



Assessment of Social Interaction in Sense of Place: Rethinking the Design of Neighborhood Center in Urban space, Case study: Boshrooyeh City

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Abstract

Environmental psychology has been reinforced by focusing on the experiential sense of place in urban environment. In Iranian urban researches, the role of neighborhood center design to reinforce the social interaction and sense of place has not been adequately explored. The purpose of this study was to explore this claim that neighborhood center with its unique attributes can provide an appropriate place that residents promote their interaction within. The study was conducted in the form of a survey, with data being gathered via questionnaire from 174 randomly selected residents. Miandeh neighborhood center of Boshrooyeh city in Iran was conducted as a case study. Analysis revealed that use singularity and appearance of alley encourage interaction between people in neighborhood center. The results also demonstrated that social interaction has an impact in increasing the sense of place in residents due to their interaction with other neighbors. The paper concludes by emphasizing that planners should consider the NC in design of urban space due to its contribution in the social interaction and sense of place in residents. Ultimately, existing elements in neighborhood center can create effective factors to make the image in people's memories and provide social network and interaction between people with a place.

Keyword: *Social interaction, Sense of place, Design of neighborhood center, Urban space*

Introduction

Contrast between modernity, historical principles of urban design, and cultural values came to be a very important aspect in social life of modern cities. The contradiction between the traditional and nowadays cities had the most negative effect on people's life. Sennett [1] believed that the modern period has witnessed a decline of public life, which is because of the formation of a new capitalist. Today, cities have transformed collecting public places into private spaces [2]. Therewith shared public space is almost missing [3]. Lack of sense of place (SOP) and especially social interaction are mentioned by lot of scholars and authors [2, 4-8]. They expressed that this weakness and placelessness are because of the lack of space for gathering and communicate in new urban space. Neighborhood center (NC) as a semi-public place in neighborhood level which has been used as a place for gathering, public ceremonies, and activities is lost in the design of Iranian urban space in nowadays cities. Therefore, interaction and face-to-face communication of residents does not longer exist and happen in a different way and locations. Furthermore, Keller 1968 stated that recent research shown that there is a little consistency between social organization and physical collections of the cities. According to Hester 1975,

although due to communication technology, the compatibility between future social and physical spaces is destroyed but for many people, still local community is important [9]. Public spaces are a requirement for social gathering and interaction. Therefore, Neighborhood center can act as gathering place which people involve therein, and develops their social interaction with neighbors. Therefore, sense of place will strengthen due to strong interaction and communication between neighborhood residents.

the reduction of social interactions among the residents in the neighborhoods, this study seeks to find a physical solution to examine and review the realization of such interactions. In this regard, the present study examines neighborhood centers as the origin of such interactions in the past. Therefore, this study is significant because, first evaluates the hypothesis that neighborhood centers have played a role in social interactions, then deals with the specific physical features that affect these interactions. Literatures on the concept of psychological and physical concepts are reviewed in sense of place, social interaction and their components. More were presented affective NC attributes and its significance in developing the sense of place and social interaction.

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1. SENSE OF PLACE

From the past decade until presents, scholars had done a lot of work in environmental psychology context for understanding how people perceive the environment such as [9-15]. Environmental perception has been reinforced by focusing on the experiential sense of place associated with urban environments [16]. Sense of place is a concept that describe the people's relationships with a place [17]. Relph [18] argued that the concept of sense of place is not very clear; he explained that we could describe our personal understandings about this concept, but we cannot give a precise definition for. As characterized by Canter's theory [19], sense of place has three factors; activities linked to this locale, the subject's conceptual meanings linked to this locale, and the physical. Steel in [20, 21], also demonstrated that sense to place is depended on how the human communicated with the environment. Shamai [17] detemined three main stages with seven levels for sense of place like place attachmet, place belonging, commitment to a place, and involvement in place. In [22], Tuan argued that rootedness and length of residence has the stronger effect to sense of place. He indicated that respondents with the strongest sense of place have social, and cultural ties to their land and community, whereas tourists and transients people have fewer emotional and spiritual ties to a place. Social scientists argued that connections with places are often strongest and most compelling when rooted in social interactions within a place, with the sense of place deriving from people, experiences, and memories created in the place [23, 24]. Further, the people's experience of a place, the physical forms, activities and meanings combined together to form the sense place and character [25]. Therefore, paying attention to the experience of specific or identical places can be important in creating deep social relationships.

