

SENSE OF COMMUNITY AND SOCIAL LIFE IN THE FISHING NEIGHBOURHOOD OF GURUNAGAR, JAFFNA, SRI LANKA.

Arthy Yogalingam*

Department of Architecture, University of Moratuwa, Sri Lanka

Abstract

Today, urbanities are less involved in local communities which have resulted in a claim that the significance and the role of space and neighbourhood layout in the creation of local communities have been exaggerated. Community research has developed a few indices for evaluating the sense of community and social life, but has not focused on the significance of a sense of community in neighbourhoods. Sense of community and social life are two key concepts related to social cohesion, which have been the subject of wide ranging studies in several disciplines including sociology, psychology and built environment. Social life studies have been mostly conducted in the built environment discipline focusing on city centers or periphery areas; while sense of community studies were mostly the target of sociologists and psychologists focusing on neighbourhoods. As a result, the role of the built environment on the sense of community and social life of neighbourhood is considered as a missing gap in the most of the literatures.

As clearly shown by the topic, this paper explores the sense of community and social life of Gurunagar fishing neighbourhood and investigates how particular fishing community plays a vital role in their own territory in terms of physical, social, economic and environmental aspects and highlights its magnitude in achieving as a successful neighbourhood. Also, this research was conducted through observations, photographic surveys, spatial analysis, interviews and discussions with those who live in the selected case study area.

Keywords: Sense of community, social life, neighbourhood.

*Corresponding Author: ArthyYogalingam; E-mail- arthy156@gmail.com

1. Introduction

Sense of community and social life are two key concepts in the literature of the built environment discipline, which have been discussed in regard to the effect of the physical characteristics on the residents' socializing patterns. Sense of community is a feeling of belonging and shared interests among members of a community while social life of a place refers to the patterns of socializing behaviours among residents. Social life has been mostly discussed in the literature of the built environment discipline, whereas sense of community has been mostly the subject of several studies in other disciplines such as sociology and psychology (Figure 1).

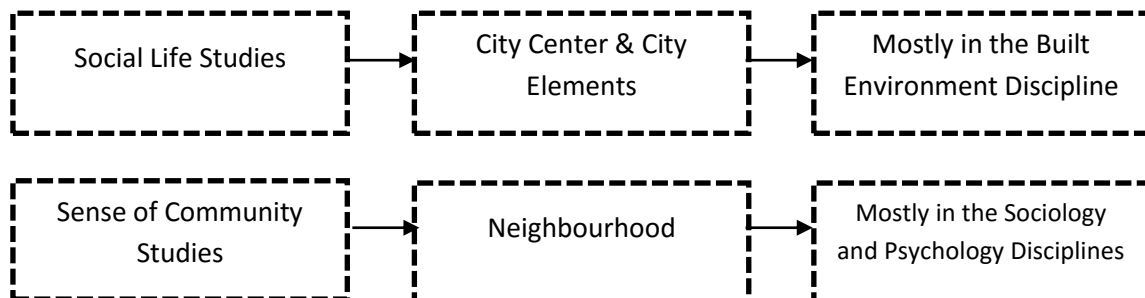


Fig.1: Previous studies on Sense of community and Social life in regard to cities and neighbourhoods
(Source: Author)

Social life studies have mostly focused on city centres, therefore, when it comes to residential environments, the number of these studies decreases dramatically and it can be considered as a gap in the literature of the built environment (Figure 1). Additionally, most studies on the sense of community among neighbourhoods' residents are from the disciplines of psychology and sociology. A neighbourhood is the realization of a geographical community known as community of place (Glynn, 1986). As a result, scholars from social and psychological disciplines have repeatedly selected this context for investigating and comparing the residents' sense of community; however, in these studies, the influence of the built environment on creating a sense of community have been mostly overlooked. Therefore, there is a need for research on both concepts of sense of community and social life in the context of neighbourhoods from a built environment perspective.

This study suggests that both concepts of social life and sense of community can be included in neighbourhood studies (Figure 2). The neighbourhood environment consists of a residential part, which is the key to feeling a sense of community, and a non-residential environment, which is the place for socializing behaviours. This study argues that socializing patterns in a neighbourhood have a twofold perspective, which can include both concepts of sense of community and social life.

The aim of this study is to develop a better definition and understanding of these concepts. This paper, by developing a conceptual framework on neighbourhood's socializing patterns, can contribute to future community studies and especially neighbourhood planning research. This study will explore the established key theories around sense of community and social life from the built environment perspective and will investigate how the related theories can be applied to the neighbourhood environment. Physical characteristics in the neighbourhood environment can influence the way in which residents in a neighbourhood environment feel a sense of community.

2. Background

Public life and the neighbourhood's environment was historically a cohesive unit. Historical neighbourhoods grew little by little, in accordance with their residents' changing needs. Residents' requirements had to be satisfied within the neighbourhood's boundaries and through their commitments to the local communities. Therefore, historically neighbourhoods were placed with a high degree of socializing patterns and sense of community among residents. Two occurrences changed this process: the shift to industrial cities and the shift to the media and virtual societies.

First, the shift to industrial societies had a major impact on the way people were living and socializing. Industrialization caused people to migrate to cities in search for jobs and social welfare. Migrations and population growth in cities changed the way people live. People moved to places where they were no longer able to get to know all the residents and therefore they structured "imagined communities" (Anderson, 2006) in which people could not and would not know each other. Consequently, the social ties and the form of everyday interactions were affected and that led to the theories of loss of meaningful relationships by many sociologists (Webber, 1963; Wellman & Leighton, 1979).

Industrialization was not the only occurrence to change the community patterns in the neighbourhoods. The invention of media and virtual networks has also affected the way people contact and create their communities. Throughout history, cities have been regarded as the fulcrum of human communication and social life; however, the emergence of virtual societies and electronic public spaces in recent decades has changed the role of public places in the social life of cities. The progress made in modern technologies and the emergence of media and virtual networks have contributed to some transformations in the form of communications, transportation and as a result people's social life.

Parallel to the virtual societies there is still a need for face-to-face interactions and non- virtual local communities which neighbourhoods can provide the opportunity for their development. The built environment in the neighbourhood may enhance the chance of encounters through promoting walkability and stationary activities. Therefore, there is a need, in the literature of public life studies, for research on the social life and community patterns in residential neighbourhoods.

Social life studies started in the 1960s, when criticism on modern architecture and urbanization was peaking due to the neglect of social needs and marginalizing human interactions. Consequently, the public life studies were initiated by scholars such as Jacobs (1961) and Gehl (1987), who are considered as the key authors in this area of knowledge. Following Jacobs and Gehl, several scholars have studied how the built environment and the related characteristics can affect social life of public places. These studies were mostly focused on city centres and city elements such as streets and plazas (Figure 1) and the significance of residential environments in contributing to the social life of cities was neglected.

3. Literature Review

3.1. SENSE OF COMMUNITY

Sense of community is a concept in the field of community psychology, which has been defined as “the sense that one was part of a readily available mutually supportive network of relationship” (Sarason, 1974). In the early 1970s, Sarason pointed to the popularity of the books with the themes of loneliness, isolation and the feeling of not belonging. He described this occurrence as “a decline in psychological sense of community” (Cochran, 1994). McMillan and Chavis (1986), whose study is frequently used in the psychology literature, argue that sense of community is composed of four elements:

1)Membership- the feeling that who belongs to the community and who does not; 2)Influence- the ability to express and influence the group which works both ways, some influence by the group on its members is needed for group cohesion; 3) Integration and fulfilment of needs- the feeling that members are awarded and some needs are satisfied by being a member of the community; 4)Shared emotional connections- the common history of members in a community, which includes the extent and quality of interaction between members.

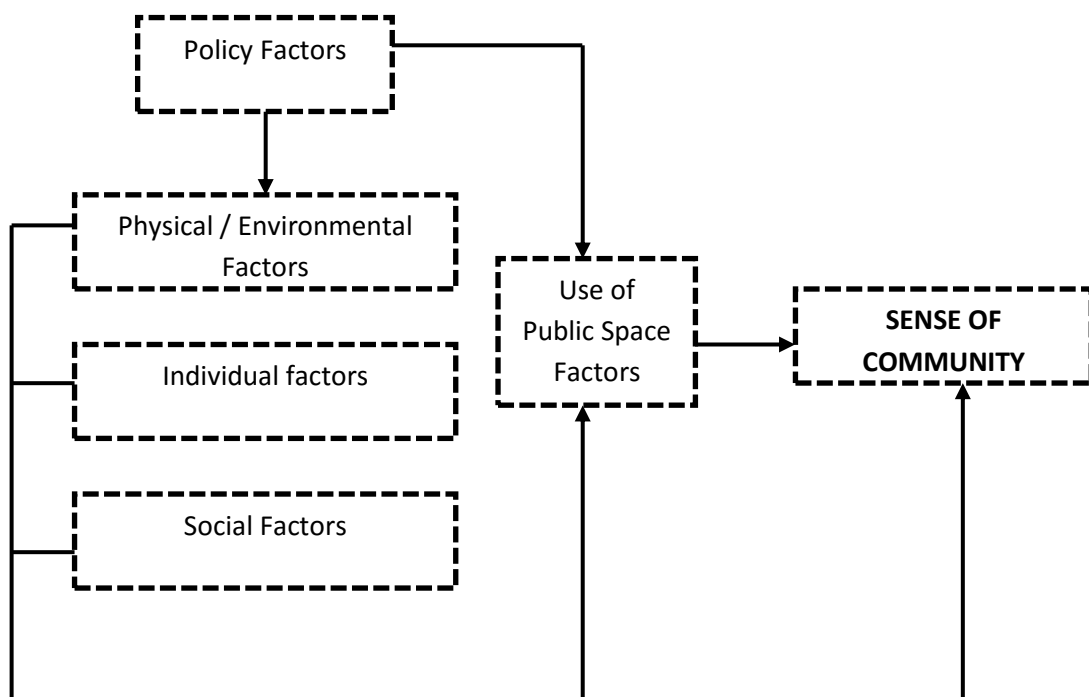


Fig. 3: Conceptual model of relationship between public space and sense of community
(Source: Francis et al., 2012).

