SENSE OF COMMUNITY AND RESIDENTIAL NEIGHBORHOODS IN TEHRAN, IRAN

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The sense of community is one of the significant theories in sociological and psychological research that investigates people’s feelings, conducts, and interactions in a community. McMillan and Chavis (1989) defined the most accepted definition and theory for sense of community which described it as “a feeling of belonging, a feeling that others matter to one another and to the group, and a shared faith that personal needs will be met through a commitment to being together.” The four components of membership, influence, integration and needs’ fulfillment, and shared emotional connection collaborate to maintain or improve sense of community among community members. The thesis with using the ethnographic research methods evaluates the role of physical environments in strengthening people’s quality of interaction and sense of community in residential neighborhoods. Specifically, with looking at three distinct residential areas in the city of Tehran in Iran. Case studies—Ekbatan Residential Complex, Sheikh Hadi Residential Neighborhood, and Vanak Garden Residential Complex—selected based on architectural style and community scale. The thesis divided into two parts: the first part investigates the role that design features such as public spaces, buildings’ layout, and green areas can play in improving individuals’ sense of community and social ties. As well as, indicating the importance of the balance between socio-demographic and physical factors in creating a robust community by considering the users’ social conditions and knowing what
physical elements meet their needs. The second part of the thesis introduces an alternative factor a “place attachment” to prior research elements in measuring sense of community by using symbolic interactionism theory to fill the gap between a person and built environment. Specifically, the role that physical environments can play in influencing individuals’ perception and shared meaning in reinforcing sense of community. It is one of the roles of designers and planners to identify the conditions that reinforce sense of community within residential neighborhoods is an essential task for designers to promote individuals’ feeling of safety, security, civic responsibility and improve their physical and mental health.
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By

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Author

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CHAPTER ONE: THESIS OVERVIEW
1.1. INTRODUCTION

The initial idea of this research was to investigate the correlation and relativity between the physical environments and human’s behavior, feeling, and conduct. Looking at distinct residential communities, and investigating the factors can contribute in affecting people’s quality of interaction to shape a better community. The notion of “sense of community” as a reliable tool in community psychology measures the level of strength in people’s interaction and communication. McMillan and Chavis (1986) defined sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan & Chavis, 1986, p. 9). They suggested four elements form sense of community: membership in a group, a shared emotional connection, mutual influence on one another, and sharing of values among community members. These four components dynamically work together to create and maintain sense of community among individuals in a community. Advantages of sense of community are various and correlates with improvement of individuals’ mental health and well-being, as well as the development of personal self-efficacy. In community level, it increases the feeling of safety and security, encourages people to participate more in community activities, social affairs, and consequently improves the quality of life (Davidson & Cotter 1991, Giuliani & Wiesenfeld 1999).
The first research paper titled “Evaluating Sense of Community in Residential Neighborhoods in Tehran, Iran” presented and published in the 10th International Conference of the European Association for Architectural Education (EAAE) and the Architectural Research Centers Consortium (ARCC) in Lisbon, Portugal. The research approach in a broad view assesses the importance of a community and ways in which to reinforce or create individuals’ sense of community as well as the quality of interaction in residential neighborhoods. Specifically, finding both social and architectural factors that contribute to strengthening or weakening residents’ sense of community in three distinct residential neighborhoods with different architectural styles and community scales. In this regard case studies, Vanak Garden Residential Complex, Ekbatan Residential Complex, and Sheikh Hadi Residential Neighborhood, selected in the city of Tehran in Iran.

The initial primary focus of the research, from the architectural viewpoint, was on the role of the public spaces of the case studies in influencing individuals’ quality of interaction and sense of community. The final data analysis surprisingly was unlike the initial hypothesis which predicted the strong sense of community at Vanak Garden Residential Complex. Vanak Garden architects by using the local materials, such as wood, and designing the courtyard with high quality of green areas, wanted to keep the original sense of place and meaning in order to improve the neighbors’ quality of interaction as well as sense of community. However, Ekbatan with having the strongest sense of community among other case studies indicated that physical environments or design features are not solely enough to create or promote sense of community. On the other hand, influential social variables like length of residency, socio-
economic status, age, and gender, also affect residents’ feelings, behaviors, and interactions that contribute to sense of community.

The balance between social and architectural elements together will create a robust and resilient sense of community. Identifying the conditions that reinforce sense of community within residential neighborhoods is an essential task for researchers and designers to promote individuals’ feeling of safety, security, civic responsibility and improve their physical and mental health. The findings of this study rely on residential areas in Iran, but can likely apply to residential neighborhoods globally.

The second paper “Evaluating Sense of Community from Sociological Approach in Ekbatan Residential Complex in Tehran, Iran” is complementary to the first approach with focusing on one of the prior research case studies, Ekbatan Residential Complex. This research with using symbolic interactionism theory in social science studies, evaluates in depth the ways in which people interact to create a community boundary and sense of community. Research data was obtained from individual interviews, site observation, and surveys. The initial data analysis portrayed Ekbatan as a successful residential complex that promotes the sense of community due to residents’ high quality of interaction, the long duration of residency, and similar socio-economic level. Other significant factors include the architectural aspects of the neighborhood, such as high quality of the public spaces and facilities. Also, people in Ekbatan maintain their community and social networks by attaching similar meanings to their environment and working together to keep their community healthy, private, safe and exclusive. Thus, one of the reasons that make Ekbatan’s sense of community strong is their shared meaning between the residential complex and the people who live there.
Applying symbolic interactionism theory and sociological perspectives helped to explain different interpretations of this particular part of Tehran’s neighborhood. This theory supports the current research by explaining the types of social interactions and investigating how residents share an identification with place and specific social interactions that strengthen their sense of community. In addition to suggesting a new framework for measuring individuals’ sense of community with adding the physical environment as one of the significant objects that people attached meanings in evaluating people’s quality of interaction and community boundary.
CHAPTER TWO

EVALUATING SENSE OF COMMUNITY IN THE PUBLIC SPACES OF

RESIDENTIAL NEIGHBORHOODS IN TEHRAN, IRAN
2.1. INTRODUCTION

Society is made up of three main components of communities or organizations, individuals or population, and physical environments. A large portion of human experience and social interaction occur in communities in which they live and work. The community is where individuals learn to communicate, interact, behave, share interests and problems; it is where cultural and social norms form and connect to a larger society. Community psychologists and sociologists define two main sets of characteristics for community: structural and functional. (i) The structural consists of people and physical environments where people live and interact with one another, such as residential neighborhoods, workplaces, and public spaces. The designed aspect of each community can be one of the indicators in showing how people perceive or express themselves and their environment, how they behave or interact within the environment, and how this situation affects both community life and condition (Garcia, Giuliani & Wiesenfeld 1999). (ii) The functional, results from the structural patterning that is the result of people’s interaction and communication with a particular physical environment, community participation, and social networks. It involves feeling of the community members for each other and for the community itself. Inhabitants’ daily interactions are the most general and common expression of the functional elements. Community psychologists consider a community to be a dynamic whole with the structural and functional aspects permanently articulated with each other (Garcia, Giuliani & Wiesenfeld 1999).
A “sense of community” is the result of the correlation and association between these two factors. This research focused on MacMillan and Chavis (1986) articulation of a theory that suggested four elements form sense of community: membership in a group, a shared emotional connection, mutual influence on one another, and sharing of values among community members. These four suggested components dynamically work together to create and maintain sense of community among individuals in a community. At the neighborhood level, a strong sense of community makes residents have a greater feeling “of safety and security, participate more in community affairs”, and help one another voluntarily in tough situations (Schweitzer 1996). Moreover, at the individual level, it improves a person’s sense of self-efficacy, well-being, level of life satisfaction, and can help the individual to deal with stressors in their community in proactive ways (Davidson & Cotter 1991).

2.1. LITERATURE REVIEW

2.1.1. Justification of Objectives

The author recognized the fragility of Iran’s architectural identity which is threatened doubly by designers who dismiss the value of historic regional contexts and the desire of wealthy clients to imitate European and American designs. By considering this situation as a threat to people’s culture and identity, this research in general focuses on the role of the physical environment in improving individuals’ interaction and communication, in order to promote the cultural identity. Making this opportunity for individuals to interact, can improve their quality of life and social ties.
The purpose of this chapter is to evaluate sense of community by employing ethnographic research method in distinct residential neighborhoods by assessing both architectural and socio-demographic factors that effect on promoting people’s quality of interaction and social tie. The research investigated three residential neighborhoods in the city of Tehran, Iran. The author incorporated social science research methods to evaluate residents’ sense of community to explain the results of observational research. The ideas presented in this article will apply equally to structural factors (neighborhoods) and functional factors (spiritual, behavioral, emotional).

The objectives of the research can categorized in three classes: (i) analyzing the potential of the physical and social variables in strengthening or weakening individuals’ sense of community, (ii) evaluating three distinct architectural styles and community scales and studying the ways and which each case study contributing with influencing sense of community (iii) assessing the role of public spaces at residential neighborhoods in affecting people’s quality of interaction and sense of community.

2.1.2. Research Questions

The three following research questions address the objectives of this study:

(i) What social and architectural variables strengthen or weaken sense of community?