2. SOCIAL INTERACTION

Agnew (1987) investigate the concept of place that has been used with in social science, and finds three major elements: `locale, the settings in which social relations are constituted; location, the geographical area encompassing the settings for social interaction, and sense of place, the local`structure of feeling". He mentioned that meaningful places emerge in a social context and through social relations, surroundings give individuals a sense of place [26]. Components of social interaction also are demonstrates by numerous of scholars such as neighboring, which means residents to interact with their next door on the neighborhood [27-29] casual social encounters as a social contact between residents who do not know each other on the neighborhood [30], and participation in the place activities that occurred as resident's engagement in related activities of the place [29, 31]. Environment can provide and facilitates the behavior and activities within itself. It also supplies social interaction and motivation

of the people [32]. Reseraches revealed the effect of design in social interaction such as [33, 34]. In the physical concepts, characteristics, and mixed uses [29, 35-38] and divers place for services, shops [39, 40], and appropriate space for interact [41] can provide or encourage social interaction or contact between neighbors. Researchers such as [38, 42] believed that environment has an impact on social relation. According to Madanipour [2] still space plays a critical role in social encounters. Bothwell et al. [43] mentioned that traditional neighborhood design principle (TND) supports social interaction in their case study. They also indicated that the physical form and image of their environment have some effect on the stability of the neighborhood. Short distance between houses, sidewalks close to houses, mixed uses, narrow streets, variety of pedestrian routes, public spaces, and diverse community services will foster social interaction (Duany et al., 2000). From the literature can be reached that existing elements in neighborhood center can create effective factors to make the image in people's memories and provide social network and interaction between people with a place. As a conclusion social interaction is defined as a social relationship between residents. Social interaction concludes neighboring, participation in activities, casual social encounters (during the providing of daily need), and friendship contact. The SOP develop over the strong social relationship between residents.

3. IDENTIFYING APPROPRIATE FEATURES OF ENVIRONMENT

Appleyard [44] known three factors to better understanding of buildings. These three factors were form attributes, visibility attributes, and use and significance attributes. Appleyard [44] reinforced the Lynch theory and proposed, "use intensity, use singularity, and historical significance" that people drawn in their mental map and have impact on the poeple's memories and perception of their environment. Numerous scholars [8, 36, 45-51] offers the essential physical elements that provide a balance between the public and private realms and are necessary to have good environments such as mixture of uses, livable neighborhoods, density of land use, an integration of activities and shoppes in proximity to each other, distinctive buildings, neighborhood center or a main street as a focal point, connected open space, and hierarchy of spaces. Perry [52] suggested a physical pattern for local community residence. He was affected to Cooley's theory (1909) who emphasis the impact of the neighborhood units to children socialization. Cooley believed that face -to- face interaction, and local community are important factor in neighborhoods. According to [53] it is consisting of residential districts, schools, shopping facilities, religious buildings, and open spaces. Perry's neighbourhood unit concept in its

meaning is close to the concept of the neighborhood center which provide safety walking and amenities for residents. Neighborhood center act as a framework for urban planners to design functional and desirable neighbourhoods. Spatial arrangement of urban facilities in a neighborhood centre is one of the urban design principles of the 'Safavid Dynasty'[54]. The neighborhood center was designed as a square with special organization of facilities and services. Accessibility to facilities and services, important buildings, functional, and mix use are counted as factors. Religious ceremonies and special events have been organized by residents in the center of NC and usually have a special access to the other adjacent neighborhoods. The planning and design of the residential neighborhoods are related to human and environmental aspects with a physical character that reflects the life of the community [55]. Usually NC is contained by different functions including residential, commercial, and services buildings. Each neighborhood with regard to the services has been a small city. This centre has been able to answer resident's needs. It also is a collective space for social meetings, staying, gathering, and buy things where people can spend their time within. This center is multi functional space with its spatial arrangements that provided appropriate place for cultural and social activities of the people.

