Beyond A Channel for Movement; Inquest of Street Layerings in Urban Realm

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Abstract: Think of a city and what comes to mind? Its streets. If streets look good, the city looks interesting; if they look dull, the city looks dull (Jacobs J., 1961). Streets are an important part of open public space in the city. For many urban thinkers, it is the streets that signify the outdoors (Jacobs A. B., 1993). Street is viewed as the primary public space in the urban setting. As the smallest definable community space of any area, the street may also be seen as an indicator of the socio-physical fabric of that area. It is also an acknowledged fact that the potential for the development of successful neighborhood lies in the possibility of the spaces around the blocks, generally streets are meant to generate social activity.

Index Terms – Urban Street, Movement, Primary Open Public Space, Street, Urban Space, Social behavior.

I. INTRODUCTION

The scope of this part of the research is to take the cognizance of the historical form of urban spaces in our ancient Indian cities, also, the algorithm and the ambience created through various means and methods. The intent is not to produce an extensive list of the roles of public space but its basic contribution to the cities and their people. Many of such roles, such as the collection of water and the disposal of garbage, the dissemination of news, and the display of public punishments and executions (Lofland & Lofland, 1998) no longer pertain in present times. Rather, the intent is to identify the roles of public space in highly privatized contemporary societies.

In context to the spatial arrangement of the medieval cities, we can conclude the pattern arranged in a minimalistic approach, and most of the system follows the principles of Vatu shastra. Temple, fort, palaces normally occupy the most auspicious place of the area, while the access route of the said temples, fort, palaces determine the development pattern or style of the city which normally evolve with defense strategies keeping in mind so that the said places can be defended from the enemies and make them confused and trap. If we take the example of Suchindram- a typical south Indian temple city, Capital cities like Jaisalmer, Jaipur, Shahjahanabad, Awadh; all had reflected the same characteristics; only the difference is the capital cities had their forts and palaces instead of temple. The access route which are the derivatives of development pattern had a very narrow, Steep and planned in way to maintain the air channelization. These accesses were normally having so many gateways of very articulated and unique in nature; and this shows their glory and status (Ghose, 1968). The organization and its layout are affected by the layout system of the street and their connectivity as they link private courtyards to the public square and ultimately to the palace square.

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II. URBAN REALM

The term usually and very loosely used to refer a better algorithm of spaces, mainly urban public spaces. The terms urban realm, public domain, public realm, public life, are here meant to refer to the social processes among city inhabitants that occur in public places. In the literature, 'urban realm' and 'public realm' are used more-or-less interchangeably to refer to the publicly accessible spaces between the buildings in an urban environment (Sheldon, Heywood, Buchanan, Ubaka, & Horrell, 2007). Urban realm exists when, people of the city or an area can easily enjoy their benefits and rights, without encroaching any other benefits and rights as well as without any obstruction; and make the city or area live as they wish to. It is in the public places of cities, its squares and streets accessible to all of the city's inhabitants, that all can see and hear each other. Here, persons different from one another, and present in public places for diverse purposes can come together. In the public realm, many perspectives and the common world may be found; within the public realm, young and old may learn about, and from each other (Lennard, The Public Realm and the Good City, 2018).

Since, all the city space components have the equal weightage to contribute in an urban realm; Streetscape is sometimes used in the same sense as urban realm (TfL, 2017; Nellthorp, Chintakayala, & Wardman, 2011), 'Placemaking' also relates very closely to urban realm, although some of the placemaking literature focuses on the cultural, social or economic processes by which transformation of the urban realm occurs (Schneekloth & Shibley, 1995; Cilliers & Timmermans, 2014; Glaeser & Gottlieb, 2008). The urban realm is a focus for urban designers, economists and transport authorities. At the heart of much urban realm research and planning is the idea that streets and squares can be transformed into "more people-friendly places" (New York City Department of Transportation, 2008) and that this is beneficial for existing local businesses, economic regeneration, and residents' health as well as their economic prosperity.

