Investigating the Effective Physical Factors on Promoting Social Interactions in Cultural Complexes

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ABSTRACT: The success of urban spaces is proportional to the extent in which that space is being used and to human presence. In fact, architecture and urban planning should attempt to enhance social interactions and human solidarity rather than differentiation and separation. However, today what is witnessed in most of urban spaces is reduction of relationships and social participation of those residing in these spaces. On the other side, in recent decades, with the increasing progress of technology most of traditional patterns have been changed, and these changes have altered culture and life appearance in Iranian community. What is observed in today's societies is the reduction in level of people's social interactions. Regarding the role and function of cultural complexes as a space for improving social interactions, the physical structure of cultural environments should play a significant role in boosting people's social interactions. The purpose of this research is to identify social interactions and effective physical components affecting promotion of social interactions among people in cultural complexes which provide an opportunity for individuals to take a relief from daily tensions, to gather together and interact. The methodology used in this research is descriptive and analytical, exploiting library studies in order to achieve the desired results. Finally, after studying various theories and effective physical components in promotion of social interaction in public urban spaces such as cultural complexes, appropriate architectural strategies have been provided. The results of this research indicate that six components of stagnation, aggregation, integrity, vitality, spatial determination and flexibility are among most important physical factors affecting the promotion of social interaction in cultural complexes.

Keywords: *Social Interactions, Cultural Complex, Urban Space, Physic, Architecture*

INTRODUCTION

Survival is reinforced by the amount of one creature's support of another creature. There is a social relationship between living creatures that the most transcendent form of it belongs to human being. Human being is a social entity who satisfies most of his needs within the society and in interaction with other people, so part of his behaviors are inevitably related to social interactions or somehow are affected by social factors so that a person's behavior in loneliness is different from how he behaves in the society. Social interaction and communication can be a physical issue, a glance, a conversation and a relationship among individuals that requires the description of appropriate events and activities, and is the result of people's role play in the space and their membership in social media and groups (Hossein Razavi & Bahmanyar, 2016).

In contemporary era, with increase of individualism, considering physical environment, as a complement to adjacent people in order to get them closer together and as a compensation for lost social interactions in past architectural and urban buildings and contexts, has become more important. Public space sociability could be achieved through companionship of users' socio physical factors- a psycho architectural space. Companionship or specific combination of some of human-physical factors, which leads to formation of a productive social interaction, reinforces this homology (Salehiniya & Memariyan, 2009).

In the chaos of today's cities, human beings are searching for opportunities with special identity to provide comfort and interaction with fellow humans as well as to achieve their highest perfection through social dynamism. The increasing growth of urban dimensions in recent decades has faced the

contemporary city and urban planning with new challenges such as increasing social disorders, diminishing of identity and sense of social belonging, and generally reducing life quality (Abdollahi, 2010). In this regard, the use and allocation of public spaces to promote social interactions is an issue that should be investigated in the daily life of those who chose to reside in new cities.

In fact, public spaces due to possessing potential capacities in the first place provide an equal opportunity for all citizens to create and implement social actions (even fragile and unsustainable). In next stage, after initial ratification of social interaction, differences in social, economic and cultural levels that create various behavioral patterns cause sustainable and integrate social relationships (Masoudi, 2008).

The public area is considered as a space in which an individual expresses his relationship with others. He characterizes this area as a place in which people gather together and discuss the public interest, so this social phenomenon should be accessible by all citizens (Ghanbaran & Jafari, 2014).

Cultural complexes are considered as one of the important usages for creating social interaction and forming urban bio- complexes, and an appropriate place to establish social interaction and participations; they, also, play a significant role in creating and improving their social life level. When these complexes locate in an appropriate urban and regional setting in which they could play an interactive and mixed role in the context of the city, they will achieve their existential mission (Azarian Saad Abad, 2015).

Also, the method of creating sociability through exploitation of modern architecture and technology can be a factor improving social interactions. Cultural poverty, as an issue threatening today's society, can be reinforced by technology and modernism that are popular among citizens. This factor in creating a cultural complex can be a factor in promoting social interactions. The important issue is to find a relationship between spatial qualities and social concepts such as sociability in urban architecture and design, and collective interests among citizens like technology and its application in designing cultural building.