4. IDENTIFYING THE PHYSICAL CHARACTER OF MIANDEH NEIGHBORHOOD CENTER (MNC)

The physical structure of desert cities provides a covered space to neutralize the effect of the desert on the life of the city. In dealing with this climate, houses are completely attached to each other and roads and alleys are narrow [2, 11, 56] that provide casual social encounter between neighbors [9]. Another function of the hierarchical path ways is to define the borders between public, semi-public, and semi-private spaces [57]. Turn alleys and its special layout are designed to prevent the climate and bring the wind to reducing the heat in summer days. Its layout (narrow) make strong sense of gathering [58] and encourages face-to-face affiliation between pedestrians [59]. High wall also causes shadow inside the alleys [60] and provides a comfort for residents who interact and see each other in the alley. Figure 1.4 shown examples of MNC paths and alley appearances. Religion, state, and commerce have been the three principal in traditional Iranian cities [61]. The bazaar is the most important social axis and the main spatial link between religions, economy and politic in traditional Iranian cities. Bazaar accommodates the most intensive part of urban activities in the traditional city and provides an interface between residents of the city and out siders [62]. The role of shops also in neighborhood center were services and business which provide daily need and encourage social encounters. In the meantime Abanbar (water reservoir) has service

functions. Mosque, Hoseyniyeh, and religious school have religious functions and can play a role in religious activities. Skyline also at the neighborhood level and elements such as minaret of mosque and wind catcher (Badgir) are the main basis for urban elements and appearance for visitors and residents. All mentioned character and especial buildings presented in Figure 2.4 which show architectural style, historical and indicators buildings in NC as a whole. In figure also showed centrality of Miandeh, low walking distance of residence buildings to NC, compact tissue of houses, and architectural style. NC has connection with other buildings in its hierarchical principles form semi-public to private (house). Spatial arrangements of neighborhood spaces are also important in influencing the image of the milieu. Activity during days and nights in NC as a semi public space provide effective sustainability factors, social network, and interaction between people. NC also is a multi functional place that provide appropriate place for gathering, fulfill needs, and linke between spaces in neighborhood level (Figure3.4). Neighborhood center as collective space is a space for social meetings and staying in all hours of the day. Hence it can recreate the social relationships by its dimension that effected to dwelling like physical features, place dimensions, and meaning. However, NC has more depth and social meaning because of simultaneous access to several spaces, and creates the space experience by continuous motion [2]. Existing elements in a NC and religious beliefs available in buildings such as (Hoseyniyeh, Mosque, and religious school) are effective factors in fixing the city image in people's memories and provide social network between people with a place. People in NC meet each others, get the latest news, and talk with theri neighbors. These activities have adjusted to the NC, which provide the comfort and enjoyment for the people who use them. According to Brail and Chapin [64] individual activity in space is dependence to spatial pattern of owned activity system. Indeed activity system is flow of activity during the specific time. NC structure has made access to facilities and amenities for residents. Traditional NC had a compact and mixed used pattern with local characteristics in its design process. Appearance of NC is considered the local character, native material, and traditional style. Combination of indicator elements, historical significane, and use intensity made the traditional NC successful in achieving human need that presented by [65] such as accessibility, safety, belonging, social relations, and etc. Figure 4.4 provides a conceptual model for the study based on place attributes and social interaction, and SOP. For developing model tend to focus on understanding resident's sense by asking about their perception and meanings among the neighborhood center attributes. According to the review of the litreture in this study reveals the component of social interaction. In the model NC apperance, alley apperance, and NC

place is considered as physical attributes. Then use intensity, use singularity, and historical significance is placed in term of functional attributes.

5. METHODOLOGY

The present study has used quantitative research method based on reviewing the background of the subject and to examine the objectives of the research. This part presented a comprehensive classification of neighborhood center attributes with focus on Boshrooyeh city in term of its physical attributes, functional, and activities. According to Yin [66] analysis of the case study is focused on the data, observations, and experiences of the case. The field observation as qualitative research was done from (October until December 2009 and September until November 2010). Miandeh Neighborhood center (MNC) located in north-west of Boshroyeh city in the Khorasan, a province of Iran. This case was chosen because it was safe from changes and modernizations. Furthormore, the MNC can be classified as a “pure” traditional neighborhood development because it conforms to all of the tenets associated with TND design (Duany et al., 2000). The last Iranian population and Housing Census were conducted with its detailed in 2006. Based on the population statistic in 2006, the population of Boshrooyeh city is 16,115 people. The NC provides a mixture of 570 residential units. According to Municipality and other utility organizations Miandeh neighborhood in 2010 has 287 residents. In this research, quantitative research conducted by questionnaire survey. The great advantage of survey questionnaires is possibility to extensive collect data about behavioral habits, and opinions or attitudes on a variety of topics across a large number of people in a limited time [67]. The questionnaire as a measuring instrument was evaluated by using SPSS version 18.