III. OPEN PUBLIC SPACE

There is a popular notion about the public space as that is like a stage of any auditorium or theatre surrounded by audience. Public space is described as theatrical like setting, French (1978), Whyte (1988), Carr et al. (1992), Engwicht (1999) and more recently Cousseran (2006) where, variety of activity by the variety of users in a variety of ways for expressing their real-life freedom, social, and cultural expressions take place. Along with so many other components, Open public space is another important part, a physical manifestation, of the public realm (Thomas, 1991). Most of the people have a need and desire to establish a link between themselves and other part of the word, curious to know about the other people and part of their surroundings. Public spaces are significant because they are able to accomplish their need, desire and curiosity; support them to establish a communication, a platform for enjoyment and relaxation, as well as serve the purpose as channel for movement. Few researchers have even labelled public spaces as the open public library where one can learn a lot, particularly, in history, when, public spaces had played a significant role, either in setting strategies for defence from enemies and make them confused and trapped, celebrating their rituals, or setting up the bazaar (Safiullah & Sharma, 2017).

There are various other definitions of public spaces mainly illustrious by issues of ownership, control, and access. Some authors express it firmly as the "space that is not controlled by private individuals or organizations, and hence is open to the general public. This space is characterized by the possibility of allowing different groups of people, regardless of their class, ethnicity, gender and age, to intermingle" (Madanipour, 1996). Beside ownership and control, another basis of defining public spaces are access and use. In this sense, public space is defined as "publicly accessible places where people go for group or individual activities" (Carr, Francis, Rivlin, & Stone, 1992). In the physical dimension, public space is "all the parts of the urban fabric to which the public has physical and visual access. Thus, it extends from the street, park, square of a town or city into the buildings which enclose and line them" (Tibbalds, 1992). For this research, accessibility and use of the space is being used as public space rather its ownership, means if the space is accessible physically and visually, having any kind of ownership, is used to refer as open public space; while if not physically or visually accessible, and having even public ownership will not be qualify as open public space.

As a part of a summary of public space, Carr et al. (1992) have amassed a typology of contemporary urban public spaces. The authors suggest that these different urban public spaces furnish to different needs and desires, and various physical and social aspects of human functioning either in terms of comfort, relaxation, passive and active engagement, or discovery. By the nature of their type, access, and use, these spaces are likely to satisfy one or more of the aspects mentioned above.

Though, a large portion of literature on public space denotes it as open public space, and do not distinguish between enclosed public space and open public space, but in present-day most of the enclosed spaces are also working as public space. In history public spaces were the open of kind and majority of public life occurred there. For the purpose of this study, then, open public space will be connoting as part, which will include not only the spaces between the buildings but also the objects, artefacts, and the enclosure, which help in defining the territory and physical boundary of the space. For this study one type of traditional open public space – the neighborhood commercial street has been considered as limit.

IV. ROLE OF OPEN PUBLIC SPACE

The scope of this part of the research is to take the cognizance of the historical form of urban spaces in our ancient Indian cities, also, the algorithm and the ambience created through various means and methods. The intent is not to produce an extensive list of the roles of public space but its basic contribution to the cities and their people. Many of such roles, such as the collection of water and the disposal of garbage, the dissemination of news, and the display of public punishments and executions (Lofland & Lofland, 1998) no longer pertain in present times. Rather, the intent is to identify the roles of public space in highly privatized contemporary societies.

In context to the spatial arrangement of the medieval cities, we can conclude the pattern arranged in a minimalistic approach, and most of the system follows the principles of Vatu shastra. Temple, fort, palaces normally occupy the most auspicious place of the area, while the access route of the said temples, fort, palaces determine the development pattern or style of the city which normally evolve with defense strategies keeping in mind so that the said places can be defended from the enemies and make them confused and trap. If we take the example of Suchindram- a typical south Indian temple city, Capital cities like Jaisalmer, Jaipur, Shahjahanabad, Awadh; all had reflected the same characteristics; only the difference is the capital cities had their forts and palaces instead of temple. The access route which are the derivatives of development pattern had a very narrow, Steep and planned in way to maintain the air channelization. These accesses were normally having so many gateways of very articulated and unique in nature; and this shows their glory and status (Ghose, 1968).