MATERIALS AND METHODS

The present research has been done in a descriptive- analytical method. Therefore, in the first step, the researches have been done in this field are studied and collected; then, they are investigated and analyzed. Next, the final conclusion is made with exploiting the results of previous researches and analysis of their information.

To collect information the library method is applied; and to collect related valid materials, books and updated articles are used.

Theoretic Concepts and Basis
Research Background
The table1 indicates the background of the presented research based on impact of cultural spaces in the rate of people's and different age groups' socialization.

Social Interactions
Leisure time provides the opportunity to new social communications for people and defines their emotional relationships; also, it fulfills people's need of belonging to each other and attachment to them (Giddens, 2008).

Whenever a person acts in a way that another person responds him, this mutual and bilateral act is called social interaction or social mutual action. In this case, a social relationship is established between these two people. Also, it should be mentioned that the presence and existence of other people is essential and important factor in the process of social interaction establishment and formation, so that a person should consider the presence of others in his relationship with them. Social interaction means establishing a relationship between two or more people that leads to a reaction between them and this reaction is known to both parts. Therefore, nonsense relationships are not considered in this definition. In fact, social relations are one of human beings' essential needs that can occur in different times and situations. Lang believes if people need a social contact, they will provide it in any environments and in some places this environment can be easily created. There are lots of reasons explaining the desirability of social interactions. The main reason is that mutual social relationship is essential in order to respond to human being's need for attachment and sense of belonging to a place. Another reason is that activities like interaction with others and observing people's activities, or creating situations for socialization and sociability help human being's individual development (Lang, 2008).

However, what we are witnessing in today's societies is the reduction in the level of people's relationship, so that civilization, citizenship and social relationships as the primary urban principals were weakened by increase in size and extent of cities, speed, density and etc. Consequently, collective sense of local communities and emotional dependencies on a place are disappearing (Huffman, 2006).

Adequate knowledge of human being and the way he interact with others are influential in shaping the environment for greater interaction and effective communication. Therefore, in this process, by studying human being as a social creature who has different quantitative and qualitative levels of social interactions, it is important to recognize behavioral centers and social events and activities that have potential capacities for social reactions and meaningful relationships. Different people tend to different levels of social interactions. Definition of desirable level of interaction is mentally gained from people's statements and objectively from a normative positioning toward a good life. Both of them possess a high value definition and they have a social and political orientation (Lang,2008).

Related Theories to Social Interaction
There are many theories regarding social interactions that in Table 2 have been referred to some of them which are practical in urban spaces and public situation.

The Factors Affecting the Formation and Increase of Social Interaction

According to researches have been done, following factors are recognized as effective factors on formation and Increase of social interaction. These factors are briefly explained and presented in Table 3.

Table1: the background of the presented research

Author	Year of Publication	Conclusion
Rafiyan & Khodaee	2009	Recognizing variables affecting citizens' satisfaction with public urban spaces, three variables of access to services, social security, and spatial identity are introduced as most effective factors in citizens' satisfaction with public urban spaces.
Rafiyan & et al.	2008	In this research, the impact of cultural spaces on the amount of sociability and reinforcement of women's social participation are measured. Results indicate that, according to women, sociability of the space and social observation in it are mostly connected with the degree of desirability of cultural space.
Daneshpour et al.	2007	In this research, the process of socialization and promotion of collective life within public spaces are based on acceptability of the space for individuals and different social groups, providing mental and physical comfort, people and social group enjoying presence in the space, active and constant social presence in the space. Considering these factors, spatial qualities such as invitation, security, utility and activity accountability toward their goal are referred to.
Kashanijoo	2010	In his research, "Recognition of theoretic approaches toward public cultural spaces" he considers these spaces as a third place playing a critical role in establishing social interactions. He consider three main periods based on public theoretical tendencies. In post- industrial revolution period to 1932, the emphasis is on spatial and visual perception; in second period from 1932 up to now, the emphasis is on strengthening social interactions, expansion of pedestrians, and environmental and behavioral impacts of public spaces; finally, in recent period from 1932 up to now, most of the activities and theories are considered according to environmental-sustainability consideration, and providing security and humanism in public places.
Bear & Higgins	2002	In his research, he considers public spaces as parts of the abstract environment that are able to satisfy their users' needs and, by attracting people, create a sense of belonging and environment vitality. Understanding these spaces requires activities taking place in them.
Yazdani	2013	In his master thesis "Designing Besh Ghardash Cultural Complex in Bojnoord City with Approach to Cultures' Interactions" he introduces three factors of mass and space system, mobility and access system, and functional system as general features of cultural complexes.
Mohammadalizadeh	2016	In his master thesis "Designing Cultural Complexes with Approach to Youths' Social Identity Reinforcement" considering three main systems for cultural complex (mass and space system, mobility and access system, physical system), he displays the impact of these three system on cultural identity promotion.