To determination of sample size, Tabachnik and Fidell [68] proposed a formula to test the adequacy of the sample size for advanced statistics specially regression analysis. The formula is “ $N > 50 + 8m$ ” which the “ m ” is number of independent variable. Based on formula the sample size was $50+8(18 \text{ place attributes}) = 194$ numbers. According to sample size determination and field observation 250 set of questionnaire have been distributed among residents who live and used NC. Afterward return rates were 69.6% and 174 participants were entered into the analysis. Concerning the sampling techniques, simple random sampling was used in the survey investigation. Research framework has been provided through literature review by synthesis social interaction components with place indicators. Therefore, 5 components were considered for evaluate the social interaction as a domain of SOP. 18 items (Physical and functional features of NC) have been determined, and each item classified into four dimensions. Through this questionnaire, the residents were asked how important are neighborhood center

features on their social interaction? Furthermore, to understand the resident’s sense of place in psychological part of the questionnaire was asked, how important are these conceptual meanings (social interaction components) to encourage the sense of place in Miandeh? The survey tool has been provided with 5 ranking Likert scale to measure the response of residents. Independents variable (IV) in this study were physical and functional attributes in Miandeh neighborhood center (NC) which are include NC appearance, Alley appearance, and NC plan in subset of physical attributes and use intensity, historical significance, and use singularity as subcomponents of functional attributes. Dependents variable is the variables that described and evaluated as an aim of research. Dependent variable (DV) in this research is social interaction as a domain of SOP. Data has been analyzed in the context of frequencies to describing the data. In the other hand, multiple regression was used in two section. First to discover the linear relationship between the social interaction and NC attributes. Second, is utilized to undrestad the linear relationship between social interaction and sense of place. Furthermore, some techniques and analysis were utilized in terms of reliability and validity of the questionnaire and the model. First, reliability analysis via Cronbach’s alpha was used in this study. The value of alpha for NC attributes was 0.789 and for social interaction components in SOP was 0.801. Therefore, all the variables estimated the satisfactory of reliability and thereupon that the instrument was appropriate to reliable results. Second, in validation was done the Homoscedasticity test. The Levene test for Homogeneity of Variance, measures the equality of variances for variables. Finally, to validation and understand fitted of models are used the three assumption of multiple regression analysis in the process of data analysis; Autocorrelation, Normality, Multicollinearity.

6. RESULTS AND DISSCUSION

The demographic section is consisting of question 1 through question12. Question 1 to 7 belongs to demographic characteristics and questions 8 to 12 are functional of the Miandeh neighborhood center. According to the total percentage, it shows that 80.5% of participants are below 50 years old. The highest percentage in question of age belongs to the male 56.9% and female 43.1% of respondents. Respectively, these percentages show that many of people are educated. The marital question shows that 76.4 % of the respondents are married. Highest originality of the respondents belongs to native, 85.1% that it shows cultural and social cohesion. Cheung and Leung [69] demonstrated the effects of neighborhood social cohesion on life satisfaction. They also mentioned that placing people with similar background characteristics in a neighborhood develop social cohesion. 77% percent of

the respondents are owner and about 83.9% live in Miandeh Neighborhood Center (MNC) more than 10 years. According to [3] the people who are living longer in neighborhood tend to have more interaction with others. In the place of shopping 32.8 % of people are chosen nearest shopping to the neighborhood for shopping with the highest percentage. It shows that rate of shopping near NC is more than other options, which appear potential of NC to reduce trips within the city for make the purchase. If shops are located centrally, it make opportunity for community social interaction [3]. He also stated that commercial district will play a valuable role in encouraging social interaction. In the reason of visit respondents remarked 41.4% for participation in activities and 25.9% for important buildings. Meanwhile, 14.4% of residents make a purchase, and it is their reasons for the visit. Indeed, NC provides opportunities to casual social encounter via activities within. Therefore, people can be encouraged to improve their social relations with others. Furthermore, participation in activities, time spent in the place have an impact on variation in dimensions of sense of place [70] and also activities and meanings combined together to form the sense place [25]. Percentage of the last visits 74.7% shows that residents use and across from NC several times in every week. The residents represent the highest degree in them attracts to NC with 29.3% for participate in activities, traditional buildings 24.7%, and watching people's activity 21.3%. Total of questions 8 until 12 are show a high use intensity of NC, level of accessibility.

