

Diagnosing Chandigarh's Heart The future of sector 17 as an urban public space

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Abstract - Corbusier envisaged sector 17 as the heart of Chandigarh, the central shopping hub which caters to the entire city. Designed in the 1960's, with clear influences from French plazas and buildings with strict language restrictions lining it, the main shopping plaza had been a center for varied activities and attraction for generations. But there is a decrease in the popularity of the space in the recent years due to various reasons ranging from social and climatic to availability of new and improved shopping typologies across the city. The distinct character of the public plaza and its flexibility to accommodate variety of activities is what makes it different from any other shopping facilities and AC malls in the city. The plaza has been offering the advantages of an urban public space, along with the basic function of commerce, for the last 50 years. It has the potential to absorb a flavor of Indian 'bazaar' like character into its uniqueness. This study examines the potential of sector 17 plaza as an urban public space, to bring back its glory as the heart of the city, despite the increasing number of high class shopping malls coming up in the industrial area.

Key Words: Chandigarh, sector 17, urban public space, Le Corbusier, shopping plaza

1. INTRODUCTION

Chandigarh is one of the most significant urban planning experiments of the 20th century. It is the only one of the numerous urban planning schemes of Le Corbusier, the famous French architect-planner, to have actually been executed. Le Corbusier summed up his work on the city in an 'edict', which talks about the human scale, sectors, roads, areas of special Architectural interest, city-centre, industrial area, the lake, landscaping, not allowing personal statues to be erected and truthfulness of building materials to be maintained [1].

1.1 Le Corbusier

Le Corbusier planned the city analogues to a human body. The capital complex (sector 1) being the head, city centre (sector 17) being the heart, leisure valley along with innumerable connected open spaces and the sector greens being the lungs, cultural and educational centres being the intellect, road network being the circulatory system and industrial area being the viscera.

1.2 City Centre

The City Centre representing the heart of the city lies slightly towards the north of the city, marked by intersecting roads Jan Marg, Madhya Marg, Himalaya Marg and Udyog Path. Designed on a monumental scale of uniform four-storied concrete buildings; it is laid out along four pedestrian promenades intersecting at a nodal point, where all civic buildings are located. There is a central chowk or a plaza marking the crossing of two wide pedestrian ways running north-east to south-west and north-west to south-east. Around this chowk are created the most important civic and commercial buildings, the town hall, the central library and the General Post and Telegraph office, large cinemas, commercial houses and banks [1].

Besides the expanse of concrete that mark the large plaza, there are a number of built structures present. The City Centre contains large shopping stores, office buildings, banks and cinemas and other public buildings. The three water fountains amidst the central plaza are the focal point of the sector, which were designed by M. N. Sharma. The city centre is landscaped with trees, which presents a subtle contrast of form and colour against the concrete facades and flooring. This sector also houses the district courts, the central police station and the inter-state bus terminus.



Fig-1.1: Chandigarh location map (source: Maps of India)

2. HISTORICAL CONTEXT

“Let it be a new town symbolic of the freedom of India unfettered by the traditions of the past and expression of the nation's faith in the future”

- Pandit Nehru

This statement comprises the vision of the new Capital city proposed for east Punjab, which became capital-less after the partition of the old state of Punjab into east and west, west along with the old capital Lahore going into the newly formed Pakistan, in 1945. The Government of Punjab assigned engineer Mr. P.L. Verma the tasks of search for a permanent Capital City for the State of Punjab. The present site was selected in 1948 taking into account various attributes such as its Central location in the state, proximity to the national capital & availability of sufficient water supply, fertility of soil, gradient of land for natural drainage, beautiful site with the panorama of blue hills as backdrop & moderate climate.