Table 2: Theories about social interactions in public urban spaces

Theorist	Title	Theory
Hanna Ardent (1985)	Public Arena	Coordination of people and objects, and social relationships formation through objects are some of her comments (Madanipour, 2005).
Paul Zooker (1970)	Urban Spaces (square)	Square is a psychic stop in the urban and local perspective that contains individuals' social interactions. Space conception by means of human being's movement experience within it, is one of his points of interest (Madanipour, 2005)
Jean Jacobes (2002)	Public Spaces	In her viewpoint, vitality of pedestrians attracts most of residents (Jacobes, 2002).
William Wight	Urban Spaces Ethics	In his opinion, presence of other people in public space is the factor attracting people to urban spaces (Madanipour, 2005).
Ian Gehl (1987)	-	He states that the city increases the use of public spaces by people through a steady traffic (Gehl, 1987).
Olden Berg (2003)	-	In his opinion, life satisfaction can be achieved by balance in three residential, occupational and social areas. The main factor of identification is proximity of third area to first and second areas (Carmona et al., 2003).
Keller Cooper & Mark Wess	-	He categorizes urban spaces in seven categories in terms of social relations' establishment: urban plazas, local parks (neighborhood unit), compact parks, open school spaces, and open residential spaces specific for elders, open spaces specific for children and elders, open spaces specific for children's play and nursery, open healing spaces (Rezaei, 2004).

Table 3: Summing up the factors affecting the formation and increase of interactions

The factors affecting the formation and increase of interactions	
Territor	Three primary territories (exclusive property), secondary (strangers' lack of sense of comfort) and public (Altman, 2003).
Privacy	Managing people's relationships, observing a person's boundaries and other person's boundaries, and promoting people responding to each other (Altman, 2003).
Sense of belonging	The degree and way of an individual's or a mass's cognitive relationship with an environment (Altman, 2003).
Security	Including social and environmental security; any sense of security threat results in lack of active presence in urban spaces (Mir Moghtadaei, 2009).
Sense of place	Place is main element in its habitants' identity (Habibi, 2000).
Sociability	Spatial sociability provides the possibility of increase in social interaction in that space (Memariyan, 2009).
Social trust	Trust as the main component of all sustainable social relationships (Vosoughi,2009).
Collaborative space	Exploitation of people's participation in space toward creating social interaction (Vosoughi, 2009).
Social categorization	Social classification and economic base mean as the relationship between layouts of space with people's dignity (Hall, 1997).
Access distance	The relationship between functional proximity and social patterns means as the creation of tension by weakening the functional centrality of public facilities (Lang,2008).
Type and rate of referral	Type of activity and current use are factors in public space dynamism (Daneshpour et al., 2007).
Behavioral patterns	Discovery of live patterns as a definite relationship among limited areas (Alexander, 2008).

Culture

Understanding culture, we face various definitions that each one has considered culture from a different aspect, among these definitions the one offered by UNESCO is accepted by all countries. According to UNESCO's definition, culture is "improvement in life quality" (Sattari Sarbangholi, 2013). Culture in general sense is the way of life and thinking that is the product of all knowledge and beliefs of a nation. It is a presumption derived from one's conception of life during centuries. In table 4, some of various theories about culture are gathered.

