Activating Defensible Spaces of Shivaji Nagar

Shikha Patel

P.G. Student, Department of Architecture, BMS School of Architecture, Bangalore, Karnataka, India
Assistant Professor, Department of Architecture, BMS School of Architecture, Bangalore, Karnataka, India

ABSTRACT: This socio physical phenomenon deals with a residential environment whose physical characteristics - building layout and site plan - functions to allow inhabitants themselves to become key agents in ensuring their health and security. In context of Shivaji Nagar, these defensible spaces have been formed with time as the blocks morphed leaving the small courtyards, now facilitating the daily functions of the residents. These open spaces have lost its purpose due to unplanned organic development and lack of provisions to preserve and maintain the environment. The defensible space concept draws on situational aspects of organic incremental developments, spatial layout and accessibility, land-use patterns and routine activities of place. In order to cater to the needs of the residential population, recognizing these social spaces clearly appropriated by a specific community has become necessary along with redevelopment of the activity zone in these spaces.
The aim is to consider the issues relating to defensible spaces, including the importance of design in relation to the function and the reliability of territoriality and community in activating the space.

KEYWORDS: Defensible spaces, Community, Design Solutions, Ownership

I.   INTRODUCTION

A.   Introduction to Site: A buzzing historic sprawl in the centre of the city hit by fast urbanization since recent decades, Shivaji Nagar in Bangalore, stands in need to be structured, considering its vibrant users. In the early years, Shivaji Nagar attracted populace for trade, commerce and crafts. This brought in divergent population following various religions, sects and beliefs. However, the history goes back to early 1570 when one of the oldest masjid – Jumma Masjid laid its foundation. Consequently many masjids were laid in the precinct around a radius of 2 kilometres. In the early 1800's, Saint Mary's Basilica (out of the three in India) was laid followed by many Hindu temples in 1900's of different disciples emboldened by various Hindu communities.

B.   Brief History of Bangalore: The history of the place dates back to 2nd Century when the Gangas (1) established their rule in Kolar (2). The next recorded history dates to 1172 – 1219, when the Cholas and Hoysala (3) dynasty ruled during which the region was named as "Benda-Kalu-Uru" which means baked beans. Bangalore got its prominent recognition through Kempe Gowda II in 1537 who constructed Bangalore fort as a defence infrastructure and who laid the foundations of trade and commerce inside the fort area. Next comes the Maratha Rule in 1687 who attacked Devaraja Wodeyar (4) and scooped out the empire run by Kempe Gowda. Later on, the precinct was handed over to Haider Ali by Mysore ruler. After the two Anglo Mysore wars (5) in 1769 and 1782, Tippu continued to suffer from great losses and finally with the fourth Anglo Mysore war the regime of Haider Ali and Tippu ends when the British took over in 1807. In the early 19th Century the British troops acquired to be stationed and established a civil and military station later known as "cantonment area". Following the establishment of cantonment area, the British established first general hospital (in 1835) and first English medium school (in 1842), making Kannada and English as parallel languages. In the mid 19th Century the city was bi-nucleated into native are and civil and military areas. This governed a fast growth in Bangalore and in 1940 the government reserved 10 acres of lands for large markets known as Blackpally (the then name of Shivaji Nagar). After independence (in 1947), there was a dramatic increase in the trade links which led Shivaji Nagar into highlight, being in the centre of the city and the land having mixed use.

C.   Impact of History on Shivaji Nagar: After the city was divided into native and civil-military area, Shivaji Nagar became stop for many commercial activities to serve British. A part of the precinct acted as horse stable where the British came to mend their horses and its saddle. Later on, with the import of cars and bikes, the place (now known as Gujri Market) started serving the automobiles. This became one stop for the British for repair and replace parts of their imported automobiles. Presently, the Gujri area serves the whole of Bangalore and even cities around for imported automobile parts.

The Colonial times also gave Shivaji Nagar, a closed market called Russell Market which distributed exotic fruits, vegetables and meat for the British. Presently, the market distributes all types of fruits, vegetables and flowers along with variety of fish and meat.