The spatial arrangement of Vijayanagar shows that the whole city is divided in three basic zones viz-a-viz 'the scared center', 'the royal center in the urban core', and 'the sub urban area'; along with three kind of road pattern as redial, ring and linear. Most of the commercial activity, military and ceremonial movements take place on these roads which links all three different zones. The junction points of the road of urban core area have the Ramchandra temple which was the focal point as well as the visual reference point for all movement system taking place through or around it. Furthermore, these open public spaces are reinforced by their function like processions, whether that is ritual procession of the temple cities or, emperor's daily ride to the mosque in Shahjahanabad or, the ritual show of military strength at Vijayanagar. Their scale of construction at this focal point is another pier, which itself speak through its monumental scale; if we take the example of Jaisalmer where no construction is allowed higher than the central one, so that the visual dominance can be retained over the entire city (Blake, 1991).

The organization and its layout are affected by the layout system of the street and their connectivity as they link private courtyards to the public square and ultimately to the palace square. In Jaisalmer, a dramatic pace of haptic experience built up as the fort view changes, disappears and then appears again; the narrow corridor of the street, broken up at some intervals by twist and turns, opening shockingly onto a square. A very solid with few openings, no infill spaces, recessed facades at some point, cross connectivity with other building at upper levels, overlooked to the street, their height and roof establishment, and stone carvings; distinguish each building along the street.

Jaipur can be seen as a strong geometrical patterned layout city which is believed to be based on sastras. The streets were the main spin which linked the various levels of activities to each other and eventually to the palace. Residential areas within this overall geometry were not subject to the same architectural controls as have the standard house type design in introvert plan focused on the private courtyard, having the pink wash and continuity in activity spaces; which makes a theme (Ghose, 1968).

The typical south Indian temple towns thus may be described as have the number of high-level configuration either in context of architectural appearance or spatial arrangement. Any of the users like devotee, the layman, or the scholar may perceive the temple complex in either way or all but experiencing it profoundly. Within the overall order established in mediaeval settlements by the dominant structures as well as the supporting street network converged from these structures; residential lands are allotted as per the individual status at the royal court or is depending on their caste and occupation. So, each area of residential settlement has a distinct social and occupational identity (Thapar, 1982). Furthermore, these sectors space resolved itself into some other unique wards, Mohalla, Pols, Chaks etc. consisting of varying number of dwellings. Concluding the algorithm and activities of the spaces of ancient cities, their functioning and set up of the built environments clearly indicates the various traits of the activities meant for public spaces.

In contrast, modern urban societies no longer depend on mandirs, forts, palaces, and even on park and piazzas; good urban spaces are required now for their social and psychological need. Researches in urban studies indicates that public space in contemporary times is important to generate, enhance, and sustain a sense of community (Boyer, 1994; Hayden, 1995). Local residents attach meaning to everyday public spaces and places as valuable "sacred structures" in their daily life (Hester, 1993). Public spaces where people regularly meet their friends and watch daily life play a critical role in people's lives (Low, 2000). Crowhurst-Lennard and Lennard (1995) engage the literature from sociology, psychology, psychiatry, political science, architecture, urban design, and planning to develop a list of social functions served in public spaces. This list includes learning, the development of social competence, the exchange of information, the facilitation of social dialogue, the fostering of social awareness, the enhancement of social integrative functions, and the encouragement of ethical conduct.

Crowhurst-Lennard and Lennard (1995) argue, "urban public space is the single most important element in establishing a city's livability" (p. 25). With their research in European cities, they advocate that good urban public space provides easy and safe access for all, enables a variety of activities, nurtures self-esteem and sense of belonging, upsurges awareness and interest in the environment, and provides enjoyment and social contact.

V. STREET AS PRIMARY URBAN PUBLIC SPACE

Think of a city and what comes to mind? Its streets. If streets look good, the city looks interesting; if they look dull, the city looks dull (Jacobs J., 1961). Streets are an important part of open public space in the city. For many urban thinkers, it is the streets that signify the outdoors (Jacobs A. B., 1993). With the origin as Latin word 'sternere', street defined as just a significant surfaced face in comparison to other surround surfaces. Most of the researchers claimed that street does not necessarily mean as traffic carrier, but a station set apart for public use. Street differs from the road in definition in that it does not suggest direction or movement. Road suggests a purely functional space for transportation, whereas street suggests a place to linger and enjoy.