(ii) How do public spaces in a community affect the residents’ interaction and communication?

(iii) How do the four indicators of sense of community apply in three case studies?
2.2. SENSE OF COMMUNITY

2.2.1. Definition

This research builds upon the earlier findings of Glynn (1981), Unger and Wandersman (1985), McMillan and Chavis (1986), Chavis and Wandersman (1990), Nasar and Julian (1995), Talen (1999) and Obst, P., L. Zinkiewicz and S. Smith. (2002) in defining and developing the notion of sense of community. Unger and Wandersman (1985) in their research define sense of community as a feeling of membership and being part of a group, as well as sharing socio-emotional ties with each other. However, prior to that Sarason (1974) defines it as a perception of similarity and mutuality with others and willing to maintain this feeling. Similar to their research, Myers and Diener (1995) describe sense of community as networking to build a relationship, a “we” feeling or pride as a member, and feeling of belonging to a group.

Social scientists consider sense of community (Kasarda & Janowitz 1974; Hummon 1992) as a concept which deals with the community attachment or a resident’s emotional bond to their community. Community attachment involves both person’s interpretive perspective and emotional reaction to the environment. It is considering by individuals’ perception of their environment as well as their conscious feelings in response to those environments. According to the research of Hummon (1992), the notion of sense of community has a direct relationship with individual’s perception toward place, in which ones understanding and feelings about place become merged in the context of environmental meaning.

McMillan and Chavis (1986) introduced the most accepted theory and definition by using four leading indicators that maintain or create sense of community: membership,
influence, integration and fulfillment of needs, and shared emotional connection. Based on these four components, they defined a sense of community as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan & Chavis 1986. Page 9). These four indicators work together to create or promote sense of community among members of a community. They definition and theory indicated that various types of people, such as citizens and social scientists, use these elements in assessing the strength and level of various communities in addition, that ratings of these individuals evidence a high degree of agreement among community member (Van Laar 1999).

### 2.2.2. Sense of Community Components

“Membership” is the first component that proposed for creating sense of community by McMillan and Chavis (1986). Membership by establishing boundaries give people a feeling of belonging and having right for being part of a group. Boundaries among members can be identified in clothing, language, slogan, and rituals.

Although, it can be so subtle that only members can recognize them (Berger & Neuhaus 1977). McMillan and Chavis (1986) asserted that the emotional safety and protected personal space are the product of boundaries. It is essential to feel belonging to a community and identifying with a group. This feeling of acceptance by a group gives the individuals enthusiasm to make some sacrifice for the sake of the group. The work one does for the benefit of a group allows one to feel as though they have earned their place as a member of the group, in addition to making membership more valuable and meaningful (McMillan 1976). A common system of
symbols is the last crucial factor in understanding the community membership. To understand a community itself, it is essential to know community symbols. Based on Nisbet and Perrin (1977) statement “the social bond is the symbolic nature of all true behavior or interaction.” Consequently, the community membership identified five attributes include boundary, emotional safety and identification, personal investment, and common symbols that work together to support the feeling of membership and a sense of who is part of the community and who is not (McMillan & Chavis 1986).

“Influence” is a mutual feeling between a person and community. Both community and members can simultaneously influence on each other. The group can affect the actions, behavior, opinions of an individual. However, an individual can have an impact on a group or community (McMillan & Chavis 1986). This influence is impossible unless the members participate in community activities and being involved in community events.

The third component “integration and fulfillment of needs” constitutes a substantial proportion of sense of community and plays a crucial role in community success and cohesion. It is also called “reinforcement” which has a large impact on behavioral studies. It is a motivator of behavior and maintains the positive sense of togetherness among members (McMillan & Chavis 1986). Shared value is a significant concept in needs fulfillment. Members should be able to satisfy their needs to the extent that each member can share their needs, goals, priorities, and beliefs with each other (Cohen 1976, Doolittle & MacDonald 1978).

The last element “shared emotional connection” is where the people’s feelings, perceptions, and spiritual bonds come into play. Members of a community with sharing
experience, identity, history, or value defining strengthen of their sense of community. The more individuals interact and share history the more likely they have become closer and develop meaningful and fulfilling relationships within the group (McMillan & Chavis 1986). The quality and numbers of interaction are other factors that help members to create a stronger bond and have more positive experience within a community. Cook (1970) in his research studied the importance of the quality of interaction; “The more positive the experience and the relationships, the greater the bond. Success facilitates cohesion.”

2.2.3. Benefits and Concerns of Strong Sense of Community

Studies in social psychology indicates that loss of “sense of community” in modern societies are due to industrialization, lack of local autonomy, the culture of mobility and large-scale bureaucracies. They believe that the overall layout of a community and architectural style, as well as many other physical features, play a vital function in achieving it (Nasar & Julian 1995).

Having a sense of community at the neighborhood level, can increase people’s feeling of safety and security; encourage them to participate in community affairs and social activities, and having better physical vitality, mental health, and well-being—in terms of improved happiness and decreased anxiety (Davidson & Cotter 1991). Consequently, it can improve the individual satisfaction, sense of self-efficacy and help individuals to deal with stressors in their community in proactive ways (Schweitzer 1996). On the other hand, a strong sense of community can be neutral or negative. Based on Brodsky’s (1996) research on resilient single mothers living in dangerous housing projects, having a sense of community can be harmful to
families, in particular for children. The mother in her study preferred to keep her children away from youth groups or gangs in a community. She believed it was children’s advantage to have a weak sense of community. From the perspective of mothers, children engaging with a community is equal to losing their values and therefore threaten the family’s safety.

Groups characterized by strong sense of community, those that offer their members positive ways to interact, establish important events to share, resolve disputes positively, provide opportunities to honor members, resources and time to invest in the community, and opportunities to experience a meaningful connection between members.

2.2.4. Sense of Community and Socio-demographic Factors

Literature reviews in community psychology and social sciences research regarding sense of community and its relationship with social sciences demonstrated several contradictions in socio-demographic factors with people’s sense of community, such as the length of residency, the level of education, and residents’ age. This chapter focuses more on these factors and analyzing them, besides other aspects, evaluates sense of community in three distinct residential neighborhoods. Based on Glynn research (1981) factors such as length of residency, resident’s expectancy to live, and the number of neighbors identifiable by their names, show the strengthen of sense of community.

However, Davidson and Cotter (1991) developed a 17-item scale to evaluate the relationship between sense of community and subjective well-being in three distinct case studies in South Carolina and Alabama, did not find a correlation between residence length of residency and sense of community.
Other studies investigated residents’ age and showed that older adults have a stronger sense of community (Wilson & Baldassare 1996, Davidson & Cotter 1986). However, Korte (1988) argued the concept of “community helping,” which is one of the key factors in having a stronger sense of community, is more correlated with young people and with a higher level of education, as well as married people. Buckner’s research (1988) showed that people with lower level of education can have a stronger sense of community. Other socio-demographic features related to sense of community consist of the study of Wilson and Baldassare (1996). They investigated sense of community in a suburban neighborhood in Orange County, California. Surprisingly the results showed that 68% of residents believe that there is a strong sense of community among neighbors in the community. The authors found that the satisfaction with a level of privacy and localism were two important factors in having an overall sense of community. By privacy, the authors mean a controlled interaction within a community, not withdrawing from people and social life. The residents believed that the desired level of privacy decrease unwanted interaction help individuals to have a lower level of personal stress, more positive relations with neighbors, and a stronger sense of community.

Beside all these findings, another research showed the important role of women and children in fostering sense of community. Having children at home is associated with people interacting more in public spaces and participate in community activities (Obst et al. 2002, Nasar & Julian 1995). In most societies women traditionally have wider neighborhood networks, more intense relationships with their neighbors, and greater social interaction than men.
Thus, we can conclude that matters of gender and gender roles require greater consideration in creating and reinforcing sense of community (Campbell & Lee 1992, Willmott 1987 & Fischer 1982). Overall data analysis revealed that the significant socio-demographic factors that make the residents’ sense of community strong are: residents’ similar socio-economic level, long length of residency, expectancy to live longer in the community, safety and security, having children in families, community helping, and participation in community activities.

2.2.5. Sense of Community and the Built Environments

The creation and reinforcement of sense of community affected both socio-demographic and architectural conditions. This research with employing qualitative research methods applies equally on both factors to evaluate sense of community in residential neighborhoods. This part of the paper focuses on the relationship between architectural elements (public spaces, green areas, and complex amenities) and residents’ sense of community and interaction. Prior studies in New Urbanism asserted that the existence of public spaces, innovative architecture and site design, appropriate density and scale, and mixed land use can enhance the opportunity for interaction and create sense of community (Talen 1999). Various studies with focusing on residential neighborhoods and sense of community showed the substantial impact of public spaces and green areas on the individuals’ quality interaction and mental health. The work of Nasar and Julian (1995) on 54 residents in three suburbs in Columbus, Ohio revealed that the easy access to shared outdoor green areas and interior courtyards can improve the possibility of creating a stronger sense of community among residents. Their findings have some correlations with this research. The author’s indirect
observation and interviews with residents reached the assumption of the complex without public spaces, and green areas will not have the same strong sense of community as it has now.