An American Firm, M/s. Mayer, Whittlesay and Glass were commissioned in 1950 to prepare the Master Plan for the new City. Albert Mayer and Mathew Novicki evolved a fan shaped Master Plan and worked out conceptual sketches of the super block. The super block was designed as a self-sufficient neighborhood units placed along the curvilinear roads and comprised of cluster type housing, markets and centrally located open spaces. Novicki was tragically killed in an air- accident and Mayer decided to discontinue. Thereafter, the work was assigned to a team of architects led by Charles Eduard Jeanneret better known as Le Corbusier in 1951. He was assisted by three senior architects, Maxwell Fry, his wife Jane B Drew and Corbusier's cousin, Pierre Jeanneret. These senior architects were supported by a team of young Indian architect and planner consisting of M.N. Sharma, A. R. Prabhawalkar, U.E. Chowdhary, J.S. Dethé, B.P. Mathur, Aditya Prakash, N.S. Lambha and others. The Master Plan was developed by Le Corbusier who also designed the Capital Complex and established the architectural control & design of the main building of the city. The design of housing for Govt. employees, schools, shopping centers, hospitals was disturbed among the three senior architects [1].

The sector 17 had roads running through it with pedestrian paths and commercial buildings on the sides, when it was designed in 1960s. The sector 17 shopping centre, as we know now, came into existence in 1980, when the plaza came up in place of the road. The fountains were built later and trees were planted and gradually the place came alive. Saturday carnivals used to happen in the plaza from 1993 to 2007, which attracted people to the place and it helped in considerably increasing the footfall [2].

3. PLANNING AND ARCHITECTURE

The primary module of city's design is a Sector, a neighborhood unit of size 800 meters x 1200 meters. It is a

self-sufficient unit having shops, school, health centers and places of recreations and worship. The population of a sector varies between 3000 and 20000 depending upon the sizes of plots and the topography of the area. The shops are located along the V4 street (shopping street), which runs North-West to South-East across the sector. Every sector is introvert in character and permits only 4 vehicular entries into its interior.

In important civic areas, aesthetical harmony between all buildings is a must because architectural is a visual art and the visual impact forms should be as beautiful and organized as can be. Accordingly, to curb undue individualism in the built environment, Le Corbusier conceived a number of mechanisms to regulate the development of private buildings in the city. These included architectural controls, frame controls and zoning controls in the city. The basic aim was to maintain uniformity in skyline, heights and the architectural character. Similarly in shopping street, architectural order is ensured by development of shops as architectural controls. This ensures harmonious development in accordance to the plan.

The skyline of the city is predominantly four storeyed achieved through cheap & plentiful manpower. This was also in consonance with the low economy and stringent budget for the new capital. Infact, the low cost materials and techniques employed in building construction served as a model in other parts of the nation also. Standardisation of building components such as the roof spans, lintel size, door and window opening size and shape ensured quality and cost control [1].



Fig-2.1: Chandigarh city map. (source: Chandigarh master plan 2031)

4. SECTOR 17: PROBLEMS FACED

The factor that prompted for such a study to be carried out was the realization that the heart of the city is slowly dying off [3]. Any frequent / once in a while visitor, who was using the space for years now would have noticed a slow decline in the footfall in the area happening over a large period of time. This slow decrease in the footfall can be due to some obvious reasons regarding the age of the place such as change in user preferences, degradation of built environments, inadequate parking space etc. But that is not the case of last 5 years. Sector 17 has seen a sudden drop in the number of visitors, in spite of increase in the population density of Chandigarh. This is not only during the week days, but also during weekends, when lots of activities happen in the plaza. There was a time when people wanted space in sector 17 to show that they are a big brand. The spaces received rent more than any other commercial space in the city. Some shops were rented for even record sums of money in the sector 17. But those were before 2012. The shops, which once received humongous sums of money as rent, are all looking at up to 40% reduction in the last 5 years [3]. The shops which are not facing the central plaza are under more pressure due to decrease in the shoppers. This further shows the importance of the plaza in sector 17.

