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# A SPATIAL-TEMPORAL ANALYSIS OF A COMMERCIAL AREA -A CASE OF GAURAV TOWER, JAIPUR

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Abstract—India is one of the fast-developing countries, is undergoing massive urbanization. Due to this rapid urbanization, it is challenging to plan the cities from already old built networks to an organised organ. The change in development has evolved the cities to expand and bring variation in its character. This change can be seen not only in building structures but through our land zones and road networks. It is observed that streets and roads are shaping the city structure and thus helping the places to be more accessible and lively. However, on the same hand, these open streets are dominated by vehicles for Parking, encroached by vendors, used as public space. To analysis, such Factors of Street and its Surrounding in detail, a case of Gaurav Tower - commercial centre at Malviya Nagar, Jaipur is analyzed. The methodology for the study included a detailed study of the area and to identify the parameters which define the area. Since the area keeps changing its character in different time of the day, it was essential to analyze the prevailing factors which define this place and understand the role of a public open space into streets.

#### 1. INTRODUCTION

"What defines a character of a city is its public space, not its private space. What define the value of the private assets of the space are not the assets by themselves but the common assets. The value of the public good affects the value of the private good. We need to show every day that public spaces are an asset to a city." [1]

Streets are the vein of a built environment, links which connect various land parcels, which can be accessed, assembled and interacted. Streets are often mis-conceptualized as roads. A road purpose is to provide transportation whereas a street is usually an interactive public space and a subset of the road.

Public Spaces are defined as open and accessible to all, where economic and social interactions take place. A good public space must have four qualities, i.e. accessibility, activities management, comfort and socially welcoming. [2]

From above we can derive that Streets are a public space which contributes to the civic, social and economic fabric of the place or community. But the change in trends of mobility has faded the lively character of the street and has been replaced with parking and dead ends. But it just not the fault of an architect, urban designer or urban planner; it depends on the people adopting, using and managing the space. It is rightly said that people make places, then places making people.

The use of a public space differs from the time of the day and is affected by what it is offering in that space at a time. It is often observed the character of public space changes with day and night time, for example, if we see Manek Chowk of Ahmedabad, it can be observed that during daytime it is dominated by gold jewelers but that same place at night time changes into a food junction where one finds a variety of options. Such spaces also define the character of the city as well as optimum usage of a space. [3] Thus, this research paper has tried to focus on understanding such change in character of a public space during different time of the day, where a case of Gaurav tower located in Malviya Nagar of Jaipur has taken.

# 2. LESSONS FROM THE PAST: STREETS AS PUBLIC SPACES

"Streets in Ancient cities were the result of a vision of civilization rather than a function of the economy" [4]. The technology has evolved, so has the streets over the period. Streets are not only considered as the linkages connecting the major roads which further connect to destinations, but there are also other aspects of communication, commerce and social interaction which takes place and forms the character of the street. They are the key elements in determining the form and function of the city, neighborhood, and community.

In ancient's times, the streets were radiated from the nucleus or center of the city. For examples, usually, streets

used to evolve from political power or place of worship, like a temple, mosque or any other commercial of the cultural figure, signifying the importance of the city, and connecting it to the other parts of the settlement.

Taking the example of Mohenjo-Daro, grid pattern was followed, typically where streets meet each other at right angle. This grid pattern of streets was usually followed in Indus Valley settlements. Settlements used to have grid pattern layout promoted social interaction and commercial exchanges which made the streets as a function of Public Space.



Figure 1: Layout of Mohenjo-Daro

Thus, streets from ancient times have been acting as an integral part of the city where the social and commercial fabric is seen at the same time. [5]

Looking at the historical period of Pink City Jaipur, founded by Jai Singh II in 1727, laid out Prastara type, which gives a distinction to the cardinal directions. The plan of Jaipur is basically Grid of 3x3 with the gridlines acting as the city's main streets. The first order streets define the sector size; followed by the second order steer which defines the neighborhood block.



Figure 2: Layout plan of Jaipur, interaction of streets, Chaupals

The internal roads have a hierarchy in terms of access and privacy. Hence neighborhoods are crated at the same time. All the streets have different character, i.e., the main streets known as Chaupers or Chowk which were the ideal places where social activities happen and used to change every hour of the day. Hence the streets or intersections of the street forming chowk, the plaza where social interaction takes place where one can sit, walk, socialize, shop, etc.

