

THE RELATIONSHIP BETWEEN CULTURAL COMPONENTS OF RESIDENTS AND PHYSICAL ORGANIZATION OF RESIDENTIAL ENVIRONMENTS (CASE STUDY: ROSHDIEH NEIGHBORHOOD OF TABRIZ)

Masoud Haghlesan¹, Ghasem Motalebi², Mohammad Naghizadeh³

1- PHD Graduate in Urbanism at Department of, Art and Architecture, Science and Research Branch, Islamic Azad University, Tehran, IRAN. Email: mhaghlesan@yahoo.com

2- Assistant Professor in Architecture (Urban Design) at School of Architecture University Collage of Fine Arts University of Tehran. (Corresponding Author). Email: motalebi@ut.ac.ir

3- Assistant Professor in Architecture (Urban Design) at Department of, Art and Architecture, Science and Research Branch, Islamic Azad University, Tehran, IRAN.
Email: dr_mnaghizadeh@yahoo.com

ABSTRACT

Considerable research has been conducted on the interaction between humans and the built environment performed based on the communication method and the significant relationship between the culture of the residents living in the environment and the place. The purpose of this study was the qualitative and quantitative evaluation or the method composed of the nature and quality of the relationship between the cultural components of the residents and the physical organization of the residential environments on a small scale in the Roshdieh neighborhood of Tabriz. The research method was combined approach which is a sequential exploratory design. First, the qualitative method with grounded theory trend and then the quantitative method with survey tendency and using correlation method were used. The studied community of both research methods was the participants residing in Roshdieh neighborhood of Tabriz. First, data were collected by interviews on the basis of specified questions with purposeful sampling until reaching to the saturation level of 20 interviewed residents of the neighborhood. Using qualitative data, 208 subjects of the neighborhood residents were randomly selected to assess the relationship of the question naira based on a five-point Likert scale. Pearson test and SPSS software were used for data analysis. The qualitative results indicate that the affecting factors in cultural values are the issues such as customs, beliefs, participation, respect for the rights of and interactions of individuals and in physical organizing are the issues such as deployment, communication and quality of fixed and semi-fixed elements of the environment. The results of quantitative study confirming the qualitative study revealed a significant relationship between these mentioned categories.

KEYWORDS: cultural components, combined research, interaction of human and environment, residential environments, Roshdieh neighborhood of Tabriz.

INTRODUCTION

In the field of environmental studies, the research has had a special place in the human environments. The association between humans and residential environment is based on the potential interaction of physical realm and the human needs and any built environment from the house to the neighborhood and from the neighborhood to the city is an entity of human demands. In addition, the built environments, especially the residential ones in a small or large community are the examples of expression of ideas, beliefs, values, customs, traditions, living issues and generally the culture of its residents. Culture is a concept that cannot be easily defined. Hall explains that the best and the most effective way to get to know oneself is through learning cultures and the ways that have differentiated us (Hall, 1959). On the other hand, the culture and its indices play a significant role in shaping and arrangement of human settlements, especially the residential environments. Therefore, the culture of built environments is closely associated with each other. The relationship between culture and environment has been widely the subject of various studies of experts and researchers carried out with empirical evidences and the case studies worldwide (Rapoport, 1969, 2005, 2010; Oliver, 1975; Lawrence, 1982, 1983 and Many Others).

There are lots of factors and forces shaping people's everyday life and the culture has certainly undeniable impact on their environment and living space. Therefore, the issue of culture and the residential environments are widely used in the literature and research associated with the environment and humans. Furthermore, the archeological, anthropological and cultural geography research on the existing design ideas show that there are signs of cultural aspects in spaces and residential environments.