Culture and Architecture Relationship

Architecture as a social phenomenon originates from culture and has influence on it. It is a mirror of human's thought respecting space, aesthetic, and culture. Therefore, the style of architecture on each historical period reflects culture and art of that period and it is proportional with changes happened in other aspects of life and art. Any new style of architecture is based on pervious style's principals, methods and traditions, so there is a solid relationship between various styles of architecture and it is difficult to establish any boundaries between them.

Milestones in the direction of culture and creativity are one of the most important factors in emerging and different schools of architecture. Every new culture and civilization begins from the point in which previous culture and civilization has stopped or encountered a crisis. However, its path is in the continuation and evolution of its historical and past path and merely reconstructs itself. Therefore, considering the direct impact of culture on architecture, it is natural that changes in culture result in changes in basics and concepts affecting emergence of architecture, and consequently, different architectural thoughts come to existence that determine the methods of interaction between theoretic and cultural concepts in general, and theoretic concepts and architectural space in specific (Akhavan Kharazi, 2008).

Cultural Complex

Cultural complex is a place for promoting cultural level in shape of teaching, research, gathering and display that according to each section a space is considered for cultural activities; and these sections act together as a completion for each other toward advancement of general goals of the complex.

RESULTS AND DISCUSSION

According to studies and researches have been undertaken, 12 factors are recognized as factors affecting the promotion of social interactions and 1 factor is detected as a physical factor. Based on these studies and researches, effective factors in formations and improvement of social interactions can influence physical factor in the following way. Fig.1 shows the impact of these factors on each other.

Table 4: Different dimensions of culture (Source: Khoshnevis & Farshbafi, 2015)

Theorists	Description of dimensions from theorists' point of view
Spenser	Culture is defined as super organic environment. In his opinion three things affect human condition. Natural environment (Non organic), organic environment and super organic environment; only super organic environment is the distinction between human and animals.
Dorobertti	He knows culture as a collection of thoughts and knowledge that only human being possesses it.
Graham Wallace	He considers culture as a mass of thoughts, features and objects; he also believes that culture is a social heritage.
Edward Taylor	Taylor considers culture as a collection of knowledge, thoughts, ideas, art, ethics, rules and regulations and other talents and habits that a human acquires as a member of a society.
Frank Lloyd WRight	Each society with any ruling system and any kind of ideology dominant on it has specific goals and objectives. The main task of culture is to demonstrate these mental ideas by means of objective forms appearance that plays a critical role in the process of this architectural transformation.
Herman Motsius	Architecture is a true means of evaluating a nation's culture. When a nation is able to build beautiful furniture and chandeliers while it is constantly construct the worst buildings, indicates the turmoil and darkness of that society. The situation that totally proves disorder and lack of power of organizing affairs in that nation.
Sigmund Freud	Culture is the collection of all abilities and apparatuses that distance our lives from our animal ancestors' lives; it is in service of two objectives: protecting human against nature and regulating human relationships.