6.1 Overall Mean of NC Attributes and Social Interaction Components in SOP

Table 1.6 provides the mean of NC attribute and their important in enabling people to interact each other. A religious belief is the most important value in neighborhoods construction and people's opinion toward their environment. High mean score in architectural style and traditional and important buildings, and elements draw attention to high attachment of residents to their NC.

6.2 Test of Variable Goodness

In the first phase, component analysis with varimax rotation is performed to examine whether all variables which shares similar underlying in social interaction and SOP can be grouped into a smaller number of factor. Bartlett's test of Sphericity and the KMO (Kaiser-Meyer-Olkin) test are utilized for testing the adequacy of sample. In Table 2.6 KMO value is equal and bigger than 0.05. It means the sample size is adequate, and the null hypotheses are accepted. It also shows that exist significant correlations among variables. Important factors loading in social interaction are alley layout, building façade, and miandeh tree in physical attributes and being enclosed space, short walking distance, and religious school in functional attributes. Interaction with

your neighbors and fulfill the daily need are two effective factors in SOP, which shown as the representative for social interaction components. As a result, Table 3.6 represents the overall decreased variables, which have higher correlation compared to others in selected components in the rotation matrix. Variables that share similar underlying dimensions were chosen in their high correlation through components.

6.3 Multiple Regression for Sense of Place Indicators

In this study, standard multiple regression with forward selection method used to discover the linear relationship between a dependent variable and some independent variable. Residents were asked about the level of their social interaction on SOP. So Table 4.6 shows $R^2 = 0.116$ ($p < 0.004$) that is significant and also reported the ANOVA regression table and coefficients, path analysis of SOP. The outputs represent that the model is completely significant with the p-value: $0.00 < 0.05$ and the model is adequate. The model also shows that coefficient of interaction with your neighbors ($B = 0.171$) respectively are positive. Therefore, increasing of interaction with your neighbors (social interaction) will increase SOP and have a linear relation and vice versa. Also increasing 1 unit in social interaction will increase the level of SOP by 0.171. The model analyzed as $SOP = 2.579 + 0.171(Q \text{ interaction})$. Studies on the concept of sense of place also demonstrated this relation between sense of place and social interaction [41, 71]. Model found the interact with next door on the neighborhood as a social interaction factor that has a positive relation with sense of place and has more influence in compare with fulfill daily need. Interact with neighbors also noted by scholars such as [27-29] as a components of social interaction. As mentioned by [9] possibility of face-to-face contact strengthen social interaction. Social interaction also presented by [29] in its effect on sense of community. Regression analysis for influence place attributes in social interaction can be seen in table 5.6. Interaction with neighbors as dependent variable is an indicator of social interaction that is significant with p-value less than 0.003 and accurately predicts social interaction with R-square 0.111. This table also shows regression coefficients between social interaction and selected attributes of MNC via factor analysis. Interaction with neighbors has a positive coefficient only with alley layout (0.002) and Religious school (0.007). So increasing 1 unit in the alley layout and Religious school will increase the level of interaction with neighbors. The model analyzed as: $Interaction = 3.494 + 0.184 \text{ alley layout} + 0.134 \text{ religious school}$. Results demonstrated that appearance of alley and its layout as physical attributes and use singularity (religious value) as functional attributes in the neighborhood center encourages interaction between residents. The results also indicated that building's facade has no relation with social relation. Likewise, the

traditional neighborhood design principles can support social interaction [2, 43]. Figure 1.6 is shown the model of sense of place and the effective attributes of NC in social interaction. Afterward it showed the effect of social interaction in sense of place. Design of alley or street can provide an appropriate place for residents to encourage their relations in a more private space. Therefore, alley layout in traditional design of NC increases the possibility of face to face contact and communication between residents. Social relationships are interconnected with the community place or place with social affordance. Alley layout, movement ways, facilities, services place, functions, important buildings have the effect to social relation between people. Further, casual social encounter makes social interaction [72]. Likewise, neighboring refers to casual social interaction that occurred between immediate neighbors [27, 29]. Although, researchers such as [24] demonstrated that physical dimension has less impact to the environment or the place perception but [41] presented that physical dimension explained variance of at least one of the neighboring dimensions. Visual appearance also explained relatively high portion of neighboring. As a result and in compare with other researches can indicate that appearance and functional attributes has a more impact and are perceptible by residents than form in the neighborhood center. According to obtain result, design of NC make residents satisfied from their milieu and allows residents to contact with others and activities therein. Furthermore, neighbourhood center act as a collective space for social meetings. However, neighbourhood center has more depth and social meaning because of simultaneous access to several spaces, and creates the space

experience by continuous motion [2]. Sense of place is resulted of human communication with the environment. Environment has effect in sense of place by social aspects that exist in the neighbourhood center and its functions. In addition physical characteristics of places with influence to activities, social reaction, and meanings effects to people's sense of place. According to [71] the meanings tied to place were ground in social relations.