Whether physical characteristics in the built environment can encourage a sense of community or not is a debate among scholars. Talen (1999) argues that built environment characteristics can promote interactions, but they cannot create a sense of community directly. She believes that the built environment can encourage human interactions, but it is not clear whether these interactions will lead to feeling a sense of community among residents.

In spite of these criticisms, studies have found a correlation between physical built environment characteristics and feeling a sense of community. These studies are not limited to the built environment discipline. According to community psychologists such as Plas and Lewis, environmental factors may be crucial for the development of a sense of community in urban communities (Plas & Lewis, 1996). Cochran also argues that planners are able to preserve and strengthen a neighbourhood's sense of community through both social policies and physical design strategies (Cochran, 1994).

Therefore, from these debates it can be concluded that the built environment is able to influence the feeling of sense of community either directly or indirectly through increasing the chance of interactions among residents (Francis et al., 2012). Informal interactions in neighbourhoods will lead to some acquaintanceships which are known as weak ties in the literature (Granovetter, 1973). High levels of weak ties among neighbours are believed to increase the occurrence of strong ties and social affiliation (Granovetter, 1973; Greenbaum, 1982).

The built environment is able to increase the chance of interaction by two identified factors: first by improving walkability factors and second by encouraging the stationary activities. Developing pedestrian friendly environment, easy pedestrian access and encouraging walkability are believed to be the key factors in increasing the sense of community in neighbourhoods (Lund, 2002, 2003; Wood et al., 2010). The presence and quality of public places such as parks have been associated with a strong sense of community among residents (Francis et al., 2012). In contrast, it has been argued that vehicular traffic and car parking negatively affect perceptions of sense of community and neighbouring behaviours in residential areas (Appleyard, 1981; Mullan, 2003). Additionally according to Lockwood (1997) the existence of a neighbourhood main street can help bring about a strong sense of community and provide an opportunity for the occurrence of stationary activities (Mehta, 2007; Mehta, 2008, 2013).

3.1.1 Conceptual Frameworks

Scholars from the built environment discipline are increasingly trying to develop frameworks to facilitate the study of sense of community in neighbourhoods. Francis et al. (2012) have developed a conceptual model for the relationship between public space and the sense of community. They define four categories of policy, physical environment, individual and social factors that directly or indirectly affect the sense of community (see figure 3). Either these characteristics influence the sense of community among residents, or they increase the use of public places and the sense of community will increase as a result of the increase in interactions in public places.

Kim and Kaplan (2004) have also developed a framework to study the sense of community regarding physical aspects of neighbourhoods. The framework identifies four domains, which are hypothesized to relate to an important aspect of residents' feeling that they belong to the community (see table 1). The four domains of sense of community are described as: 1) Community or place attachment, refers to residents' connections to their community; 2) Community identity, refers to personal and public identifications with a specific community with its own character; 3) social interactions, is defined as formal and informal social opportunity in which residents attend to the quality of their relationships; 4) pedestrianism implies that a community is designed for walking and encouraging street side activities, are the four domains.

The built environment characteristics that influence the feeling of sense of community can be summarized in four categories (see figure 4): Presence of public places such as parks, plazas and commercial streets, easy pedestrian access and walkability, human scale developments, mixed land use developments and greenery. In several studies, these categories have been identified as promoting factors for feelings of a sense of community among residents.

Table 1: Sense of Community: Theoretical Dimensions (Source: Kim and Kaplan, 2004).

DOMAINS OF SENSE OF COMMUNITY				
	COMMUNITY ATTACHMENT	COMMUNITY IDENTITY	SOCIAL INTERACTION	PEDESTRIANISM
PRIMARY ACTION	Bonding with community	Identifying (with) community	Being involved in community	Knowing community
SUBCOMPONENTS	Community satisfaction	Uniqueness	Neighbouring	Walkability
	Connectedness	Continuity	Casual social encounter	Pedestrian propinquity
	Sense of ownership	Significance	Community participation	Mass transit
	Long term local integration	Congruence	Social support	Pedestrian scale/street activities
		Cohesiveness		

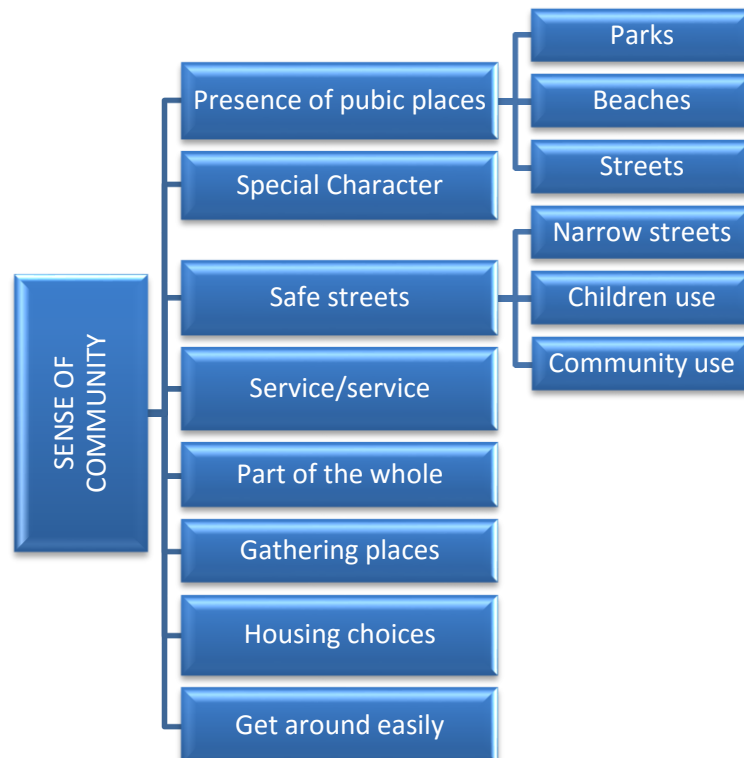


Fig. 4: Summary model of the built environment influence on feeling a sense of community (Source: Author)

3.2 Social Life

Sociability is a primary role of public places in cities and neighbourhoods. Good public places in cities provide an avenue for communication and socializing behaviours. Public life has been acknowledged as everything that occurs in public spaces between buildings: sitting, chatting, walking, cycling, running, standing and playing, which form “the life between buildings” (Gehl, 1987). Being alive for architecture is about being complex: forming, transforming and maintaining a structural organization that consists of multiple constituents arranged in specific patterns (Bhat, 2014).

In the periods of rapid urban growth, the social life between buildings was reduced as a result of automobile dependency, large-scale designing and overly rationalized, specialized processes. Jacobs was a dominant critic who called for a change in the social life of cities. Jacobs stressed the importance of high-density neighbourhoods, mixed land use and promoting public places in cities for creating vitality. She claimed that the physical structure of cities can lead to experiencing cohesive community and life (Jacobs, J 1961). In 1971, Jan Gehl in his book *Life between Buildings* stressed the qualities of urban life and how the built environment can encourage social life of public places and especially city centres. He repeatedly criticize the neglect of the human dimension in urban design, the emergence of car-dominated cities, and the loss of pedestrian-oriented environments for their negative influence on the public life of cities (Gehl, J 1987).

After Gehl, several studies were conducted in order to critique and analyze the social life of cities. However, most of this research has focused on city centres (Gehl, 2010; Gehl & Gemzøe, 2001; Whyte, 1988) and some have addressed city elements such as streets (Appleyard, 1980; Appleyard, 1981; Jacobs, 1993). The role of residential environments in creating social life has been neglected. In most of these studies, it has been assumed that the city life is associated with the city centres' sociability. But is the city life exclusively limited to the centre? Are the residential environments able to contribute to the social life of cities?

Social life of neighbourhoods can benefit residents and cities in terms of mental health and well-being and feeling of safety and security. Empirical findings have shown that experiencing a sense of community can be an explanatory tool for individual well-being. Additionally, lack of vitality in neighbourhoods may decrease the feeling of safety and security. In a study Ross and Jang (2000) argue that social ties with neighbours have buffering effects on neighbourhoods fear and mistrust.

Only a few studies have focused on the sociability of residential environments; however some of the factors that have been studied regarding the public life of city centres and streets are applicable to residential environments (see Figure 5). Qualities that are thought to provide opportunities for social interactions in public places include the factors that encourage residents to walk or which encourage them to engage in stationary activities.