While looking at the reasons for this sudden drop in footfall, one cannot ignore some basic developments / changes happened in the city over the past 5 years. One such development is the opening of new shopping malls in the industrial area of Chandigarh. When the plaza of sector 17 remains deserted even on week-ends, there are traffic blocks on the roads in front of newly opened malls. Big brands, multiplex, children play area, food court, etc. in a climatically conditioned environment is attracting more and more people each day. Sector 17 lost its monopoly on big brands due to this increasing number of malls coming up in the industrial area.

Due to the increase in the population and increased usage of two and four wheelers by the residents, there is enormous pressure on the parking requirements of sector 17. There is chaos due to insufficient parking in sector 17 at peak hours on week-ends and holidays. The newly built multi-level parking facilities remain under-utilized, due to the unscientific design and lack of proper maintenance, even when there is unavailability of parking slots in the open parking areas. The experiments done by the officials, to force people in using the new multi-level parking facility, by closing down the open parking areas has led to great protest from both shop owners and the visitors.

The fall in the footfall is also associated with the shifting of several offices, district courts and ISBT to sector 43. The number of people visiting the sector for essential purposes simply went down with this. Even the increase in the popularity of online shopping portals among youths, can be

seen as a reason for the downfall of the central commercial sector of Chandigarh.

The shopkeepers and owners in the sector blame the administration for the situation. Insanitary conditions, lack of maintenance, chaotic parking, encroachment by vendors etc. are some of the arguments they put forward for this accusation. The strict by-laws, restricting development in the city and the high heritage value given to the buildings by purists are also being highlighted as reasons for the decline of sector 17 by shop owners.

The one important thing differentiating sector 17 shopping center from any other shopping typologies in the city is the presence of vast plaza, which presents enormous opportunities in terms of flexibility and introduction of more activities. It has the potential to become a good urban public space along with its basic function of shopping. So there is a need to study the potential of this plaza as a public space, identify issues through analysis and suggest changes / improvements to make it better.

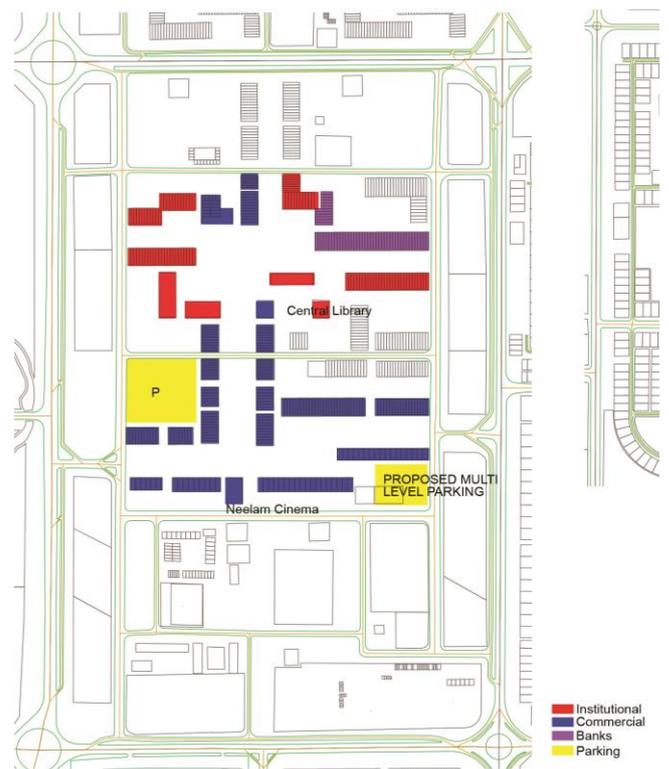


Fig- 4.1: Sector 17 . (source: Authors)

5. SECTOR 17 AS AN URBAN PUBLIC SPACE

Sector 17 is a unique public space at the heart of the city of Chandigarh with a variety of activities catering to a range of user groups. The user group and the activities together determine the character of the space which changes at different times of the day.

