

Reciprocal Relation between Urban Open Spaces and Urban Community

Ar. Triveni Amaranath¹, Dr. Rama R Subrahmanian²

¹Associate Professor, B M S College of Architecture, BMSCE Campus, Bangalore, Karnataka, India

²Director & Professor, Dayananda Sagar School of Architecture, Bangalore, Karnataka, India

Abstract: Urban environment and its quality are majorly determined by the types and quantity of effective, inclusive and accessible urban open spaces available for its inhabitants. Character of urban open space, offers numerous opportunities as well as benefits while conditioning everyday discourse, public life and civic culture. Rapid and unregulated urbanization is leading to the consumption of public open spaces. Appropriate, relaxing and enjoyable open spaces are required for physical and emotional well-being of inhabitants of an urban area. The paper attempts to draw the focus on the significance and relevance of different types of open spaces affecting urban dwellers' lives. Further, paper deliberates on the development and improvement strategies and design solutions with reference to two case studies.

Keywords: Urban open space, Urban environment, Urbanization, Social, Community, Physical, Economical, Educational

I. INTRODUCTION

An urban area and the quality of its environment are extremely important as there exist a strong relationship between the environment and the behavior. Urban environment has an impact on a wide range of elements encompassing housing, health, education, employment, recreation, etc. for various communities. Urban environment and its quality are majorly determined by the types and quantity of effective, inclusive and accessible urban open spaces available for its inhabitants. Character of urban open space, offers numerous opportunities as well as benefits while conditioning our everyday discourse, public life and civic culture. Urban open space can be defined as land and water in an urban area that is not covered by built environment. Open spaces in an urban land provide a range of tangible and intangible benefits to the urban community. Urban planning and Urban Design professionals have always valued the relevance and importance of open spaces for the benefits it brings to the urban environment and inhabitants. **Several open spaces of diverse functions such as urban squares, well designed streets, private and public parks in neighborhoods, playgrounds (small and big), open areas of public and private institutions, forest reserves, incidental spaces, etc. offer varied social, educational, active as well as passive recreational, health (physical and mental), environmental (climate and bio-diversity) and economic (positive impact on property values) benefits.**

Rapid and unregulated urbanization is leading to the consumption of large tracts of urban open spaces. The modern movement in its enthusiasm for functional rationale and technology has perhaps over looked the integration of the component of natural environment with the built environment. The environmental upheaval has not taken into account the desirability of a balance between the technological achievement and psychological and social needs. Unprecedented development is resulting in a continuously expanding demand for built forms and urban open spaces are being used as easy resource for development.

II. A CASE OF OPEN SPACES IN BENGALURU METROPOLITAN CITY

Bengaluru, India's Silicon Valley is witnessing escalation in built forms (low rise to high-rise) for colossal residential, commercial and mixed-use projects, owing to industrialization, commercial growth and surge in service sector related investments.

Urban Planning standards prescribe 12.00SqM of open space per person. However, livable cities across the world have 6.00 to 14.00 SqM open space per person. Disappearing urban open spaces is an issue that is recurrent in the majority of cities across the world. For instance, the 2011 census conducted in the 198 wards of Bengaluru metropolitan area revealed that, there is just 0.3 SqM of open space per person that reflects on the meagre number of open spaces left for the citizens. Increasing densities has resulted in the significant decline in the number of open spaces.

However, actionable and focused design strategies and solutions for different types of urban open spaces can bring in significant positive impact to the urban environment. Following two case studies have been used as illustrations to deliberate on the improvement of urban open spaces that aim at converting them into urban oasis.

2.1 Case study-I: Urban open space in an institutional campus

Bengaluru University Campus

Objectives of this design intervention were to provide recreational facilities for the institution users and public at large, a network of footpaths to link facilities and landscape buffers between developments and promoting bio-diversity.

Bengaluru University in 1973 moved from Central business district location to sprawling JnanaBharathi Campus with an area of 1100 acres of which around 300 acres is leased out to different institutions. There are around 131 buildings in the campus comprising the roof top area about 97,850SqM. The bio-park of 300 acres has been allocated which acts as a lung space for the congested, polluted surrounding neighborhood.

created many unsafe zones inside the campus. Different available open spaces can be effectively used for creating various typologies of interactive and community spaces for the students, staff and parks for the surrounding neighborhoods.



