹PG Student, Dept. of Urban Design, School of Planning & Architecture Bhopal, Madhya Pradesh, India

²Assistant Professor, Dept. of Urban Design, School of Planning & Architecture Bhopal, Madhya Pradesh, India

Abstract - The act of design of cities, undertaken since the origin of civilization has come a long way and until today, we are still building cities. Old and new, varied through topographies and climates, all cities are very distinguishable in the inherent features and experiences. People have been living the experiences and travelling to share them, owing to the cities which facilitate user experience and comfort in their own intrinsic ways, which have been shaped altogether by taking various locational and cultural aspects into consideration by the earlier city makers, though constrained by materials and technology. The massive shift in technology has shattered all barriers and has come up with a universal language of design, which is visible in architecture and other art forms also. Mostly regarded as the innovation, this new typology, as visible in city design also, has taken away the same experiences which people were excited about. Now, all cities tend to offer similar experiences. This dramatic effect can be observed through the experiences these new cities offer and pointed out in the imageable elements of the city which are the most obvious objects imprinted in the minds of observers. These imageable elements, as suggested by Kevin Lynch, have been barely studied in Indian cities. This paper explores imageability as studied in culturally rich old city like Jaipur and contrasts with the newly established techno-centric city like Gurgaon. Various issues with the built form were identified and listed in the end.

Key Words: Imageability, Physical Observation, Techno-Centric City, Old and New Cities, Contemporary Urban Form.

1. INTRODUCTION

This document is template. We ask that authors follow some simple guidelines. In essence, we ask you to make your paper look exactly like this document. The easiest way to do this is simply to download the template and replace(copy-paste) the content with your own material. Number the reference items consecutively in square brackets (e.g. [1]). However, the authors name can be used along with the reference number in the running text. The order of reference in the running text should match with the list of references at the end of the paper.

1.1 Background

Reference: *Image of the City*, Kevin Lynch (1960)

Kevin A. Lynch, an American Urban Planner and author, known widely for his work on urban environments and mental mapping, wrote the book 'Image of the City' based on his five years of studying three American cities, namely Boston, Jersey City and Los Angeles. His work primarily focuses on how the observers were perceiving the urban environment through its various physical features. This information recorded through physical observation by observers, then helps them to create mental imagery of the urban environment or mental mapping.

In the first chapter of the book, Lynch defines the original idea of city making and simultaneously contrasting it with architecture. Since the book is set on grounds of physicality of urban environment, only tangible aspects of urban environment are discussed, through which he states that City, though being a construction in space, is massive in scale which makes it difficult to perceive in a short plan of time, unlike architecture, which can be experienced in a short time due to its scale.

The art of city design is also a temporal process spanning large period. At the scale of a settlement, process of city design is strongly linked to the surroundings, which implies that experiences inside the city are also not isolated but parts of other larger phenomena which happen over time. In this vast structure of settlement, all dynamic objects including the observers themselves become a part of the larger structure. The structure does not remain intact but remains temporally growing and developing which keeps it alive. Hence, city design is not a temporally definite process and happens over phases with sometimes one overlapping another.

To perceive the structure of this scale, humans (in cities) and animals also find cues in the surroundings to identify and remember the place. Finding cues like shape, size, smell, and movements are essential skills for survival. But in cities, it is easy to identify surroundings because of multiple visual stimuli. But in cities users make mental maps where they remember certain distinguishable characters and ignore other common features.

In a city, the mental image particularly is conceived through five elements:

1. Path
2. Edge

3. Node

4. District

5. Landmark

These elements form the mental map of the area in mind of the observer. Selection of objects that create the image and ignoring the other features is done by the fundamental properties of these visual elements which are:

1.1.1. Identity: Any object in the public realm, to be imageable, must have a character distinguishable from other objects nearby and contain its own unique 'identity'.

1.1.2. Structure: That imageable object must then be positioned in mental map depending on its position in physical surrounding. Which implies that it should have a structure which dictates its form and relation with the surroundings.

1.1.3. Meaning: The object should finally, be related to the observer and represent a certain value and exclusive meaning, which would make it come up at times. Meaning is through a very subjective affair; it is extremely variable among the people based on their purpose and can make even the most common objects appear in mental-maps when observer is exposed to them continuously over time.