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Streets and their sidewalks, the main public place of the city, are its most vital organs (Jacobs J., 1961). Streetscape as an important element in the city scape have been the subject of considerable study in deliberations on urban design. But these studies in the early part of the last century concentrated more on the major streets of the city, specially their points of convergence as in the square where emphasis was on physical appearance. Today, notwithstanding Grady clays's (1991) complain about the 'mechanical denizens of the streets' being gazed at with more intensity than the street itself in her spirited claim about the potential of the street as a teacher, deliberations on the street in their many aspect has been subject to much scholarship.

Originating, possibly, with Jane Jacob highlighting the social function of the neighborhood street and Lynch establishing 'paths' as one of the key structuring elements of any settlement, the street has been analysed in its various aspects: formal, social, cultural. Rappoport (1969) in house form and culture, illustrated the necessity of seeing the dwelling as part of the larger system to which it belongs, particularly space hierarchies from private dwellings space to the semi-public and public community spaces.

Street of the past (a small universe' that embodied in condensed form the character of the whole town) has been lost in modern context of scattered buildings, automobile traffic and immense scale. Defining the space form of the street as longitudinal but not necessarily straight, Norberg-Shulz (1971) believes that for the street to regain its 'figural character', in other words the building must appear as continuous bounding surfaces rather than masses connected by the street, thus reducing the street to merely a 'subordinate ground'. This not only presupposes a certain density but also that the houses must belong to same family. The monotony that this may suggest was counteracted by buildings appearing as variations of the same theme allowing freedom for details. These principles were commonly followed up to the nineteenth century after which the 'parade street' became the norm.

Echoing same sentiments, Jan Gehl (1987) writes that functionalist planning caused streets to disappear, replacing them with roads and paths of the 'built-in' qualities experienced in 'nearly all' mediaeval town he says: 'not only are the streets and squares arranged with concern for people moving about staying outdoors, but the city builders appear to have had remarkable insight concerning the fundamentals for this planning. Gehl is concerned about the thinning out of people and events in urban spaces resulting in situations where 'nothing happens because nothing happens'. His conviction that a high degree of social life between buildings specially in residential areas is the principal factor that will allow healthy, safe and cohesive neighborhoods to develop.

'The battle for high quality in cities and building projects must be won at the very small scale'. Gehl's concerns with the building themselves is restricted to their perceived scale at the pedestrian level and the potential in design of their facades for 'influencing the concentration of activities and the intensity of experiences for those who pass by on the sidewalk'.

After a number of years of automobile dominated streets, Gehl cites examples from Scandinavia where pedestrianization of precincts or even traffic calming has resulted in better places for people.

Oscar Newman (1972) in defensible spaces following in the tradition of Jacobs is concerned with the social qualities of residential areas in seeking places that are safe from crime by the very virtue of their planning and design. The potential of street as network of public urban spaces that can organise and unify cities and thus become powerful tools for urban planning and design is dealt with in public streets for public use edited by Anne Vernez Moudon (1991).