The plaza provides different activities for the youth, middle-aged people, families and elders. During the mornings, the percentage of people working/visiting the banks, offices, notaries form a major part of the crowd, whereas in the afternoon, the percentage of shoppers and tourists rises. The evenings experience a wider range of user groups like families, couples, young people, etc. The plaza is usually deserted after 11pm.

5.1 Activity Pattern

The shops and offices in and around the plaza open around 10am. Before that, one can find the place being cleaned by the sweepers and bins being emptied. Before noon, the hawkers set up their stalls and the place is frequented by, mostly, the office workers and the shoppers start coming in at around noon. Around this time, one can also find people leisurely sitting under the shading trees, enjoying the mild winter sun. During summer afternoons, this area is comparatively empty. The footfall starts increasing from 4pm onwards, when people indulge in all sorts of activities including shopping, recreation, eating, hanging around, etc. The plaza becomes most lively during late evenings when the number of people reaches its peak with a lot of hustle-bustle.

The NE side of the plaza is surrounded by offices, banks, government offices, notaries, etc. whereas the main plaza is mostly surrounded with shops, cafes, fine dine restaurants, etc. Both edges of the plaza are lined with number of hawkers, which increases during weekends. The plaza has two water features. One is a sculptural fountain, with water cascading through various levels. These levels can be accessed by visitors to experience the fountain from different perspectives. The second fountain located at the farther end, is a musical fountain where laser shows take place in the evening during the weekends. This becomes a major attraction for the visitors.

5.2 Public amenities and facilities

Parking facilities have been provided at various entries. A new parking lot has also been developed, completed in 2016. There is also a provision of underground parking, which scarcely used due to many reasons. A proposal for development of a multi-level car park nearby Neelam Cinema is provided in the Master Plan 2021. E-rickshaw facility from parking to the main plaza is provided exclusively for the elderly and differently abled people.

Public toilets have been provided at various locations in the plaza but these are either not easily identifiable or not functional. There are no drinking water facilities in the plaza which is a big drawback.

The dustbins are located at frequent points in the plaza, most of which are strategically located near the sitting spaces.

Public addressing systems are provided in-case of emergency or to communicate information or alerts.

Cluster of four benches around a tree, facing outwards, are scattered throughout the plaza. Green islands are also developed in the plaza, planted with trees and providing a continuous peripheral sitting space.

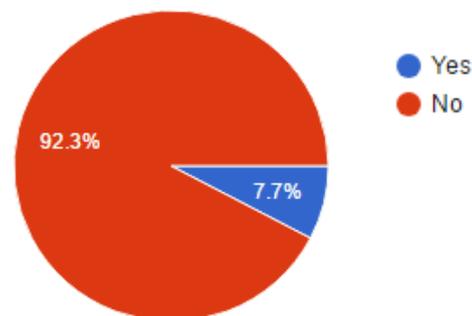
6. ISSUE IDENTIFICATION AND ANALYSIS

Based on observational analysis and user based questionnaire survey, a number of issues have been identified to determine the causes for the decrease in footfall of Sector 17 Plaza. The results show broad viewpoints of various kinds of users. The issues identified range from being management related, design related, social related, etc.

6.1 Lack of sitting spaces

According to the survey results, 90% of the users recognized the problem of inadequacy of sitting spaces as a major issue in the plaza. The number of sitting spaces is less in number as compared to the requirement with respect to the footfall. The need of sitting spaces increases during peak hours. The arrangement of the benches in clusters around the trees, facing outwards, does not provide opportunities for interaction between the people.

Are there enough street furniture/benches to relax?