These three properties define the objects which would be remembered by people who visit certain places and observe the environment. While there can be multiple variations to the perceptions of people and not all times will the same objects appear in mental image. But there can be maximum number of observers which carry more or less, the same mental image of a place which results in a collective memory of a community which has been built through time capturing different events of history happening there.

Imageable surroundings are not only necessary for the purpose of wayfinding, but they also help in securing social goals of collective memory and emotional connect through imparting sense of belongingness. The citizen of a city perceives it as 'home' which should be familiar as well as distinctive. A legible environment increases the intensity of human experience, which implies that more details of environment will be observed by a person when surroundings are legible. Hence, the legibility and readability of surroundings effects the community since the individual experience is affected.

2. VALIDITY

2.1 Research Framework

The concept of Imageability is explored through the literature of Kevin Lynch (Image of Environment, 1960) from book Image of the City. With different imageable elements used by the author and the properties through which degree of imageability is defined, we take the case of an old city for which an imageability study is already conducted another study of a new city, particularly a service sector economy or a techno-centric development will be carried out. The

imageability analysis of both cities will be put in contrast and degree of imageability will be compared.

As Kevin Lynch links the larger effects of good imageability on people as communities, there will be few observations that would imply in the specific behavior qualities of inhabitants which would be derived. The conclusions will be derived based on the observations.

2.2 Indian Context

The literature "Image of the City" is a result of a study conducted in three American cities of Boston, Jersey City and Los Angeles. These cities were studied for a period of five years by the author to come to certain conclusions regarding people's perception of a city environment. Since there is a huge difference between the cities of west and Asian cities. Or it can be put in a manner like cities of global north and global south which is a closer and little specific categorization. However Indian cities are in themselves very distinct in their characteristics, built form, morphology, and urbanity. Hence the context changes due to the location. There are a few numbers of cities where the study based on this theory has been conducted. The Indian cities have come a long way through their original older form and then growing through different periods, which process has been different then western cities. In this context, I would like to analyze a newer city based on this theory and compare to the older cities. Since there were very different types of built structures and forms that composed the urban fabric, it would be a good study to start examining the older standards of Imageability in Indian cities and the same in the newer cities. According to the theory by Lynch, I would also derive the effect of change is development pattern into the behavior of communities towards their own urban ecosystems, based on their perceived image.

2. CASE STUDY

2.1 Walled City of Jaipur

Source: Exploring the Imageability of walled city Jaipur (Pipralia, 2014)

The study of Jaipur City based on secondary sources is chosen for the case because of the rich cultural heritage and contextual development of the area done centuries ago which stands the test of time till present day. Considering the various phases of change in socioeconomics, culture, and technology that the city has gone through, it however still stands as one of the most accessible and functional medieval cities in India.

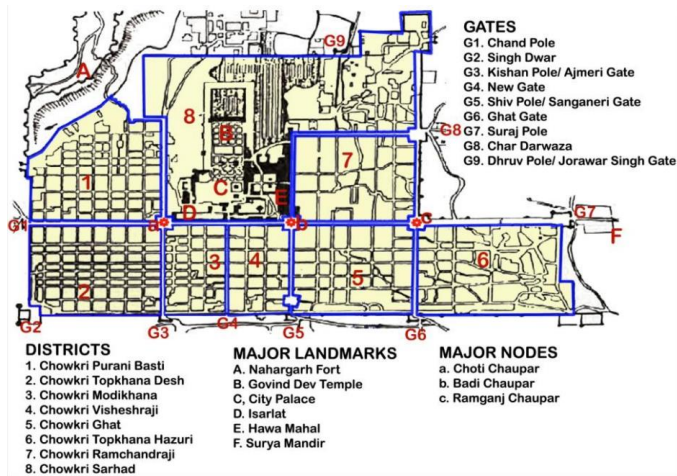


Fig -1: Layout map of Jaipur City (Source: Pipralia, 2014)

Jaipur city was founded in 1727 AD to accommodate the exploding population of Amber city which was capital of Dhoondhar Kingdom at that time. This model is like the satellite towns being created today. Being this old and heavily populated by people, the city inherits enough visual stimuli to produce multiple images of the city with some features exaggerated and others ignored, based on the planning and layout of various built and unbuilt spaces.

Through the method of observation of physical traces, this study highlights several elements forming together a mind-map of the city in minds of people.