The qualities that are studied to encourage stationary activities in public places are provision of seats and sitting areas (Gehl, 2010; Gehl & Gemzoe, 2004; Mehta, 2009, 2013; Mehta & Bosson, 2009; Whyte, 1980), provision of community gathering places (Lofland, 1989; Oldenburg, 2009), improvements in sidewalks and building edges (Mehta, 2013), greenery (Al-Hagla, 2008; Sullivan, 2004; Whyte, 1980), using a fine hierarchy (Chermayeff, 1971; Chermayeff & Alexander, 1966) and activity generators (e.g. food) (Carr, 1992; Franck, 2005; Whyte, 1980). These qualities have been summarized from several studies in order to make a comparison between the qualities

that are believed to improve the social life of cities and those that create feeling a sense of community from a built environment point of view.

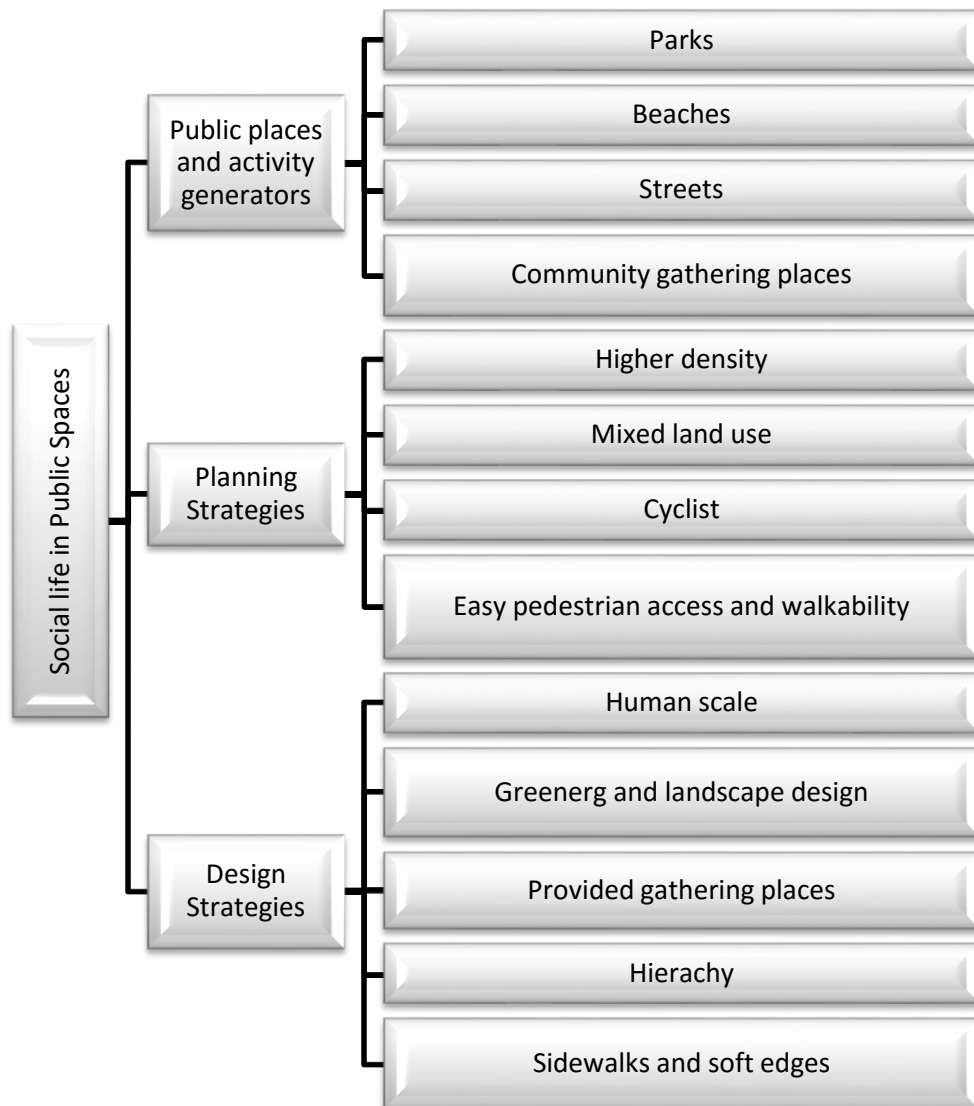


Fig.5: Physical Characteristics that affect the social life in public places
(Source: Author)

Comparing social life studies to sense of community studies (see Figure 4 and 5) shows that built environment characteristics that promote the social life in cities are similar to those discussed in the sense of community section. There are two accounts for this similarity. First, since for both a social life and a sense of community, the built environment must provide an avenue for encounters and increase the chance of interactions, the contributing factors are mostly similar. Second, in the built environment literature, the meanings of sense of community and social life have sometimes been misinterpreted and misplaced. In the literature of the built environment, the boundary between the meaning and interpretation of the terms sense of community and social life is not rigid and clear. To fully grasp this misinterpretation, I use the New Urbanism Paradigm as an example. New Urbanism is an urban design movement, which arose in the United States in 1980s with the goal of promoting walkable neighbourhoods and encouraging a sense of community among residents. In the literature of New Urbanism, the term sense of community has been mostly used to show the effect of design on socializing patterns in

neighbourhoods. Talen (1999) criticizes New Urbanism for overestimating the effects of the built environment on the sense of community. She argues that the claim of the New Urbanism in encouraging sense of community via physical design factors is ambiguous and built environment characteristics can promote interactions, but they cannot create a sense of community directly. However, some studies have shown a higher sense of community in the neighbourhoods developed by New Urbanists (Kim, 2000). There can be two accounts for this contradiction. First the meaning of sense of community has not been interpreted correctly in the literature of the built environment. Second the target of New Urbanism has been mostly to encourage social life of neighbourhoods and not promoting the sense of community among neighbours. Taking Lund's study into consideration clarifies that New Urbanism has been successful in promoting pedestrian-friendly environments and streetscapes (Lund, 2003); and therefore, the claim of New Urbanism in promoting social life has been successful.

3.3 Sense of Community and Social life in the Context of Neighbourhood

Neighbourhoods are the connecting points between homes and the city. Therefore, the social life of a neighbourhood is the interface of the private life of residents and the social life of the whole city. Neighbourhoods have been defined in several ways and with several characteristics. Brower (1996) accounts three dimensions for a neighbourhood: Ambience, Engagement and Choicefulness. Engagement refers to the extent of intensity among residents and the presence of facilities and features that foster or inhibit the interactions. Engagement is the interface of the private home life to the public city life. The dimension of engagement in neighbourhoods occurs in two manners: first the feeling of sense of community among residents and second the social life of the whole neighbourhood. Neighbourhood environment provides a twofold opportunity for socializing behaviours among residents. Neighbourhoods are a combination of housing units and extended housing units (Brower 1996). The Extended-housing unit is the place for home-related facilities outside homes, such as parks, community gathering places, and commercial streets. Since extended housing units are shared between several housing units, they are considered as points of connection, which can provide a chance of encounters for residents. Brower explains that some points of connections are mostly for neighbours and some connect the neighbourhood's residents to non-residents or strangers. The neighbourhood environment can provide the space for this hierarchy. From private-family-home to semi-private front yard to the quasi-public residential street and the public- commercial street or neighbourhoodcentre. The residential street can provide the avenue for community interactions and neighbouring behaviours (sense of community); while the commercial street as the most public space in the neighbourhood provides the chance of encounters between residents and non-residents (social life) (Figure 6).

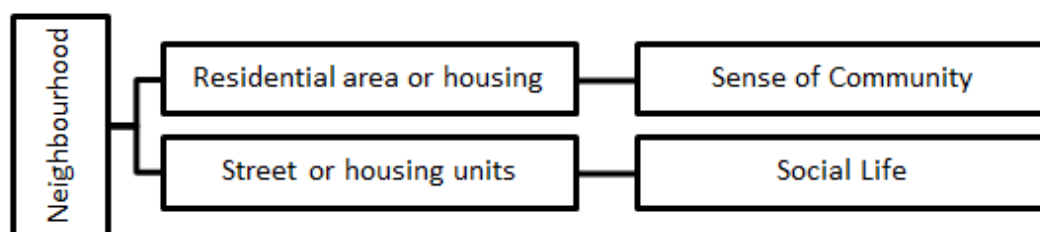


Fig. 6: Model of the sense of community and social life of neighbourhoods
(Source: Author)

Residential streets are the fulcrums of feeling a sense of community among residents. The residential environment is where neighbours get to know each other; they change their relationship from strangers to acquaintances, neighbours or friends; in other words they become a community. According to Unger and Wandersman, neighbouring consists of a social component, a cognitive component and an affective component. The affective bonds between neighbours are categorized in three forms: sense of mutual aid, sense of community, and attachment to place (Unger & Wandersman, 1985) (Figure 7). This classification shows that the sense of community as a component of neighbouring can be just considered among immediate neighbours and not the whole neighbourhood. Additionally, according to Banerjee and Baer residents experience a sense of community at the smaller scale of neighbourhood or block (Banerjee & Baer, 1978).

