Psychological and Social Impact of Architecture on the Local Fabric

Ar. Swarna Junghare

Assistant. Prof. Amity University Chhattisgarh, Raipur (CG), India

Abstract

This Study Includes Understanding the Role of Architecture in The Social and Environmental Development of The Local Community. The Paper Is Based on Literature Reviews of Journals and Other Research Publications Within the Academic Fields of Architecture. Architecture Is A Combination Of Art And Science. Architects Not Only Design Buildings and Forms but Are Also Trained to Blend Surrounding Natural, Urban, And Rural Landscapes, Creating Aesthetically Beautiful Buildings and Surroundings and Creating Social and Psychological Impacts on The Local Fabric. The Trends in The Community Are Changing. Life Is Fast and Challenging; Cities Are More Crowded, Small or Megacities, Compared to Three or Four Decades Before. Architects Not Only Build Infrastructures for Overcrowded Cities and Towns but Also Try to Balance Harmony Between Infrastructure Requirements and The Environment. This Study Will Reveal the Impact of The Architect's Work on The Community's Behavior.

Keywords: Architecture; local fabric; environment; built form; psychological and social impact

1. INTRODUCTION

Architecture not only affects society on a high level but also individuals. Everything from the layout of the space, form, and design to the material and finishes can contribute towards occupant health, mood, behaviour, social relations, and productivity. Different thinkers have differing opinions on the relationship between space, psychology, and social impact. According to Dr Deinsberger-Deinsweger, ill-conceived and inferior architecture, combined with other factors, can promote stress, encourage exhaustion, induce psychosomatic symptoms, and even promote physical discomfort. [1] On the other hand, some people think that spaces can also support healing processes and promote well-being. To feel comfortable in an environment does not only require a pleasant indoor climate. Light, plants, materials, construction methods, temperature, and air conditions also play a role in well-being and health. From the social point of view, there are differing opinions on the relationship between space and social life. Architects and urban designers whose work is creating physical spaces believe that design affects our social life. According to Lynch, the existence of a sign or landmark in the middle of a city would make people find orientation easier [2]. same way as per Gehl, a lively atmosphere on the streets in the city can be created by designing the buildings' facades to match the walking speed of pedestrians [3]. This allows for the reverse conclusion; many social scientists believe it is a social dynamic that plays a role in shaping the physical space. According to Bourdieu, social space is an invisible set of relationships that tends to retranslate itself into physical space [4]. Hence, design/space, environment, psychology, and social dynamics influence each other.

1.1 Social Impact

In mega and metro cities, people are running behind carriers; money and status are always lacking time. Urban people are losing their ties with close relations and are getting lonely and detached from society. It's self-imposed isolation. In the rat race, they are cornering social values, and psychological impact is gradually happening on individuals. With several studies, researchers have shown that growing up in a city increases the chances of a person developing schizophrenia and increases the risk for other mental disorders such as depression and chronic anxiety. [5] The cause of social stress is the lack of social bonding and connection in neighbourhoods. According to Andreas Meyer-Lindenberg, urban living can change brain biology in some people, resulting in reduced grey matter in the right dorsolateral prefrontal cortex and the pregenual anterior cingulate cortex. [6] The meaningful social interactions that are necessary for mental health do not come effortlessly in cities. Architects and urban designers have found social isolation to be a major risk factor for many mental illnesses. Improved public spaces may not evict loneliness from cities but could help to make residents feel more engaged and comfortable with their surroundings.

1.2 Psychological Impact

We shape our buildings, and afterward, our buildings shape us, as per Winston Churchill. Architects, neuroscientists, and psychologists all agree that successful design is not so much about how our buildings can shape us, but about making people feel they have some control over their environment. Or, as Kate Jeffery wrote in Conscious Cities, we are creatures of the place we're in. [7] Spaces determine our behaviour for the most part without our conscious perception, correctly said by Dr. Deinsberger-Deinsweger. [8] Buildings and spaces can affect our mood and well-being, and specialised cells in the hippocampal region of our brains are accustomed to the geometry and arrangement of the spaces we inhabit. The living environment in which we reside and are surrounded by built forms, and thus our surrounding built environment is fertile ground for our individual development and evolution. In a positive sense, spaces can contribute to empowering our sense of self-esteem and satisfaction. Impairment in this might cause dissatisfaction, restlessness, loneliness, and listlessness. According to Danny Friedman, "correlations between poor housing conditions, neighborhoods, and an individual's health and well-being have chances of criminality and low educational achievement. [9] In a study, he shows that poor housing conditions are strongly related to educational underachievement, the rise of health issues, and criminal grievances. As per scientist Tanja Vollmer, the sick, women, elderly people, and children who spend more time in residential places than other people are much more attached to their living environment and will therefore be more strongly influenced by the spatial conditions. [10] Hence the conclusion is that the cities where large populations reside should be designed to bring people together to overcome urban problems like isolation, loneliness, and discomfort, which may help in slowing down mental and health issues. Architects and urban planners have understood the importance and are practicing the above-mentioned points.