Imageable Elements:

2.1.1 Paths:

Paths are important movement corridors of the observer. It is conceived as widths, pedestrian walkways, transit lines etc. The city has hierarchical grid layout oriented with the four directions. The naming of paths is done after famous people who lived there or occupation or castes of people residing in the adjacent block.



Fig -2: Major Road (Source: Pipralia, 2014)



Fig -3: Minor Road (Source: Pipralia, 2014)



Fig -4: Local Street (Source: Pipralia, 2014)

2.1.2 Edges:

The limiting surfaces of path, the walls and facades create the edges in the city. The street edges of facades are typically similar in form and materials. The buildings are mostly shops on ground and Havelis and Social infrastructure on upper floors. Shops have extended projections that shade the walkway. The regularization was done by the state only, which undertook their construction centuries ago. Another type of edge observed in the city is the 3m wide and 6m high wall that defined the city limits but now most of which is razed and encroached upon. The hills outside the city also create a natural edge which is observable from some parts of the city.



Fig -5: Typical Facades (Source: Pipralia, 2014)



Fig -6: City Wall (Source: Pipralia, 2014)



Fig -8: Badi Chaupar (Source: Pipralia, 2014)

2.1.3 Districts:

In Jaipur city, the grid-iron layout divides the area into rectangular units called Chowkris which further consists of 400 Mohallas. Each Mohalla is a community or social group that houses groups related by blood or marriage, occupation, or caste. Haveli is the smallest unit of the Urban fabric of the city, which is a large dwelling unit constructed by state for officials and other important people.

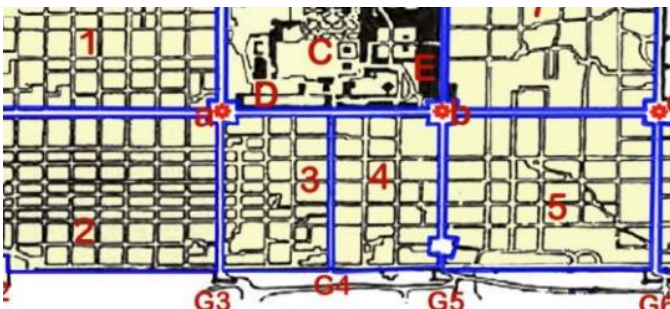


Fig -7: Chowkris & Mohallas (Source: Pipralia, 2014)



Fig -9: Chand Pole (Source: Pipralia, 2014)

2.1.5 Landmarks:

There are various landmarks in the city, some of which are major nodes, important public buildings, temples, palace, and hills which are structurally exclusive and distinguishable. Also landmarks such as hills and the palace sometimes appear different when approached from different directions.

2.1.4 Nodes:

Nodes are the intersection points of two paths and in Jaipur, only major nodes and secondary nodes are named and known eminently. The major nodes are called Chaupars which used to be almost three-times the width of major roads and consisted of stepwells for local water supply through underground aqueducts and public squares. However currently they were demolished for making area for Jaipur Metro. The end of major roads on Gates are also considered as nodes.



Fig -10: Hawa Mahal (Source: Pipralia, 2014)



Fig -11: City Palace, Jantar Mantar
(Source: Pipralia, 2014)

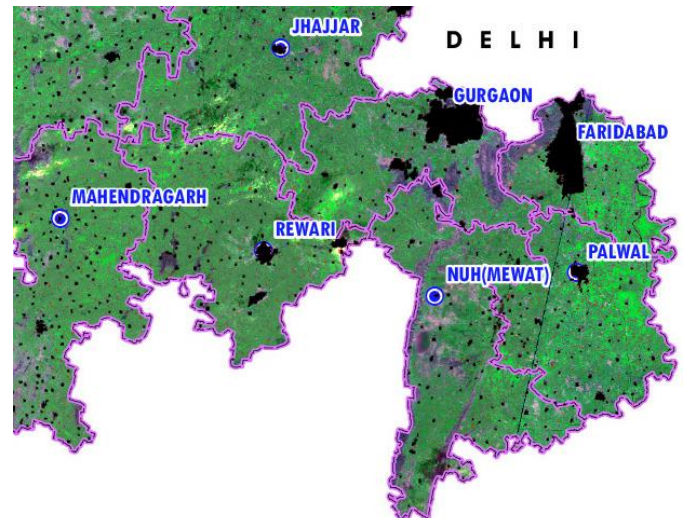


Fig -13: Settlement Pattern (Source: Irrigation Deptt.)

