REVIEW

Understanding the Role of Architectural Elements in Facilitating Social Interactions for a Sustainable Community Living - A Case Study of Walled City of Amritsar, India

Sameer Gujar*

Priyadarshini Institute of Architecture and Design Studies, Nagpur, Maharashtra, 440019, India

ARTICLE INFO

ABSTRACT

Sustainability of a community is an intrinsic social process and social interaction plays a key role in this. Due to urbanisation, there is a high demand in the city for housing. However, for people, there is a physical and emotional association to their community they are living in. This is getting lost in the current trend of housing development. In such a development, what gets built loses the fundamental values of living together in terms of social interface and quality of life. This coupled with today's technologically dependent era, people are busy with their works and barely know their neighbours. The current model of development fails to retain shared spaces and the notion of collective living and further favours individualism. Hence, there is need to understand aimed at understanding how the effect of spatial relationship, the architectural feature and character of the cluster, help sustain co-living. This paper focuses on understanding community living within the core city of Amritsar. The study was carried out through survey and documentation of various identified community clusters in the walled city. It includes analysis of a cluster and individual units with respect to their arrangement and building elements that facilitate social interaction.

1. Introduction

Sustainability of a community is an intrinsic social process and social interaction plays a key role in this. Social sustainability occurs when the formal and informal processes; systems; structures; and relationships actively support the capacity of current and future generations to create healthy and liveable communities. Socially sustainable communities are equitable, diverse, connected and democratic and provide a good quality of life [1].

There is a rapid increase in the population of urban areas leading to increased demand for infrastructure and services. The total demand for urban housing is estimated at

Corresponding Author:
Sameer Gujar
Priyadarshini Institute of Architecture and Design Studies, Nagpur, Maharashtra, 440019, *India*
Email: mailsameergujar@gmail.com

4.2 million units during the period 2016-2020 across the top eight cities in India, as per report released by Cushman & Wakefield[2]. It also creates ample opportunities for builders and developers to provide housing, prioritising the profits due to excess housing over strengthening social interaction. Due to this there is a fundamental shift from figurative open spaces to increasing high rise structures in the cities [3]. Due to provision of higher Floor Space Index (FSI) along with the regulations of setbacks, ensures the developers and builders to create excess housing for pure profit.

In today's manipulative technological era, people no longer need the help of their neighbours. The way current community housing projects are planned, further reduces social interaction leading to unhealthy lifestyles, increase in crime and many more social issues which was not the case a few decades back. It is very imperative that inhabitants of high rise structures are more prone to become unsocial thus affecting their social relations. This leads to loss of community and social support [4].

Within this scenario, there is a need to look at sustainable community living and planning of housing clusters to increase social interaction. For understanding the same analysis of existing co-living clusters is necessitated.

2. Methodology

In order to facilitate this study, cities with strong cultural and sociological backgrounds were selected. Amritsar is a main religious and cultural centre for Sikhs. Its strong social and physical fabric, especially in the central walled city, was apt for this study. The study focuses on identification of communities, and further analysis in terms of clusters and individual units through primary data collection method. This includes focused group discussions, interviews with the users and measured drawings to understand user space relationship.

3. Observations

3.1 Amritsar Walled City

Amritsar in past was known as Ramdaspura, founded by the fourth Sikh guru, Guru Ram Das to become the main worship place of Sikh religion in 1577 AD. The city got its name "Amritsar" from the pond located in Sri Harmindar Sahib (Golden Temple). With the advent of time, the city developed around the Temple and flourished as a tourist and commerce center. However, due to constant threat, the development was close knitted in enclosed societies known as Katra with smaller divisions of Gali (Fig.1). Though faith is a strong factor to keep the community close knitted, the clusters and unit design facilitates social interaction.

Figure 1. Walled city of Amritsar

3.2 Clusters

The Katras are sort of gated community with a limited number of entries and all the residential units are accessible only from within. Since the main aim was to safeguard the community from external attacks, the internal roads were kept narrow, with units on both sides. The narrow road with units on both sides represent Gali in a Katra. Except the main entries which are about 3m wide, all the internal Gali are less than 2m wide. As the width of the road were kept narrow, it only facilitates interaction with two to three individuals at a time. To facilitate a direct interaction of a comparatively larger group, a Gali sometimes widens at places which mostly is a place of utility services or worship. Such a space may be housing a well or a small temple (Fig. 2 & Fig. 3). It was observed that these smaller gathering spaces are more effective spaces for daily interactions than in larger open spaces.

The units are placed in a linear pattern with both side walls shared with the adjoining units. This type of arrangement facilitates uniform street façade. However, there is limited natural light that can be taken from the two free sides of the unit, which leaves no alternative but to take the light from the terrace. As the units are linear in nature, the size of the opening limits the height of structure to a maximum of four floors, so that sufficient natural light reaches the ground floor. Also due to the narrow width of units and very less setbacks, limited structural elements are possible on the facades, which includes an entrance door, windows and a balcony to play with. Also the ornamentation of these elements is similar in nature forming a uniform character (Fig. 3). Such type of uniformity develops a strong sense of social equality, which in turn enhances the possibilities of interactions within individuals.
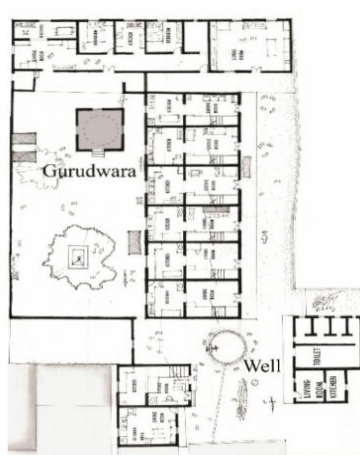
Figure 2. Plan of Katra Ahluwalia

Figure 3. Detailed plan of Cluster with community spaces

Figure 4. Elevation of a Gali in Quilla Baghianwala

3.3 Elements of social Interaction in Individual Units

As the cluster are linear in nature, only the narrower end of the individual units open on the main approach roads. As discussed, the only elements on the façade are an entrance door, windows and balconies along with terraces if any. As the approach roads are very narrow, the interaction spaces get extended within the individual units, which impacted the design of these elements.