Other studies focused on the relationship between residents’ sense of community and the easy access to pedestrian paths, having front porches, variety of nearby commercials, recreational, and educational services in strengthening and reinforcing sense of community (Plas & Lewis 1996, Glynn 1981, Wilson & Baldassare 1996, Nasar & Julian 1995). On the other hand, the relationship between sense of community and physical environment is not always successful. Kingston, Mitchell, Florin, and Stevenson (1999) by analyzing an existed database of 2,409 residents of a Northeastern American city, found out sense of community is more correlated with individual variables such as; income and level of education than the physical environment. However, the authors caution that in order to adequately investigate the link between the built environment and sense of community, a set of more complex environmental ratings should be employed than was used in their study. Besides socio-demographic factors, the presence of public spaces, green areas, pedestrian paths, and public amenities are not sufficient to create and foster residents’ interaction and sense of community. Paying attention to creating active public spaces (not symbolic) with high quality is one of the crucial tasks of architects and designers to improve people’s quality of interaction, communication and positive feeling within a community.

2.3. METHODOLOGY

This part of the paper explain the methods chosen to evaluate sense of community and identify both architectural and social factors that contribute in people’s sense of community in three
distinct residential neighborhoods in the city of Tehran in Iran. Each case study selected depend on; a) the architectural style (contemporary, modern, and traditional), and b) community scale with presuming that the assessment of sense of community is not similar among residents in each case study.

Sheikh Hadi residential neighborhood is a traditional neighborhood with the large scale community, Ekbatan residential complex is a modern style compound with the medium scale community, and Vanak Garden residential building is a contemporary designed building with the small-scale community. Chavis, Hogge, McMillan and Wandersman (1986), examined the McMillan and Chavis’ (1986) theory and definition of sense of community based on Brunswick’s test. Research findings developed and empirically tested Sense of Community Index (SCI), which is widely used to measure sense of community among adults in a community. This paper also employs this questionnaire for measuring the residents’ sense of community in the three case studies. This method of measuring people’s sense of community has two significance. Firstly, it is one of the few scales that can be used to measure psychological sense of community in diverse environmental settings such as the workplaces (Brodsky 2001; Catano, Pretty, Southwell, & Cole 1991; Mahan 2000; Pretty & McCarthy 1991; Pretty, McCarthy & Catano 1992), religious communities (Miers & Fisher 2002), immigrant communities (C. Sonn 2002), student communities (Pretty 1990), and residential or geographic communities (Brodsky 2001; Brodsky. O’Campo &Aronson 1999; Perkins et al. 1990). Secondly, sense of community Index (SCI) has developed from theoretical perspectives that has the empirical supports (Figure 1).
Research data collection built upon the qualitative research methods, such as interviews, indirect site observation, and questionnaires (SCI). Each section focused on different aspects to assess sense of community. Individual interviews were focused on residents’ feeling as a member of a community, social aspects of their life, such as residents’ length of residency, socio-economic level, expected years of living in the neighborhood, fulfillment of their needs, and identifying the places of interaction. Indirect observation looked at the residents’ quality of interaction, the ways and which they use the space and their activities, as well as community boundaries (in relation to other people from the outside of the community). Finally, the questionnaire (SCI) with having twenty four questions and each six questions apply to one of

Figure 1: Sense of Community Index (Modified from McMillan and Chavis research, 1989)
the components of sense of community (membership, influence, integration and needs’ fulfillment, and shared emotional connection), measures the overall quality of interaction and sense of community among residents. All research instruments were translated into Farsi (native Iranian language) in order to accurately evaluate sense of community.

2.4. Case Study Communities

2.4.1. Sheikh Hadi Neighborhood

Sheikh Hadi Residential Neighborhood is located in one of the most crowded, polluted and oldest areas of Tehran with approximately 33,000 population in 2007. The history of the neighborhood dates back to the reign of Reza Shah, King of Iran (1923-1944). The area still keeps the arrangement and design elements of the historic neighborhood and exemplifies a traditional sense of place. However, the visual image of the neighborhood at the street level does not represent the qualities and patterns of the historic Iranian architecture, due to the
demolition of vernacular designs and construction of more modern and contemporary style buildings (Figure 2). Easy access to all kind of urban amenities such as taxis, buses, metro, hospitals, schools, public libraries, museums, shops, and markets put the neighborhood in the heart of the city. Low-income families tend to live in the neighborhood due to the reasonable cost of living for poorer families to buy or rent affordable apartments. Sheikh Hadi neighborhood suffers from a lack of public spaces, especially green areas.

The public park and mosque in the neighborhood are two significant places that bond residents together and make this opportunity for them to interact and know one another. Data collected from the same number of men and women at these two public places in Sheikh Hadi neighborhood (Figure 3 and Figure 4).

Figure 3. Public Park at Sheikh Hadi Neighborhood (Photo by author)
Questionnaire analysis of Sheikh Hadi neighborhood showed that the overall percentage of people’s sense of community is 59% and each of the sense of community components (membership, influence, integration and fulfillment of needs, and shared emotional connection) is higher among women than men. However, majority of the aged adults were illiterate and seeing them to help and assist each other to fill the questionnaire show the concept of “community helping” among them. In addition, questionnaire indicated that the “integration and fulfillment of needs” is one of the factors that helped them to reinforce or create sense of community and stay and live in the neighborhood. Also, majority of them were satisfied with the community facility and amenities. However, “shared emotional connection” was the lowest factor among other sense of community elements which shows the low level of trust among them.
Coding of the individual interviews indicated that lack of safety and security in the neighborhood is one of the significant factors that residents do not use the public spaces such as park, mosque, and Bazar after the evening prayer time which make them spend less time together to interact and communicate. On the other hand, over the day time the park and mosque are crowded and residents by their interaction give the boundary to the places which means if someone from outside of the community come to the park they can notice and change their behavior.

The second factor that affect residents’ quality of interaction is their socio-economic status. It makes them spend less quality time with each other for instance; they do not tend to invite their friends to their house, due to limited amount of living expenses. It should be noted that because of the residents’ social and educational level, majority of the community population are unemployed or retired such as women and older adults. At some point it could be good and beneficial for promoting their sense of community, because they have more time to interact and build a strong sense of community.

Site observation showed the strong boundary in different parts of the park. Each group of people with different age and gender have their own territory and boundary at certain time of the day (prayer times). The gardener in the park takes care of the green areas as well as safety and security of the area which give the place high quality in comparison with other places. Majority of the residents because of the religion and Islamic rules still have their traditional lifestyle and thoughts. And in evaluating sense of community, this case study showed the role of religion and faith in keeping people together as well as improving their quality of interaction in order to feel as a part of a community.
Overall data analysis of Sheikh Hadi Residential Neighborhood indicate that the park and mosque in the neighborhood play a vital function in creating or fostering sense of community among residents. Before building a park, 5 years ago, mosque was the only place for residents to communicate and know each other (Figure 5). They confirmed the significant role of the park in the neighborhood as a place that encourage residents to improve or develop a community. In addition to design elements, the social factors such as socio-economic level, gender, age, and needs’ fulfillment within a neighborhood are contributing to fostering sense of community in Sheikh Hadi.

![Sheikh Hadi Neighborhood site plan](formatted by author)

Figure 5: Sheikh Hadi Neighborhood site plan (formatted by author)

### 2.4.2. Ekbatan Residential Complex

Tehran (capital city of Iran) is deeply polarized. North of the city is where the rich and upper class live, and south is for the poor and the marginal. The Ekbatan complex is located in a
neutral urban area, physically and socially accessible to many people. It is a planned town built as a project of modern apartment buildings as an affordable housing for the government employees in the western part of the city in the mid-1970s. The goal of the project was to create the most modern housing project in Iran, based on the European and American urban planning elements to control Tehran’s population patterns (Dash 2015). It is the largest residential complex in the Middle East with 15,500 units for 70,000 inhabitants in three phases with all kind of amenities such as schools, a hospital, parks, libraries, mosque, shops, and malls (Figure 6 and figure 7).
Phase One of the complex was completed before the Revolution in 1979 and it is the oldest phase among others. Consequently, many of the public spaces were changed after the Revolution. As an example, outdoor pools were filled and became a garden and residents were prohibited from using the rooftops. This research focuses on the residents of the Phase One to evaluate sense of community and its correlation with built environment and socio-demographic features. Questionnaire analysis showed that Ekbatan has the highest overall sense of community among all the other case studies which is 69%. All sense of community components (membership, influence, integration and need’s fulfillment, and shared emotional connection) are higher in women and young people than men. Individual interviews and indirect observation revealed the reasons behind the strong sense of community among residents in Ekbatan. Architectural factors such as high quality of public spaces and green areas, building layouts, pedestrian areas, parks and public facilities (shop, mall, school, library, Metro, mosque,
and sports center) play a significant role in improving people’s quality of interactions, communications and positive feelings within a community (Figure 8 and Figure 9). Accessibility to all kinds of services and needs keep people in the community and make them behave and feel like a large family.