6.4 The Validation of Models

This study used the linear regression analysis to test the influence of independent variable toward the dependent variable. The linear regression is subject to the three assumptions of multiple regression analysis; normality, autocorrelation, multicollinearity. The normality probability plots of regression standardized residual utilized to test the normality of the data. Figure 2.6 shows that the diagnose draw a normal probability plot of the residual, and it has the substantial departures from the line. These indicated that the residual represents a normal distribution. It can be seen in table 6.6; the value of Durbin Watson is 1.082 and is below 2.0 and it indicates that autocorrelation exists between the variables. Totally, the observed probability based on F-test and p-value is 0.00 and less than 0.05; therefore, all independent variables in this study simultaneously predict the dependent variable. Based on Hair [73] and achieved results the model is considered free from multicollinearity due to the VIF value less than 10, and the tolerance value more than 0.1. As a result all this assumption consists of normality, autocorrelation, and multicollinearity was used, and they show that analysis can be done using the parametric method.



Figure 1.4 Alley Appearances and High Wall in the Neighborhood Passageway



Figure 2.4 Indicators Buildings of Miandeh Neighborhood Center and Arrangement



Figure 3.4 Neighborhood Center Activities in Day and Night

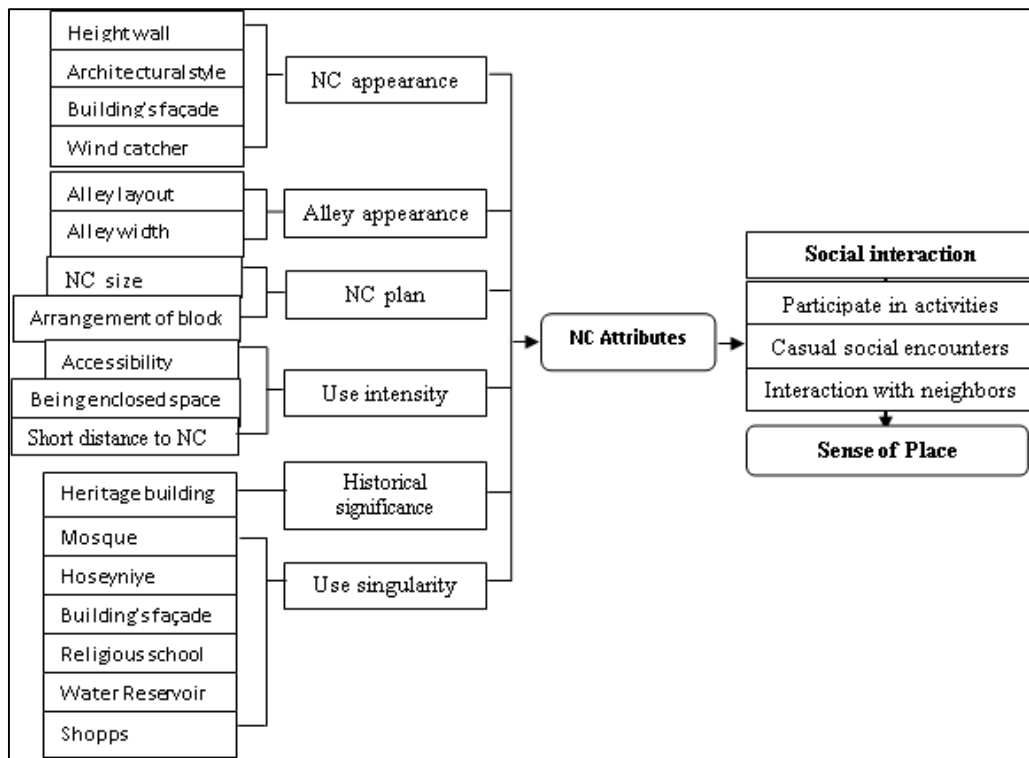


Figure 4.4 Conceptual Frameworks and Hypothesized Relationship

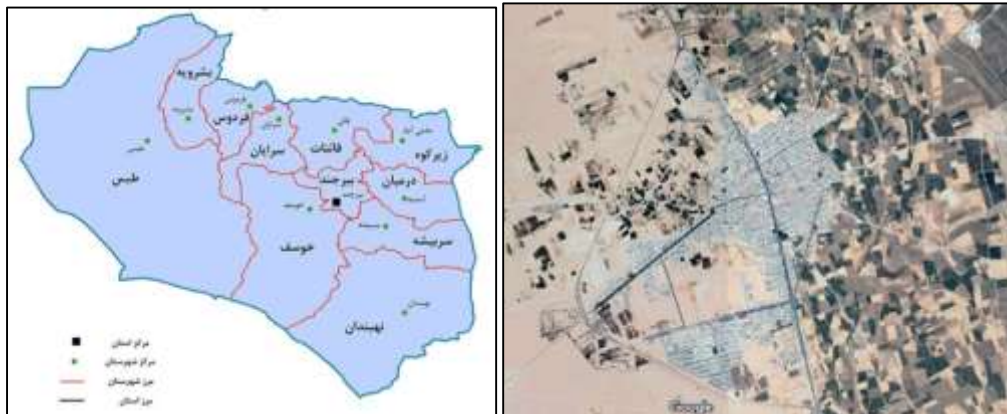


Figure 5.1 Divisions of South Khorasan Province and Location of Boshrooyeh City (left: Statistical Centre of Iran, 2017- right: Google)

Table 1.6 Overall Mean of NC Attributes and social interaction components in SOP

No	N:174 Attributes	Social Interaction	
		Mean	Std. Deviation