In the field of residential environments studies, Amos Rapoport showed that the differences in the physical environments are due to "cultural differences"(Rapoport, 1997).He also believes that the residential environments and the homes represent the culture, although they are purposefully designed for daily life (Rapoport, 1969).The issues studied in the field of architecture and urban planning have been the relationship between the residential environments and the culture of the inhabitants of this space in terms of their physical structure in large-scale environment such as global and country scales. Considering the spread of sub-cultures in historical cities and countries with no similar climate and policies, the basic question that can be asked is “What kind of relationship is there between the culture of inhabitants and organizing the residential environments on a small scale, such as a city?”

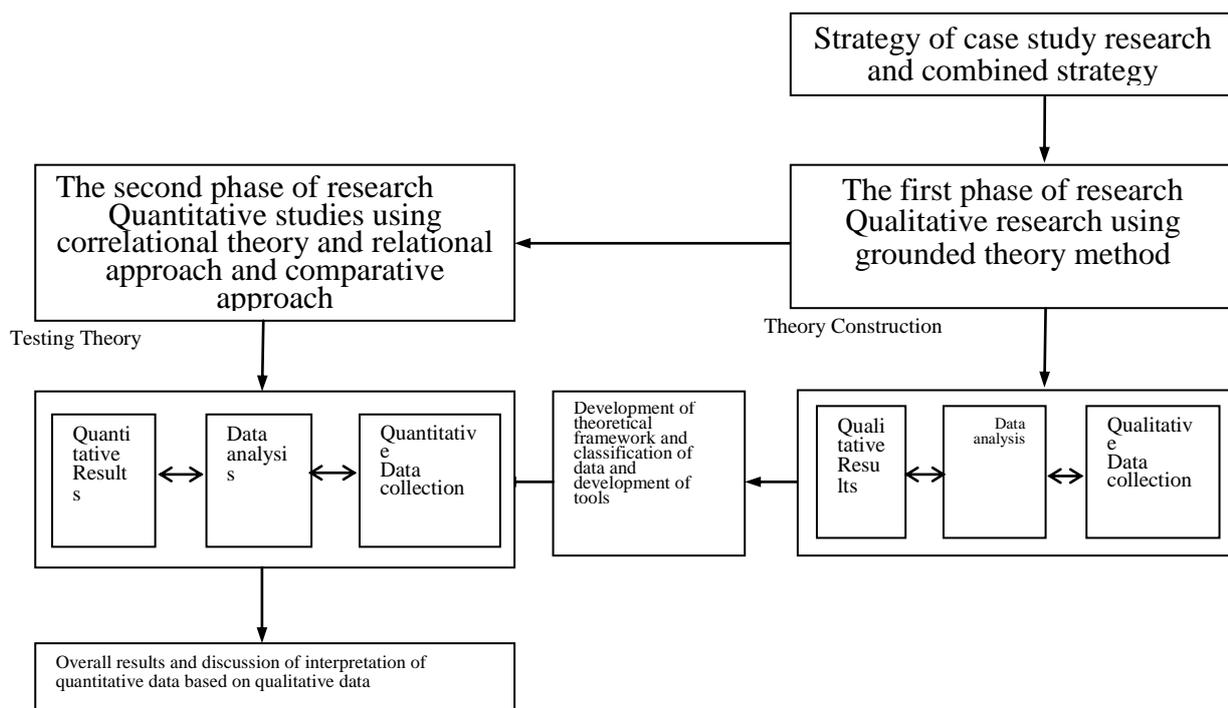
The purpose of this study was to determine the nature and quality of the interaction between cultural components of the residents and the organizing method of residential environments in a small scale such as Roshdiah neighborhood in Tabriz. In this study, firstly the concept of culture, environment and their related studies were investigated. Then, using the field of study, the dimensions, categories and indicators related to the cultural values of the residents and organizing the residential environments were extracted. Then using the results of the first phase of research, a closed questionnaire was developed to study the relationship between variables and then the relationship between each of the categories and indicators were explored in details and finally the results were concluded.