Figure 8: Public areas and green spaces (Photo by author)
Ekbatan is not only a residential complex but may also be considered a lifestyle and an instigator of popular culture. It is the place where the street arts of parkour and urban graffiti started in Iran’s society. Majority of the young generation of Ekbatan residential complex were born and raised together with sharing emotional connections and memories. Some of them after their marriage are still living in the complex and do not want to leave the community because they see it as a part of their identity and culture. After the Revolution in 1979, society’s norms and rules changed in order to follow Islamic principles. The government established limitation especially for women in terms of having a hijab and participation in society. If someone do not obey the Islamic rules they will get punishment for it. However, at Ekbatan residential complex, these rules are not restrict like inside of the city. Residents especially women have more freedom to interact without fear of punishments, because they see the complex as their personal space which has boundaries and meaning for them (Figure 10).
Collected data from indirect observation and interviews supported the strong community boundary and sense of community among residents of Ekbatan. High quality of green areas and public spaces, community facilities and amenities, as well as buildings’ layout and design forms are significant architectural features that improve the individuals’ quality of interaction and communication. Besides physical factors, residents’ similar socio-economic level, long length of residency, feeling of safety and security, having children in families, community helping, similar level of education, and age are most prominent factors that reinforce the residents’ sense of community at Ekbatan. Some of the factors are showing the strong sense of community such as feeling of safety and security as well as the notion of community helping, also other elements create or reinforce sense of community among residents such similar socio-economic level and age. However, they could be both causal and independent at the same time.
2.4.3. Vanak Garden Residential Building

Vanak Garden Residential Building was built in 2009-2010 and located in the Dehvanak region, which is one of the areas that upper-middle class families live in the central part of Tehran. The area used to be full of large gardens; developers and property owners used green space to construct high rise residential buildings which have significantly changed the character of the area. Vanak Garden is the third case study to evaluate the residents’ sense of community in contemporary design with a small community scale (Figure 11). The investigations link architectural factors and socio-demographic features in an attempt to assess sense of community among residents.

Figure 11: Vanak Garden residential complex (Photo by author)

Interviews with the architect of the building demonstrate that the core idea of the Vanak Garden design was to improve residents’ sense of community and revitalize the old sense of place in a metaphoric way. This link was accomplished by keeping some of the original
trees (as wooden sculptures, forming symbolic groves throughout the complex) and arrange the
apartments around the central courtyard with a small fountain (Figure 12). In addition, features
such as traditional materials used in the building, greenery, small sitting areas on each floor,
and suspended gardens foster and create a positive visual experience intended to support
interaction and improve the quality of spaces. However, questionnaire analysis showed that
despite the high quality of public spaces and shared areas, Vanak Garden Residential Building
has the lowest sense of community among other case studies which is 37%.

Men in the community are more involved in the reinforcement of sense of community
than women. Feeling of membership and shared emotional connection are the two lowest
factors among residents that make the overall sense of community fragile.

In contrast to research of Brown and Cropper (2001) and Jack Nasar (2003) regarding
the New Urbanism design features in creating and supporting residents’ sense of community,
Vanak Garden, with having high quality of public spaces (courtyard and green areas) and
preserving the original sense of place (with the aid of sculptural reminders of the original trees
and materials used in the building) did not support their claim. Public spaces and green areas
are more symbolic than active in a sense of creating and fostering the residents’ quality of
interaction and communication. Also, the building design and spatial arrangement are
organized to preserve residents’ sense of privacy, safety and security; this strategy for privacy
between residential units directly challenges sense of community.

Interviews and indirect observations showed that the parking, entrance, and elevators
are the places that residents interact and communicate most with one another, which does not
have high architectural quality or value in contrast with the high quality of public and green spaces. Based on the author’s experience in the Vanak Garden residential building, people were less sociable and declined to participate in this study. Most of the community members are employed and spending most their time out of the complex.

![Figure 12: Vanak Garden, Courtyard (Photo by author)](image)

The courtyard and public places are empty generally, and only families with children use public spaces and other facilities. Interviewing residences showed that children playing in the courtyard disrupt the residents’ peace (because of their noise) and the residents’ frown upon children playing in public spaces. Therefore, families take their children out of the complex for entertainment. In this case study, architectural features do not support the residents’ sense of community and interaction.
In addition to architectural factors, the residents’ socio-demographic features affect sense of community among community members. High socio-economic level and financially stable situations make people more independent and autonomous. Therefore, they tend to interact and communicate less with each other because they do not need each other’s help. On the other hand, since the complex is relatively new, the limited duration of residency and expected the length of time to live in the community are doubly threatening the residents’ interaction and the opportunity to create sense of community.

2.5. DISCUSSION

This paper investigates three distinct residential neighborhoods in the city of Tehran in Iran to evaluate residents’ sense of community and assess the role of physical and social features each independently in affecting residents’ sense of community, interaction, and communication. By studying sense of community, built environment and socio-demographic features in residential neighborhoods, the author noticed the mutual relationship of sense of community with socio-demographic features, as well as built environment with sense of community. A strong sense of community can support, and over time, improve the quality of physical environments independent of people’s socio-economic level. Also, based on a strong and healthy sense of community, people help other community members collectively to improve their quality of life, social status, well-being, and economic level (Figure 13).
Data analysis surprisingly indicates varying results derived from and between each case study. However, this variability reflects clear dissimilarities between the case studies and are at the heart of the insights and conclusions made in this study. Factors in creating or fostering sense of community are causal, variable, and independent. The role of architectural factors such as public spaces and green areas can play a significant role in creating or fostering residents’ sense of community. Public spaces are like a heart and center of each residential neighborhood which can provide the opportunity for people to exchange ideas, culture and thoughts and collectively build the soul for their community which is sense of community. However, architectural factors such as public spaces do not solely promote or create sense of community among residents. Prominent social variables such as the length of residency, age, gender, socio-economic level, and having children in a family can also strengthen or weaken residents’ sense of community. The balance between socio-demographic and design features can create a robust and resilient sense of community among members.
Today, architects do not always know the people for whom they design buildings and do not know their actual needs. Many times their designs are generalizable and abstracted from the demographic information or building codes. This approach leaves out the social conditions embedded in a particular place and culture. However, there are problems with purely physical conditions, and in this study, Vanak Garden Residential Building is a prime example of an autonomous design (despite being derived from the history of the place) whose public spaces operate more like an artwork meant more to be looked at rather than used.

For architects who want to understand the complex needs of the people for whom they build, social research is bound to become a vital tool for understanding social conditions and issues (Zeisel, 1975). This research shows the contribution of socio-demographic aspects in reinforcing sense of community. This is one of the elements for designers to consider when addressing social conditions in their designs. Architects should collaborate more with social researchers; approaching design from a sociological perspective will enhance and improve the quality of buildings and community design. In addition, future research on the topic of sense of community should evaluate the role physical environments play in reinforcing social bonds in other places, such as students at universities or schools, patients in hospitals, and employees in their workplaces.
2.6. REFERENCES


CHAPTER THREE

EVALUATING SENSE OF COMMUNITY FROM SOCIOLOGICAL APPROACH AT EKBATAN RESIDENTIAL COMPLEX IN TEHRAN, IRAN
3.1 INTRODUCTION

Today, sociologists study almost any type of social behavior and the social structure of society. Major sociological perspectives play a part in explaining and interpreting architectural designs (Smith & Bugni 2002). One branch of sociology closely related to urban sociology is the sociology of architecture. Architectural Sociology is one of the major theoretical perspectives that are receiving renewed consideration among both architects and sociologists (Smith & Bugni 2006). It focuses on the mutual relationship between physical environment, socio-cultural phenomena, and human behavior and responses to investigate how they influence and are influenced by each other (Smith & Bugni 2006). It studies how a built environment affects how we live together and behave and interact toward one another in social situations, such as neighborhood, work, school, healthcare, and entertainment. Architectural sociologists by using sociological perspectives can enhance the quality of building and community design. It is used as an umbrella term in this paper that I will clarify and define through an explanation of previous research and methodology in this area.

3.2 LITERATURE REVIEW

The current research project has two major objectives. First, the study seeks to evaluate the residents’ sense of community in Ekbatan Residential Complex in Tehran, Iran. The second
is to assess sense of community and individuals interaction based on architectural and sociological factors. I use symbolic interactionism theory to understand how these factors work together.

Taken from a social psychology perspective, symbolic interactionism deals with people, places, and the way they give meaning and value to that place. “Meaning” is the foundation of the theory and it focuses on the question of “which symbols and meanings emerge from the interaction between people?” The given meaning is based on their interpretations and understandings of that environment (Gusfield 2003, Smith & Bugni 2006).

Smith and Bugni are two, among several social researchers, who collaborate with people focusing on architecture and city planning. Their research critiqued the dehumanized aspect of urban design and architecture, as well as, the negative role of contemporary designs and planning in neglecting the human condition by seeing the buildings as an art not a place to the development of self. They believe social scientists need to collaborate more with architects about how social science theories and research would be valuable and productive to the design of physical environments and places. Smith (2002) claimed that:

“We need to convey how these environments impact people, and especially how self-defininitions and expressions of self are affected, and to demonstrate how people simultaneously construct meaning for their physical structures and places. We need, however, far more than just talking about such matters. We need to show how designed physical environments can be humanized, and we need to convince architects that their profession has much to gain from this shift in design approach.” Smith and Bugni (2006) in their paper “Symbolic Interaction Theory
and Architecture” investigated the connection between social science theory, symbolic interactionism, and architecture as well as the ways in which they can collaborate on design projects to make a profit for each other and people lives. They also discussed the architecture and built environment which includes, buildings, bounded spaces, objects, and many elements are part of architectural design that both reflects and influences self, human thoughts, feelings, emotions, actions, and conducts. In this regard, symbolic interaction theory comes into play to help our understanding of this correlation between architecture and people’s behavior and perceptions of their community.