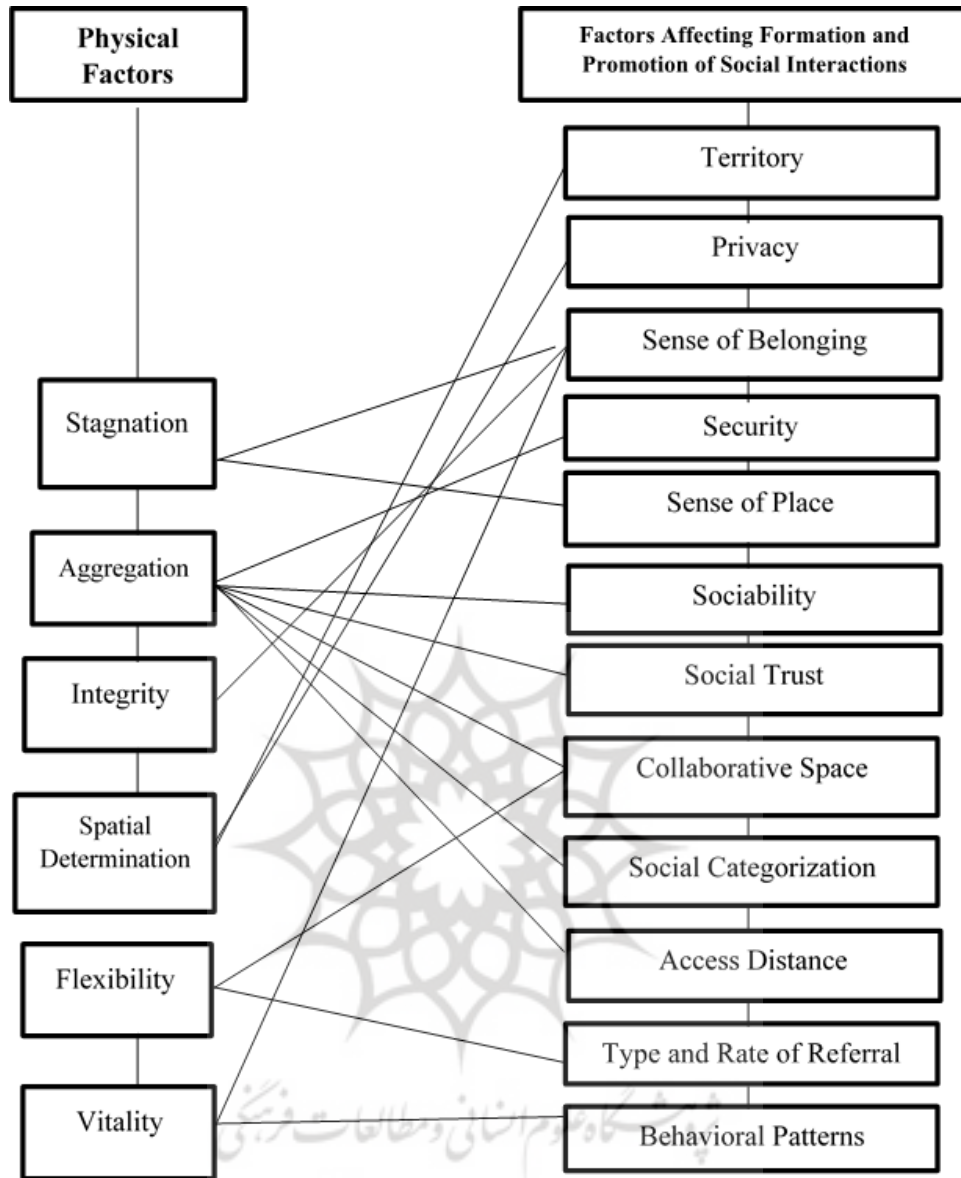| Physical Factors		Factors Affecting Formation and Promotion of Social Interactions

Fig. 1: Studying the way in which effective factors in the formation and promotion of social interactions influence physical factors in designing cultural complex

After studying the way in which effective factors in the formation and promotion of social interactions affect physical factors considered in designing a cultural complex, the following architectural solutions are suggested in order to promote social interactions in cultural complexes. (Table 5)

CONCLUSION

Culture in sense of the method and way of thinking and behaviors of a nation and cultural complex as a space that can affect people's culture are considered. On the other hand, public

urban spaces are considered as effective spaces in promoting the quality of social interactions. In this research has been attempted to present architectural solutions for promoting social interaction by studying physical factors affecting in formation and improvement of social interactions, and investigating its effect on physical factors of designing a cultural complex. In this regard, considering 12 factors of territory, privacy, sense of belonging, security, sense of place, social trust, collaborative spaces, social categorization, access distance, type and rate of referral, and behavioral patterns as effective factors in

Table 5: Architectural solutions affecting promotion of social interactions in designing cultural complex