MATERIALS AND METHODS

Methodology

In this study, a combined research method was used in the methodology. In terms of the search system (paradigm), the methodology of this study is among the structuralism /interpretation-oriented and positivist paradigms due to its combined nature.

Figure 1: The research process of study



Compilation of the research stages, Source: The authors

The nature of research aims is exploratory and normative approach. The concerned strategy of the study is combined and as a sequential exploratory project in which the studies method is grounded (qualitative) and then it uses the correlation (quantitative) method. To understand the issues, first using documentary studies, we learned the meanings

and concepts about the culture and environment, history and background of the research. Then, by referring to the studied field which is Roshdieh neighborhood located in the city of Tabriz, the study was carried out in this field in two phases. Data gathering is combined that in the first phase, the data are collected by interviews based on specific questions from 20 residents of the neighborhood that were purposefully interviewed (Grounded studies). To assess the level of relationship, using the findings of the first phase, a closed questionnaire was developed via the obtained categories and indicators. And secondly, the closed questionnaires of 208 subjects of the neighborhood population were randomly collected (co relational studies). Ultimately, the final results were gathered as a table of the relationship between each of the categories and the indices (See Figure 1).

Data collection and analysis

In this study, a combine approach (qualitative and quantitative) was used in which first the qualitative data and then the quantitative data were collected as a sequential exploratory plan.

Qualitative aspect: The main objective of qualitative research was to examine the nature of interactions between the cultural components of resident's and physical organizing of residential environments. For deep study and understanding of the exact concepts, grounded theoretical method was selected. Validity of the research was determined through interviews and certain questions by 6 experts. Data were collected by purposeful interviews with 20 neighborhood residents based on approved questions. After collection, the data were coded in three stages. This encoding for data analysis included open coding, axial coding and the core coding. Finally, the grounded theory and paradigm were presented.

The qualitative dimension: In order to measure, evaluate and collect the data at this stage, the questionnaire of the study was obtained using the obtained indices and categories in the qualitative part and also with reference to the theoretical framework of Rapoport (2010). In order to test the reliability of the questionnaire made by researcher and the connection between the test and the measure draft, while studying the literature, we consulted with the supervisor and the advisor professors. Their viewpoints were applied in preparing and revising the questionnaire and it received their final approval. Finally, a questionnaire with 42 items on a five-point Likert Scale was created and developed. After the final implementation of the questionnaire, the questionnaire test was carried out to ensure its feasibility. In the questionnaire experiment implementation, 30 subjects filled the questionnaire. Cronbach's alpha coefficient was used to estimate the reliability which was 0.76 that represented the good reliability of the instrument.

The meanings and concepts related to the research

Culture: Culture is a word with widely used meaning and application. The same diversity and spread have led to the confusing approach of the research unit in the authors' studies. The study of this word demonstrates that the culture has material and spiritual implications. Culture is one of the important abstract concepts affecting the human behavior. It can be defined and described with different methods (Hines, 2008). Rapoport argues that the culture is "a set of values and norms that appear in the form of beliefs, art, morals, law, customs and traditions and common symbols (Rapoport, 1977). Researchers such as Altman also argue that culture is an important factor in the design of objects in the physical environment, including the human environments (Altman and Chemers, 1980). About its importance, it can also be said that culture is the lifestyle of a nation in which the conventional patterns of thought and behavior, including values, beliefs, rules, behavior, political institutions, economic activities and the like are passed from one generation to the other through learning rather than biological inheritance (Krauthammer, 2002). The different interpretations of the definition and concept of culture resulted in more than 164 definitions of culture provided by anthropologists. Some of these definitions include everything from religious laws to art (Kuper Adam and Kuper Jessica, 1985). Given the breadth of the definitions, by analyzing the definitions of culture, two leading researchers' named Alfred Krober and Clyde Klockohn has classified it into six categories:

1. Descriptive: for different types of activities or related behaviors in a culture;
2. Normative: that illustrates the laws and norms associated with a culture;
3. Psychological: with emphasis on learning, solving problems and other related behavioral procedures in certain cultures;
4. Historical: related to issues of heritage and tradition within a group of people;
5. Structural: with emphasis on social or organizational elements of a culture and

6. Evolutional: that refers to the emergence of the issues in a culture (Krober and Klockohn, 1982). Environment: Recently, many studies and discussions have taken place in the environmental fields. In artistic terms, the environment means: conflict, encircled, the subject noun of Arabic for surrounding, encircling and inscribing.