The work of George Simmel (1903) is the starting point in evaluating the impact of physical environment on the self. He believed self and physical environment were two distinct factors that can effect on each other. In his research “The Metropolis and Mental Life,” he focused on the impacts that urban life have on the individual or self. Regarding the concept of “self” psychologist William James (1890) studies supported the significant role of physical environment (tangible objects) in defining the self, as well as how we perceive others or themselves. The social philosopher George Herbert Mead (1934) significantly extends the subject of self and its correlation with physical environments and objects. He was among the sociologists that believed objects whether animate or inanimate carry “symbolic meanings” in the environment and these meanings affect individuals’ self-development and interact within the environment. Following to Mead’s research, Herbert Blumer (1969) defined the symbolic interactionism theory based the meaning a person assigns to the objects or physical environment, and that meaning impacts the self. Blumer asserted three types of objects such
as, social, abstract, and physical and each of them embrace the people, conducts, and tangible things in an environment.

Smith and Bugni research demonstrated the link between the physical environment and self, and the significant role of the “meaning” as a catalyzer in this correlation. Clare Cooper Marcus (1995), cultural geographer and landscape architect in her book “House as a Mirror of Self” greatly explained the ways in which people use their home environment, where they live (countryside, suburb, or city), and what objects (furniture, decoration, and color) define their identity and express their selves. She believes a house is a reflection of ourselves, our life experiences, are as a reflection of the psyche. In her research she interviewed people with different gender, age, owner/renter status, and socio-economic level to illustrate the psychological and sociological connection between physical environment and people at various developmental stages. It is one of the important tasks of architects to design buildings that make this opportunely for individuals to have a chance to express their selves and what they would like to project about themselves to others.

Smith and Bugni (2006) continued the discussion of the link between the self and physical environment with focusing on the symbolic role of architecture. This idea that architectures and designed forms carry symbolic meanings and that meaning influence the users has a various point of views among researchers. From symbolic interactionist viewpoint, architecture does not have a symbolic meaning in and of itself. However, people by interacting in a symbolic environment of social objects give meaning to architecture (Blumer 1969).
In their later statement, they asserted that meaning is not fixed or unchangeable notion, people are in the process of shaping and reshaping the meanings of self, others, and objects (Mead 1932, Goffman 1951, Cooley 1902, Blumer 1969). Although, social scientists assumed that designed forms have a consequence on individuals’ behavior and thought (Anker 1981). Interactionists in a similar idea with social scientists believed that designed forms influence human thoughts and actions (Duffy & Hutton 1998, Heismath 1977, Steele 1981).

Environmental psychologist Robert Sommer (1969) argued in creating a physical environment, architects should consider both social and cultural norms, in addition to physical rules in improving users’ quality of lives (such as occupants’ feeling, behavior, interaction, and conduct) and attached meaning. In this regard, social design movement by focusing on social science perspectives try to understand how and why people attach meaning to designed physical forms and how these forms can affect lives in positive ways (Davis 1999).

Smith and Bugni (2006) paper ended with different examples that illustrate the appropriate link between symbolic interactionist perspectives and architecture, such as designing schools, designing workplaces, building communities, designing retirement homes, and creating sacred places. Based on the aim of my research which is focusing on residential communities, I illustrate the “building community” example of Smith and Bugni’s (2006) paper. Interactionists believe in order to maintain and preserve the community’s positive meanings and emotions, create more livable neighborhoods, and promote residents’ meaningful interaction, architects and urban designers should collaborate more with social scientists with an interactionist perspective in their projects. Encouraging people to interact more in a
community, cooperation, sharing symbols, and networking will enhance sense of solidarity, sense of community, stronger attachment to community, and safety among residents.

Symbolic interactionists propose that physical aspects of design such as, front or rear porches, streets’ layout, park-like spaces, wide sidewalks, local libraries, adequate outdoor lightings, easy access to service providers, close by community, and child care centers will promote the quality of interaction among community members (Higgitt & Memken 2001).

The authors concluded the paper with illustrating the significant role of architects in affecting human feelings, conducts, thoughts, and actions, along with considering the importance of sociological thoughts in designing with renewing the traditional theories. It is time for architects to pay more attention to architectural sociology and contribute more with environmental psychologists, architectural anthropologists, and symbolic interactionists to revising of designed physical environments and their implications.

The research of Justice Administrator, William Du Bois is a proper example of sociologists and architects contribution in design. He believes that by creating physical design we can promote or create sense of community and positive interaction among people. Du Bois applied social design principles as a project consultant on designing nightclubs in Iowa and Northern California. In the first consultation, clubs sales went from $1,500 per a week to $10,000 by designing to promote positive interaction, make people to stay longer, returned more often to the place, and told their friends. He later applied the same social design principles to a nursing home to create and reinforce sense of community among people (Du Bois & Wright, 2001). The works of Frank Lloyd Wright (1867-1959) is another example in this
regard. He is one of the outstanding architects in the world and his projects are famous for their beautiful designs. But, real estate agents will tell you they are also notorious for “creating divorces” among the people who buy them and because of that they are often up for sale. His house designs are great showpieces, but people cannot live long term in them (Du Bois & Wright, 2001).

Smith and Bugni in another research paper “Designed physical environments as related to selves, symbols, and social reality: A proposal for a humanistic paradigm shift for architecture” (2002) first concentrated on the concept of self, as well as the role of the physical environments in creating or expressing it. Secondly, they argued the formalistic aspect of the contemporary architecture and design by proposing a humanistic paradigm that should be employed in architectural theory and practice. As a conclusion, they discussed the way in which the shift from formalistic to humanistic paradigm could be accomplished.

The paper started with defining the notion of self and the way in which it constructs and understands within the physical environment, as well as how an environment can convey meanings that affect self-definition. By employing the research of sociologists and psychologists William James (1890), Charles Horton Cooley (1902), George Herbert Mead (1934), Sheldon Stryker (1959), and Erving Goffman (1959) the authors discussed the changeable impression of self as audiences and situations change, to address the significant role of physical environment in managing these impressions and meanings.

Smith and Bugni continued the discussion with looking at the symbolic significance of physical environment and the meanings it provides for self-definition. Symbolic interactionism
theory helps to understand the coloration between the physical environment and self-definition. It studies the meanings we give to the objects, buildings, and places in our physical environment and in turn the meanings the physical environment provides for our self-definition, shared symbols, and shaping of our actions (Cooley 1902 & Mead 1934). According to Blumer’s (1969) definition of symbolic interactionism and different types of objects, which mentioned earlier in this paper, the nature of all objects (physical, social, and abstract) has a specific meaning for a person.

The research of organizational theorist, Mary Jo Hatch in her book, Organization Theory (1997), extended Blumer’s study in symbolic interactionism theory, but with focusing on the physical structure of organizational life. She defined two sets of approaches in studying physical environment within organizations: behavioral and symbolic. Behavioral approach sees the physical environment as a key in shaping individuals’ behavior, and symbolic approach sees people interaction and response as a result of communication in the physical environment that convey meanings. Besides Hatch, the research of John Urry (1991) supported a similar argument that the buildings have a potential to help occupants in constructing meaning and their feeling. The 1970s and 1980s were the starting point for social and environmental psychologists to study the interrelationship between the physical environment and human conduct. Environmental psychologist Sommer (1983) believed in the strong role of physical environment in people’s behavior and conduct. He argued that the architect should collaborate more with behavioral scientists to apply their theories, in order to help them to understand the more human-environment relationship in design and improve residents’ quality of life.
“Architecture means more than the construction of a building; it includes construction of social reality” (Cuff 1966).

American sociologist and founder of behavioral sociology George Homans (1974) by using the work of B. F. Skinner showed how friendships in neighborhoods are related to physical design (Figure 14). His research analysis showed in a residential neighborhood people with the most friends tend to live C and H. On the other hand, neighbors at the end of the block tend to know fewer people in contrast with those in the middle of the block. C and H are more likely to participate in community affairs and activities. Based on real estate agents work experiences, the houses at the end of the block have a higher rate of turnover. However, the authors stated that these data are probabilistic and besides the role of the physical environment, individuals’ personality and many other factors can affect and change the residents’ interaction and communication.

![Diagram of Friendship in Neighborhood](Designed by author)

The research of Steele (1973, 1983) in assessing the role of the physical environments and space on human well-being was the turning point for work of contemporary social and environmental psychologists, such as Gibson Burrell and Lorraine Daston (Director of the Max Planck Institute of History and Science). According to Steele (1973), factors such as security and shelter, social interaction, symbolic identification, task performance, pleasure, and growth are
the consequences of space on the individual that can affect one behavior and conduct within a society.