Fig.1



Fig.2

Figure-1& 2: Map showing the Bengaluru University Campus along with its dense urban context

Source: Figure-1-Google images and Figure-2 - Authors

The rest of the area is open space. The campus is surrounded by residential neighborhoods. The main road bifurcates the campus connecting these neighborhoods and thus letting the public into the campus. Thus along with the institutional community the public uses the campus for various purposes like eateries, shopping, walking, temple, library etc. Open spaces in the campus have been neglected. The pathways are created by pedestrian movement and are haphazard. This has



Fig.3



Fig.4



Fig.5



Fig.6



Fig.7



Fig.8



Fig.9



Fig.10



Fig.11

Figure-3 to 11: Various types of open spaces of the university campus

Source: Authors



Figure-12: Location of the site in the university campus
 Source: Authors

An open space at the heart of the campus, located near the library was selected for demonstration. This has an existing small eatery, adjacent to a temple. This area attracts a lot of crowd as it is in close proximity to the bus stop, temple, library and different departments of the university. The site gradually slopes towards the pond. Pedestrian pathways are haphazard. There are no spaces for storage or washing. Area provided for the food counter is very small hence always crowded. The entry to the food area is arbitrary. No designated space for seating. Pond has been polluted and emits foul odor. The parking is chaotic. Trees like Iron rust, Rain tree, Ficus species are found in plenty and provide shade. No shrubs are found, but undergrowth is unevenly distributed.



Figure-13: Site plan

Source: Authors

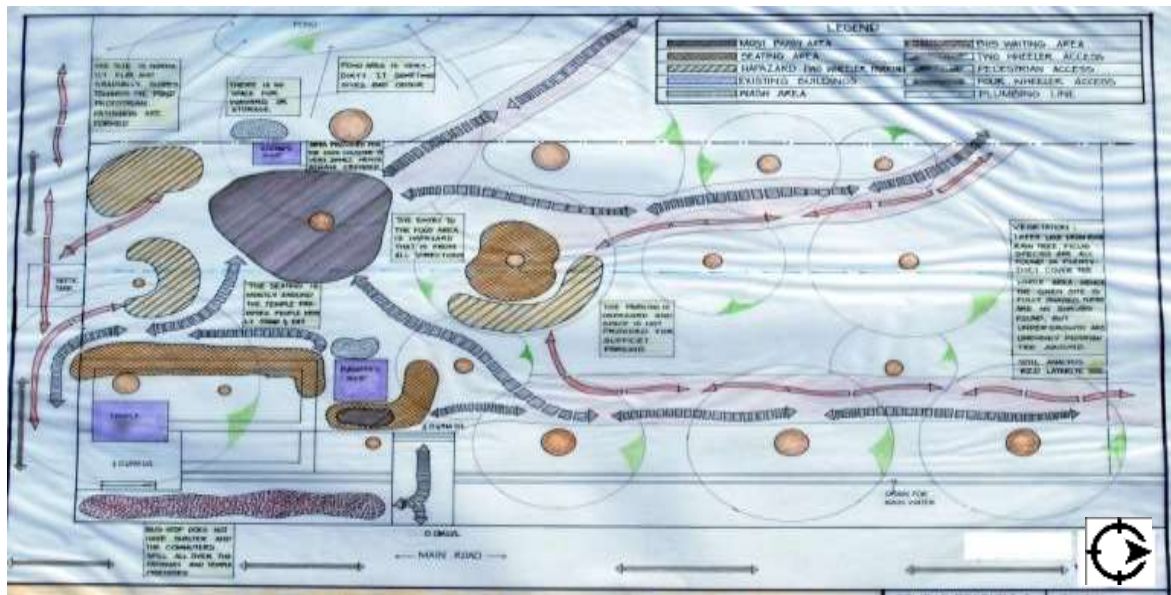


Figure-14: Detailed site analysis

Source: Authors

Design proposal:



Figure-15: Design proposal

Source: Authors

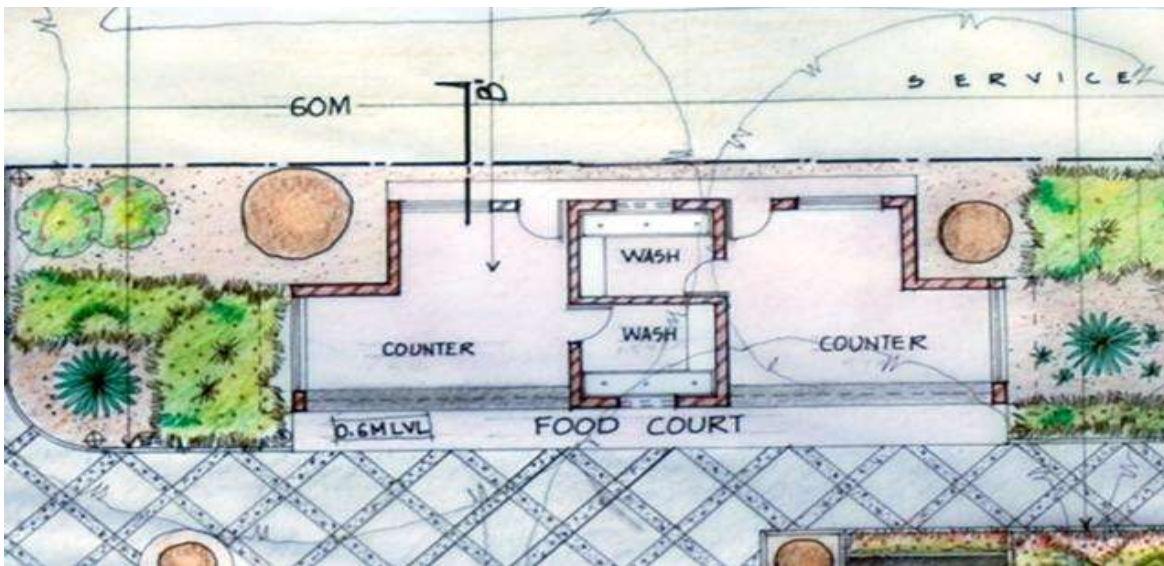


Figure-16: Details- Proposed food court

Source: Authors

Use of the existing topography and the setting allows an environmental theme to prevail. The Pond in the vicinity can be rejuvenated and the food court will have visual access to the pond but in due time can be screened with shrubs and trees. The temple has been given access from the food court.

Interaction spaces with seating can be provided. As the site is completely shaded, shrubs used should be shade adoring and also shall be covered in some areas only above seating. This design intervention augments the creation of a much needed usable interactive spaces