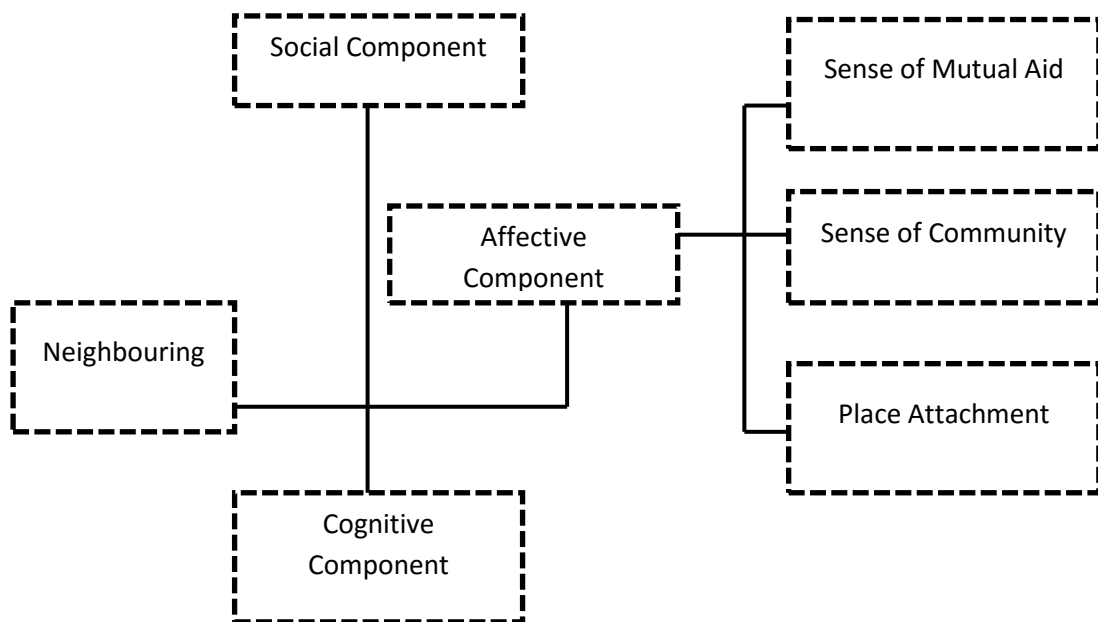


Fig. 7: Neighbouring components
(Source: Unger and Wandersman, 1985).

Studies conducted on the sense of community of neighbourhoods have not separated the residential environment from the commercial non-residential environment. There are few key studies that have been partially dedicated to the social life in the residential environments. Appleyard (1981) in the study of three streets in Italian residential neighbourhoods in America noticed that the traffic has affected the number of interactions in the streets. As it can be seen in figure 8, the number of neighbouring and visiting activities is much higher, in the light traffic street in comparison to the heavy traffic street. He also found that in the light traffic street the area that people identify as their home territory is much wider than the heavy traffic street. Therefore, it can be concluded that traffic affects people's perception of the home territory and this will indirectly affect social life of residential streets.

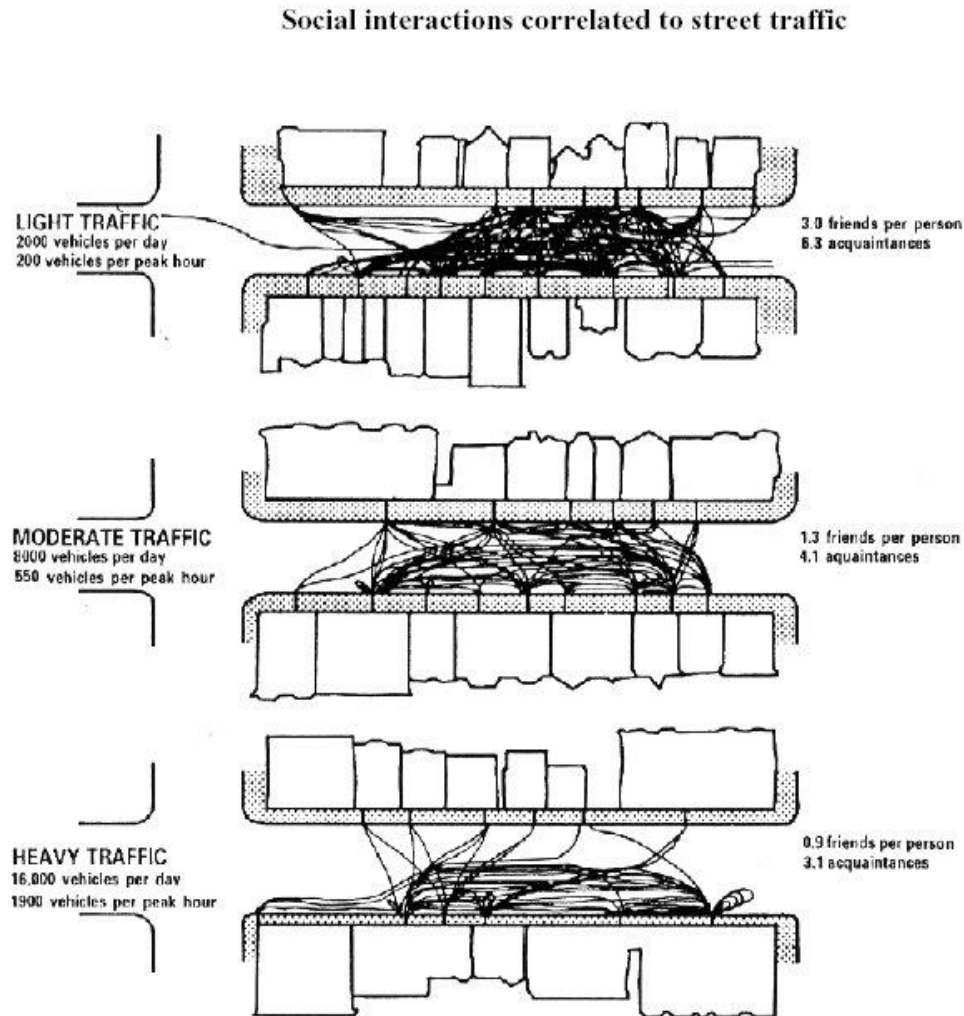


Fig. 8: Study of neighbourhoods interactions in relation to traffic
(Source: Appleyard, 1981).

Gehl's 1976 study of Australian terrace houses with semi-private front yards shows that front yards are the starting point of many activities which can encourage the social life in residential neighbourhoods (Gehl, 1980). A great number of the observed staying activities (76 percent) took place in (or was related) to the front yards. The study also showed that semi-private front yards can create a buffer zone between the street and the house which enables residents to control the degree of interaction and intimacy. Gehl argues that front yards should be narrow enough to enable a quick chat between the sidewalk and the house and wide enough for staying activities to feel safe from the unwanted intrusions (From 1.5 meter to 4 meters wide is the range which Gehl believes is convenient for the front yards).

Alongside residential environments that bring the sense of community to the locality, neighbourhoods also consist a commercial component. Commercial streets or neighbourhood centres are the fulcrums of creating social life in neighbourhoods. The function of the commercial street in a neighbourhood is similar to the function of the main street in a town. Emergence of main streets in towns, neighbourhoods and suburbs encourages the

economic activity and increases the chance of encounters and the sense of community among residents (Lockwood, 1997; Pendola & Gen, 2008).

A recent study by Mehta shows that the commercial street in neighbourhoods can influence the social, land use and the physical qualities (Mehta, 2007; Mehta, 2013). Encouraging these qualities will affect the public life of commercial streets and the whole neighbourhoods. Land use qualities are related to the business variety, presence of independent stores, personalization and permeability of stores. Physical qualities include commercial and public seating, sidewalk width, shade and building articulation. Social qualities are related to community gathering spaces. To improve the social life of commercial streets, Mehta (2013) has developed a design guideline that can be seen in Figure 9.

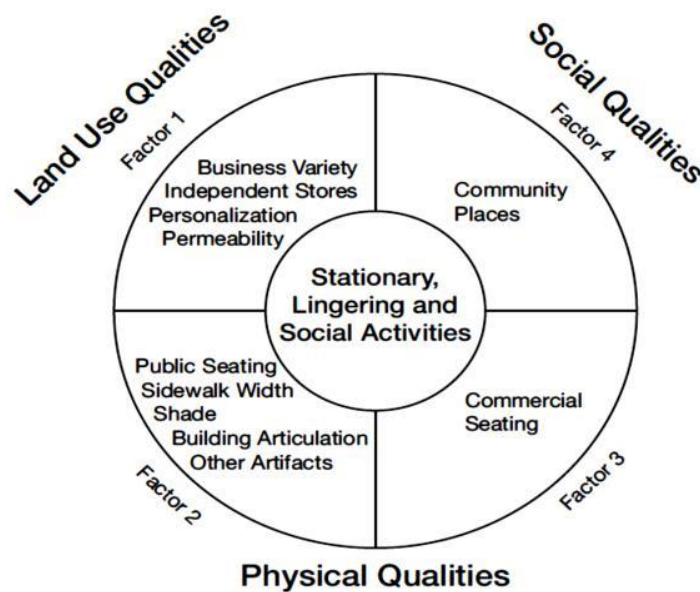


Fig. 9: Characteristics of the neighbourhoods' commercial street
(Source: Mehta, 2013).

Reviewing the studies on main streets or commercial streets illustrates that neighbourhoods' commercial streets can be the place where residents interact and particularly the place for stationary activities and spending time on enduring activities (Mehta, 2013).

In today's world, localized interactions are not the requirements for building a sense of community. However, the neighbourhood as a geographical place has the benefit of locality, which makes it more worthy in comparison to the communities of interests. Proximity and locality give neighbourhoods an advantage. According to Unger and Wandersman (1985) neighbours' social support consists of personal and emotional support, functional and instrumental support, and informational support which come with the privilege of proximity. Two decades have passed from Unger and Wandersman's study and the role of informational support has partially lost its importance due to the progress in the information technology. Nonetheless neighbours supportive interactions can still provide the emotional and functional supports.