3.3.1 Entrance Door

The only entrance door becomes the primary element of the individual unit for direct interactions. Due to physical constraints, features such as extended floors over the storm water drains, for sitting purposes on either sides of the door are incorporated with the entrance door (Fig. 5 & Fig. 6). Their sizes are enough for one person to sit on and chat with the person sitting in opposite house or even with passer-by.
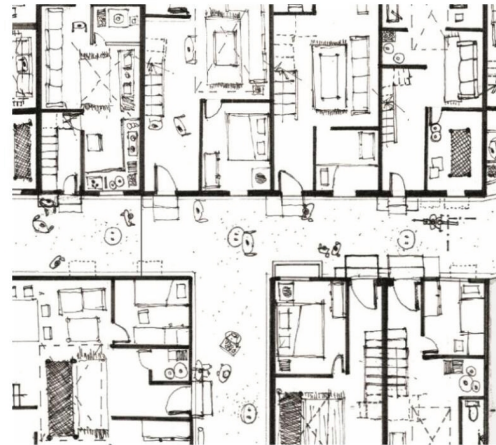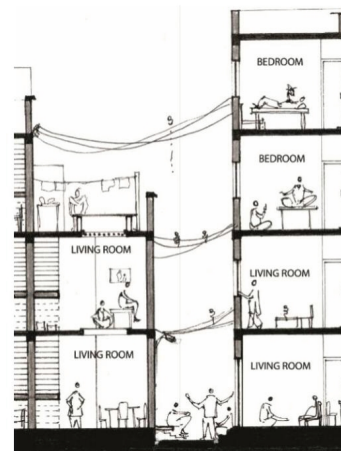

Figure 5. Entrances in plan Bagh Ramanand

Figure 6. Section of units in Bagh Ramanand

3.3.2 Windows

Generally, the ground floor is mostly provided with only door as the width is very narrow. However, the windows are provided on upper floors. In cases with a wider width, even ground floor is provided with windows. The windows in these cases are of low sill heights. They are generally divided into 3 parts, viz. lower window, middle main window and upper ventilators (Fig. 5). As majority of the houses have Indian type seating arrangement, lower windows serve for ventilation and also as a medium of interaction with the passer-by on street or those of opposite side houses.
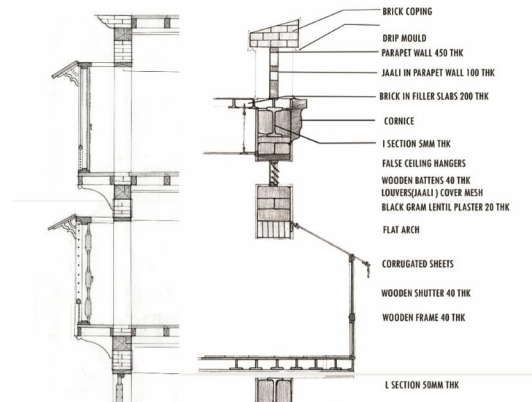
Figure 7. Typical windows in Katras

Figure 8. Balconies in various Katras

3.3.3 Balconies & Terrace

Balconies and terraces have always been known for direct social interactions. It is no different in Amritsar too. Often in the long continuous façade one could will find these intricately designed wooden balconies projecting just enough for one person to stand (Fig. 6).

4. Observations and Discussions

As discussed before, community sustainability largely depends on how interactive it is within itself. Thus from the present study it is evident that due to closely knit clusters, probability of social interaction increases. Maintaining a common character and relatively similar unit sizes builds a strong social equality. This further facilitates a sense of belongingness and attachment to the place. Smaller gathering spaces facilitates daily interactions which further enhances the social relationships between individuals. Through interviews with the residents, it was found that daily interactions with their society members kept them connected with each other developing a social bond. Such social bonds creates an environment of safety and security. Thoughtful detailing of elements for interactions like door entrances, windows and balconies which open up on the approach road, does not only help keep a vigilant eye on the people coming in these clusters, but also keeps you connected with the activities outside one's house. This study further questions the requirement of setbacks

and use of FSI to go vertical. It is observed that people in two to three storied houses could conveniently interact with street goers than those living in higher houses. This compels the dwellers to utilize maximum FSI on ground coverage, owing to more social interactions.

5. Declaration

The author declares that this manuscript is original, has not been published before and is not currently being considered for publication elsewhere.

References

[1] McKenzie, Stephen: "Social Sustainability: Towards Some Definitions", Hawke Research Institute, Working Paper Series No 27, University of South Australia. Magill, South Australia, 2004.

[2] Khan, Sobia: "Housing demand across top 8 cities during 2016-2020 estimated at 4.2 million units: Report." Economic Times of India, 2016.

[3] Rowe, P.G.: Civic realism, MIT press, 1997.

[4] Gifford, Robert: The Consequences of Living in High-Rise Buildings. Architectural Science Review.2007, 50, 2-17. DOI: 10.3763/asre.2007.5002.