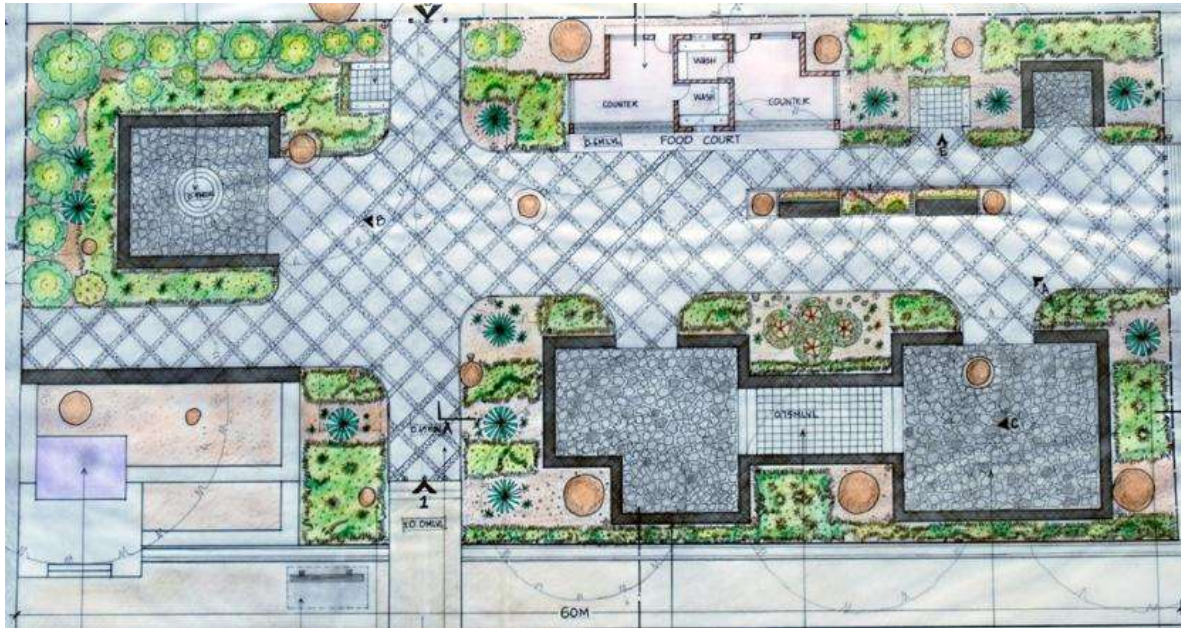


Figure-17: Details- Proposed different seating areas and other amenities

Source: Authors



Figure-18: Detailed sectional elevations and views

Source: Authors

Formal and informal paths depending on their context lead to different areas. In order to reduce potential conflict between vehicles and pedestrians, well designed pathways have been proposed in parallel with the abutting road. Extensive naturalistic planting, pond renovation, etc. would enhance the area physically as well as visually. In addition to providing areas for recreation, it supports conservation of a range of habitats, together with improved access for people and the provision of new recreational activities, result in the creation of an important asset for the institution as well as community.

2.2 Case study-II: Urban open space - Neighborhood Park in a residential area

Objective of this design intervention was to establish the importance of Neighborhood Park as a potential urban open space, rather than an island isolated at the intersection of the four roads which would act as a catalyst for further improvement of the area. The proposed site for the neighborhood park is located in the Bellary town. Site gradually slopes from north-east to south-west.

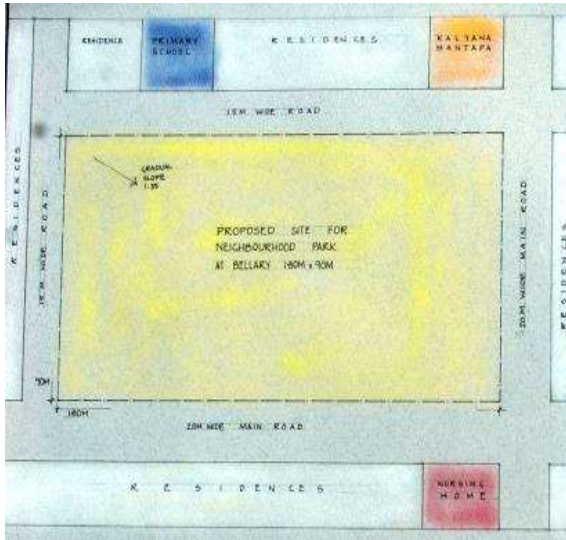


Figure-19: contextual details- Neighborhood Park

Source: Authors

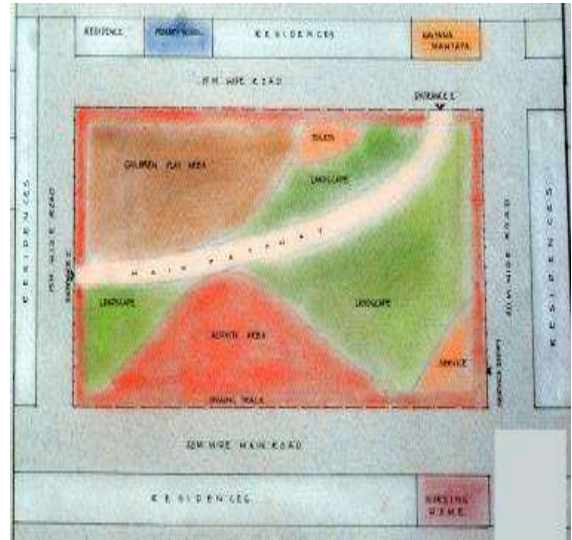


Figure-20: Concept- Neighborhood Park

Source: Authors



Figure-21: Design Proposal

Source: Authors

Safe social interaction can be maximized by providing different activity areas and design of spaces with different levels of privacy. Considering the context, an inclusive neighborhood park was proposed complete with children play area, walking/jogging track, water features, space for Yoga,

space for a small kiosk, restroom facilities, service area and an engaging maze was proposed. Thus, this neighborhood park in a residential area provide opportunities for community and cultural activities, physical health, restorative effects helping to get away from everyday stress of life.