Cliff Moughtin (2016) in urban design street and square recognises the need to design using the main formal elements found in the city, namely the square, the street, and the buildings. He observes that: Although the street accounts for most of the urban public realm, in practice, particularly modern practise, the street is what remains after private planning of individual properties is considered satisfactory. In analysis the utility of the street as an element if city design, he warns against sentimentality but see the street as both a 'physical element and a social fact'. The two main characteristics of the streets are directly related to form, 'it is at one and the same time, both path and place. He argues that if the properties that made 'fine streets and the city squares' in the past could be analysed, we may be able to reproduce some of those qualities not by copying but employing the underlying principles of composition. The understanding of how things are put together' in the aim of Hilliers (1998) analysed of urban spaces. He views the city as social space and demonstrates how space connectivity and integration together make intelligible spaces. From almost the other end of the spectrum, Alan Jacob defines what makes for great Street though careful presentation and analysis of the some of the best street in the word More than just documenting Jacobs' objective is to help make future great streets. Michael Southworth and Eran Ben-Joseph focus on neighborhood streets attempting to rethink residential layout and street towards a better tomorrow. And as it becomes apparent that great street is those that bring people together in comfort and safety, some work at the technical aspects of streets with Jim McCluskey spelling put many practical details in Road form and Townscape (McCluskey, 1992). Street as a 'primary ingredient of urban existence, at once a product of and part of what Apiro Kostoff called the urban process. Understanding the urban process, they believe is essential for the creation of meaningful public space. And while the struggle against the death of the street' may be argued about, scholarship linking good streets to good cities continues. Thus, giving further credence to Norman Pressman's prediction that increasing attention will be paid to the quality of life in our urban centres and residential neighborhoods.

VI. STREET AS SOCIAL SPACE

For the purpose of this research, it is to be identify, neighborhood commercial street as social space and having a lively environment in result. Since, the basic requirement of a 'third place' designation is - a space must be live and vibrant with the users (Oldenburg, 1998) and social, communicative in nature. In history, streets were used as to aid basic survival, communication, and entertainment needs and to accomplish numerous political, spiritual, commercial, civic, and social functions (Lofland & Lofland, 1998), while in contemporary developed societies and, increased consumer culture has led to the replacement of traditional public spaces and main Streets (Banerjee, 2001). However, the same consumer culture, together with the need for active and passive engagement and interaction, relaxation, and leisure, also supports the concept of public life in coffee shops, bookstores, theaters, health clubs, and so on (Banerjee, 2001). Interesting fact is that all these venues are situated over a neighborhood commercial street, which itself was, and even could be the venue. Beside this people used to go to parks, plazas, malls, arcades etc.; who serve them and fulfill their desire of social and leisure activities along with the shopping needs. Studies show that most of the visits to parks, piazzas, malls, arcades are to meet and spend time with their friends, to look around and people-watch, and to walk around besides the primary activity of acquiring goods and services. Most of the researchers in sociology, and environmental psychology have identified social affiliation and interaction, sensory stimulation, and other leisurely activities among important and basic motives for shopping behavior (Tauber, 1972; Jansen-Verbeke, 1987; Bloch, Ridgway, & Sherrel, 1989; Bloch, Ridgway, & Dawson, 1994; Falk, 1997).

However, especially in many center-city and mixed-use neighborhoods, people still depend on streets for functional, social and leisure activities, for travel, shopping, play, meeting, and interaction with other people, and even relaxation (Jacobs J. , 1961; Appleyard, Gerson, & Lintell, 1981; Gehl, 1987; Moudon, 1991; Carr, Francis, Rivlin, & Stone, 1992; Jacobs A. B., 1993; Southworth & Ben-Joseph, 1997; Lofland & Lofland, 1998; Hass-Klau, 1999). The concept of the street as a space for social interaction that may transpire as an outcome of any of these activities is the focus of this research.

Street is viewed as the smallest definable community space of any area; the street may also be seen as an indicator of the socio-physical fabric of that area. It is also an acknowledged fact that the potential for the development of successful neighborhood lies in the possibility of the spaces around the blocks, generally streets; are meant to generate social activity rather a channel for movement see, for example, (Jacobs J., 1961; Appleyard, Gerson, & Lintell, 1981; Moudon, 1991; Gehl, 1987; Jacobs A. B., 1993; Loukaitou-Sideris & Banerjee, 1993; Hass-Klau, 1999). Though it provides opportunities for short-term, low-intensity contacts that constitute easy interactions with other people in a relaxed and relatively undemanding way (Jacobs J. , 1961; Gehl, 1987) but, according to Jacob 'The sum of such casual, public contact at a local level – most of it fortuitous, most of it associated with errands, all of it metered by the person concerned and not thrust upon him by anyone – is a feeling for the public identity of people, a web of public respect and trust, and a resource in time of personal or neighborhood need. '… Lowly, un purposeful and random as they may appear, sidewalk contacts are the small change from which a city's wealth of public life may grow' (Jacobs J. , 1961).