1	Height wall	3.05	1.041
2	Alley width	3.43	1.005
3	Miandeh size	4.11	.909
4	Architectural style	3.87	.956
5	Windward	4.10	.950
6	Arrangement of housing	3.72	.999
7	Alley layout	3.34	1.041
8	Building's façade	3.15	1.188
9	Miandeh tree	3.74	1.176
10	Accessibility	4.28	.896
11	Being enclosed space	3.61	1.013
12	Short walking distance	4.54	.677
13	Traditional heritage building	4.26	.949
14	Mosque	4.57	.682
15	Hoseyniye	4.65	.670
16	Religious school	3.42	1.241
17	Ab anbar	3.56	1.200
18	Shopping	3.97	.940
No	Social interaction	SOP	
	Components	Mean	Std. Deviation
1	Interaction with neighbors	4.43	.800
2	Participation in activities	4.62	.684
3	Fulfill daily need	4.13	.787
4	Long-term social contact with neighbors	4.37	.739
5	Friendship relation with neighbors	4.13	.787

Table 2.6 Adequacy of Samples

No	Variables	Kaiser-Meyer-Olkin Measure of Sampling Adequacy	Bartlett's Test of Sphericity
1	Physical Attributes in Social interaction	.694	.000
2	Functional Attributes in Social interaction	.675	.000
3	Social interaction in SOP	.627	.000

Table 3.6 Rotated Component Matrixa

NC attributes	Components		
	1	2	3
Alley layout		.815	
Building's façade	.801		
Miandeh tree			.837
Being enclosed space		.896	
Short walking distance			.814
Religious school	.779		
Social interaction components	1	2	
Interaction with your neighbors		.812	
Fulfill daily need	.980		

Table 4.6 Model Summary and Validation of Social interaction in SOP

Predictors	Place attributes DV	Form		constant	Coefficients Form	
	R square	F	Sig		B	sig
Interaction with your neighbors	.116	3.112	.004*	2.579	.171	.031
Fulfill daily need					-.068	.403

Table 5.6 Model Summary of NC attributes in Social interaction

Predictors	Sig	Coefficients (B)	p-value
Alley layout	.003	.184	.002*
Building's façade		-.033	.517
Miandeh tree		.069	.187
Being enclosed space		.019	.749
Short walking distance		.027	.761
Religious school		.134	.007*
R- square	.111		
F	3.479		