4. Research Methodology

As graphically represented below, this research evolved and developed through an in-depth research process which consisted of the stages of the preliminary study, study area selection and research study while gaining discipline, knowledge, training, practice in the process of examination.

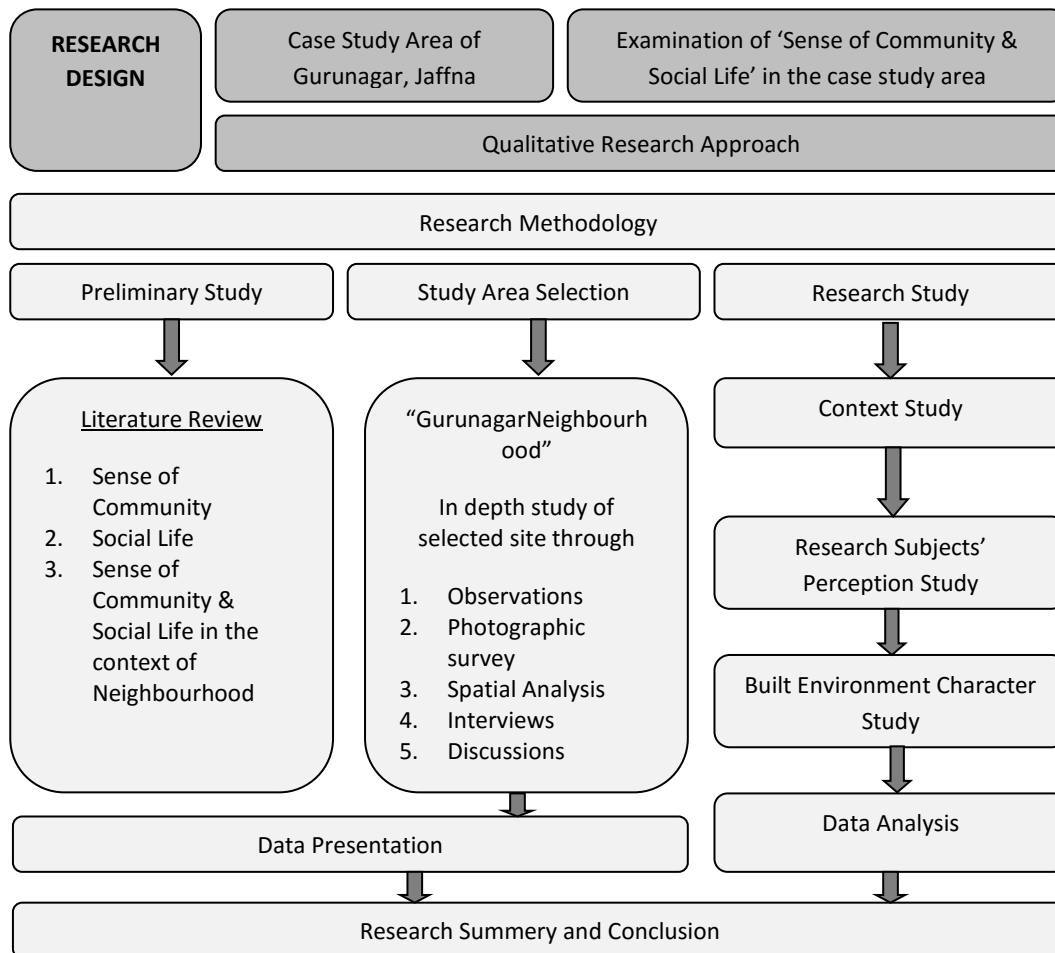


Fig.10: Research Methodology
 (Source: Author)

At the first attempt, direct observation was done to study about the Gurunagar fishing neighbourhood and surrounding. The daily routine activities and social life and people's connections were observed. Unstructured interviews and open discussions allow questions based on the interviewee's responses and proceeds like a friendly non-threatening conversation. Here mainly focus the people those who live in the Gurunagar area and get the ideas about their social life.

Activity survey is an investigation about the characteristics of the Gurunagar area. According to this survey tried to observe the activity pattern and its functions also the interconnections between different spaces. Photographic survey was focused on what really happen in the ground level and to observe the functional spaces of neighbourhood. Through an organized photographic survey in the case study area the human behavioral aspects and conflicting

situations were identified. And also the activities and symbolic features were recorded in photographs, sketches and maps.

5. Limitation

Examining the neighbourhood is a broad conception. With the time limitation only the sense of community and social life were analyzed based on qualitative research methods. But there are other methods and guides can be used to analyze the neighbourhood by applying the quantitative research technique. So this qualitative based research method will be helped to do further studies related to neighbourhood by applying some quantitative techniques to understand the neighborhood in future. Anyhow, this research will help to understand the local people and their social life before applying the quantitative techniques.

6. Analysis and Findings

SENSE OF COMMUNITY AND SOCIAL LIFE IN THE CONTEXT OF GURUNAGAR NEIGHBOURHOOD

6.1 The Gurunagar Neighbourhood

Gurunagar is a coastal village in Jaffna city in Northern Sri Lanka and devising concentration of high density housing which the land extent is 0.37 Sq.km. The population of the Gurunagar is nearly 6,200 population recorded in 2017. The suburb is mainly populated by Catholic Sri Lankan Tamils, engaged in sea activities. The neighbourhood helps to define a neighbourhood by strongly contributing to a sense of place and helps promote a sense of community. It also offers neighbourhood residents a destination point located at the relative centre of the neighbourhood near the Jaffna town center. This is the one of the main fishing neighbourhood which has a high amount of fishing population when compares to other fishing villages. Predominantly this neighbourhood meant for fishing community and nearly 90% of the people engaging in the fishing occupation. So the identity reflects the fisher community.

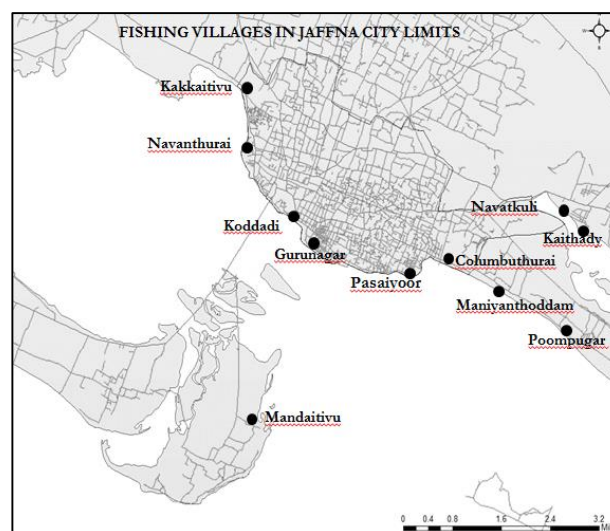


Fig.11: Location of Gurunagar Fishing Village
(Source: Compiled by Author).

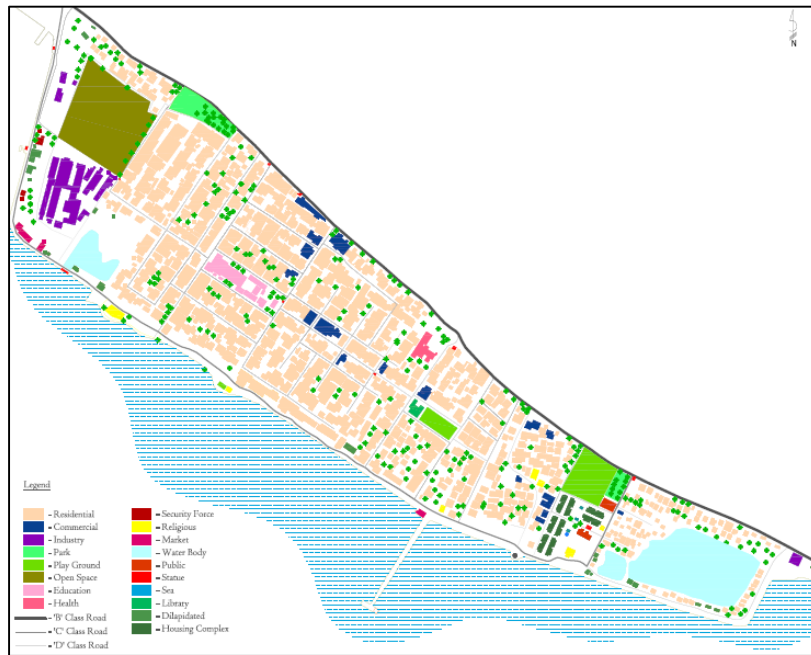


Fig.12: Layout of Gurunagar Neighbourhood
 (Source: Compiled by Author).

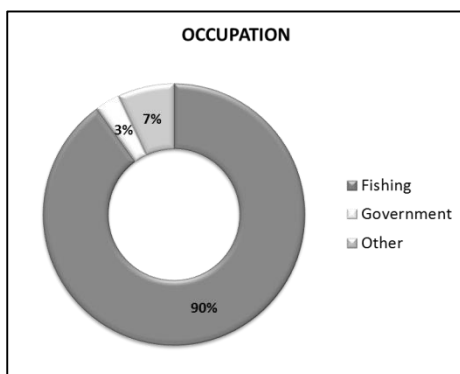


Fig.13: Main Occupation of Gurunagar area
 (Source: Divisional Secretariat Hand Book).