Factor	Definition	Architectural Solution
Stagnation (Pakzad, 2012)	Encouraging people to stop in a space, reducing the speed, having inactive behaviors and finally making the space as a destination	Sitting Possibility (considering benches, a platform or a Golayaye sidewalk
		Standing up, looking, and studying possibility
		Attractive spaces for people because of various activities
		Creating break out places through creating different spaces from movement paths like elevation difference, flooring, lighting, etc.
		Clarity in the space
		The possibility of presence of different social classes in the space
		Creating security by providing the possibility of being seen and easily seeing others
Aggregation (Pakzad 2012)	Possibility of forming a circle of people by themselves and gathering citizen together	The fitness of the geometrical shapes with possibility of forming a circle of people in the complex's spaces
		Not disturbing privacy of communal spaces by movement paths
		Minimal environmental conditions such as indoors
		Providing different activities for different tastes
Integration (Yazdani2013)	Integrity in physical elements	Coordination between the style, color and materials of masses with each other
		Avoiding the use of seizure making elements such as the high difference in levels, different flooring and so on.
		Establishing continuity in the skyline of complex's elements with each other and also with adjacent buildings
		Visually minimum spatial separation of elements
		Using a familiar and mental easy to recognize geometry
Vitality (Soltanzadeh, 1991)	Showing two qualities of variety and brightness	Utilizing diversity in functionality, activities, usages times and addressed groups
		Coordination and unity of furniture and vegetation
		Providing diverse services in order to meet different people's need
		Providing a space in order to hold open plays and field theatre in the complex
		Creating visibility for audiences
		Increase in visibility of the sky for audiences to improve brightness
		Exploiting vegetation and natural elements
Spatial Determination (Pakzad 2004)	Clarity and obviousness of the boundaries existing in the space	Proper utilization of rigid stripes (framework of adjacent building) and soft stripes (vegetation and so on)
		Definability of the shape, dimensions and spatial sizes
		Utilization of focus-oriented form in order to invite people to be together and to interact
Flexibility (Soltanzadeh, 1991)	Possibility of establishing coordination between activity, user and physic	Physical designing toward shifting activities and reactions according to time and audiences' need.

formation and promotion of social interactions and studying the way in which these factors affect 1 physical factor existing in designing cultural complex, that is stagnation, aggregation, integrity, vitality, spatial determination and flexibility, architectural solutions have been suggested in order to promote social interactions in designing a cultural complex.

REFERENCES

Altman, I. (2003). *Enviroment and Social bevior; Privacy: Private Space, Territory and Crowd.* (Translated by Ali Namazian). Tehran: Shahid Beheshti University.

Akhavan Kharazi, K. (2008). Analytic Approach to Necessity of Paying Attention to Culture of Societies. *HoviyatShahr Journal,* year 2. No 3. P 19.

Alexander, Ch. (2008). *The Pattern Language First Section: Cities.* (Translated by Reza Karbalaei Noori, Hamid Khademi). Tehran: Center of Urban Planning and Architecture Studies and Research.

Azariyan Saad Abad, P., & Balali Oskooyi, A. (2015). Accessing Place Criteria of the Cultural and Artistic Complex in District 22 in Tehran. *International conference of Third Millennium Architecture and Urban Planning.*

Abdollahi, M. (2010). Theoretical Survey of Neighborhood concept and Its Redefining. *Journal of Human Geography Studies,* Tehran. No. 72, Summer. 82-103.

Bear, Anne R. and Catherin Higgins. (2002). *Environmental Planning for Land Development: An Instruction for Sustainable Local Planning and Design.* (Translated by Hossein Bahreini). Tehran University Press. 2002. First Edition.

Carmona, M. Tim Heath, Taner Oc & Steve Tiesdell. (2003). *Places and Spaces.* Architectural Press, Amesterdam & others.

Daneshpour, S. A., Sepehri Moghaddam, M.& Charkhiyan, M. (2007). Public Spaces and Factors affecting Collective life. *Journal of Bagh Nazar.* 7(1). P 19.

Gehl, J. (1987). *Life Between Buildings.* Translated by J. Koch. Island Press.

Ghanbaran, A. & Jafari, M. (2014). Investigating Factors Affecting promotion of Social Interactions Among Residence in a Neighborhood (Case Study: Darakeh Neighborhood-Tehran). Science- Reserach *Journal of Iran Scientific Association of Architecture and Urban Planning,* 7(1). 57-64.

Giddens, Anthony. (2008). Sociology. Translated by Hassan Chavoshian. Fourth Edition.Tehran. Tehran: Ney Publication.