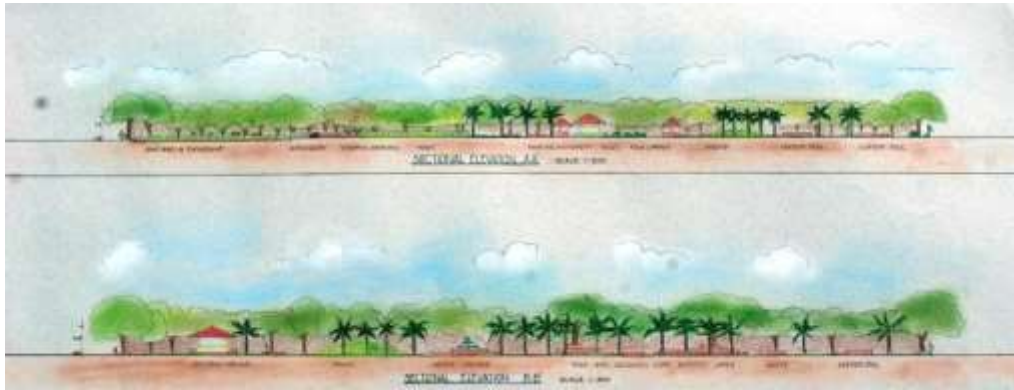


Figure-22: Sectional Elevations

Source: Authors

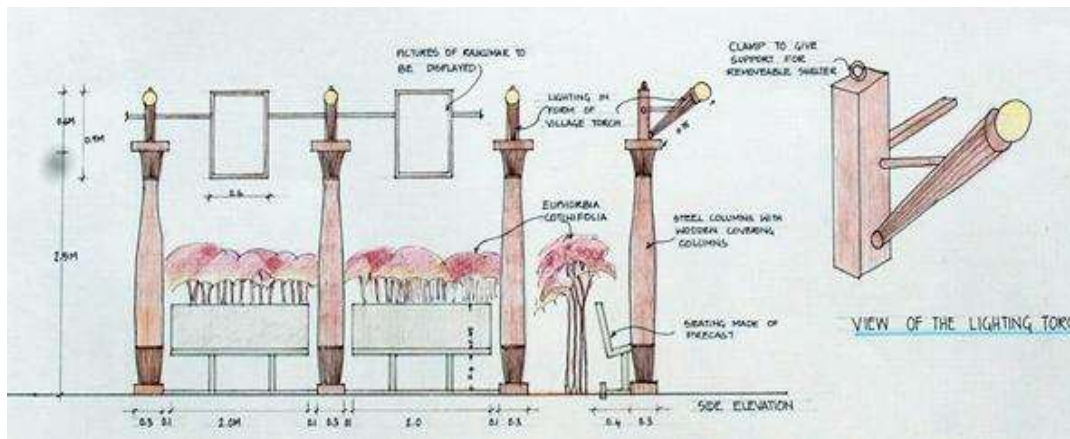


Figure-23: Details

Source: Authors

III. CONCLUSION

Urban open spaces enhance the quality of urban life, transform the environment, especially in high density urban areas and encourage inward investment in several urban blight areas. The arrangement of built forms and their physical relationship with open spaces should be considered in the design of communities. A series of linear open spaces and other publically accessible areas can be developed.

Need of the hour is to target for a holistic approach to generate sensitively designed and managed diverse urban open spaces which enhance the urban life experiences. A sense of community can be provided by open spaces of different types for different people and communities. These opportunities include small and large events and both organized and informal gatherings.

Challenge for government and communities as whole to acknowledge the benefits and opportunities that urban open spaces can provide - social, environmental, health, recreational and economical. The quality of these spaces needs to be enhanced to make them suitable for the contemporary society. Knowledge, acknowledgement, interest in the provision and maintenance of a better network of open

spaces in our urban areas has a long lasting impact in facilitating better quality urban living. Designed, well planned, built and maintained urban open spaces throughout the urban fabric, with community involvement, where appropriate, present a unique prospect to create new urban landmarks.

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