FISHING VILLAGE	FISHING POPULATION	FISHING FAMILIES	ACTIVE FISHERMEN	TOTAL BOATS
NAVANTHURAI	2152	425	562	87
GURUNAGAR	9159	2312	3100	826
PASSAIYOOR	2700	686	788	184
COLUMBUTHURAI	264	60	64	34

Fig.14: Fishing Population of Gurunagar area
 (Source: Divisional Secretariat Hand Book).

6.2 Natural Areas enhance the social life of the neighbourhood

Neighbourhood contains natural blue and green environment and is sensitive to the existing land conditions and local ecology. This may include vegetation cover, parks and play grounds, canals, closed waterbody and sea side. Gurunagar neighbourhood is the part of sea side. They engage in the fishing activities in the sea and they anchored their own boats along the jetty and the sea side. So the natural water body plays an important role in the part of local neighborhood residents and most of the people gather, chats, meet, relax and even children play along the seaside of the neighbourhood. Some part of the residents are facing to the sea is a significant element which gives the special character of the fishing community.



Fig. 15: Sea side of Gurunagar area (Source: Author)



Fig. 16: Houses facing to the sea (Source: Author)



Fig.17: Anchored boats and jetty (Source: Author)



Fig. 18: People gathering near to the sea in the evening (Source: Author)

6.3 Mixed Land usesupports the social life of the neighbourhood

Neighbourhood has a mix of land uses and densities that provide options to live, learn, work, and play. More intensive land uses are connected and focused around transit, alternative transportation modes, historical Dutch Fort, schools, markets, police station, bus stand, railway station, hospital, district secretariat office and parks. All residents of the Gurunagarneighbourhoodcan easily access to fulfill their basic needs, daily shopping and recreational needs in their neighbourhoodand close proximity of the neighbourhood regardless of mode choice.

Distance from Gurunagarneighbourhood to town center

1. To Bus stand - 3 km
2. To Railway Station - 2.2 km
3. Teaching hospital - 2.6 km
4. Dutch Fort - 800 m
5. Police Station - 600 m
6. Sinnakadai Market - 600 m
7. District Secretariat - 3.8 km

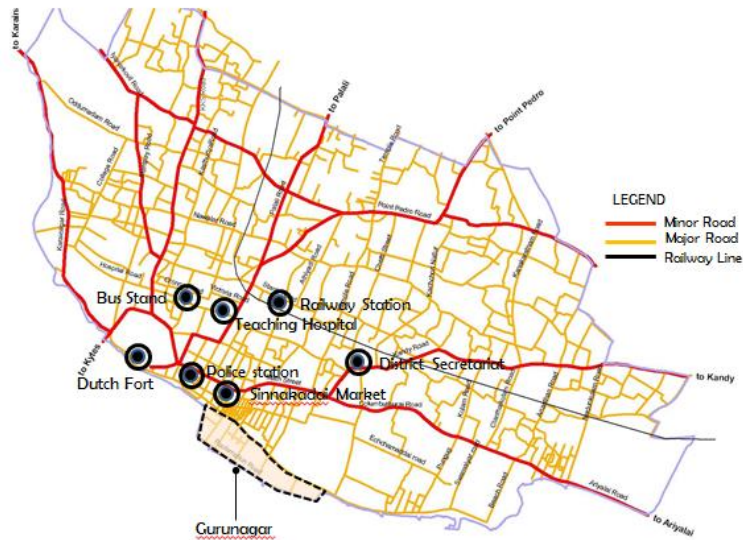


Fig. 19: Locational advantage and close proximity to access the places
 (Source: Compiled by Author)

6.4 Streets reflect sense of community and encourage social life of the neighbourhood

Gurunagarneighbourhood offers real mobility choices for residents to travel to, from and within the neighbourhood. Streets and narrow path ways are well connected to encourage active modes of travel and enhance the local community activity and social life which happens along the streets. Especially chatting, gathering, fish net mending, children playing, celebrating church festivals happen along the street reflects the functionality of street spaces. Huge traffic and parking are reduced and do not dominate the neighbourhood. This has proven in the mode of split analysis.



Fig. 20: Fish net mending along the streets
 (Source: Author)



Fig.21: Celebrating church festivals along the streets (Source: Author)



Fig. 22: Children playing along the streets
(Source: Author)



Fig. 23: People chatting nearby the streets
(Source: Author)

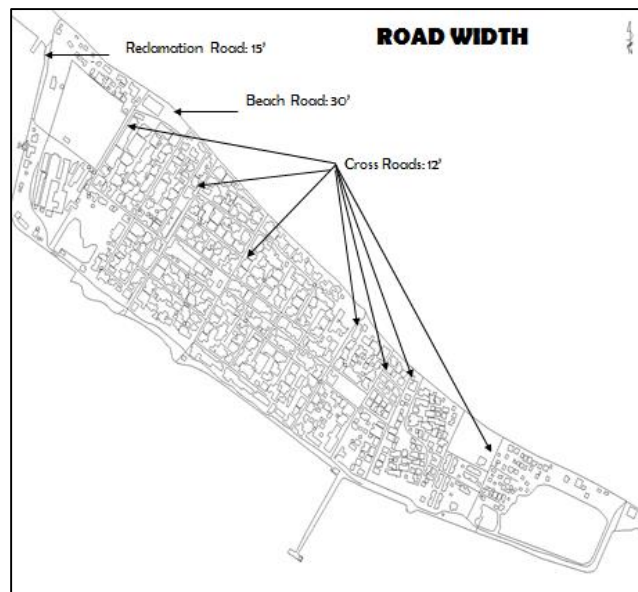


Fig. 24: Street Network of GurunagarNeighbourhood
(Source: Compiled by Author)

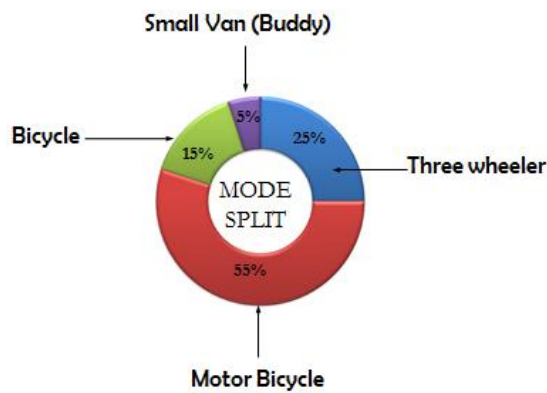


Fig. 25: Mode Split of GurunagarNeighbourhood
(Source: Results from analysis, Compiled by Author)

6.5 Compact Urban Form & Density

Higher density housing is clustered and located with commercial and institutional uses and public transit stops. Higher density areas gradually transition again to higher density areas. Density supports a mix of uses and viable transit ridership. High population and housing density recorded in this neighbourhood. Through the analysis population density has recorded as 3661 per sq.km and housing density has recorded as 361 per sq.km.

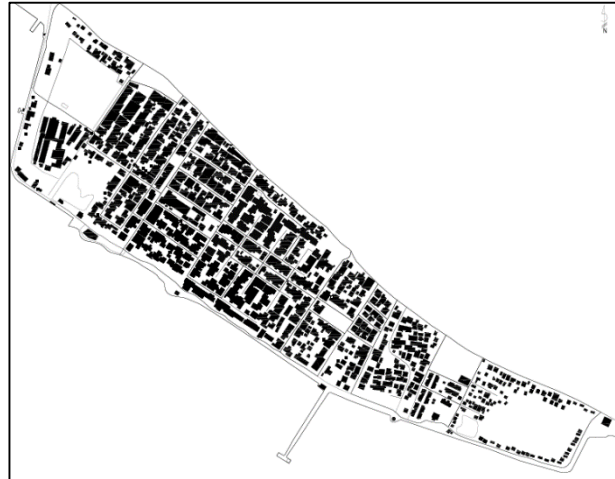


Fig. 26: Nolli Map
(Source: Compiled by Author)

Neighbourhood provides a mixture of unit sizes and housing types. Housing options provide choice within the neighbourhood, appealing to a range of incomes, family types and opportunities for 'people in place'. Incorporate a variety of housing types reflects the housing choice and living capacity of residents. The neighbourhood entry streets, include two or more housing types per block. This could be achieved by anchoring corner lots with a different but complimentary housing form. And also Block ends are encouraged for medium and high density developments especially when adjacent to parks, schools, neighbourhood commercial or other community facilities.

