

Changing Shape of Neighborhood Social Cohesion Under the Impact of Large scale High-Rise Housing Development, A Case of Jaipur, Rajasthan.

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Abstract - Building design and space morphology strongly impact the life and structure of a community . Urban form is an outcome of human activity and thus it has a strong impact on social interaction, which is assumed to be one of the major design elements in urban planning. Apart from providing a living space for the inhabitants, housing should also offer spaces for community life to develop and nurture . Spatial organization in a residential neighbourhood is thus a strong indicator of a region and its varied social setups. In present times, majorly after 1990"s, rapid urbanization and borrowed western ideas gave birth to prototypical high rise developments as part of mass housing. Aim behind such growth was to fulfil the over growing need of housing in urban areas. Vernacular ideas have been replaced by modernist spaces that eventually lead to a development which had no connection with the environment and the people around. Designers and planners, very conveniently, had ignored the significance of human scale and the people who are the actual end users. Factory made neighbourhood and residential colonies were planned that lack identity and interaction centric spatial organization. Gradually, traditional residential areas having intense connection with man and surrounding and possess strong connections have been replaced by fragmented and introvert setups. Building such neighbourhoods is a challenge in present times. No solution can be considered perfect in such a situation. This paper thus attempts to analyse the connection between spatial layout and urban form with social relations towards forming a socially cohesive society. It tries to establish a relationship between sociocultural aspects of a society and spatial geometry in terms of morphology and design process. With the help of a comparative study done through field surveys from certain selected neighbourhoods of Walled city of Jaipur and a newly formed residential neighbourhood of southern Jaipur, this study is an attempt to document and comprehend a relationship between the geometry of built environment with human behaviour w.r.t the spaces designed for them.

Keywords - Urban Forms, residential Neighbourhood, Public Spaces, Social Interaction, interactive spaces

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INTRODUCTION

Human interaction and connectedness play a major role in health and well-being of society and its inhabitants. [1] Social cohesion, an essential parameter used to understand and characterize the social environment, has been defined by several researchers with multiple ideologies. Based on feelings of trust, belongingness, acceptance . any neighbourhood develops an environment that nurtures healthy social interactions. [1][3] it is often said and written that , neighbourhoods where high levels of social integration and cohesion is witnessed , tend to generate a very favourable report of physical and mental health statistics of society [4].

Researchers through ages have constantly been in search of parameters that are responsible for a sound

and healthy relationship amongst people living in common neighbourhoods. Theories reveal that, human interaction, which was once considered to be an effortless activity, has now lost its shape and is a matter of great concern in residential setups. [5]. Reasons behind it are many, ranging from economic layering to the intervention of technology in our day to day course. All these are , however, just an addition to their predecessors. Even in the past, we had issues like caste system, which acted like a border between many. Yet, there was a constant dialogue between the inhabitants that kept the environment alive. [6] This is an issue which leads to further discussions on aspects that are responsible for this dichotomy in the behavioural pattern or societal setup of past and present times. Communication, which was once considered to be an effortless task,

has now become a matter of great concern for policy makers.

Cities are expected to hold more than two-thirds of the world population by 2050. [7] To house such a vast global flow of people, there is a need for a balanced socio-cultural development for an inclusive, safe, resilient and sustainable human settlements. Researchers from all domains have raised this issue and have been constantly in search of parameters that can effectively add up towards fostering of social cohesion, especially in urban areas. There is a global consensus that urban planning strategies and policies have contributed effectively towards shaping a sustainable and equitable future. According to the report of UN-Habitat 2014, experiments of varied scales have proved that setups which are compact in nature, have connectivity and integrated spaces support social cohesion. [8]. Apart from providing a suitable living space for the inhabitants, built mass of residential area should also offer spaces for its residents to incubate and grow.[9]

Settlements of past have very significantly proved that Urban form and spatial layout have played a major role towards creating a resilient societies in past by securing liveability and flexibility of urban environments that house a constantly transforming society

[7] [10]. It is in the recent times that architecture and city planning has been more inclined towards fulfilling the residential needs of mass migrated population in the cities. This in turn has given rise to a development which lacks cultural identity and place lessness [11]. Mass production of standardized house designs are planned and executed to fulfil the emerging housing need [12]. This further gives birth to two very important concerns:

1. Are spatial development strategies and urban form of present times, effective enough to create a connected and socially inclusive residential neighbourhood.
2. What characteristic spatial features were present in the cities that added value and quality to socio-cultural aspects of life in the yesteryears, and can be continued in future developments as well.

Socio-culture is not just a manifestation of culture, it is, way of life. A process which is dynamic in nature and is termed as the fourth pillar of sustainability. One has to understand and map people's day to day need to achieve this dimension and further create a cohesive society [2]. Along with many other aspects, urban form and spatial characteristics are considered as factors that can enhance socio-cultural sustainability and further enhance people's satisfaction with living conditions. [13][3][5][14][15] This paper tries to analyse the connection between spatial layout and urban form with social relations towards forming a socially cohesive society. Urban forms were

comprehensively studied and related with the certain identified parameters of a cohesion.