Background of the study

Different scientists have conducted some studies in the field of environment– behavior and have offered some theories. Amos Rapoport is among the scholars with some studies in the field of environment and behavior and in particular the study of culture and man-made environment. His studied in the field of cultural anthropology and according to the related studies divided it into architecture and the built environment. He established an association between these concepts and the concepts related to the field of architecture and residential environments (Rapoport, 2000; 2003; 2008).

Paul Oliver also carried out some studies in the field of traditional settlements and its relationship with studied culture (Oliver, 1987). Like Rapoport, he centered his focus on indigenous architecture and published several books and indigenous vocabulary dictionary in this context (Oliver, 1987; 1997; 2006). Rapoport and Oliver were among the researchers who were trying to hypothesize about the relationship between culture and the built environment through grounded studies.

For the confirmation of the importance of cultural studies in the residential environment, Edward Robbins used the cortical study without the use of case studies and referred to the lack of attention to local and traditional patterns in modern architecture. He argues that it is necessary to focus on cultural variables and components in design of residential environments and its architecture (Robbins, 1984).

Like Robbins, Gulsum Bayder also studied the cultural aspects without referring to the samples and only through documentary studies and recognition of housing and its impact on culture with the method of referring to architectural history periods (Bayder, 2004).

A number of researchers also studied the cultural components and variables and their impact in shaping the form and structure of human settlements and the residential environments. Using the analysis of components and cultural indicators, these people investigated the case studies and compared the association and impacts of these components on the environments.

In this regard, Basim Hakim carried out valuable studies in some traditional Middle Eastern cities including in Tunisia in which he studied the cultural laws rooted in Islamic religious principles and introduced them as the guide and behavioral criteria of the residents of those cities in organizing each urban space. He introduced the cultural variables derived from Islamic culture as the guide for the daily activities of the residents of these areas (Hakim, 1986). Hakim studied the Islamic architecture and urbanism and recognized that as the knowledge by the focus and concentration on which we can search the forms produced by the Islamic culture (Hakim, 1996). Some studies conducted by researchers in Turkey such as Isil and Orhan Hacıhasanoğlu. They investigated different forms of housing in the Sisily-Istanbul region of Turkey.

Their research showed that the needs were rooted in the residents' culture and had an influential role in the organization of the spaces of the house (Hacıhasanoğlu and Hacıhasanoğlu, 2006). In this regard; we can refer to the studies of Ozdamir and Gen Cosmanoğlu about cultural, social, and psychological components in traditional houses of Turkey and comparing it with modern houses (Ozdamir and Gen Cosmanoğlu, 2007). Feyyaz Erpi, another researcher from Turkey studied the local architecture and the reflection of culture in three case studies for Turkish, Lithuanian and Greek houses located in Anatolia of Turkey (Erpi, 1991).

Among the recent studies in this field, we can refer to Yosef Jabareen who studied the relationship between culture and housing preferences in developed cities based on studies conducted by Rapoport. He studied the role of culture and its components in the priorities of future housing selection among the residents of Gaza City. He argued that the familial relationships and the attitudes of women as an important factor in choosing preferred housing type in this study (Jabareen, 2005). Edgard Dezuari was also among the researchers that investigated the samples to study the changing

patterns of settlements including morphology of housing and the use of space and the relationships between open and closed spaces. He claimed that the cultural adaptation is an effective factor in changing the housing patterns (Dezuari, 2010). Another research conducted in conjunction with recent study was Raman and Dempsey (2012). They studied the cultural diversities and the urban structure in India. The researchers investigated and studied the influence of culture in the spatial form with specific concentration on Jedareh of Ahmedabad and Gujarat in India populated with Hindu and Muslims residents. Their study results showed that there is a significant difference between the spatial structure of these two neighborhoods and different culture. They emphasized the importance of cultural aspects in the urban planning design (Raman and Dempsey, 2012).