Apart from these, the place is also famous for its clothes market, Food Street and other household items. Char Minar Masjid (one of the oldest in India) and St. Mary's Basilica Church (one of the 3 Basilicas in India) being in the study area, festival Eid, Christmas and St. Mary's feast is celebrated grandly which changes the spatial arrangement of the streets.

Another highlight of the place is the streets of Veerapillai and Dharamraj Koil where Tamilians migrated in the early 1900's to manage the accounts of British Authorities. They then started small scale businesses like paper shops, leather market, clothes, shoes, spices, grains and jewellery for their livelihood, which has now become the identity of Shivaji Nagar.

D.   Understanding the Site: The area started to build in the early 1800's when Char Minar Masjid (because of the large Muslim population) and the first Basilica Church in India was constructed (refer figure 1). This attracted similar communities to grow around these religious places. The blocks around these religious places morphed due to the increasing trade opportunities, making a strong community in itself (refer figure 2). Along with settlements also came the connections to these religious places. The first road evolved was HKP road (also known as Broadway road) which connects Shivaji Nagar to North of Bangalore followed by Chandni Chowk road connecting Mysore road (South of Bangalore). In the 19th Century, Bowring Hospital was established which led to the emergence of new routes like Shivaji Road, Meenakshi Koil Road and Ibrahim Street (refer figure 3). Along with these public buildings came a huge population to settle for livelihood jobs. Morphology of Noah Street, Veerapillai Street and Dharamraj Koil Street is evidence to the settlements evolving (refer figure 4). Refer figure 5 for present day scenario of Shivaji Nagar.
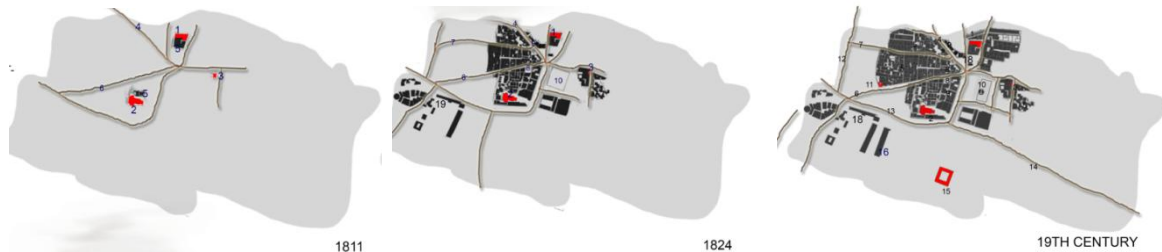

Figure 1: (1 – Char Minar Masjid, 2 – St. Mary's Basilica, 3 – Masjid, 4 – HKP Road, 5 – Settlements, 6 – Chandni Chowk Road)
Figure 2: (7 – Noah Street, 8 – Gujri, 9 – Commercial shops, 10 – Russell Market, 19 – Government School)
Figure 3: (8 – Beef Market, 11 – Hari Masjid, 12 – Shivaji Road, 13 – Meenakshi Koil Street, 14 – Ibrahim Road, 15 -Bowring Hospital)
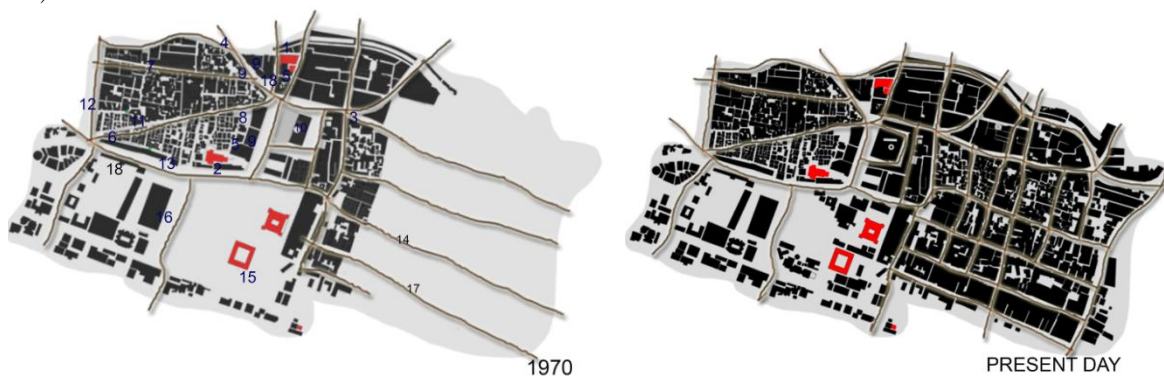