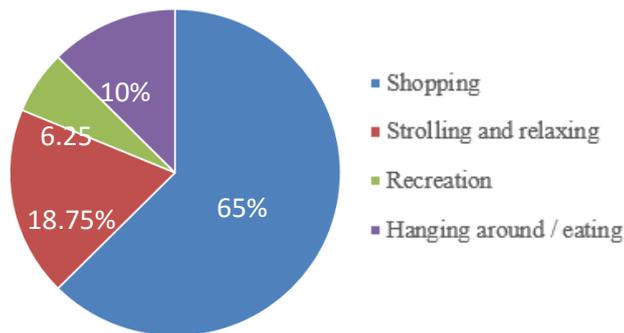
6.2 Less variety in user group

Most of the activities in the plaza cater to the youth and the middle-aged people. There is a lack of engaging activities for children and the elderly. Lack of sitting spaces also adds to the issue since elderly people require benches for intermediate relaxation.

Way-finding and the ability to orient oneself in the plaza is lost due to the monotonous character of the building facades and multiple shops of the same brand. The lack of landmarks and maps or signage in the plaza further intensifies the problem of way-finding and orientation, especially for tourists and visitors.

According to the survey results, 65% of the visitors frequent the plaza for shopping, 35% of the users visit the spaces for relaxation or window shopping and hanging around with friends. The plaza does not attract foodies due to lack of variety of food joints at affordable prices. Eating and dining becomes a secondary activity. This lack of variety of activities leads to less variety in user groups.

Which activity do you perform here?



6.3 Less footfall during summers

The footfall in the plaza reduces drastically in summers, especially during the day time. The major reason behind this is the massive expanse of concrete, hard paved surfaces. The amount of heat and glare is difficult to tackle. The inadequacy of shaded sitting spaces, unavailability of public drinking water facilities are also impactful causes for the decrease in number of people visiting the plaza. This also affects the footfall of the hawkers, since they do not have covered stalls or provision of installing open temporary stalls.

6.4 Short duration of visit

People usually avoid prolonged hours of visit to the plaza. The activities provided in the plaza do not provide opportunities for longer stay in the plaza. The lack of public amenities like public toilets, drinking water facilities immensely impact the time a person would prefer to spend in a place. This is more prevalent during summer months when the temperature of the area remains high. The prickly summer heat coupled with the inadequacy of sitting spaces discourages the people to spend more time than intended in the plaza.

6.5 Parking

Parking is one of the most important issues of the area. The surface parking is inadequate and chaotic. The underground parking provided is not used by people since they are usually water-logged, unclean, and badly lighted. Due to these reasons, number of cars entering the underground parking is very less, making the place deserted and unsafe for people and their vehicles. (Rohtaki, 2016)

6.6 Safety in peripheral pockets around the plaza

According to the survey, around 70% of the people referred to the issue of insufficient lighting especially at the entry exit point, etc. This affects the footfall of people in the peripheral pockets and therefore there comes a problem of natural surveillance.

6.7 Identity Crisis

The surrounding buildings are alien to the common man of Chandigarh. The people do not connect to the vast exposed concrete facades without plaster. The lack of ornamentation reflects the blankness of the façade. The façade of these buildings are characterized by their strong, solid straight lines. This makes the design of the building façade too modernist as per the taste of the users. They recognize these buildings as a foreign element, not true to the Indian context. The materials used were also adversely affecting the climate of the city.

The sculptural water fountain is more of a concrete sculptural work of art which lacks the interaction with its counterpart-water. The level of the water is much below the ground level, therefore from a larger distance; it appears to be only a solid concrete sculpture. The sprouts of the water outlet are also choked, or are almost invisible. The fountain is so badly highlighted that it doesn't become an interesting space even during peak rush hours.

6.8 Loss of Cultural Connect

The character of traditional Indian Bazaar with narrow shaded streets and spill over shops is held dear by the Indian population. Both as visitors and shopkeepers, such a character provides a sense of 'Indian-ness' and belonging to the people. With the vast expanse of the hard paved plaza and strictly defined geometry of the shopping complex, this feature is missing from the whole environment. While hawkers have tried to set up a few make shift shops as an attempt to bring in the character but the vastness of plaza nullifies it.

7. SOLUTIONS

On analyzing the issues discussed above, we can interpret that many of the issues are interconnected and even small scale interventions can improve the quality of space. Based on the types of issues, interventions can be provided at various levels.