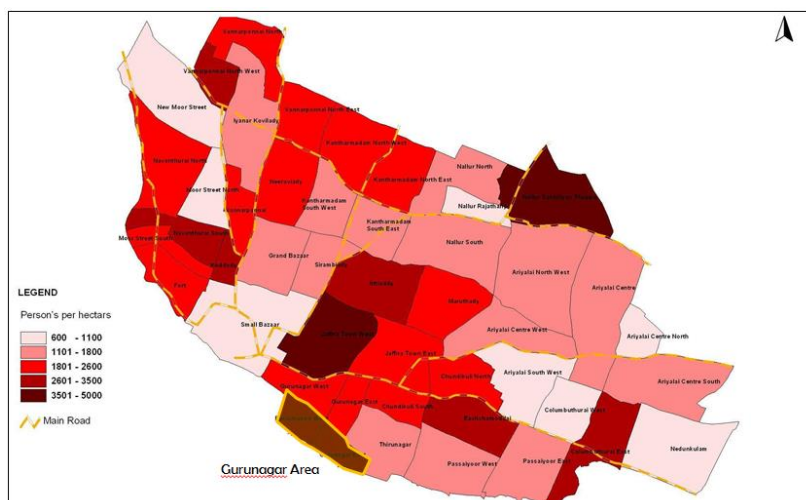


Fig. 27: Population Density Map
(Source: Compiled by Author)

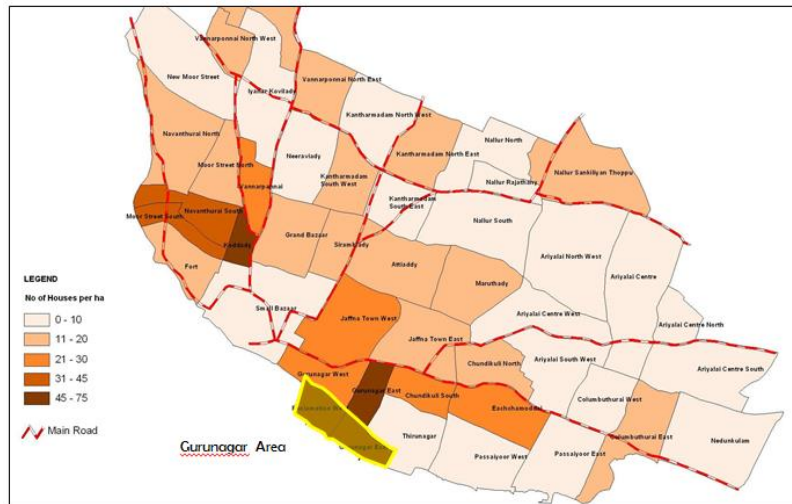


Fig.28: Housing Density Map
(Source: Compiled by Author)



Fig. 29: High dense residential area
(Source: Author)

6.6 Integrated Parks and Community Spaces provide active space for social life in the neighbourhood

The neighbourhood offers parks and play grounds, spaces along the lagoon and some communal spaces for chatting, meeting and gathering with a variety and mix of leisure and recreational opportunities. These spaces are accessible and suitable to a range of ages and abilities. Some of the street and near to lagoon spaces provide areas to congregate, socialize, recreate, be physically active and spend time outdoors.



Fig.30: location of park and play ground in GurunagarNeighbourhood
(Source: Results from analysis, Compiled by Author).



Fig. 31:Children's Park
(Source: Author)



Fig. 32:Play Ground
(Source: Author)

6.7 Safeis the sign of sense of community and social life of neighbourhood

Neighbourhood is helping to promote overall neighbourhood safety and social interaction. Streets are meant for pedestrian and cyclist safety especially for the localist of the neighbourhood. Residents know their neighbours, feel confident to play, walk, cycle, and take transit, use neighbourhood spaces and access community amenities.

Residential and Commercial areas have buffered from potentially dangerous uses such as railway tracks, industrial areas and energy facilities. Neighbourhood to promote "eyes on the street" based on livable streets. For an example

- Front porches, ground oriented dwellings and balconies on the street side of multi-family dwellings
- Design multi-family balconies to accommodate people sitting to encourage outdoor use and more eyes on the street and lane.

Housing with useable porches or covered areas is encouraged to allow homeowners to use their front outdoor space, increasing the chance of interaction with others in the neighbourhood while maintaining 'eyes on the street'.



Fig. 33:Front porches and balconies
(Source: Author)



Fig. 34:Design multi-family balconies
(Source: Author)



Fig.35:Neighbour feels confident to use the street
(Source: Author)



Fig. 36:Streets meant for cyclist and pedestrian
(Source: Author)

6.8 Unique Neighbourhood Identity expresses the sense of community

Gurunagarneighbourhood has a distinct identity fostering community pride and a sense of belonging. Arrival features, focal points, natural elements and other symbols of the community are integrated at important intersections and other locations within the neighbourhood. High dense residence and sea based fishing community design express creativity and a distinct 'look and feel' for each neighbourhood, including relationships between buildings and public space, churches, size of homes, street widths, block size, choice of materials and architectural character. Especially most of the churches and statues of Christian Gods can be seen in this neighbourhood because nearly 97% of people are belongs to Christian community. So this is the special identity of the Gurunagar neighbourhood.

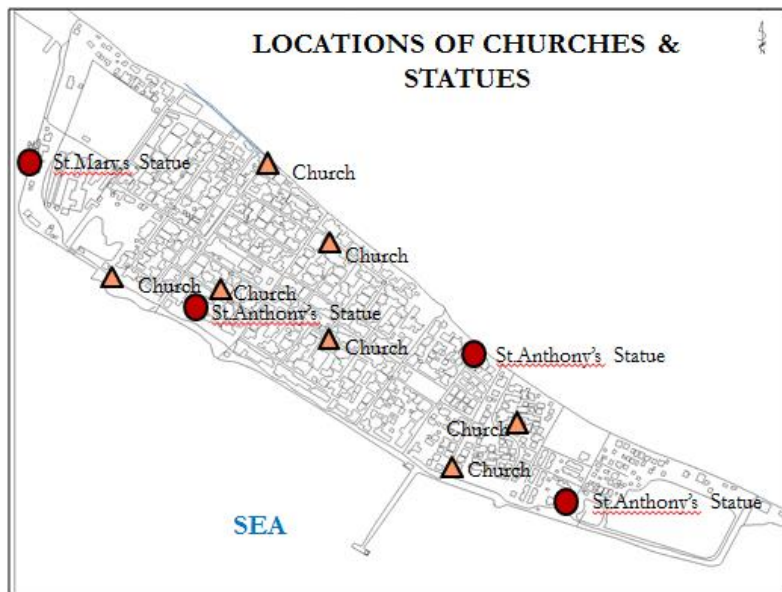


Fig. 37: Location Map of Churches and Statues
(Source: Compiled by Author)



Fig. 38: Small church near the jetty to worship before leaving the home for fishing
(Source: Author)



Fig.39: Statues of God can be seen along the roads
(Source: Author)



Fig. 40: Main church in the Gurunagarneighbourhood
(Source: Author)

The neighbourhood locates with a clear entrance (gateway feature, street, creative signage, significant landscaping) that defined boundary helps to enter and exit from the neighbourhood. And also it contributes existing or creates new landmarks, views and vistas. Residential buildings are sited and oriented to overlook public streets, sea and walkways and private communal spaces while ensuring the security and privacy of its residents. Houses and housing complex, entrances with stoops are preferred because they provide semi-public/semiprivate spaces, encourage activity in front of units, and reduce visibility into residential units. Designed single houses and somehow upper floors of multi-family style residential buildings been constructed in scale with the pedestrian environment (using window details, covered entries, porches and overhangs) to ensure the family and create strong relationship.

Conclusion

Residential environments in neighbourhoods may provide the feeling of sense of community among residents. The built environment characteristics can influence the intensity of this feeling through increasing the number of interactions and providing pedestrian-friendly environments. Interactions and weak social ties are the starting points of deeper and stronger interactions. According to the Gurunagar neighbourhood, neighbours interactions in the Gurunagar residential environment increase the feeling of sense of community. Additionally existing walk ways, informal gathering spots and sea side activities influence the social life of the Gurunagar neighbourhood especially in residential streets. Sense of community and social life of Gurunagar neighbourhood makes the Gurunagar area community healthy, safe, socially sustainable, and strengthen the local economy.

Gurunagar neighbourhood consists of poor residential environment and functional streets which are the avenue for socializing behaviours among residents. In regard to the definitions and implications of sense of community and social life, neighbourhoods can be investigated with two different approaches: in residential streets, the sense of community can be explored, while in streets, creating vitality and encouraging social life can be considered.

There is a gap of sufficient studies, in the literature of built environment, in regard to the social life of residential neighbourhoods. While several social life studies, in this discipline, have focused on city centres, plazas and streets, the importance of residential neighbourhoods in providing social life in cities has been neglected. With the absence of necessary public life and social bonds, many neighbourhoods and suburbs around the world have been transformed to “bedroom communities”; and accordingly, this study aims to stress the significance of residential environments in creating the social life of cities through the prospect of the given framework.

The analysis of the literature presented in this paper clarifies the meanings and implications of the concept of sense of community from a built environment perspective. Furthermore, exploring the literature with an interdisciplinary perspective shows that the proposed framework can fit the existing relevant research. The framework is offered as a way to facilitate future studies in the context of neighbourhoods through differentiating the residential environment from the non-residential environment.

This study recommends that distinguishing the residential streets from functional streets can provide a prospect for future researchers to identify the effective elements in the public life of neighbourhoods. Several suggestions for future research can be presented. First, there is still a need for research on the built environment characteristics that encourage a sense of community in residential streets and social life in commercial streets in neighbourhoods. Since previous public life studies in neighbourhoods have sometimes misinterpreted or misplaced these two terms, this study can create a convenient standpoint for future research in this area. Future research may also investigate the extent to which neighbourhood communities can be affected by the physical environment. This study also lays a foundation for future debate over the place of local communities, in a world where residents are mostly involved in non-local or virtual communities. Although previous research investigations provide some insight into the application of the sense of community in neighbourhoods, there is a need for continued research on the necessity of the existence of local communities in neighbourhoods.

