Contribution of Tactical Urbanism at Street Edge and Building Edge in Indian Cities

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Abstract. Cities have grown rapidly, and this growth will continue to accelerate in the years ahead. Every city provides a unique experience with different kind of people and culture it inhabits. Instead, cities are the result of interactions between people, objects, and ideas, where density and proximity becomes the factors, which activate the life in the space. In the country like India where the population density and scarcity of the land is always a major issue, it is difficult to carve out spaces that act as public realms. To address this issue and to optimize cities' function, needs a dense city structure, high degree of mixed-use, distinguished architecture, and carefully designed details that generate active ground floors at a human scale. One of the sustainable use of spaces is to identify multiple ways to engage the edge of the street as a public realm. Hence it is important to identify and strengthen the functions of meeting places between building edge and street edge that contribute toward socially sustainable living in a democratic society. Common characteristic of life in Indian Cities are its adaptability and complexity of the activities, which are informal in nature. Tactical Urbanism provides permanency to these informal activates and supports in place making.

1 Introduction

Cities are made up of people. Each city has its own unique character and challenges [1]. The city fabric and the characteristic of Indian cities are developed on the basis of the people and their day-to-day needs based on their socio-cultural aspects [2]. Though since years due to the migration, some of the cities developed a cosmopolitan culture that also has the significant influence of Westernization [3]. Apart from having a dominant influence, people have modified their lifestyles that still have tied with their traditional value systems [4]. With the changing needs of the people, the production of Space has changed from traditional modes to a new spatiality [5].

The abundance of small undeveloped spaces in a city as a whole significantly affects the quality of life [6]. People are inclined to leave the city street if certain areas are dull [7]. The street will remain active if we learn to make them sensible through most of our limited urban area, create new ones effectively, and maintain the existing ones. Tactical urbanism addresses these issues [8]. People have the inherent quality to identify the need for a place and to serve with the help of low-cost interventions or modifications to the physical environment in order to enhance the use, liveability, and vitality of public spaces that makes the space a place [9]. This process is a part of tactical urbanism [10]. These interventions, which are frequently organised by local community groups, or non-profit residents, organisations, local authority are intended to solve particular urban concerns or try out new concepts in advance of making more significant changes [11]. Tactical urbanism may significantly contribute to the development and transformation of urban areas in Indian cities [12,13].

Ahmedabad is the Seventh- largest urban agglomeration in India, with a population of almost 7.4 Million (74 lakhs) in 505 Sq.km. To review the process of Tactical Urbanism, the street edges of Ahmedabad that have potential to offer public space at the building edge are selected as case study. In this paper, the author is trying to understand how the marginal spaces along the building edge facing toward the street make a case for effective interaction of the built form with the street movement. How landuse play a vital role to attract activities around it. Also, to check the concept of tactical urbanism on the informal activities that are connected with the landuse at the street edge and the building edge, by taking the case study of S.G.Road in Ahmedabad. Based on the framework as per the table 1 the data is collected using observation mapping by POEMS (people, object, environment, messages/media, services) framework. The author tries to identify these ACTIVE STREET EDGES that contribute to place making due to tactical urbanism reflecting on public realm of the City.

2 The rationale for choosing the case study

The S.G. Road is a significant transitional axis, which connects Gandhinagar (the capital of Gujarat) to Sarkhej (gives further connection with the major cities of south

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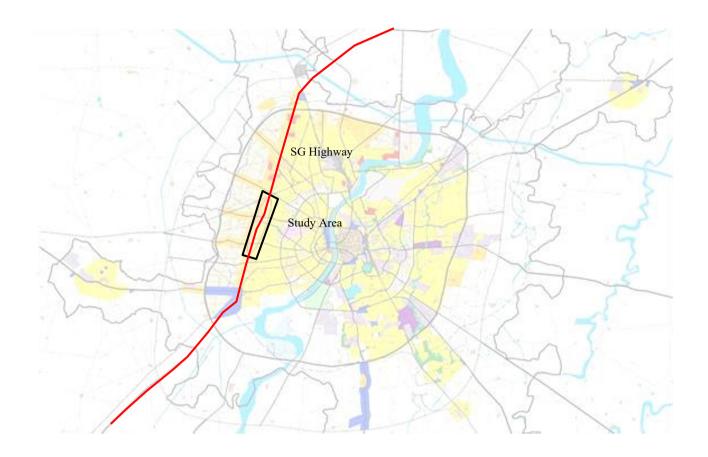


Fig. 1. Landuse of Ahmedabad City with study area .