Regarding the proposed research, it can be concluded that recent studies have attempted to have a more detailed look at cultural issues and variables and their and relation with and impacts on human settlements and residential areas. Unlike earlier studies, more recent studies have smaller scales and concentrate on study cases in a region, so that more accurate and applied studies are carried out in this field. Due to the lack of studies in Iran, the present research was a small-scale study in one of the neighborhoods of the historic and big city of Tabriz.

RESULTS

The results of the qualitative part: The main research question in the qualitative part of the study was: "What kind of interaction exists between the cultural components of residents and the physical organizing of residential environments in Roshdieh neighborhood of Tabriz?" The researcher has taken action to respond to the question through interviews with 20 participants Roshdieh neighborhood in Tabriz by asking specified questions. In the grounded theory, encoding method was used with exploratory aspects. Open coding which is the first step of coding was done at two levels: First using the open questionnaires and observations, interviews were analyzed line by line, then, the sentences and paragraphs were analyzed after labeling. Using line by line analysis, 280 raw data were built that were transformed into concepts by the two procedures of ask inland comparison. The number of concepts in the first phase of coding and the first phase were 60. Due to the large number of concepts obtained in the first level, the concepts were combined again in the second level through asking and comparing practices. In this phase of the study, 17 initial concepts were discovered and extracted. According to the analysis, the concepts were extracted for the five major categories of customs and traditions, beliefs, participation of residents, respecting each other, behaviors and interactions with residents in the context of cultural values and for the three main categories of relationship, quality and deployment of fixed and semi-fixed physical elements in the context of residential environments.

The second stage of coding was axial coding. The category was analyzed in terms of type of conditions, process and out comes in the fields of cultural values and physical organizing of residential environment. In the third stage which was selective coding, the roles of categories were studied. The roles of categories include conditional categories (municipal laws, respecting residents' expectations and ideals, observing the design principles and criteria) and outcome categories (satisfaction or dissatisfaction with the physical organizing of the residential environments and residents' satisfaction or dissatisfaction with the conformity of cultural values) and finally, the grounded theory was presented as figures 2 and 3. According to the second phase of the research, the resulting concepts and their relationships were considered as an analytical framework.

The findings of quantitative section: The main question in the quantitative section of the research is: "What kind of interaction exists between the cultural components of residents and the physical organizing of residential environments in Roshdieh neighborhood of the city of Tabriz?" The researchers proposed a hypothesis as "It seems that there is a significant relationship between cultural factors of residents and the physical organizing of residential environments in the Roshdieh neighborhood of Tabriz." to find the relationship in this section. Using the findings of the qualitative part and the theoretical frame work shown in Figure 4, we developed an analytical model to determine the dimensions and indicators. Using this analytical model, a closed questionnaire was designed and developed to measure and evaluate the concerned hypothesis in 42 items and as a five-point Likert scale. 208 questionnaires were distributed randomly among the participants of Roshdieh neighborhood in Tabriz. Based on the results of the simultaneous regression analysis (Tables 1 and 2), with the introduction of predictor variables of physical organizing (deployment of elements, relations of elements, the quality of elements, requirements and expectations of the elements) to the predictor equation of cultural components, the value of F derived from the analysis was equal to 21.31 that was in the significance level of $P < 0.001$.