Figure 4: (6 – Bus Stop, 17 – Commercial Street)   *Figure 5: Present day scenario*

E.   What are Defensible Spaces? There have been many definitions for defensible spaces. According to Oscar Newman (6), "All Defensible Space programs have a common purpose: They restructure the physical layout of communities to allow residents to control the areas around their homes. This includes the streets and grounds outside their buildings and the lobbies and corridors within them. The programs help people preserve those areas in which they

can realize their commonly held values and lifestyles". Oscar encompasses his idea of defensible space to be crime protected and safe neighbourhood.

Literally speaking, the spaces capable of defending itself are called defensible spaces. They are usually formed due to people's help or ownership they hold on the space. Mostly, in such spaces self-help interventions means more than government policies. The parameters that define these defensible spaces are sense of ownership / responsibility, security, cleanliness, safety, well attended, modestly furnished and accessibility. These defensible spaces are identified and classified on the following factors: (1) Territoriality - sense of ownership (2) Natural surveillance – eyes on street (3) Milieu – a social environment the place offers (4) Safe Adjoining Areas.

II.   PROBLEM STATEMENT

A.   Formation of Defensible Spaces: There are various communities evolved over time in the precinct with historical background. Some of them are disappearing with time while some of them have bonded to be strong communities. The lands in the blocks of Shivaji Nagar are disputed lands and as the disputes are legally solved and the land occupied by owners, there only remains a ROW (Right of Way) in the blocks leading to residences. For example, observe the evolution of the block on Chandni Chowk Road (Figure 6). The previous courtyards are slowly replaced by private buildings, eventually forming small spaces which defend themselves. These spaces, not only gives the way to approach the buildings but also defines the social life of the residents. As per the functionality of these open spaces, they defend themselves due to the following reasons (1) There is always someone looking on the street or space making it safe for children, women and strangers (2) Even though there is not street furniture the Kattes and Juglis houses act as platform for socializing. Even the blocks which have commercial use, due to lack of light and ventilation in the inside, people tend to work out on the streets making it live during the day. (3) The activeness of the space during different hours of time makes it safe. (4) The strangers feel familiar and not lost due to the scale of the streets and buildings. (5) The special character of each street (like shoe street at Veerapillai Road, jewellers market at Jewellers Street, beef market near Russell market, etc) gives identity and imageability to the place. (6) The high rise religious buildings (like Hari Masjid on Chandni Chowk Road and Jumma Masjid on Jumma Masjid Road) contribute visual character to the area.

Figure 6: Evolution of a block on Chandni Chowk Road

B.   Aim of Study: The defensible space concept draws on situational aspects of organic incremental developments, spatial layout and accessibility, land-use patterns and routine activities of place, in case of Shivaji Nagar. In order to cater to the needs of the residential population, recognizing these social spaces clearly appropriated by a specific community has become necessary along with redevelopment of the activity zone in these spaces.

C.   Area of Concern: The aim is to consider the issues relating to defensible spaces, including the importance of design in relation to the function and the reliability of territoriality and community in activating the space.

D.   Literature study: Defensible spaces could be quite vibrant depending on its location, user type, ownership, neighbourhood and availability of resources around. Community involvement also plays a major role to define and functions these spaces. When it comes to the mechanism needed to ensure the functionality of a space, these aspects need to be considered. The case study of a housing project in South Florida explores into the micro-environmental resolutions demonstrating links between the resident's perception and observed personal community attitudes. This project is a low housing plan known as Citrus Park Homes in Fort Lauderdale, Florida. Following Oscar Newman

approach, this space is also classified based on the level of publicness or privateness. As the levels vary, the territorial responsibility differs from residents to administrative agencies. Based on the same approach the spaces at Shivaji Nagar are also classified and proposed interventions depend on the analysis of stakeholders.