1.3 Method

We use the case study method to understand the impact of the architect's work on community fabric. As per Groat and Wang, a case study is an empirical inquiry that investigates a contemporary phenomenon and setting within its real-life context. [11] The concept of how architectural design solves social and psychological problems is simplified in researching how the elements given by architects in the Ashoka Ratan Society (ARS), Raipur, (CG) affect the community. We use different elements of design like gates, public spaces, and streets. Gate explains how access and openness/closeness occur between ARS

and the rest of the city while public spaces are a commonplace of interaction and socialisation. Street points out how the mobility of communities and compounds could explain the separation. Data will be collected by mapping, documentation via photos, and interviews with respondents.

1.4 Discussion

ARS is one of the old townships in Raipur (CG). Located between high-end estates such as Palm Residency and Karishma Apartment, Classic City, Om Residency, etc. ARS is surrounded by offices, hotels and apartments, hospitals, malls, small-scale factories, and other commercial places. Therefore, ARS is a strategic place for residential areas, providing green, clean, safe environments and easy access to the facilities around. ARS is an elite residential area, home to expatriates and some of the richest people in the city. The new town is fully equipped with various facilities: school, market, food corners, place of worship, commercial areas, etc. According to Blakely and Snyder, gated communities are residential areas with restricted access that makes normally public spaces private. [12] Low also stated that gated communities restrict access to streets and services that should be available for public and private use. [13] Bickford defined gated communities as residential developments that limit access to residents, their guests, and service people. Access is controlled by physical barriers, walled or fenced perimeters, and gated or guarded entrances. Thus, gated communities are particularly designed as the clear lines between private territories and the outside world and prevent exchange between different classes and communities, therefore creating spatial and social segregation. The gate functions as a physical barrier, limiting and restricting access from unwanted people. The gates usually come with walls, fences, and guards. It can take a variety of forms, from massive walls to barbed wire or a line on a city map. Socially, gates also have different meanings: a gate can indicate safety and security to the residents inside and a warning to keep out to the strangers outside. Bickford stated that gates construct segregation by functioning to not only keep people out but also keep people on each side separate from one another. [14] As a gated community, the use of gates in ARS is specific. There are gates, walls, and fences all around campus, but people can easily access any streets, parks, and facilities inside ARS.

1.5 Gate

Gated communities provide residents with a sense of exclusivity—with all those superior amenities accessible within an enclosed space and out of bounds for outsiders. A gated community is a form of residential community or housing estate containing strictly controlled entrances for pedestrians, bicycles, and automobiles, and often characterized by a closed perimeter of walls and fences.' As per Blakely and Snyder, gated communities are residential areas with restricted access that makes normally public spaces private. [15] Low also stated that gated communities restrict access to streets and services that should be available for public and private [16]. Bickford defined gated communities as residential developments that limit access to residents, their guests, and service people. [17] Low Hence has said gated communities are designed as the clean lines between private territories and the outside world and prevent exchange between classes and communities therefore creating spatial and social segregation. [18] Socially, gates also have different meanings: a gate can indicate safety and security to the residents inside and a warning to keep out to the strangers outside. As a gated community, the use of gates in ARS is exceptional. ARS is fully accessible except for housing clusters. There are gates, walls, and fences, but people can easily access any streets, parks, and facilities inside ARS. There are two main gates in ARS, located on Vidhansabha Road, which are easily accessible with separate entry and exit. These concrete gates are huge, represent status symbols, and provide grandness. The colors are light and warm but create a soothing effect. Though large in scale, because of colors and delicacy in design, it's not a

dominating element. The avenue from the main entrance is beautifully landscaped, assuring a warm welcome. The main entrance gate is huge, simple, and traditional. It serves as a special feature of ASR, giving identity to society. It gives different meanings socially. For the residents of ARS, the gates are welcoming them but not for non-residents. These big gates don't seem intimidating, but they create a barrier. Housing clusters inside ARS are guarded by inner gates located at the entrance and guarded all day and night. These gates act as a tool to control access to the housing clusters. They are comparatively low and small, made of iron. The location and the function of the outer and inner gates of ARS are different. The outer gates, while accessible, are simple in design and still not easily accessible, while the inner gates with fences and guards serve as a physical and social barrier between the residents and outsiders. (Fig. 1) Both these gates are serving their purposes. They safeguard residents and keep away outsiders, which creates a sense of belongingness and security for dwellers and avoids the fear of vandalism or unwanted presence of outsiders doing activities in an area close to the housing clusters. Safety and security are important aspects of housing. Many people have panic attacks, increased heart rate, and increased BP due to a lack of security and safety, especially elders and ladies.