References

- Al-Hagla, K. (2008). Towards a sustainable neighborhood: The role of open spaces. *International Journal of Architectural Research: ArchNet-IJAR*, 2(2), 162-177.
- Alexander, C. (1977). *A pattern language : towns, buildings, construction*. New York: Oxford University Press.
- Amick, D., & Kviz, F. (1975). Social alienation in public housing: The effects of density and building types. *Ekistics*, 39(231), 118-120.
- Anderson, B. (2006). *Imagined communities: Reflections on the origin and spread of nationalism* (New Edition): Verso.
- Appleyard, D. (1980). Livable streets: Protected neighborhoods? *The ANNALS of the American Academy of Political and Social Science*, 451(1), 106-117. doi: 10.1177/000271628045100111
- Appleyard, D. (1981). *Livable streets*. Berkeley: University of California Press.
- Audirac, I., & Shermeyen, A. H. (1994). An evaluation of neotraditional design's social prescription: postmodern placebo or remedy for suburban malaise? *Journal of Planning Education and Research*, 13(3), 161-173.
- Banerjee, T. K., & Baer, W. C. (1978). The use of the neighborhood concept in professional practice. *Unpublished paper, University of Southern California, Los Angeles*.
- Bhat, R. (2014). Understanding complexity through pattern languages in biological and man-made architectures *International Journal of Architectural Research: ArchNet-IJAR*, 8(2).
- Brower, S. N. (1996). *Good neighborhoods: A study of in-town & suburban residential environments*: Praeger Westport, CT.
- Carr, S. (1992). *Public space*: Cambridge University Press.
- Chermayeff, S. (1971). *Shape of community : realization of human potential*. Harmondsworth: Penguin.
- Chermayeff, S., & Alexander, C. (1966). *Community and privacy: Toward a new architecture of humanism*: Penguin.
- Cochran, S. (1994). Defining, understanding, and enhancing sense of community in neighborhoods. *Journal of Planning Literature*, 9, 92-99.
- Cooper Marcus, C., & Francis, C. (Eds.). (1998). *People places : design guidelines for urban open space* (2nd ed ed.). New York: John Wiley & Sons, Inc.
- Ewing, R., King, M. R., Raudenbush, S., & Clemente, O. J. (2005). Turning highways into main streets: Two innovations in planning methodology. *Journal of the American Planning Association*, 71(3), 269-282. doi: 10.1080/01944360508976698
- Francaviglia, R. V. (1996). *Main street revisited : Time, space, and image building in small-town America*. Iowa City: University of Iowa Press.
- Francis, J., Giles-Corti, B., Wood, L., & Knuiman, M. (2012). Creating sense of community: The role of public space. *Journal of Environmental Psychology*, 32(4), 401-409. doi: 10.1016/j.jenvp.2012.07.002
- Franck, K. A. (2005). *Food for the city, Food in the city*. Chichester: Wiley.
- Franck, K. A., & Stevens, Q. (2007). *Loose space : possibility and diversity in urban life*. London: Routledge.
- Gehl, J. (1980). Residential street environment. *Building and Environment*, 6(1), 51-61.
- Gehl, J. (1987). *Life between buildings: using public space*: Island Press.
- Gehl, J. (2010). *Cities for people*. Washington, DC: Island Press.
- Gehl, J., & Gemzøe, L. (2001). *New city spaces: The Danish Architectural Press* Cph.
- Gehl, J., & Gemzøe, L. (2004). *Public spaces-public life*: ArkitektensForlagKbh.
- Glynn, T. J. (1986). Neighborhood and sense of community. *Journal of community psychology*, 14(4), 341-352.
- Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology*, 78(6), 1.
- Greenbaum, S. D. (1982). Bridging ties at the neighborhood level. *Social Networks*, 4(4), 367-384.
- Jacobs, A. B. (1993). *Great streets*. London, England: MIT Press.
- Jacobs, J. (1961). *The death and life of great American cities*: Vintage.
- Kim, J., & Kaplan, R. (2004). Physical and psychological factors in sense of community new urbanist Kentlands and nearby Orchard Village. *Environment and Behavior*, 36(3), 313-340.

- Lagerfeld, S. (1995). What main street can learn from the mall. *Atlantic-Boston*, 276, 110-121.
- Langdon, P. (1997). A better place to live: reshaping the American suburb: Univ of Massachusetts Press.
- Lockwood, C. (1997). Putting the urb in the suburbs: Better late than never. *PLANNING-CHICAGO-*, 63, 18-21.
- Lofland, L. H. (1989). Social life in the public realm: A review. *Journal of Contemporary Ethnography*, 17(4), 453-482. doi: 10.1177/089124189017004004
- Lund, H. (2002). Pedestrian environments and sense of community. *Journal of Planning Education and Research*, 21(3), 301-312. doi: 10.1177/0739456x0202100307
- Lund, H. (2003). Testing the claims of new urbanism: Local access, pedestrian travel, and neighboring behaviors. *Journal of the American Planning Association*, 69(4), 414-429.
- McMillan, D. W., & Chavis, D. M. (1986). Sense of community: A definition and theory. *Journal of community psychology*, 14(1), 6-23.
- Mehta, V. (2007). Lively streets: Determining environmental characteristics to support social behavior. *Journal of Planning Education and Research*, 27(2), 165-187. doi: 10.1177/0739456x07307947
- Mehta, V. (2008). Walkable streets: pedestrian behavior, perceptions and attitudes. *Journal of Urbanism: International Research on Placemaking and Urban Sustainability*, 1(3), 217-245. doi: 10.1080/17549170802529480
- Mehta, V. (2009). Look closely and you will see, listen carefully and you will hear: Urban design and social interaction on streets. *Journal of Urban Design*, 14(1), 29-64. doi: 10.1080/13574800802452658
- Mehta, V. (2013). *The street : a quintessential social public space*. Abingdon, Oxon ; New York, NY: Routledge.
- Mehta, V., & Bosson, J. K. (2009). Third places and the social life of streets. *Environment and Behavior*, 42(6), 779-805. doi: 10.1177/0013916509344677
- Montgomery, J. (1998). Making a city: Urbanity, vitality and urban design. *Journal of Urban Design*, 3(1), 93-116. doi: 10.1080/13574809808724418
- Moustafa, Y. M. (2009). Design and neighborhood sense of community: An integrative and cross-culturally valid theoretical framework. *ArchNet-IJAR*, 3(1), 71-91.
- Mullan, E. (2003). Do you think that your local area is a good place for young people to grow up? The effects of traffic and car parking on young people's views. *Health Place*, 9(4), 351-360.
- Oldenburg, R. (Ed.). (2009). Celebrating the third place: Inspiring stories about the "great good places" at the heart of our communities. Chicago: Da Capo Press.
- Orvell, M. (2009). Constructing main street: Utopia and the imagined past. *Public Space and the Ideology of Place in American Culture*, 3, 97.
- Pendola, R., & Gen, S. (2008). Does "main street" promote sense of community? A comparison of San Francisco Neighborhoods. *Environment & Behavior*, 40(4), 545-574. doi: 10.1177/0013916507301399
- Riger, S., & Lavrakas, P. J. (1981). Community ties: Patterns of attachment and social interaction in urban neighborhoods. *American Journal of Community Psychology*, 9(1), 55-66.
- Robertson, K. A. (2004). The main street approach to downtown development: An examination of the four-point program. *Journal of Architectural and Planning Research*, 21(1), 55-73.
- Ross, C. E., & Jang, S. J. (2000). Neighborhood disorder, fear, and mistrust: The buffering role of social ties with neighbors. *American Journal of Community Psychology*, 28(4), 401-420.
- Sarason, S. B. (1974). The psychological sense of community: Prospects for a community psychology: Jossey-Bass.
- Southworth, M. (2005). Reinventing main street: From mall to townscape mall. *Journal of Urban Design*, 10(2), 151-170. doi: 10.1080/13574800500087319
- Sullivan, W. C. (2004). The fruit of urban nature: Vital neighborhood spaces. *Environment and Behavior*, 36(5), 678-700. doi: 10.1177/0193841x04264945
- Talen, E. (1999). Sense of community and neighbourhood form: An assessment of the social doctrine of new urbanism. *Urban Studies*, 36(8), 1361-1379. doi: 10.1080/0042098993033
- Talen, E. (2000). Measuring the public realm: A preliminary assessment of the link between public space and sense of community. *Journal of Architectural and Planning Research*, 17(4), 344-360.
- Talen, E. (2003). A matter of priorities: New Urbanism and community life. *Places*, 15(3), 77-80.

- Unger, D. G., & Wandersman, A. (1985). The importance of neighbors: The social, cognitive, and affective components of neighboring. *American Journal of Community Psychology, 13*(2), 139-169.
- Webber, M. M. (1963). Order in diversity: community without propinquity. *Cities and space: The future use of urban land, 23-54*.
- Wellman, B., & Leighton, B. (1979). Networks, neighborhoods, and communities: approaches to the study of the community question. *Urban Affairs Review, 14*(3), 363-390. doi: 10.1177/107808747901400305
- Whyte, W. H. (1980). *The social life of small urban spaces*. Washington, D.C.: Conservation Foundation.
- Whyte, W. H. (1988). *City : Rediscovering the center* (1st ed ed.). New York: Doubleday.
- Wolshon, B., & Wahl, J. (1999). Novi's main street: Neotraditional neighborhood planning and design. *Journal of urban planning and development, 125*(1), 2-16.
- Wood, L., Frank, L. D., & Giles-Corti, B. (2010). Sense of community and its relationship with walking and neighborhood design. *Soc Sci Med, 70*(9), 1381-1390. doi: 10.1016/j.socscimed.2010.01.021