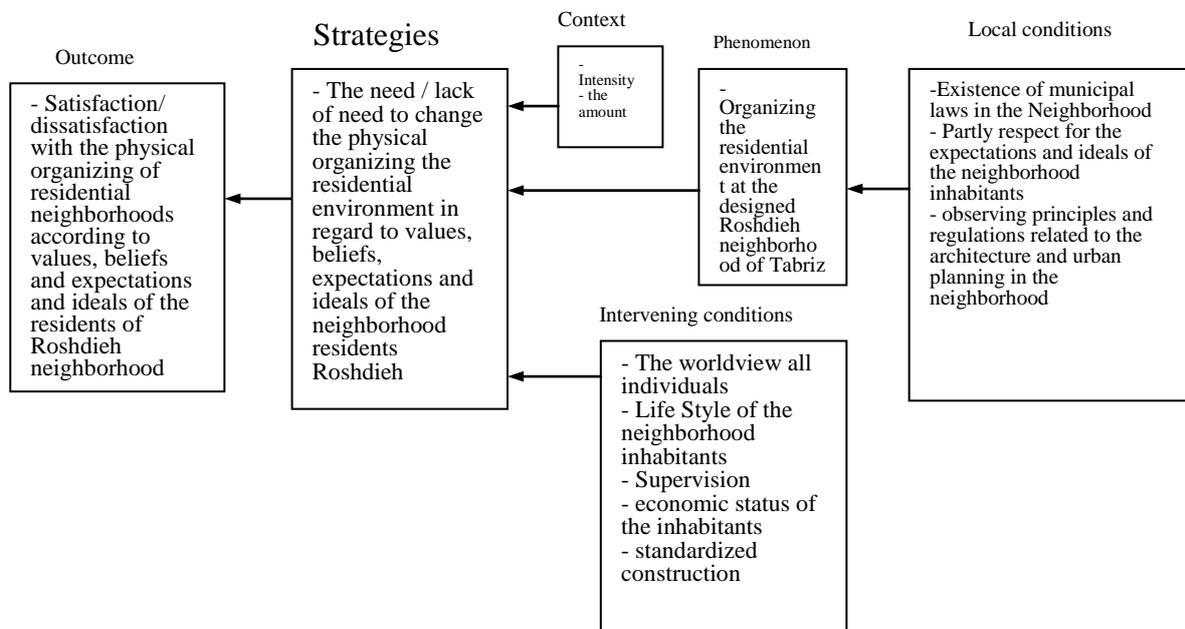


Figure2. Research paradigm based on organizing of residential environments in the designed Roshdih neighborhood of Tabriz (source: authors)