Therefore, all these research findings, demonstrate the interrelationship between the physical environment, self-definition, self-perception, shared symbols and meanings among individuals, and finally people subsequent behavior in society. In both papers of Bugni and Smith, authors with merging architectural studies and sociological theories tried to show the deterministic role of humanistic paradigms in design. They believed this human-centered perspective would be widely used in the contemporary architectural thought and practice. Also, authors restated the significant role of architects in supporting people, organizations, and society by their design. The balance between formalism and humanism will make the design, people’s quality of life, behavior and interaction better.

As I mentioned at the beginning of this paper, “architectural sociology” exploring the mutual relationship between designed environments, organizations, and people and how they affect one another. Moreover, this approach believes architects by applying social science theories and research methods to all the stages of the architectural project can promote and create the positive interaction and community (Dubois & Jones 2001). Designed forms have this capacity to promote individuals’ motivation, communication, feeling, and behavior. In this regard, symbolic interactionism theory helps us to understand the relationship between physical environment, people’s feeling and behavior. Every object has meaning for us, and this meaning between an object and person can change one communication, behavior, and interaction. Symbols allow us to define the situation, and that definition, in turn, tells us how to
act. These acts can create or reinforce positive interaction and sense of community among people. When we enter an environment, we immediately search for clues to where we are.

Once, we have defined the situation; it is as if we have a package of behavior for each situation. Obviously, the package of behavior associated with a situation defined as a football game is quite a different from the package for a library, a church, or a residential neighborhood (Dubois 2001).

The next section of this paper is going to employ these theories and the results of studies on the person-environment interaction in Ekbatan Residential Complex in Tehran, Iran. Data collection is based on qualitative research methods (ethnographic approach) to evaluate residents’ sense of community and quality of interaction, with looking at both people’s ideas and perceptions from inside and outside of the complex.

3.3. **RESEARCH METHODOLOGY**

Prior research in community and environmental psychology indicated the correlation between sense of community and quality of life. Living in a healthy environment, having safety and security, being more engage in a community, and expressing self as a member of a group in helping individuals to have better health and well-being. Sense of community is defined as “a feeling that members have of belonging, a feeling that members matter to one another and to the group, and a shared faith that members’ needs will be met through their commitment to be together” (McMillan & Chavis, 1986, p. 9). Sense of community has four components such as membership, influence, integration and fulfillment of needs, and shared emotional connection.
These crucial elements work together to create sense of community among members of a group.

This study with using Ekbatan Residential Complex in the city of Tehran, Iran as a case study tries to fulfill the research purposes. This research has two main objectives: first is focusing on the evaluation of the residents’ sense of community and quality of interaction within designed forms or physical environments. And, the second objective studying sense of community and individuals’ quality of interaction from the sociological perspectives and theories. In this regard, symbolic interactionism theory and architectural sociology help to understand the interrelationship between physical environments and people. Each part of research data collection focuses on three different approaches to evaluating sense of community among Ekbatan inhabitants. Individual interviews were focused on psychological and sociological aspects of people’s life such as their feeling as a member of the community, social status, social interaction, and residents’ fulfillment of needs within the community. Indirect observation looked at the inhabitants’ behavior and conduct with one another, identified the public places that people interact more, community activity, and community boundaries. Finally, the questionnaire (Sense of Community Index) which is based on four components of sense of community, measuring the overall sense of community among residents. All research instruments were translated into Farsi (native Iranian language) in order to accurately evaluate sense of community.

3.3.1. CASE STUDY (Ekbatan Residential Complex, Tehran)
City of Tehran has 80 Million inhabitants, since it is a capital of Iran around 220 years ago, has grown to be one of the largest cities of the world. It attracted many people and resources from inside and outside of the country. The city with huge concentration of people and resources suffered from many social and environmental problems that threaten people’s quality of life (Madanipour 1999). Economic instability and price inflation is two of the many factors that divided the society to rich and poor families. Residential environment is one of the factors that create and keep the boundary among people. The boundary could be both tangible (physical) and intangible (non-physical) to make a distinction who is part of a community and who is not. Tehran is deeply polarized. North of the city is where the rich and upper class families live, and south is for the poor and the marginal. Ekbatan Residential Complex located in the central part of the city (a neutral urban area) with having 15,500 units is physically and socially accessible to many people. It is a planned town built as a project of modern apartment buildings in the western part of the city in the mid-1970s (Figure 15 and Figure 16). The goal of the project was to create the most modern housing project with high quality based on Western urban planning characteristics, and latest technologies of that time in order to control the city’s population pattern and make affordable housing for governmental employees and staffs (DASH 2015).

The complex has 33 huge concrete blocks in three phases. The focus of this research is in the “phase one” with ten blocks which began to build in 1970 and completed in 1978 during the time of Revolution in Iran. After the Revolution because of the domination of Islamic Republic, some luxurious elements of the complex, such as outdoor swimming pools demolished. From the architectural perspective, the main point of inspiration of this complex
was the Unite d’Habitation designed by Le Corbusier in Marseille, includes a modular floor plan with modern style (Dash 2015, Figure 17).

Figure 15: Ekbatan Residential Complex (Photo by Saeid Ghazi / CC BY 2.0)
At the same time, the complex by its modern designed form ignores the traditions of Iranian housing, with constructing of series of concrete flats and high-quality public spaces and green areas. Ekbatan considered as a successful mass housing project as pleasant and peaceful living spaces by most of its residents due to the robust identity provided by outdoor spaces,
which is similar to the traditional courtyard houses and the respective role of gardens in Persian architecture and design.

Living in Ekbatan Residential Complex is like living in a small town. Sometimes residents do not leave the complex for a week or more, because they can find their needs within the complex, such as schools, hospital, banks, shopping malls, library, mosque, parks, and restaurants. The complex is a lifestyle and an instigator of popular culture. It is the place where the street arts of parkour and urban graffiti started in Iran (Figure 18). The majority of the residents are homeowners and middle class or upper middle-class families. Children grow up together and the strong emotional bond among them, make this community like a large family.

![Ekbatan boys](https://via.placeholder.com/150)

**Figure 18:** Ekbatan boys (Photo by Mohammad Shahhoseini / CC BY 2.0)

### 3.4. INITIAL DATA ANALYSIS

As mentioned earlier in the paper, each part of data collection focused on various aspects to fulfill the research objectives. Individual interviews with Ekbatan’s residents indicated the advantages of living in this community, such as meeting all individuals’ essential
needs within the complex (or community), having safety and security which is due to families long length of residency and guardsmans. In addition, high quality of social interaction is another factor that makes them better knowing each other, as well as improving the level of trust among them. One of the other significant factors that make Ekbatan more desirable place to live is the quality of green areas and public spaces. Besides shopping malls, the parks and public spaces are places that connect residents to each other and increase sense of attachment to the place. Moreover, the interviews’ analysis showed the residents’ similar socio-economic level and social prestige are significant additional elements in contributing to building a strong sense of community and helping inhabitants to rely on one another in difficult situations.

Initial data analysis of the indirect observation identified the critical role of young generation and women in creating or reinforcing sense of community at Ekbatan Residential Complex. The majority of women are unemployed, or housewife. Taking care of their children make them to spend more time in public spaces, parks, or pedestrian paths more than men. Every day in a specific time of a day (early evening) they get together and meet for about two hours in the courtyard. On the other hand, teenagers and young people both girls and boys have their type of community or group. Since they were born and grew up in the same neighborhood, they have a feeling of ownership to the community. This sense of the ownership and shared meaning give the community a strong boundary that shows who is part of the community, who is not. This boundary makes residents feel safer and more secure within the complex, as well as increase their level of trust on each other. Therefore, they are more active in the community, spend more time in public spaces.
Based on an author personal experience in the neighborhood, residents especially young generation behave differently with someone outside of the complex than inside. This difference is emanating from their level of trust, or lack of shared history and meaning.

Based on MacMillan and Chavis theory and definition, sense of community has four components such as membership, influence, integration and fulfillment of needs, and shared emotional connection. Sense of community Index (SCI) with 24 multiple choice questions based on four elements of sense of community is a standard questionnaire to measure individuals’ quality of interaction and sense of community. The data collected with the same number of men and women between the ages of 18 to 50. The questionnaire also demonstrated the strong emotional bond among residents besides interviews and indirect observation analysis. In addition, the questionnaire elements rate evidenced a significant role of women to create sense of community at Ekbatan Residential Complex.

Overall data analysis indicate that the balance between both social and architectural factors support sense of community at Ekbatan Residential Complex. Architectural elements are such as buildings’ layout, pedestrian paths, public spaces, green areas, and public amenities (malls, hospital, library, restaurants, mosque, and recreational center). And socio-demographic factors includes age, similar socio-economic level, length of residency, and gender created a strong sense of community among Ekbatan residents (Figure 19).
3.5. DISCUSSION

The aim of this research is to evaluate residents’ sense of community with using sociological framework specifically, symbolic interactionism theory, at Ekbatan Residential Complex in the city of Tehran in Iran. Final data analysis showed that powerful of boundary and sense of community among residents at Ekbatan. This research used symbolic interactionism theory to evaluate residents’ sense of community from different perspectives to understand “why this neighborhood is one of the successful communities in Tehran with a strong sense of community among residents?”