RESEARCH STRATEGIES

- i. Through literature studies, an analytical framework is developed which talks about the correlation of spatial configuration and urban form of a residential neighbourhood with the identified parameters of social cohesion.
- ii. Based on the understanding of place, certain key spatial characteristics were identified from the selected case studies (contrast in nature), that has gone through a major transformation with time due to large scale mass housing development and were once considered to be the key indicators of a cohesive society.
- iii. Parameters (certain specific) concluded from analytical framework/ literature studies, were then applied to the identified case studies in order map the role of spatial characteristics with social cohesion.

ANALYTICAL FRAMEWORK / LITERATURE REVIEW

First stage of research strategy it to understand people's perception of their space through literature studies. Documentation of their needs (and its significance over time) and how they are supported by the physical form is the main aspect of analytical framework. The relationship that an individual has with a place is not just between him and his surroundings, it plays the role of a catalyst as generator of friendly connection between its people. [15][13][5] Human interactions that takes place at such points shape the physical setting and form of that settlement.[13]

Understanding people's perception / need of a space and its interrelationship with spatial characteristics

Table 1: Understanding parameters that Relate Sense Of Place With Spatial Characteristics

Parameters That Relate To the socio cultural aspects of a residential neighbourhood.	Literature Reference	Interrelationship with spatial characteristics.
Social Interaction	[20][21][22][18]	Spatial arrangement of built and un-built spaces- it is the network of openspaces (spaces for outdoor activities and recreation, everyday network spaces such as streets, community squares and open markets) ,Density
Safety and Security	[23][24]	Feeling of safety and security because of the human scale approach in the layouts and overall weaving of urban fabric. Layering of spaces to assist informal interactions.
Image of a place	[12][25][26][18]	Strong Character, uniqueness or distinctiveness physical features
Sense of Community	[27][23][28]	The smallest area defined by spatial network based on community setup (both social and economic), small and large pocket of open spaces responsible for civic engagement and associational activity of celebration and mourning. Strategically placed temples and other community gathering spaces, layering of built blocks both inside and outside a residential block .
Sense of Belonging	[10][16][17][18][19]	Span of stay, ancestral property / connect, kinship.

In order to understand the effect of changing urban form on socio-cultural stability of a residential neighbourhood, it is first important to comprehensively understand what spatial characteristics continuously are associated with it on different levels (building and neighbourhood level). These characteristics of different layers are extracted from various theories and tabulated in table 2. They would then be used for analysing the identified cases.

Table 2: Spatial Characteristics To Map Socio Cultural Stability

Spatial characteristics	Literature reference	Components of analytical framework
Building layout	[26][29][30]	spatial sequence of the built block Relationship amongst blocks (Back-to- back/Side-to-side); set back, front and rear open space. Diversity and continuity of built blocks in shape and size. clusters. separation of different zones (public and private) within the built block.
Connectivity	[31][31][32]	Pedestrian accessibility, walkability, compact or connectedness
Number of floors	[33][34][35][30][10][24][5]	Density, design elements to promote interaction amongst residents, visual connect
Building height / street arrangement		Open plan or gated, site entrance / boundary, Spatial Hierarchy, plot arrangement
Active frontage and building facade		Types of roads/streets/paths in site; pedestrian and vehicular separation, Street configurations and sections, eyes on street, functions attached to it.
Spatial configuration		Interactive spaces, functions and uses attached to it, Module / entity / cluster of neighbourhood , internal and external connectivity with abutting spaces.

IDENTIFICATION OF CASES TO BE ANALYSED.

Jaipur city was founded by Maharaja Sawai Jai Singh II , in 1727 , majorly to cater to the needs of the exploding population of the old capital , amber. The area of the walled city however grew from 481 ha in

1728 AD to 4000 ha by 1951 and reached 17,234.5 ha by 2005. To further accommodate the growing population and curb the illegal growth , the city was expanded towards south because of the natural barrier present in north direction. The city has now grown much beyond the traditional old pink city , confined within the seven gates and historical monuments. There is a very significant difference as far as development of both the era's are concerned. From a well planned grid iron layout having courtyard havelies of varying scale, it is now witnessing a large scale real estate development, especially along all the major roads that are connecting to the major cities.

To further understand the subject, different cases of buildings/ neighbourhood typologies are identified for a transformation study and analyse the effects these changes have on the socio-cultural aspects of the area. During the transformation of any residential area, major driving force generally are the economic, political and the social changes going all around . Over the years, although horizontal fabric can still be recognized through certain common elements, vertically, the building facades and high rise development show a very drastic change.

METHODOLOGY ADOPTED

For qualitative analysis, the urban, setting and form are observed through a series of site visits that involved rigorous mapping, measurement, photo documentation, residents' group survey and interviews. Secondary sources included reviewing published papers and digitizing various scaled maps from Google Earth.

Detailed quantitative measurements forms the next stage of this research.

ANALYSIS AND CONCLUSIONS

In the following sub-sections, each case is identified based on above mentioned parameters of social cohesion, and is analysed on building and neighbourhood level in order to find out the changes in spatial developments.

Comparative analysis of urban development and socio-cultural cohesion in selected two cases of Jaipur city

here is a significant transformation of the socio- cultural Ideologies in the society due to current globalization influences . this has caused a major change in the layout, design and functions of buildings in each period. Due to this, the spatial structure of the neighbourhood has dramatically changed through time. This study has thus developed an analytical framework to investigate changes of spatial structuring in adaptation to globalized changes for improving socio- cultural cohesion in contemporary neighbourhoods of Jaipur, Rajasthan.

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