# 3. STREET AND URBANIZATION

"If you plan cities for cars and traffic, you get cars and traffic. If you plan for people and places, you get people and places" [6]

Indian cities are still undergoing urban transformation. About 377 million population from India's total population of 1.21 billion resides in the urban area. Every year, people migrate to cities and town for employment, and it is expected that by 2031, this 377 million would reach out to 600 million.

As more and more people are migrating to an urban area, which causes pressure on the existing infrastructure and housing, resulting in unplanned urbanization. The local authorities end up planning for motorized vehicles, ignoring the need of the most prominent user, i.e., Pedestrians. These poorly planned arterial roads lack in sidewalks or bicycle lanes. This is commonly observed in all the cities where land is limited, and traffic is more. The cities emphasis on tackling the traffic congestion than improving the facilities for pedestrian and cyclists.

As the cities are increasing, so is the income of people, which increases the purchasing power of car, leading to more vehicles on the road. As more and more cars are coming onto roads, spaces for sidewalks or cycle lanes cut down.

Increasing urbanization has a significant impact on streets and inter-road networks, as the road traffic at the end has to come to the neighborhood. Hence the streets, for pedestrians and commerce have got reduced as it gets occupied by parking of vehicles, etc. [7]

#### 4. GAURAV TOWER AREA AS A PUBLIC SPACE

The shopping culture in Jaipur city till 1990's was street shopping and Bazaar's which were located in the core of the city. Gaurav Tower was an implication of urban culture to the city which was planned in the south of Jaipur which was in the pace of development at that time. This area bought an opportunity for the people to experience a new culture of shopping in Jaipur city.

The Gaurav Tower often known as GT is one of the earliest shopping areas in Jaipur which is known for its night active life which attracts people far away from the city. GT, GT central mall and some surrounding buildings in the vicinity which makes it an ideal destination for shopping to eating joints etc. there is a wide range of choice from cheap to the high branded range. The area near the Gaurav tower has now developed into a commercial district equipped with restaurants of high to low order, food stalls, shopping kiosks,

multiplexes and Automobile Showrooms. This area offers an urban culture which defines the identity of this area and its life due to its capacity to hold activities in its public realm.

GT public space has characters of both organized as well as unorganized space. Organized spaces are the one which is present in the malls and buildings around the GT whereas the unorganized spaces are outside these buildings where small vendors, small recreational spaces for children to play, etc. surrounding these buildings. Based on a survey conducted during evening time it was observed, on an average, 1 out of 3 people visiting this place were women and children. During evening time, it was clearly observed that the place becomes haphazard and further leading to problems like congestion, parking, safety, seating/resting spaces, etc.

# 4.1 Spatial and Temporal changes of Gaurav Tower

The GT Area changes with the due course of time in the day. The following analysis has tried to show how does the area changes:

#### 4.1.1 Activity pattern in Morning time

In figure 3 it is clearly seen that at this time no activity takes place. Small activities like newspaper selling occur. The place is totally empty during morning time.

# 4.1.2 Activity pattern in Afternoon

In Figure 4 it is observed that in afternoon pedestrian movement starts happening and some hawkers start coming to the place. This usually starts happening around 2 in the afternoon when hawkers start coming up and start setting up their stalls. But not many pedestrians are seen neither is the traffic congestion observe

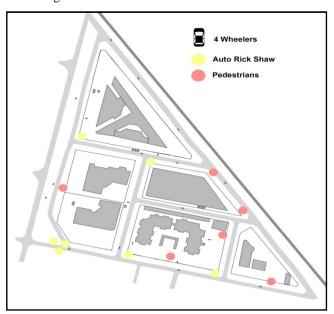


Figure 3: Morning Activities source (author)

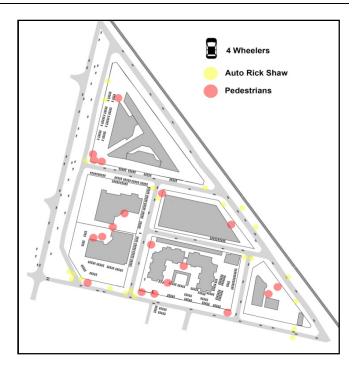


Figure 4: Afternoon Activities source (author)

# **4.1.3** Activity Pattern in evening time

In figure 5, evening activities can be seen where the whole scenario changes. From 5 pm, Hawkers start gathering people and by 6-6:30 a lot many people start coming to the place. The area becomes very congested as the hawkers encroach the road, and people start walking on roads which creates haphazard situations near major junctions, entrances to the buildings and even for the vehicular movement.