Figure 19: Socio-demographic and architectural factors that contribute in creating SOC (Designed by author)
Meaning is the basis and foundation of symbolic interactionism theory and it is communicable between an object and self (or person) where each influences the other. The object has three categories such as social, abstract, and physical based on Blumer’s research in 1969 (Figure 20). In this case study, the social objects are people or residents, abstract objects are feelings or emotions of the residents, and physical objects are built environments or public spaces. According to Blumer, “the nature of all objects has meaning for the person or person for whom it is an object.”

These shared meanings can create a boundary around self and objects. This research shows the role of symbolic interaction in creating a robust sense of community within a group of people, who identify as a community. Symbolic interactionism theory by studying a shared attached meaning between a self and object (three types) supports the notion of sense of community as well as individuals’ interaction.

Symbolic interactionists believe that encouraging people to interact more in a community, cooperate, share symbols, and network. Altogether, these social actions will
enhance the sense of solidarity, increase sense of community, make stronger attachments in a community, and improve safety. Sense of community is a useful tool to measure people’s quality of interaction and life satisfaction, however it is limited. In symbolic interactionism, one of the significant types of objects is *physical* which, in Chavis and MacMillan’s approach, is not studied directly in sense of community theory or considered part of its classic definition. This research by expanding and supplementing the notion of sense of community with tactics that address the built environment from symbolic interactionism wants to show the important role of physical environment and architects or designers (Figure 21 and Figure 22).

![Figure 21: Symbolic Interactionism Model in relation to Sense of Community (Designed by author)](image-url)
This research evaluates Ekbatan Residential Complex’s designed features, such as the role of public spaces, green areas, parks, pedestrian paths, and all kinds of public facilities that make this opportunity for people to interact, communicate, attach meaning, and create a robust boundary. The physical environment is a major reason that people feel safe and satisfied within the neighborhood, and it affects individuals’ self-development and interaction by carrying symbolic meanings that people assigned to them. The boundary among Ekbatan residents (or Ekbatani) are strong even when they are not in the complex. The adage, “Everywhere you will see an Ekbatani. But if not, don’t worry. Because you’re Ekbatani!” was shared with me by a young resident of Ekbatan. The phrase is one of the examples that indicates a strong sense of community among the young generation. This thesis shows that the socio-demographic factors such as length of residency, age, gender, and socio-economic status are influential elements in attaching meanings and creating boundaries which directly affect residents’ sense of community and quality of interactions.
The research, by evaluating people’s quality of interactions and shared meanings from different perspective, shows the existence of, or lack of, sense of community can effect everyone’s quality of life in various ways. For instance, mental and physical health are some of the significant consequences of sense of community. Engaging more in community activities and having a meaningful role, as well as feeling influential as a member of a community, can affect a person’s mental health in term of depression or happiness.

Physical environments have an influential role in accelerating sense of community and affecting human feelings, conduct, thoughts, and behavior. Architects and urban planners by contributing more with environmental psychologists, architectural sociologists, and architectural anthropologists can make this opportunity for people to improve their quality of interaction, attached meaning, sense of community, and finally enhance the level of life satisfaction.
3.6. REFERENCES


CHAPTER FOUR

OVERALL DISCUSSION
4.1. Conclusion and Discussion

The initial idea of this thesis was to evaluate the ways in which contemporary design can preserve and express cultural identity over time. Culture is people, memories, meanings, and values. It is part of our identity, and it connects our inner self outward to other people, places, and artifacts. Built environments are a standard bearer of culture and form the primary setting for human interaction. It is one of the ways to preserve and express cultural identity and social capital, by providing opportunities for formal and informal interactions and promoting investment in a shared space. Studying the culture and anthropological aspects of architecture let me focus more on the interrelationship between people and built environments. I wanted to find out “how do physical environments affect individuals’ behavior, feelings, and interactions?” My thesis explores the notion of sense of community and symbolic interactionism theory in residential neighborhoods. Sense of community is one of the concepts and theories in environmental psychology that deal with people’s behavior, interaction, feelings, the level of life satisfaction, and conduct within a community. It is an essential concept in communities, when understood and measured, that has the potential to improve individuals’ quality of life (McMillan and Chavis 1986).

I started doing the thesis by evaluating sense of community in three distinct residential neighborhoods in the city of Tehran in Iran with assessing both architectural and social factors. Case studies were selected based on community scale and architectural style. Vanak Garden
(contemporary design and small-scale community), Ekbatan (modern design and large-scale community), and Sheikh Hadi (traditional and medium-scale community). The preliminary hypothesis of the research was the Vanak Garden residential complex might possess the highest level of sense of community among these case studies, due to the high quality of public spaces, green areas, and the building design. The designers of the complex focused on maintaining the original sense of place and local context in order to improve residents’ interaction and neighborliness. In addition, it was believed that Ekbatan Residential Complex would rate lowest for sense of community among the three.

The final analysis showed Ekbatan Residential Complex has the strongest sense of community among these case studies, which differed from the initial hypothesis. The research demonstrates that when fostering sense of community, architectural elements are not strong enough or sufficient by themselves. Due to this reason, the residents’ socio-demographic factors such as age, gender, and socio-economic level was collected, evaluated, and analyzed to reach a more accurate understanding. In fact, the analysis showed that social factors are more influential than architectural elements. The second approach, comparing socio-economic factors, is complementary to the first method, measuring sense of community, to find out why Ekbatan has a stronger sense of community among other case studies? It would appear that consideration of architectural factors are not enough without a greater focus on sociological approaches, such as symbolic interactionism theory, to evaluate the residents’ sense of community, quality of interaction, and social ties with the intent of improving physical environments for communities.
Comparing conclusions from both papers revealed the significant impacts of certain architectural factors or physical environments such as public spaces, green areas, parks, pedestrian paths in shaping a community, and promoting a sense of community among residents. People understand their physical and social environment by attaching meaning to objects in their everyday life, including their living environments, public spaces, friends, and neighbors, as well as the meaning that those objects have for them (place identity), which in turn form local boundaries. This boundary is a key factor in reinforcing sense of community and community membership. In addition, establishing boundaries shows who belongs to a community and who does not. The meaning can change in relation to the socio-demographic factors such as residents’ age, gender, socio-economic status, marital status, and length of residency in a community. The first paper shows the importance of the balance between socio-demographic and physical factors in creating a robust community. Designing should include consideration of the users’ social factors, the community in total, and what physical elements meet their needs.

The most significant point of this thesis is to suggest the role of architects and their influence on the ways in which individuals attach meanings to the physical environment, where individuals present themselves to each other, create boundaries, and promote sense of community. The majority of contemporary architecture and design emphasizes the functional and artistic aspects of building more than its social, psychological, and cultural performance. This insight points to the widening gap between people’s social life and architectural design.

From an architectural viewpoint, Vanak Garden Residential Complex is one of the proper places for higher middle-class families to live in Tehran due to the high quality of public spaces,
green areas, revitalizing the local context by keeping the sense of place, and by using local materials in the building. This complex won the World Architecture Festival Award in 2010. The architect by using local materials, designing the courtyard with a small fountain, a chess area, green beds, and some of the original tree trunks wanted to encourage the neighborly life and residents’ interaction in a community in order to improve their quality of life. However, analysis of interviews, observation, and questionnaires revealed that the inhabitants’ sense of community and quality of interaction are not vigorous and robust in contrast to concepts of the design. This complex is representative of architectural design as an art object, focusing on the symbolic features and aesthetics of the design rather than the people interacting with the place. The architects were not deliberate in addressing the social aspects of residents’ life and their actual needs. The designers based the design on their personal interpretations, basic assumptions, and building’s codes. Architects by putting themselves in the place of a resident in the building and considering the residents’ socio-demographic factors and inhabitants’ needs may better improve people’ quality of life and make their place more comfortable and desirable.

It is essential to modify the design approach by considering social science research and theories as a part of the design process at the first stage of design and also afterward when a building has been planned, constructed, and inhabited for a period of time. Evaluating the building after it is occupied would be a helpful method to assess how designs work and develop a technique to more accurately model how it should respond to human needs and aspirations.

In addition, this research introduces an alternative factor “place attachment” to McMillan and Chavis (1986) factors in measuring people’s sense of community (Figure 23). Place
attachment, by considering all types of objects—physical, social, and abstract—and based on symbolic interactionism theory, makes a bridge between social sciences and architectural design. The role that physical environments can play in influencing individuals’ perception and shared meaning are considerable in reinforcing sense of community. The tools to measure sense of community (the four components) are limited in social aspects of humans’ interaction and communication; however, symbolic interactionism theory—by looking at three types of objects such as social, abstract, and physical—studies the individuals’ meaning attachment and the formation of boundaries. Ekbatan residential complex is a proper example of how sense of community and community boundary could be used to improve the complex by assessing the symbolic shared meaning among residents and understanding the place with social science theories.

Figure 23: Alternative factor in measuring sense of community (Designed by author)
4.2. Research Limitations

The research data collection was based on qualitative research methods: site observation, interviews, and questionnaires from residents of the case studies (Sheikh Hadi, Vanak Garden, and Ekbatan). This type of data collection is always challenging and has limitations such as specific timeframe and small number of willing respondents, but in this research Iranians’ cultural norms and social barriers added to research’s restrictions. People were not always welcoming and hospitable to be studied and sometimes situations are beyond the control of the researcher.