Now to divert or to control this heavy amount of traffic, to cater the existing amenities built along the roadside, the service lane parallel to the highway has been created which act as a street that provides access to the properties and local areas. It is an indirect approach to the built along the road that is a majorly mixed use of residential and commercial. This smooth transition space is created between this street and S.G. Road instead of a straight cut off with divider. It is functioning as a linear longitudinal parcel of land, providing recreational facilities to the residents of the surrounding area and hence self-sustained. It offers Sand Park (play area for children), lawn/ green area having benches for sitting and raised platform-having canopy (take away counters).

These whole arrangement pattern starting from the building edge to S.G.Road act as a buffer zone where the functions like cafes, tea stalls, flower shops, food junction, bakery, eateries, and parking space have placed. Different Building on the edge of the road serves different function hence the utilization of the same space at different period: morning, noon, evening, night utilized by varied people in a different manner, which increase the multifunctionality of the same space. It is based on the demand and supply theory.

3 Methodology

The process of the documentation start with mapping the landuse and the building use in the selected area of the site. Than for the ease and accuracy of the data, we had the division of the study area into small sub area based on the building use. The data has taken under the observation schedule of four to

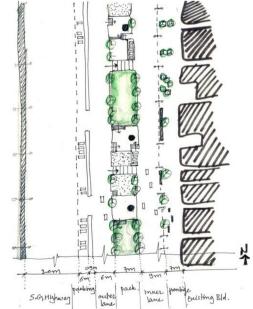


Fig. 2. Canopies in respect with SG Highway and Building Footprints.

Based on the POEMS Framework, mapping of the following categories was done for the S.G. Road site that was chosen: People, Object (here we took the kind of permanent and temporary activities they do). Environment (where through the street section, mapping of transition space and enclosure through building edge & kiosk that creates human comfort on eye level), Messages (the inferences from the behavioral and usage the users), and pattern from Services (the recommendation to the case). Followings criteria had taken in consideration while mapping:

- Mapping of the usage pattern by comparing landuse /building use and it is coexistence of the supporting activities (temporary / permanent) on the streets.
- Mapping of a street section along with the building edge to understand how small urban voids were accommodating activities that are temporary in nature.
 - Here the scale & enclosure of the space play a major role for people who occupies the street to get the degree of enclosure that gives them human comfort on eye level.
 - Mapping of an enclosure through various transition spaces between the street and the building edge.

Derive a conclusion based on the analysis of the data collection and the inquiries raised.

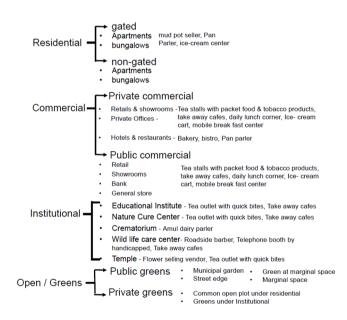


Fig. 3. Activities Mapped By Different Landuses.

4 Land use act as a activity magnet

Cities are made out of different parcels of land. Many different factors affect how well these areas operate. The site's relationship to the city as a whole, the nature of the use of the built form encompassing them, the scale of the built vs open space around, its connectivity and accessibility to other areas, the location of parking facilities and other significant land uses are just a few of the factors. Landuse acts as essential factor, which governs the spatial development and the type of activities it generates at the marginal space around it that can change the spatial character of the space. Based on the framework below is the documentation of the existing land-use and its related observations:

Referring to Jen Gehl outdoor activities in public spaces can be divided into three categories, each of which places very different demands on the physical environment: necessary activities, optional activities, and social activities. Here on the site of S.G. Road with the understanding of similar phenomena the observations are as follows:

Retails at the ground level and first floor level is providing the window to the street Shopping & windowshopping. The plinth outside the building edge at the ground floor is acting as a sitting & gathering Food Stall - Different people have different perceptions towards the activities related to food & space Food is a priority, time & space is secondary Time & space is priority & food is secondary.