Another noted fact is as most of the scholars have labelled street as a public library which offers multiple lessons for children just by watching people and their activities. Experiences in public space are not only a source for the education of children in learning how to cope with new situations in real life (Jacobs J., 1961; Gehl, 1987; Moore R. C., 1991), but also for the education of adults in learning, by observing the way people do things differently (Lofland & Lofland, 1998). Additionally, seeing other people engaged in activities can be an encouragement to engage in new activities. Hence, even in present-day, the street, as a social space, can play manifold and offer social contact and interaction, social awareness and learning, and social cohesion.

VII. DISCUSSION

Based on a review of the literature on open public spaces and other associated terminologies, functions, and activities between the buildings, primary urban public space the street can be seen as the channel having a lot more potential beyond the movement only. Keeping in view the usage pattern and evidence of physical characters over the streets, which may change the dynamics of built environment to support more human use and social interaction, and establishes a street as a great public place.

Increased consumer culture has led to the privatization of public spaces, shopping malls, corporate plazas and hence this has replaced traditional public spaces including main streets (Banerjee, 2001; Rybczynski, 1993). However, the same consumer culture, together with the need for active and passive engagements, interactions, relaxation, and leisure; supports the concept of public life in coffee shops, bookstores, theatres, health clubs etc. on traditional public spaces such as 'streets' (Banerjee, 2001). Other than the channel for movement; the street is the place where inhabitants spend most of their time after home and workplace. It means streets are the important part of public open spaces and are seen as the most important symbols of the public realm in today's perspective of urbanization (Jacobs J., 1961; Appleyard, Gerson, & Lintell, 1981; Moudon, 1991; Chekki, Lofland, & Cahill, 1994; Southworth & Ben-Joseph, 1997; Lofland & Lofland, 1998; Hass-Klau, 1999; Carmona, Heath, Oc, & Tiesdell, 2010). Furthermore, in an urban

setting it is observed as the 'primary public space' as well as a smallest definable community space and an indicator of the socio-physical fabric of the area (Mital, 2002). It is also an acknowledged fact that the potential for the development of a successful neighborhood lies in the possibility of the spaces around buildings, generally streets, generating social activities. With the tool of human spatial behavior, in the context of architectural design, a street can be established from a primary public space to a 'Place'. Jacob says about an urban settlement that "Think of a city and what comes to mind? It's streets. If a city's streets look interesting, the city looks interesting; if they look dull, the city looks dull" (Jacobs J. , 1961).

VIII. ACKNOWLEDGMENT

REFERENCES

[1] Abu-Ghazzeh, T. M. (1990). Housinglayout, Social Interaction, and the Place. Journal of Environmental Psychology, 41-73.

[2] Aggarwal, M. (2001). Outdoor Play Areas for Children in High-Density Housing in Montreal, Master of Architecture Thesis. Montreal: Faculty of Graduate Studies and Research, School of Architecture, McGill University.

[3] Al-Hagla, K. (2008). Towards a sustainable neighborhood: The role of open spaces. International, 162-177.

[4] Altman, I. (1975). The Environment and Social Behavior: Privacy, Personal Space, Territory, Crowding. Monterrey, CA: Brooks/Cole.

[5] Appleyard, D., Gerson, M. S., & Lintell, M. (1981). Livable Streets. California: University of California Press.

[6] Audirac, I., & Shermyen, A. (1994). An evaluation of neotraditional design's social prescription: postmodern placebo or remedy for suburban malaise? Journal of Planning Education , 161-173.

[7] Bacon, E. (1967). Design of Cities. London: Thames & Hudson.

[8] Bandyopadhyay, A. (1998). Formulation of urban development norms & provision of physical infrastructure: an integrated approach for a better living environment. Proceedings of 47th TCP congress. New Delhi: ITPI, New Delhi.

[9] Banerjee, T. (2001). The Future of Public Space: Beyond Invented Streets and Reinvented Places. Journal of the American Planning Association, 9-24.

[10] Barker, R. (1968). Ecological Psychology. California: Stanford University Press.