One of the first challenges of data collection in Tehran was taking pictures and videos of people’s interactions and communications in communities. Especially at Vanak Garden (small community with upper-middle-class families) the gatekeeper did not let me take pictures in order to respect residents’ privacy. In addition, at Sheikh Hadi Neighborhood (large community with lower middle-class families) the manager of the mosque did not allow me to take pictures and videos of the inside of the mosque due to safety reasons. Moreover, in the park, people did not feel comfortable and disregarded me when I was taking pictures and keep asking me “why you are doing this research and taking pictures?”

Being a young woman attempting to collect data in all three neighborhoods was the second challenge of this investigation. Especially when I was interviewing men and asking them to do the survey, sometimes they took it in a different way and wanted to talk to me about personal things. Because of the safety reasons, I was always with my male cousin to speak with them over the course of a couple of days in order to understand their level of sense of
community. Specifically, at Sheikh Hadi Neighborhood people are not open and welcoming to a stranger. They still hold traditional and religious beliefs and views, and it is not common to be interviewed by a young woman in their community. This is why in some part of collected data the number of men is less than women.

The last significant challenge of this research was time limitation which affects data collection in various ways. In the city of Tehran, especially at Sheikh Hadi and Vanak Garden Neighborhood due to safety reasons I had to stop doing the survey before the evening prayer time or shortly after that. Because most of the residents leave the public places to pray or dinner time and only some young individuals especially boys in gangs use the spaces as their gathering place, and it was risky to be there as a young woman. On the average, for each case study it took three to five days to complete the data collection and it does not include the full range of residents or all four seasons. Therefore, because of these limitations and variations, this research does not focus on specific age, gender, or an exact time of day.

4.3. Future Research Direction

The initial idea of this thesis was to study the interrelationship between the built environment and community. I attempted to evaluate the ways in which physical environments can effect humans’ quality of life and interaction. The theory of symbolic interactionism in urban sociology and sense of community in community psychology used to understand this correlation. Studying in this area of research helped me to find out the potential role of physical and mental health as one of the consequence of the built environment. Living in meaning filled built environments and supportive communities leads to a healthy life and personal
satisfaction. My research shows the important role that of social science can have in community design. In the next step, I want to hone my previous research further by addressing human health as a key factor in assessing physical environments and communities in order to better define what constitutes design based on promoting human health. Also, I want to evaluate and study this causality between a built environment and health by considering the association of social capital with health and well-being, so as to develop design patterns that fill this gap.

Some places draw people together and thus support the improvement of social ties and enhance the development of social capital. Strong social ties significantly improve the level of psychological well-being and physical health. There is a significant role designers can perform to promote social interaction within buildings or neighborhoods in order to develop individuals’ quality of life and overall mental health. I want to go more in depth in this area of research to find out the hidden aspects and influences of the built environment on individuals.
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<thead>
<tr>
<th>Statement</th>
<th>Not at all</th>
<th>Somewhat</th>
<th>Mostly</th>
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<td>1  I get important needs of mine met because I am part of this community.</td>
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<td>2  Community members and I valued the same things.</td>
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<td>3  This community has been successful in getting the needs of its members met.</td>
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<td>4  Being a member of this community makes me feel good.</td>
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<td>5  When I have a problem, I can talk about it with members of this community.</td>
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<td>6  People in this community have similar needs, priorities, and goal.</td>
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<td>7  I can trust people in this community.</td>
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<td>8  I can recognize most of the members of this community.</td>
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<td>9  Most community members know me.</td>
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<td>10 This community has symbols and expressions of membership such as clothes, signs, art, architecture, logos, landmarks, and flags that people can recognize.</td>
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<td>11 I put a lot of time effort into being part of this community.</td>
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<td>12 Being a member of this community is a part of my identity.</td>
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<td>13 Fitting into this community is important to me.</td>
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<td>14 This community can influence other communities.</td>
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<td>15 I care about what other community members think of me.</td>
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<td>16 I have influence over what this community is like.</td>
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<td>17 If there is a problem in this community, members can get it solved.</td>
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<td>18 This community had good leaders.</td>
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<td>19 It is important to me to be a part of this community.</td>
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<td>20 I am with other community members a lot and enjoy being with them.</td>
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<td>21 I expect to be a part of this community for a long time.</td>
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<td>22 Members of this community have shared important events together, such as holiday, celebrations, or disasters.</td>
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<td>23 I feel hopeful about the future of this community.</td>
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**پیشنهادات:**
- مراجعه به پزشک و درمانگر خود.
- اگر مصرف مواد مخدر باعث مشکل‌های اجتماعی یا روانی شود، به پزشک خود مراجعه کنید.
- همه مراجعه به پزشک و درمانگر خود را به راحتی بپذیرید.
- در صورت برخورداری از علائم عصبی یا عضلانی، به پزشک خود مراجعه کنید.
- در صورت وجود استحالت در مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل بیماری بدنی یا روانی، به پزشک خود مراجعه کنید.
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- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
- در صورت توقف مصرف مواد مخدر به دلیل مصرف مواد مخدر، به پزشک خود مراجعه کنید.
Appendix B (Interview Questions):

1. How long have you been living in this area/complex?

2. How long do you think you will live in this area/complex?

3. What do you like most about the complex?

4. What do you like less about the complex?

5. What are your suggestions to improve the complex?

6. Why did you move to this area/complex?

7. Where are the crowd parts of the complex?

8. Is it safe in the neighborhood? Why?

9. Where do you meet your neighbors or friends most of the times accidentally?

10. Where do you prefer to go for entertainment?
## Appendix C (Sample Interview Coding):

<table>
<thead>
<tr>
<th>Q-1</th>
<th>Q-2</th>
<th>Q-3</th>
<th>Q-4</th>
<th>Q-5</th>
<th>Q-6</th>
<th>Q-7</th>
<th>Q-8</th>
<th>Q-9</th>
<th>Q-10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviewee 1 (F)</strong></td>
<td>21-30 Years</td>
<td>Forever</td>
<td>Quiet Courtyard</td>
<td>Landscape Facilities Security</td>
<td>Buildings/ façade</td>
<td>Nothing</td>
<td>By chance</td>
<td>Courtyard Markets</td>
<td>Yes, Residents know one another</td>
</tr>
<tr>
<td><strong>Interviewee 2 (F)</strong></td>
<td>31-40 Years</td>
<td>Forever</td>
<td>Courtyard Landscape Facilities Security</td>
<td>Nothing, but emergency exit stairs</td>
<td>Cultural features (mall)</td>
<td>Born</td>
<td>Markets</td>
<td>Yes, Residents know one another + never had bad experience</td>
<td>Courtyard Lift Markets Lobby</td>
</tr>
<tr>
<td><strong>Interviewee 3 (F)</strong></td>
<td>0-10 Years</td>
<td>Forever</td>
<td>Quite Courtyard Landscape Facilities Security</td>
<td>Buildings/ façade + drug use in public</td>
<td>Nothing</td>
<td>Complex quality (before phase 2)</td>
<td>Markets</td>
<td>Yes, Guardsman + Residents know one another</td>
<td>Markets</td>
</tr>
<tr>
<td><strong>Interviewee 4 (F)</strong></td>
<td>0-10 Years</td>
<td>Forever</td>
<td>Courtyard Landscape Facilities Security</td>
<td>Buildings/ façade + streets’ traffic</td>
<td>Repairing small park</td>
<td>Family</td>
<td>Courtyard Markets</td>
<td>Yes, Guardsman + Residents know one another</td>
<td>Lobby Courtyard Markets</td>
</tr>
<tr>
<td><strong>Interviewee 5 (M)</strong></td>
<td>21-30 Years</td>
<td>Conditional</td>
<td>Quiet Courtyard Landscape Facilities Security Place attachment</td>
<td>Epidemic thoughts</td>
<td>Cultural features</td>
<td>Born</td>
<td>Courtyard</td>
<td>Yes, Residents know one another</td>
<td>Courtyard Markets</td>
</tr>
<tr>
<td><strong>Interviewee 6 (M)</strong></td>
<td>21-30 Years</td>
<td>Forever</td>
<td>Quiet Courtyard Landscape Facilities Security Place attachment</td>
<td>Nothing but residents’ incense</td>
<td>Nothing but swimming pool in the block</td>
<td>Born</td>
<td>Courtyard Market</td>
<td>Yes, Residents know one another</td>
<td>Courtyard</td>
</tr>
</tbody>
</table>
Appendix D (Observation Coding):

<table>
<thead>
<tr>
<th>Vanak Garden Residential Building</th>
<th>Low</th>
<th>High</th>
<th>Low</th>
<th>Low</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ekbatan Residential Complex</td>
<td>High</td>
<td>High</td>
<td>Middle</td>
<td>High</td>
<td>High</td>
<td>Middle</td>
</tr>
<tr>
<td>Sheikh Hadi Neighborhood</td>
<td>Middle</td>
<td>Middle</td>
<td>Low</td>
<td>Middle</td>
<td>High</td>
<td>Low</td>
</tr>
</tbody>
</table>