Fig. 4. Morning Activities (8 AM- 12 PM)

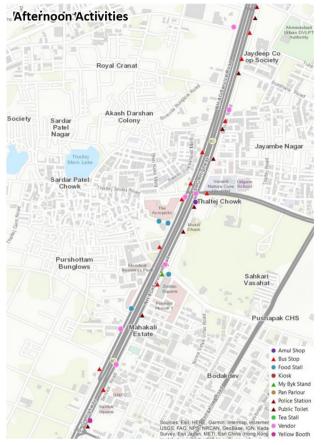


Fig. 5. Afternoon Activities (12PM – 4PM).

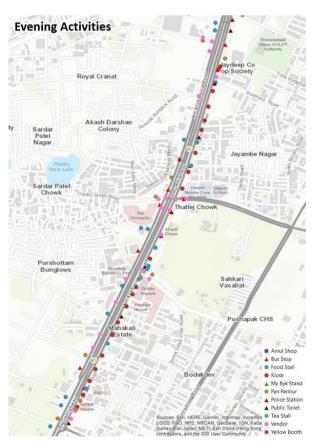


Fig. 6. Evening Activities (4PM-8PM).

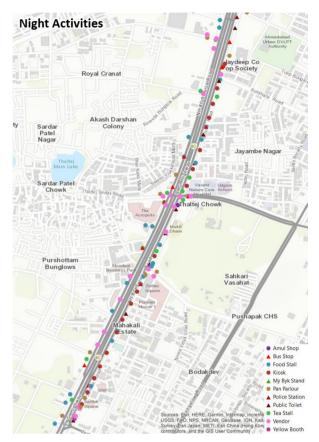
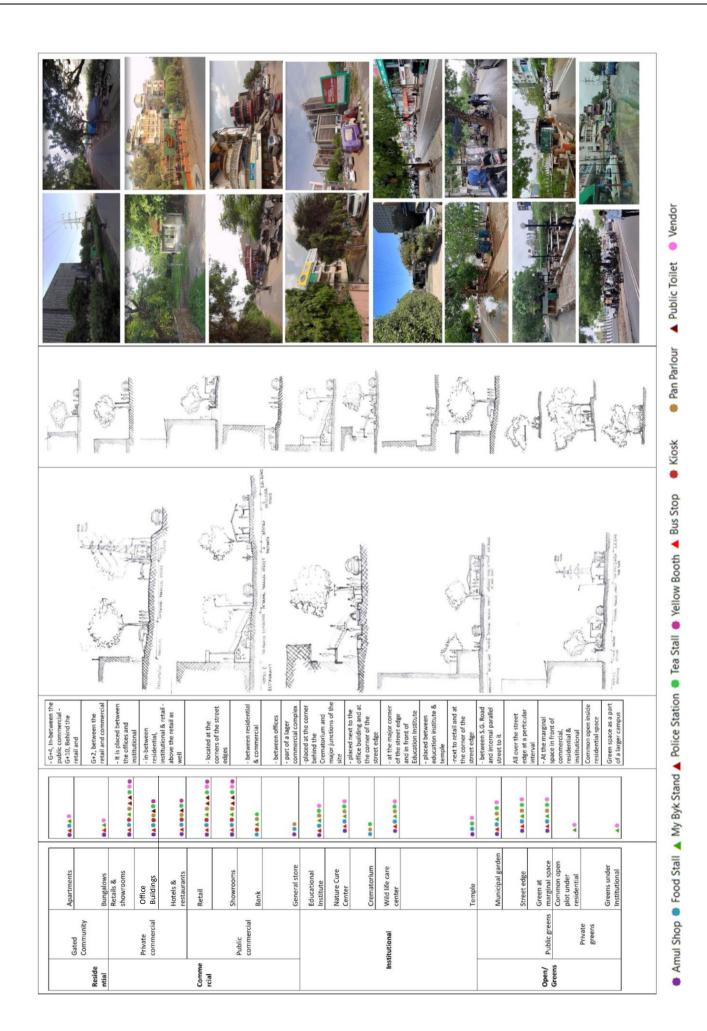


Fig. 7. Night Activities (8PM- 12 AM).