2.2 New Gurugram

The case of Gurugram city is studied with observation of physical form on field and recorded through photographs and sketches Gurugram is an example of failures of modern-day blanket zoning regulations combined with poor integration of commercial built masses in the pre-existing conditions resulting in gentrification of both new areas as well as older settlement cores.

The Gurugram city is one of the fastest developing cities in the National Capital Region. It has come up as a satellite town to the capital city of New Delhi and major accelerators of growth in the city are Real Estate and IT sector, though industries like Hero Motocorp and Maruti Udyog played a huge role during the initial period. Before the onset of industry, the city however was only a village as other settlements in the region are. Villages located in patches inside the vast fields belonging to the villagers themselves, a typical agrarian economy. With the introduction of modern infrastructure and planning, the region has shown a contestation of influence over the area.

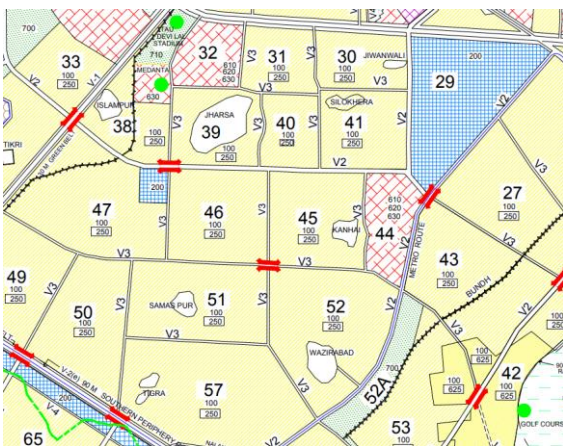


Fig -12: Planning Structure (Source: GMUC 2031AD)

Imageable Elements:

2.2.1 Paths:

The paths in the new city are based upon the grid iron structure, which is acting as an infill between the villages, in the previously agricultural lands. Hence in the above Fig.12, a part of masterplan of Gurugram, the grid iron pattern tries to fit in between the older major roads while engulfing the villages. This results in an irregular orientation of all residential blocks. Paths are seen in hierarchy based on lengths as V2 road (60m wide), V3 road (30m wide) and local roads (12m wide). Village roads also go hierarchically with major and peripheral roads (up to 18m wide) and local gullies (6-10m wide). While the new city areas or “Suburbs” have defined areas for pedestrians, vehicles and crossings, village paths have other areas like Aangans, Shopfronts, Chaupals etc.

2.2.2 Edges:

Street edges consist of lined up facades of buildings, each having regularised form of 6 feet wide balcony which is very rarely used, high walls besides a gate and front space that is used to park cars, so ramps are built all along that only allow a car, but no human could stand over there. Earlier when density was low and only one or two cars existed in a house, people used to have a garden but that too was fenced. This space is designated for pedestrians, but the authorities have surrendered this to the residents who privatise it. Long continuous lines without activity spill-overs and walking space only receive the observers in vehicles who cannot form any image of the area. Only imageable elements while observing can be modern and swanky materials which stand out. While on the other hand, older core had more imageable elements as articulating building lines were coupled with vast variety of forms and

basic elements like a particular type of wall, a large tree etc. could be easily found. Also, these neighborhoods have high walkability due to things of daily need can be accessed by simply walking or on a two-wheeler.



Fig -14: Façade Typology, Residential Areas



Fig -15: Foliage, Major Road Edges



Fig -16: Road Edges of Village Road

2.2.3 Districts:

Again, referring to Fig. 12, there nature and form of districts is ruled by the major and arterial roads, mostly being cut in a rectangular or square formation. Multiple districts are purely residential in nature, and some are purely industrial or commercial. Nomenclature of the districts is in numerical form and is not done in any manner to be remembered. Which makes identifying the districts almost impossible. Even the grids are planned in a radial form in some parts which tilts the blocks, which makes conforming to even the natural orientation impossible.

Jaipur has same orientation of all blocks that makes it easier to orient ourselves. Inside a sector, there are facilities like schools, hospitals and shopping complexes planned but since people are accustomed to using vehicles, they would prefer using far away malls instead. No integration with previous settlements has been made and plots face away from village areas engulfed in sectors.