E.   Identifying Issues: The primary issue is the usage of these defensible spaces during the night time, especially in the non residential areas. Due to the commerce in the daytime, the streets become safe and active, but the same streets become vulnerable to vandalism during the night. While in the residential area it becomes dead due to lack of lighting, street furniture, etc which makes it unsafe for even women and children at night. This is when we tend to ask some design questions which will help to address the problem statement. For example, (1) Is there a need to activate this defensible spaces? (2) Can some of these defensible spaces be a part of public realm and can be facilitated by elements to change/add the modality of the space? (3) Can unused land be revitalized by providing the facilities to enhance the function?

III.   HYPOTHESIS

A.   Theory: The idea is to activate these spaces in a way that it helps to continue its function, along with address the above mentioned issues. The option of changing the fabric of the place by removal and constructing new spaces, like parks, is ruled out as these defensible spaces work only because its functionality. Changing the primary use and offering a new function to the place might not work well here. Moreover, the fine grain fabric does not allow us to consume a lot of space for designing either. Hence, after identifying the defensible spaces, it is necessary to define its catchment area, that is, who are the people or which are the buildings that will be served by that particular space. (Refer figure 7)

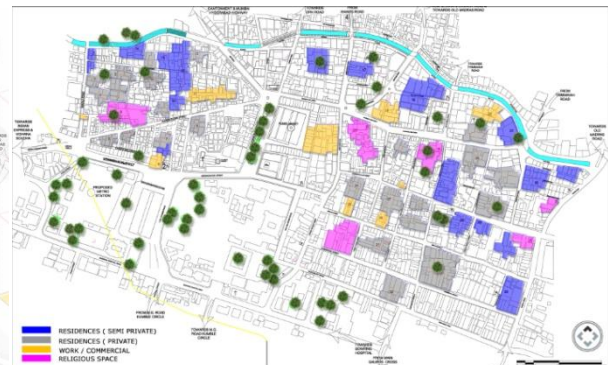*Figure 7: Identifying Defensible Spaces and its catchment area*   *Figure 8: Types of Defensible spaces at Shivaji Nagar*

B.   Context: Due to the mixed land pattern and the building fabric, the defensible spaces formed in the precinct are not the same. The functionality and interface of these defensible spaces change from street to street and building to building based on the communities and land use. In conclusion, there are primarily four types of defensible spaces in Shivaji Nagar. (1) Private defensible spaces formed in between residences – mostly formed between fine grain fabric in residential areas. It is a self – governing enclave whose common areas are shared / owned by the residents, and whose services are provided by these residents. (2) Semi Private defensible space – space that is access controlled and accessible to residents and associated people only. In some cases it is a private space accessible to general public. (3) Religious defensible space – open spaces which are formed around religious buildings which can be accessed by general public and can be used for certain events / festivals. (4) Work space – these are the spill out of small commercial establishments outside on the streets. Sometimes, there is a series of such connected workspaces. Refer figure 8.

IV.   INTERVENTION

A.   Options to deal with the issues: Due to the diversity of the study area, each social space has unique characteristics in context to the user group and activities. The scale of the study area is compact and so the transition of spaces. Considering the various parameters in context to Shivaji Nagar, there are three options :
Option 1 – Connecting defensible spaces to make a network of spaces giving it to the public realm.
Option 2 – Give platform for workspaces, the interiors of work areas being dark and narrow.
Option 3 – Activate the recognized social spaces individually, by adding design elements to ensure sustained use.