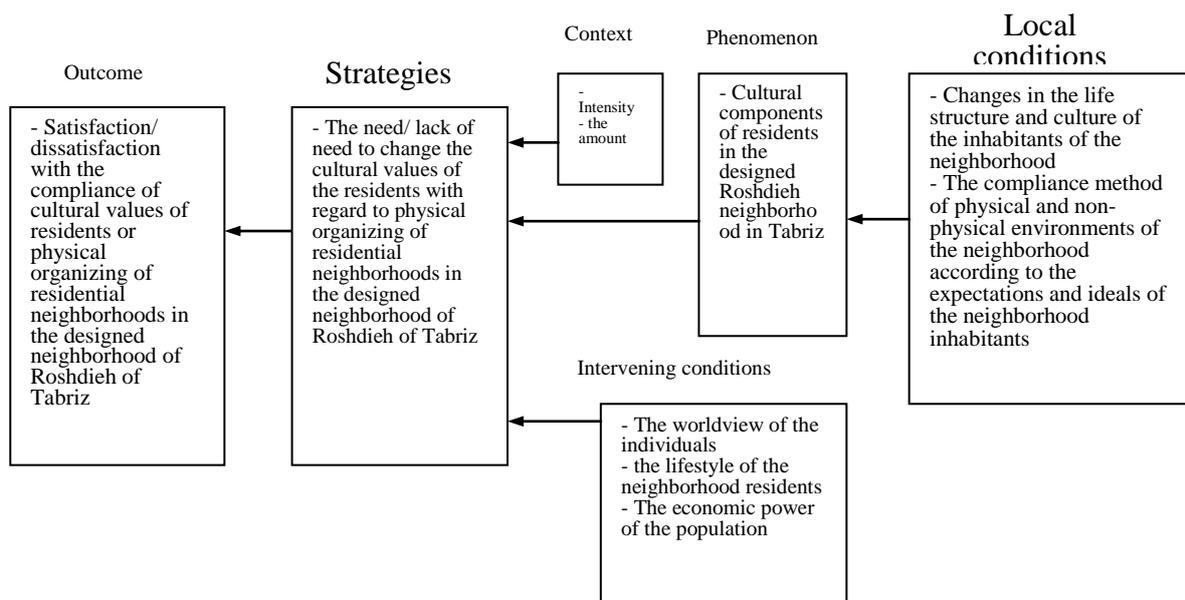


Figure 3. Research paradigm based on organizing of residential environments in the designed Roshdih neighborhood of Tabriz (source: authors)

Therefore, the above variables were statistically able to predict the cultural components. So that with the deployment of elements with the β 0.24 value and the needs and expectations of the elements with the value of 0.26, it could predict the cultural components ($P < 0.05$). But for the variables of the relationship of elements and the quality of the predictor

elements, the significance of cultural factors was statistically higher than the 0.05 error that was not acceptable statistically. According to the coefficient of determination obtained from the analysis, the deployment variables of elements, the needs and expectations of elements predict 28 percent of cultural variance of the components. According to the sign of the beta coefficient, the deployment of elements, the needs and expectations of element are the direct predictors of the cultural components.

Table (1). ANOVA and regression coefficient by the physical organization of the cultural component of the neighborhood Roshdiah

Coefficient of Determination	Multiple correlation coefficient	significance level	F-Value	Average Squares	Degrees of freedom	Sum of squares	Variable
0.28	0.54	0.001<	21.31	2530.77	4	10123.11	Regression
				118.74	203	24104.71	The remaining
					207	34227.82	Total

Source: The authors

Table (2). Regression coefficients of the structural organization of the cultural component of the neighborhood Roshdiah

significance level	T-Value	β -Value	B-Value	Variable
0.009	2.62	0.24	0.35	Establishment Elements
0.20	1.25	0.10	0.33	Communication Elements
0.29	1.04	0.10	0.21	Quality Elements
0.001<	3.92	0.26	0.49	Needs and expectations of the Elements

Source: The authors

DISCUSSION

The concept of cultural components raised by residents and the definitions presented by experts were frequently discussed. It can be concluded that the cultural components intended by the inhabitants are defined as customs and traditions, beliefs, participation of residents, respecting each other's rights and the behaviors and interactions. These concepts are further defined in the field of normative definitions of the culture and in terms of the definitions offered by experts; it is more practical and useful.

In the physical organizing of residential environments in accordance with the fixed elements (buildings) and semi-fixed components (furniture) of deployment, the relationship and quality of these elements were of concern and these cases indicated that sometimes the needs of residents to these cases rooted in organization culture lead to satisfaction or dissatisfaction of residents with the residential environments.

Given the evaluation and these indicators by questionnaire, it was realized that there was a significant relationship and a positive correlation between these indices and by comparing this result with the results of previous studies in this field, it was concluded that there is a relationship between the concerned indicators of the inhabitants of every culture and physical organizing of residential environments whether in small-scale or large-scale. Attention deficit and lack of attention to the components discussed about the cultural values of the residents lead to non-consistency and non-desirability of residential environments for them. Therefore, the designers and urban planners should know and extract the cultural components and indicators of each community whether in small-scale such as neighborhoods or in large-scale such as cities and country to include then necessary strategies in their planning.

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