Figure 1: Main Entrance Gate in ARS
Source: From the Ashoka Ratan Welfare Association

1.6 Public Space

Public space influences the social dimension. Wide, accessible streets, squares, parks, sidewalks, and urban furniture stimulate interaction between people and the environment, generate a positive use of space, and increase urban vitality. High-scale, high-density construction can negatively affect people's health. In his field studies, Jan Gehl noted that people tend to walk faster when passing empty or inactive areas, in contrast to the slower, quieter pace of walking in livelier, more active environments. [19] Human-scale constructions have a positive effect on people's perceptions of public spaces; they feel that they were considered in the planning process of that space. Legeby argued that public space is important to the city as it is through public space that people are connected, and it is through public space that buildings and neighborhoods are connected or related to one another [20]. The ideal public life in cities for many is free of fear, discomfort, and uncertainty. Public life is a realm of exposure. Many think that to be exposed to a stranger who has a different perspective is to be exposed to danger. In line with Bickford's view, Hillier stated that spatial design, while it does not create interaction, creates co-presence and eco-awareness that will give people a sense of safety, security, comfort, and possibilities.

[21] Co-presence and co-awareness in public spaces do not need people to talk or to recognise each other; it is just a matter of people being where they are. The potential of contact or co-presence of residents and strangers or locals and non-locals in public spaces can also be hampered by the low accessibility for people from other neighbourhoods. In ARS, public spaces come in the form of various facilities, e.g., markets, food kiosks, temples, community halls, parks, and elementary schools. All these public spaces are placed in a centrally located area, surrounded by housing blocks. No public space is lacking guards and security persons. All the public spaces like gardens, parks, temples, and community halls are huge. The community hall is well maintained and provided with proper services like HVAC. Gardens are properly landscaped with beautiful geometrical patterns of flora and fauna, big trees, and welcoming entrances. The garden is equipped with kids' playing equipment, furniture, and beautiful gazebos. The most important feature of the public space is that it is not crowded but, at the same time, gives a feeling of social connection, co-presence, and awareness that gives people a sense of safety, security, and comfort. These public spaces serve in multiple ways; e.g., in the garden or in front of the temple, kids can play, skate, or attend judo or badminton classes. Residents can use these places for small functions or exhibitions. There are seating and resting areas in public spaces. These act as interesting common meeting points for youngsters and elders. The small supermarket, food kiosk, gardens, and playing grounds are placed in ARS and serve as areas able to engage in daily contact. According to one study, a social person has a low risk of dementia, has better moods, has fewer chances of loneliness, and has better physical fitness.

Figure 2: Public Space in ARS
Reference: From the Ashoka Ratan Welfare Association

1.7 Street

A street is a public passage in a built environment. It is a public parcel of land adjoining buildings in an urban context, on which people may freely assemble, interact, and move about. To integrate the environment and not segregate it depends on some factors. One of the keys is to make an environment dense and diverse. ARS consists of various spaces, e.g., commercial areas, recreational areas, public services, and public spaces. Most commercial and public services are located along the main road. One opinion is that streets and blocks inside the housing clusters should be narrow and short. The street must not be too wide to ensure the speed of vehicles. The narrow street is useful to 'keep eyes on the street.'. The block should be within a range of walking distance so that residents, including children, can easily

access every part of the town: park, elementary school, and civic centre. ARS is designed based on a pedestrian point of view, creating narrow streets and narrow blocks. Cars cannot run at a very high speed. Green and wide sidewalks for pedestrians are found in every part of the town. The entrance directly connects ARS and the rest of the city. Main streets are two ways to allow both sides of traffic movement. Along the sides of these main streets, sidewalks and cycling routes are designed to ensure sufficient space to promote physically active modes of transport. Also, these streets are properly designed for easy maintenance and proper water flow management, which reduces the chances of water stagnation, thereby reducing the risk of waterborne diseases. Along the sides of streets, beautiful landscaping and tree plantation are done, which provide access to nature. Nature always plays a key role in improving emotional and psychological health.

Figure 3: Street pattern in ARS
Reference: From the Ashoka Ratan Welfare Association

2. Conclusion

Does spatial design created by architects for the community create social and psychological impact? Considering ARS, there are many elements designed by architects in ARS, creating spatially and socially integrated spaces for communities. The design of ARS allows people to experience it with all their senses. Smells, sounds, textures, and visual interest shape the comfort of the space. Some details of architectural design in the ARS, e.g., the design of the gates, the width of the streets and seating area, the variety of public places, and their location, make people feel more comfortable and belonging, and they are adapted to the environment. Open and easy access guarantees that people would love going to and doing things in ARS. In ARS, planning and designing have successfully solved the segregation problem spatially, socially, and psychologically. Residents are socially and psychologically positively impacted by the spatial place in ARS.

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