* Significant at the 0.05 level

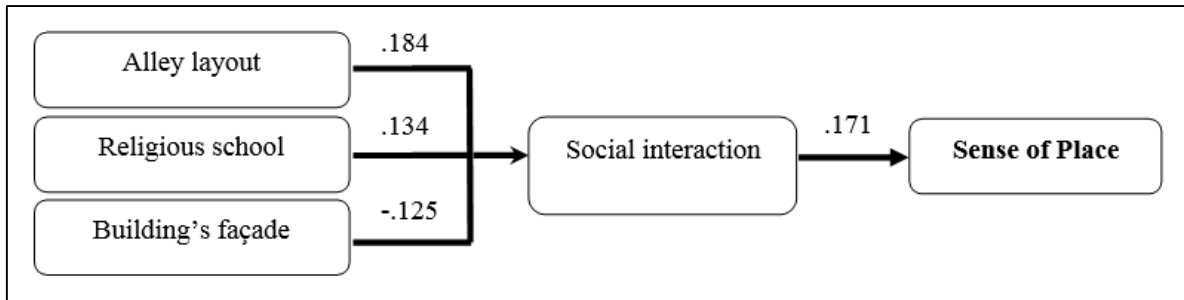


Figure 1.6 Model of Sense of Place and Influences Place Attributes in Social Interaction

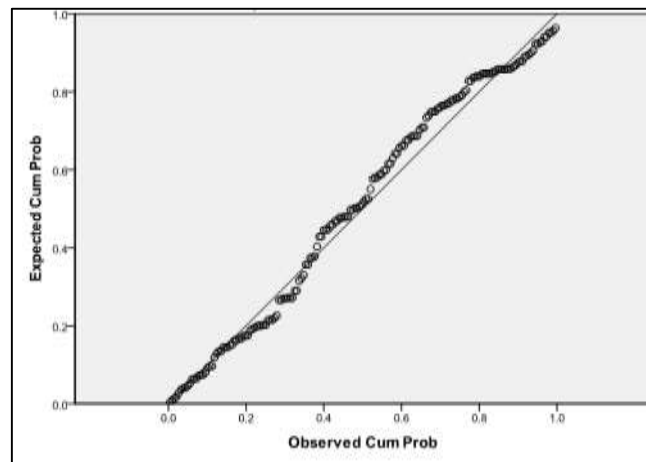


Figure 2.6 Normal P-P Plot of Regression Standardized Residual

Table 6.6 Test of Autocorrelation and Multicollinearity

Predictors	Dependent Variable	Collinearity Statistics	
		Tolerance	VIF
Alley layout	Interaction with your neighbors	.847	1.181
Building's façade		.856	1.168
Miandeh tree		.891	1.123
Being enclosed space		.881	1.136
Short walking distance		.917	1.090
Religious school		.866	1.155
SE		.768	
Durbin-Watson	1.082		
Interaction with your neighbors	Place attributes	.895	1.117

7. Conclusion

People and activity are the key components of a livability place that generates spirit of the place and social interaction. Sense of place occurs by the users not only by the quality of the physical elements and intensity of activities but also by the meanings associated due to the experience of the place. Furthermore, sense of place and strong social interaction is one of the essential goals for the future of a good environment. NC is an appropriate space in urban planning that makes the enhanced qualities accessible for all the members of society. NC as the success model of the past should be use in planning practice. Also the affordable attributes in NC and public space in neighborhood should be develop in contemporary Iranian cities to prevent the social disconnection which was mentioned as a major problem due to lost of NC in nowadays cities. In modern urban design in Iran, public sphere is trivial whereas the neighborhood center as semi-public space can be a potential space for increase social interaction in our cities. It can strengthen the sense of place due to activities, events and social needs in people who use it. The result of this work would assist in maintaining the quality of public value in cities, and should help to create new towns, that are coexistence with meaning and spirit of the place with respect to people needs such as social and daily need, and cultural values. Most studies on the concept of SOP have viewed places as social environment only. Likewise, researches about physical approaches of place had little references. Hence, the current findings add to a growing body of literature on physical and psychological approaches together by present NC as an effective role in the distribution of daily services and activities. It can be an important planning strategy use as the ordering system in design of future residential areas. The provided models will assist the urban designer and planning to incorporate the sense of place issues in the neighborhood design. This research also prepared guidelines for designer to regenerate the social interaction for strengthen sense of place. Neighborhood centers demonstrated as an effective space in the distribution of daily services and also have prevented unnecessary extra journeys of residents to the centers of the cities. Understand the concept and sop in NC was the main propose of this research. Therefore, it is suggested that more explorers can be conducted on the concept of public buildings and activity pattern in NC such as mosque and Hoseyniyeh in NC. Further research also can measure the amount of people who comes and gathers in public space to investigate their actual behavioral commitment, intensity and reasons of use.

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