Figure 5: Evening time Activities source (author)

#### 5. OBSERVATION IN GT AREA

Every activity in the GT area are specified and intrinsically related to the nature of the place and changes with the activities at various times of the day. Thus, to understand the variation in day and evening time in GT area, the above paraments were studies in detail. [8]

# 5.1 Pedestrian and the Traffic safety of people

#### 5.1.1 Situation for Pedestrians

At Daytime the pedestrian movement is restricted to the malls which have proper pathways and shades. But the same situation for pedestrians coming at evening time changes. As the footpaths and roads get encroached by hawkers and parking, ultimately people have to walk on roads where vehicular movement is already happening which leads to congestion as well as accidents on roads. Pedestrians are focused on moving with the traffic which makes the people and area vulnerable to accidents.

# 5.1.2 Implications on Public life

Currently, the proportion of old people visiting GT area is less. This could be because of the unsafe pedestrian access, which creates a challenge for vulnerable people. Hence the motive is to secure the pedestrians from the vehicular movement.

#### 5.2 Feeling Secure against Crime and Violence

#### **5.2.1 Condition of Surveillance**

GT and its Surrounding buildings is a lively urban space, with numerous activities and constant movement of the people, creating a sense of natural surveillance and safety among people and the area. The presence of people in the area at day and night time provides a natural security to the shops, as well as the visitors too. It is primarily achieved by the relationship of the current built form and the streets. But during a discussion with the visitors, it was revealed that there are some dark spaces that make the place unsafe during the night time.

# 5.2.2 Implications on Public life

It was keenly observed that participation of women and old aged people in activities in the area quite low. Though the area is fully functionally all the time, number of women and old aged people reduces rapidly beyond 9-9:30 pm

#### 5.3 Walking experience

GT area attracts a lot of pedestrians. However, the space available for pedestrians is highly limited. further the lack of segregation of vehicles, obstacles and barriers, hawkers, etc. are the major challenges affecting the comfort of for the pedestrian movement. Lack of pedestrian facilities affects the attractiveness of the area. The area is increasingly less attractive to vulnerable groups like elderly and women.

### 5.3.1 Sense of space when stood at one place

The young generation who spends most of their evening time in the GT area uses edges of the buildings as standing places. As the area is an important commercial center of Jaipur, public space is appropriated for maximum commercial and vehicular usage, and human comfort is not even given importance. As this area continues to a commercial center, attracting numerous visitors, but its attractiveness is hampered because of the compromise in comfort, which turns might have a long-term impact on the area.

# 5.3.2 Opportunity to sit and talk

There are very few places in the GT area where people can sit and enjoy their evening meals and feel the place. Due to the intensity of the activities happening in the area, pedestrians are only left with an option to stand and eat. Lack of such seating spaces in the area directly affects the enjoyment and level of comfort in the area.

#### 5.3.3 Public space Design and the humans

GT area is a large Public space and caters to a huge number of population of Malviya Nagar and its surrounding areas. The GT mall and its surrounding buildings are 5-6 floor buildings which are dedicated for commercial use. Space interacts well with the people visiting the place further making me livelier and happening place of Jaipur. The place is well managed in terms of waste but lacks in the management of traffic. As the area provides all type of facilities to the user, which creates lively ambiance and attract more and more visitors.

#### 6. RECOMMENDATION

Based on the analysis done and the quality aspects, following aspects should be followed to create the area more functional and organized. On the other hand, it is essential to make the place for everyone, irrespective of gender, age, etc. therefore the following recommendations have tried to incorporate all the factors

#### • Improving Protection

It is observed that in morning and afternoon time there is no accidents issues have been faced. But during evening time as the scenario of the space changes, and accidents occur. Therefore, to reduce such cases, at evening time vehicular movement should be stopped so that pedestrians and hawkers can interact. It is essential to reduce the dark spaces to avoid violence and crime.

# • Improving Comfort

Opportunities to make the place walkable, it is vital that if vehicular movements are stopped entirely the place will become pedestrian friendly. It is essential to create spaces where people can stand, sit and interact with each other. Thus, formalizing the vendors would help to create such spaces, which would add on to the aesthetics of the place

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