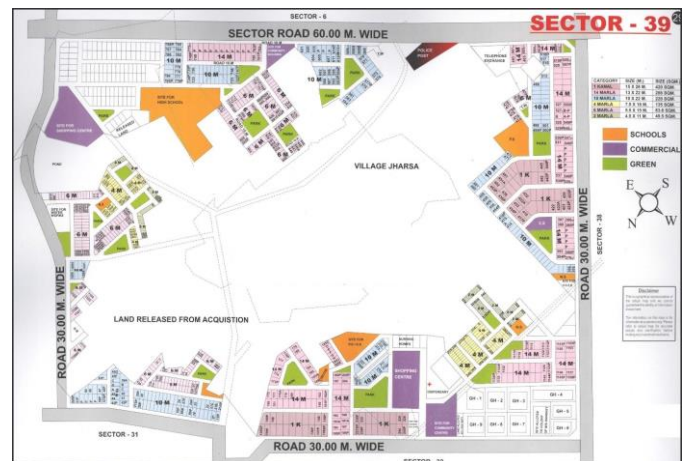


Fig -17: Layout Plan, Sector-46



Fig -18: Layout Plan, Sector-39

2.2.4 Nodes:

Grid Iron pattern of planning resulted in many nodes being produced inside the city. However, only the major nodes and streets are named properly based on influential people or adjacent areas. Characteristically, nodes are made only for a traffic junction whereas pedestrian network is treated secondary. Nodes typically differ by the road widths of intersecting roads and unlike Jaipur, nodes in Gurgaon does not facilitate any social gathering of public space. Other types of nodes observed are entrances to large building complexes and interface points of village to sector, which are in a way, more noticeable and distinct as compared to major nodes.



Fig -19: Node on Arterial Road



Fig -22: HSBC Building, Front



Fig -20: Cyber Park Entrance



Fig -23: Jharsa Village Entrance Gate



Fig -21: Sector-40 Gate, Jharsa Village



Fig -24: HSBC Building, Rear

2.2.5 Landmarks:

In Gurgaon, there are particularly a large number of landmarks as compared to other areas under similar planning agency. Due to the nature of earlier developments, large and mainly high infrastructure projects were implemented on major roads resulting from the Punjab Scheduled Roads and Controlled Areas Act of 1965. Hence many large builders like DLF, Unitech and Ansal have massive skyscrapers dotting the city. Each of them has distinctive form and orientation which makes them the primary landmarks. However, the city lacks in any historical feature to be considered a landmark. Other buildings like schools, hospitals, Govt. offices also act as landmarks in the city.



Fig -25: Greenwood Shopping Plaza

3. CONCLUSIONS

1. The city of Jaipur is a city built on human scale and humanitarian grounds which offers a great experience to observer. History was preserved in practices performed in public spaces that got written into people's memories and the culture flourished. The public spaces were considered more than just space but linked to their mental images very strongly.
2. While the new cities, particularly the Techno-Centric cities sprawling from an old core have communities based on income groups, organizational hierarchy etc. These decentralized groups melt different cultures and dilute them.
3. Cities planned like machines, totally void of any human history, sentiment, memory, or culture are created which are a function of mass production of space and not places. High speed mobility is continuously making experiences blurred while the sense of satisfaction of finding ways through legible environments is missed.
4. Study of Gurgaon proves that a poor imageability which results in defeated social goals of collective memory and any emotional connect. Thus, sense of belongingness is almost negligible here.
5. People do not notice their cities and miss on any detail. Making them less concerned about their own city. Therefore, they lifestyle becomes similar to living in a hotel, using the facility and paying back, rather than being a part of it, enriching and enhancing it.

REFERENCES

1. **Pipralia, S et al. (2014)**; Exploring the Imageability of Walled City Jaipur; Journal of Engineering Technology
2. **Jaleel, S; Cherian, J (2014)**; Defining the Identity of Technocentric Transformations In An Urban Edge – A Case of Kazhakuttom, Trivandrum; www.chitkara.edu.in/publications (Open Access)
3. **Shankar, C; Swamy, C (2012)**; Policy Measures for Improving the Imageability in the City of Mysore, International Journal of Modern Engineering Research (IJMER)
4. **Shim, C; Santos, C (2011)**; Urban Tourism: Placelessness and Placeness in Shopping Complexes; <https://scholarworks.umass.edu/ttra/2011/Oral/78> (Open Access)