7.1 Design of Seating

Lack of sitting spaces can be identified as a major determinant of decreasing footfall as well as less number of elderly people using the place. Improving the number and design of sitting spaces can greatly supplement the shopping,

eating activities provided in the area. The design of seating needs to be reworked so as to provide for more interaction as well as accommodate more number of people together. The benches can be placed closer together and arranged facing each other in a semi-circle. A mix of different types seating spaces other than isolated benches can be provided to enrich the spaces. These can be shaded by tress, covered, semi-covered etc. The seating can be strategically located and provided with associated activities so as to make certain areas more usable and encourage interaction.

7.2 Lighting It Up

The design of lighting is a major area of intervention that can uplift the character of the plaza. Lighting can be increased at certain points within the plaza to encourage more number of people to pass through the space. This indeed will bring to life the previously dead pockets and peripheral area. As more number of people start using the space, natural surveillance increases and in turn the sense of safety is strengthened. Although many people agree that lighting in the central plaza is sufficient and creates a soothing ambience for evenings, many people are worried about the safety of children. A number of points can be identified to provide focus lighting to improve recreational use of the space and create a mix of variedly lit areas, thus enriching the space.

7.3 Spaces for Everyone

Breaking the concrete expanse of the plaza has become absolutely necessary with the increasing temperatures. Small areas for retreat can be provided within the plaza to make it more active during summer afternoons. These can be made with landscaping, shaded sitting with fast food joints. Multi-use spaces can be provided for use by all age groups. Since a majority of users are people with family and kids, interactive activities focusing children can be put up in the plaza area. The location of these activities should be thought of carefully. They cannot be in a secluded area or in an overcrowded area. They can't be provided in isolation but need to be supplement by facilities for elders and other age groups.

7.4 Multitude of Activities

There is a pressing need to include features / activities that can bring in the 'Indian bazaar experience' to the plaza. Providing planned / designed facilities for street vendors, outdoor food-court and exhibition pavilions can be one way of bringing the experience and improving upon the variety of activities happening in the plaza. A few innovative and fun activities can be provided such as bike-powered phone charging station, augmented reality installations etc. Bringing back the 'Saturday carnival' that used to happen in sector 17 plaza would be a great boost in the rejuvenation of the space.

7.5 Magnetizing the Centre

The area near the central fountain can be made more attractive so as to draw people towards the center rather than concentrated use around the edges. A few seating spaces can be provided around the fountain for people to enjoy the fountain and the adults to sit while children play near it. The sculptural outlook of the fountain can become a backdrop for performances if such a space is created in the vicinity. A small open air sitting and performance stage can be provided. This can also be used as area to view the fountain in totality and sit and interact.

7.6 Generating Awareness

Chandigarh is one of a kind city in the world and is the living legacy of a great architect. The Capitol Complex site has been given UNESCO World Heritage Site recognition in 2016 as Corbusier's outstanding contribution to the Modern Movement. While the world desires to live the experience, the greatness of this 'crowning work' has much less awareness back home. People are not aware and therefore don't respect the heritage they have. Sensitizing people towards this exceptional piece of architecture can change their outlook towards the place. The area near the central fountain can display permanent installations of information for the visitors. This can be supplemented with weekly or monthly fair at the plaza about the works and life of the architect.

7.7 Absolute Amenities

Even though public toilets have been provided, these need to be well maintained and functional. Drinking water facility needs to be increased. The mobile vans need to be placed at locations near to the shops rather than the center of the plaza.

8. CONCLUSIONS

Enhancing the quality of the plaza while maintaining its unique experience and simultaneously adding a hint of the Indian traditions; and offering variety of activities for people of all kinds and age groups, can realize the architect's vision of creating a transcendent urban public space, thereby curing the heart of Chandigarh for a bright long future.

"The seed of Chandigarh is well sown. It is for the citizens to see that the tree flourishes"

Mon Le Corbusier

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