B.   Design Solution: In terms of activities and community users, within few meters, the aim would be to renew these defensible spaces such that it doesn't lose the uniqueness of the place as well as it should not give rise to public-ness in semi private and private areas, not to compromise the safety to create a sense of ownership.
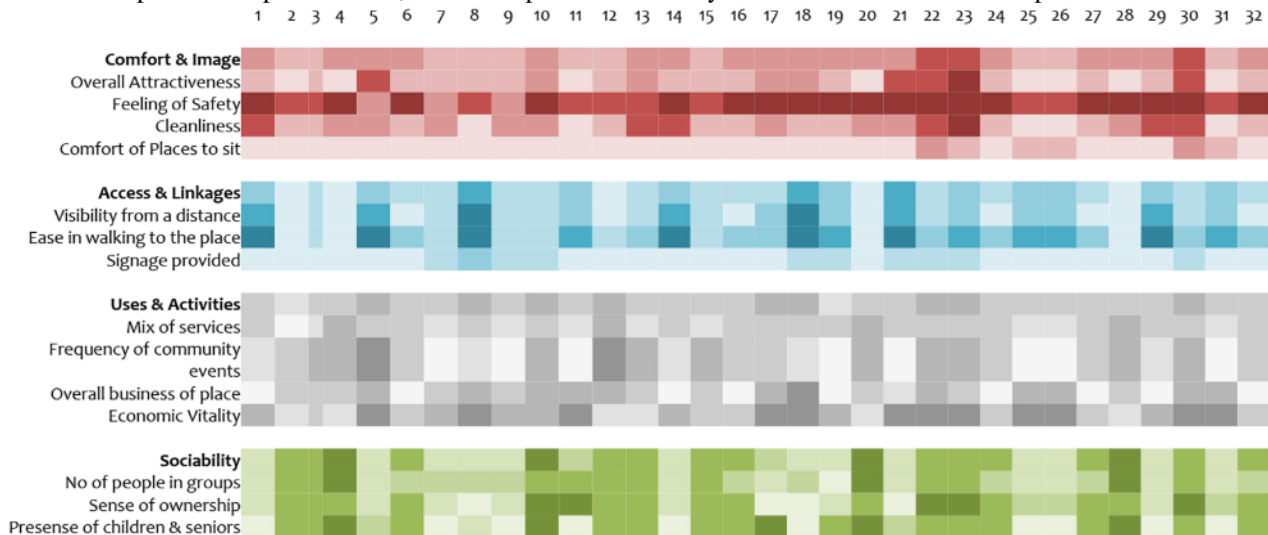

Figure 9: Place Performance Evaluation

C.   Methodology: A simple step process is used to approach towards design solution. First, identify these defensible spaces, and then add design elements to ensure sustained use and lastly, remove any obstacle in the use of these spaces. All the defensible spaces were marked numerically and each space was surveyed based on the following parameters: (1) Comfort and image (2) Access and Linkages (3) Uses and Activities (4) Sociability. The matrix is prepared based on the ratings given to each parameter (the darkest being the highest rate).

Based on the survey, some observations were made which would help to strategize the design solution.

1. Comfort of places to sit is an issue common for all types of defensible spaces.
2. Need to create imageability for the users and also a sense of ownership.
3. Most of the work spaces or spaces not in between the residences are economically vital.
4. As these spaces are not active throughout the day, they become vulnerable to illegal activities at night time.
5. Safety is not a primary issue in most of the defensible spaces.

D.   Design Strategy: The following design strategies are used considering the observation of the matrix:

1. Clearly defining the edges
2. Paving
3. Adding seating
4. Street lighting to add visual connection
5. Landscape elements
6. Providing furniture for work spill out

Refer the images (figure 10, 11, 12) below for design strategies of various defensible spaces at Shivaji Nagar.
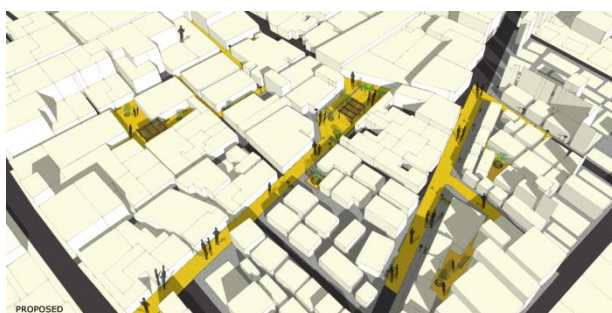

Figure 10: Proposed Design (Space 5)

Figure 11: Proposed Design

Figure 12: Proposed Design

Figure 13: Proposed Design (Space 12)

Figure 14 & 15: Proposed Design

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(3) Prominent Kannadiga empires which ruled a large part of Karnataka. – Wikipedia

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