4.1 Mixed landuse

The alternate patch of the land with majority commercial on the street edge, some residential at the edge and remaining at the back of commercial. This mix land use offers a diversity of people who carry out necessary activities, optional activities, and social activities. Space becomes rendezvous points with the proximity of the building use.

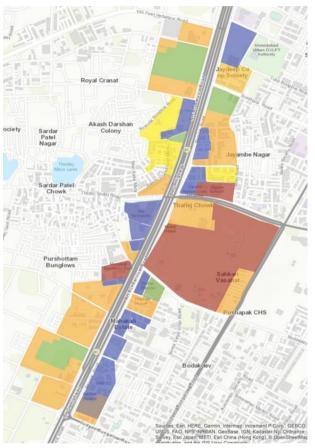


Fig. 8. Landuse of the Site.

Due to the proximity of existing land use, this street is used by different users during different times of the day. The institutional building has ample open greens, which is used by people for morning walk, jogging, and exercise. Due to this in the morning, one can see the juice stall, fruit sellers, and tea stalls with quick breakfast joints. This activity remain there till the offices and retail market open. Also, due to the temple on the streets, people come in the morning and the activities like flower selling, dairy product outlet, and roadside barber are also observed. At the noon time the users from the private offices dominate the place. Use of food stalls for lunch, a bistro for coffee and snacks, and place that have tobacco products selling serve the best. From the evening till night, people from all over the place including residential, commercial, and institutional will become part of it. The women get down to take their daily stuff for the kitchen, youngsters just hang out and loiter over a coffee, men for their talk over tea and smoke.

4.2 Tactical Urbanism & Use of Marginal Space

Indian cities often face budget constraints, making large -scale urban interventions. Tactical urbanism's low-cost nature allows for quick implementation without the need for significant financial resources. Herein the case study simple an affordable materials are used to create temporary enclosures, making it accessible to a wide range of communities.

Along the takeaway stalls, the surrounding space works and sustain well due to sense of ownership of that The people have developed the surrounding area. pockets, by raising the plinth, placing the sitting arrangement, creating an enclosure with greens & temporary space-making elements. This way of tactical urbanism generates an environment that becomes part of peoples' day-to-day life and creates life at the eye level activated due to need-based solutions & spatial enclosure. The advantage of the availability of spill over space is social comfort. There is more room for groups and people to organize themselves, more possibilities, and more choices that are perceived as options. For the same reason, steps, plinths are functioning quite well. The variety of steps and plinths allow an infinite number of conceivable groups, and the fantastic sightlines make almost every seat ideal for perceiving the street as a theatre. Also, The plinths at a different building edge give better visual to the retail and shops above and make a better transition space when created without compound wall that can be used by the people for sitting as well.

Based on the observational survey some findings are stated here. Where these temporary activities took place

- People tend to sit most where there are places to sit.
 - Under the dense tree
 - Besides the entrances of the territories
- Near the bus stand
- Near the existing benches or availability of sitting areas
- From where you will get a good visual where they are getting partial enclosure.
- The street, without boundary or compound wall gives freedom of adaptation of the building function as per the changing needs of users, which serves the demand of the place.
- The sightlines are important, If people do not see a space, they will not use it.
- The activities on the corner is great visibility and exposure and one of the best ways to make the most of it is, simply, not to wall it off.



Fig 9. Kiosks and Canopies with tree cover.

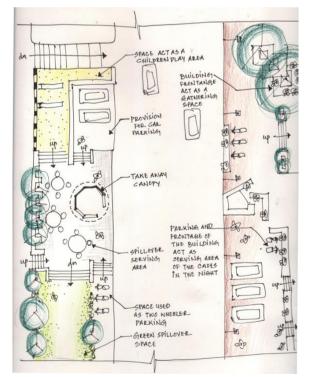


Fig. 10. Detailed Plan for one of the Canopies and its relation with the other edge of the street.

4.2.1 Scale & Enclosure

"Space is perceived by the visualization of its limits and by kinaesthetic experience. i.e. by sensation of movements." Space is that in which we are living. The combination of planes in different directions with different axes creates an enclosure resulting in the creation of a space. The planes can be natural or manmade in reference to the horizontal surface (Ground). That is physical space, which can be perceived and felt. Space is an important aspect of human environment. Generally, any space has a function, utility, and response to the being and the non-living, which fulfils human requirements and are the vital elements in the fabric of built environment.