Habibi, S. M. (2000). Civil Society and Urban Life. *Journal of Fine Arts.* 7(0), 23-33.

Hall, Edward T. (1997). *The Hidden Dimension.* Translated by Manoochehr Tabibiyan. Tehran University Press. Tehran.

Hossein Razavi, S. & Bahmanyar, A. (2016). Criteria for Locating Cultural- Artistic Complexes with an Emphasis on Promotion of Social Interactions. *Research Approaches in Civil and Architecture.* 3(4). 59-68.

Huffman, R. (2006). The Value of Urban Open Space. *Urban land,* 65 (1): 108 –111.

Jacobes, J. (2002). The death and life of great American cities. New York : Random House.

Kashanijoo, Khashayar. (2010). Recognizing theoretical approaches to urban public spaces. *HoviyatShahr Journal.* Spring & Summer 2010. 4(6). 95-106.

Khoshnevis, A. M. & Farshbafi, N. (2015). Impact of Culture on Physical and Perceptual Dimension of Architecture. *International Conference of Modern Researches in Reconstruction, Architecture and Urban Planning.* 26th of November, Tehran, Iran.

Lang, J. (2008). *Creation of Architecture Theory* (The role of Behavioral Sciences in Environmental Designing). (Translated by Alireza Eynifar). Teran: Tehran University Publication.

Madanipour, A. (2005). *Urban Space Designing; an Attitude toward Socio-Spatial Processes.* Processing and Urban Planning Company.

Masoudi, K. (2008). The place of Social Interaction. *Journal of Municipalities.* 3(26). P, 12.

Memariyan. Gh. (2009). *A Survey on Theoretical Basics of Architecture.* Second Edition. Tehran :Soroush Danesh.

Mir Moghtadaei, M. (2009). Criteria for Assessing the Possibility of Formation, Record and Transfer of the Collective Memories in the City. *Journal of Fine Arts.* 19(19), 17-26.

Mohammadalizadeh, Elham. (2016). *Cultural Complex Design for Promoting Young People's Social Identity.* Master Thesis. Soore University.

Pakzad, J. (2004). Knot, Square, Semantic Analysis of Three Words in Urban Planning. *Municipalities* (Index of Urban Square and Space), Volume 67, 8-16.

Pakzad, J. (2012). The Image of City, What Quinn Lynch Understood. *Abadi Quarterly.* 11th Year. No. 53.

Rafiyan, M. & Khodaee, Z. (2009). *Investigating the Indicators and Criteria Affecting Citizens' Satisfactions of Urban Public Spaces.* 18(53). 227-248.

Rafiyan, M., Rezazadeh, R., Sifiayi, M. & Ahmadvand, Y. (2008). Evaluating Indexes Affecting Desirability of Public Urban Spaces Viewpoint of Specific Social Groups (Women): A Case Study of Nabovat Square in Tehran. *Quarterly of Art*, 1 (2). 37-54.

Rezaei, M. (2004). *Citizen Urbanism; Promotion of Public Spaces in Cities and Urban Enviroments.* (Translated by Mohammad Amadinejad). First Edition , Isfahan: Khak Publication.

Salehinia, M. & Memariyan, Gh. (2009). Architectural Spatial Sociability. *Journal of Fine Arts and Urban Planning.* No.40, Winter. 5-12.

Sattari Sarbangholi, H. (2013) . An Introduction to Executive Model of Cultural Engineering derived from the Teachings of the Holy Quran with a View on Western Cultural Engineering. *Journal of Cultural Engineering.* 6 (67-68), 14-31.

Soltanzadeh, H. (1991). The processes of Formation of City and Religious Centers in Iran. Agah.

Vosoughi, M. (2009). The Study of Social Trust and Effective Factors in Khalkhal City (Ardabil Provience). *Social Sciences Research Journal,* 3(3). 133-154.

Yazdani, A. (2013). *Designing Besh Ghardash Cultural Complex in Bojnoord City with Approach to Interaction of Cultures.* Master Thesis, Islamic Azad University- Shahrood Science and Research Branch.