[11] Bartuska, T. J. (2007). The Built Environment: Definition and Scope. In R. McClure, W. Rule, & T. J. Bartuska, , The built environment : a collaborative inquiry into design and planning (pp. 3-14). John Wiley & Sons.

[12] Bechtel, R. (1977). Enclosing Behavior. Stroudsburg, PA: Hutchinson and Ross.

[13] Bechtel, R. (1997). Environment and Behavior: An Introduction. Thousand Oaks, CA: Sage Publications.

[14] Bechtel, R. B., & Churchman, A. (2002). Handbook of Environmental Psychology. New York: John Wiley & Sons, Inc.

[15] Bechtel, R. B., & Zeisel, J. (1987). Observation: The World Under a Glass. In R. B. Bechtel, R. W. Marans, & W. M. Michelson, Methods in Environmental and Behavioral Research. New York: Van Nostrand Reinhold Comp.

[16] Bentley, I., Alcock, A., Murrain, P., McGlynn, S., & Smith, G. (1985). Responsive Environments: A manual for Designers. London: Architectural Press.

[17] Berger-Schmitt, R. (2000). Social Cohesion as an Aspect of the Quality of Societies: Concept and Measurement. Mannheim: EuReporting Working Paper.

[18] Bernard, P. (1999). Social cohesion: A critique. Montréal: Canadian Policy Research Networks.

[19] Bhaduri, S., & Daniel, L. S. (2013). Urban Density and Spatial Quality of Urban Spaces. International Journal of Innovative Research and Studies.

[20] Blake, S. P. (1991). Shahjahanabad: The Sovereign City in Mughal India. Cambridge: Cambridge University Press.

[21] Gehl, J. (1987). Life Between Buildings: Using Public Space. New York: Van Nostrand-Reinhold.

[22] Gehl, J. (2010). Cities for people. Washington, DC: Island Press.

[23] Gehl, J., & Gemzøe, L. (2004). Public spaces, public life. Denmark: Danish Architectural Press.

[24] Ghose, B. (1968, jan. 1). Jaiselmer: Urban Form and Pattern of Medieval Indian Town. Urna and Rural Thought Vol. X1, p. 1968.

[25] Gifford, R. (2007). Environmental Psychology: Principles and Practice. New York: Optimal Books.

[26] Glaeser, E., & Gottlieb, J. (2008). The Economics of Place-Making Policies. NBER Working Paper No. 14373 . Cambridge: MA: NBER.

[27] Jacobs, A. B. (1993). Great Streets. Cambridge: Mit Press.

[28] Jacobs, J. (1961). The Death and Life of Great American Cities. New York: Vintage Books.

[29] Jansen-Verbeke, M. (1987). Women, shopping and leisure. Leisure Studies, 71-86.

[30] Krier, R. (1991). Urban Space. Academy Editions.

[31] Kunstler, J. H. (1994). The Geography of Nowhere: the Rise and Decline of America's Man-Made Landscape. New York: Simon & Schuster.

[32] Mehta, V. (2006). Lively Streets: Exploring the Relationship between Built Environment and Social Behavior. MD: DRUM.

[33] Mehta, V. (2007). Lively Streets: Determining Environmental Characteristics to Support Social Behaviour. Journal of Planning Education and Research, 165-187.

[34] Mehta, V., & Bosson, J. K. (2010). Third Places and the Social Life of Streets. Environment and Behavior, 779-805.

[35] Moore, R. C. (1991). Streets as Playgrounds. In A. V. Moudon, Public Streets for Public Use (pp. 45-62). New York: Columbia Univ. Press.

[36] Moudon, A. V. (1991). Public Streets for Public Use. New York: Columbia University Press.

[37] Moughtin, C. (2016). Urban Design: Street and Square. Abingdon, United Kingdom: Routledge.

[38] Nasar, J. L., & Julian, D. (1995). The Psychological Sense of Community in the Neighborhood. Journal of the American Planning Association, 178-184.

[39] National Commission on Urbanisation, I. (1988). India. National Commission on Urbanisation. New Delhi: Government of India Press.