On S.G. Road the building facing the street has structure of ground plus two to ground plus four and the higher structure are staggered at the back. This typology with one edge holding a low building façade and the other edge holding temporary stalls helps to create a comfortable degree of enclosure which will generate the environment for the people to gather, sit, interact, and loiter. The spill over space around the stalls and building façade due to the development of tactical urbanism helps one to become a part of a whole, whatever activities are going around, make the space active, where anyone can become part of it.

4.2.2 Tactical Urbanism & Space Activation

There are lot of easily accessible public areas which need to be well-maintained in Indian cities. By transforming underutilized locations with the concept of tactical urbanism such as vacant lots, or abandoned buildings, and undeveloped edges between the street and the building (marginal space) into transient parks, community gardens, public art projects, or takeaway markets with spill over space, may be used to enliven these areas. Here, the spaces at a particular interval with its' own way of creating the space with low cost space making elements work well. Different enclosures are created with bamboo columns and pergolas, planters and climbers on the thin metal structure, painted tiers as sitting on the raised plinth below the tree, provision of low parapet wall as an informal sitting, etc. These initiatives promote social contact, increase community involvement, and raise the standard of public life with an active street life.

4.2.3 Generation of local Economy

This marginal space also offers possibilities for an Informal economy based on the land use of the edge. The street vendors, chai wale, bistro, food joints, telephone booth, breakfast carts, vegetable and fruit carts, cobbler den, tailor, iron press wala, etc, become the essential part of the community in the proximity area. They placed themselves in that proximity of the respective landuse which gives them a livelihood. This works on demand-supply theory. This scenario makes a mutually beneficial relationship between society and the vendor, which supports the local economy.

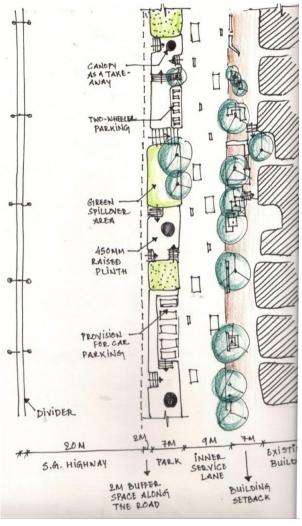


Fig 11. Detailed Sketch for Parallel Street in relation to S.G. Road.

5 Conclusion

A Street by definition can behave differently from its function, it gets out of its structured plan. It can add multiple layers beyond the defined use and has the potential to address many social and cultural needs of the neighbourhood contributing to social equity.

To promote sustainable and equitable urban growth, tactical urbanism may be a useful tool, but it must be used in conjunction with long-term urban planning and policy efforts. To effectively execute tactical urbanism interventions in Indian cities, coordination between residents, community organizations, governmental bodies, and urban planners is also essential. Activities that are temporary in nature, tactical urbanism plays a significant role in making it formal in an informal space.

It can activate underutilized public spaces, such as vacant lots or undeveloped edges between streets and buildings. By transforming these areas into transient parks, community gardens, public art projects, or takeaway markets with spill over space, the vibrancy and social engagement of the neighbourhood can be enhanced.

This uncomplicated demography underscores an elemental point about good urban spaces: supply creates

demand. A good new space builds a new constituency. It stimulates people into new habits -alfresco lunches – and provides new paths to and from work, better places to pause. Also, gives new identity to the city.

The scale and enclosure of spaces are important creating comfortable factors in and inviting environments. The staggered building typology, with low-rise structures facing the street and higher structures at the back, along with the development of tactical urbanism, helps create a degree of enclosure that encourages gathering, interaction, and loitering. The larger buildings should be integrated into the local streetscape without breaking up the smaller-scale rhythm, and life of local streets. The old city of Jaipur was also designed on the same phenomena.

The use of marginal space and the presence of an informal economy contribute to the local economy and community livelihoods. Street vendors, food stalls, artisans, and other informal businesses form an essential part of the community and support the local economy through a mutually beneficial relationship with society.

While in most parts of the world, the street is a CONNECTOR for public and vehicular movement, in India, the street also acts as a CONTAINER that holds social, cultural, religious, economic, and political practices on regular bases.

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