Residential Complex Based on Increasing Social Interaction Approach

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Abstract
The rising increase of population in Iran, and consequently the increase in the compression and malfunctions in social interactions have caused the reduction of the utilization of open spaces in residential complexes and also the quality of these places' design. Therefore, designing a space that meets human needs is among the basic goals. This paper has collected data by extracting effective factors in forming interactions between the residents and the living environment. The criteria that were considered were resulted from the combination of psychosocial factors together with the factors of skeletal space and include centralization and direction, attention to private sectors, having a space with a semi-fixed feature, having a meaningful open space and functional vicinity. Sustainable architecture was formed during the process of the critique and review of last century's architecture in general and modern era architecture in particular. In the modern era, together with great and wonderful achievements, man has witnessed contradictions in social and environmental fields. This has gradually led sustainable architecture to become man's most basic concern to overview the basics and methods of modernism. In response to these efforts, sustainable development was formed as the latest method in the field of growth and development during the process of critical and humanist analysis of modernism. Sustainable development regards three basic subjects of economy, environmental pollution and the socio-cultural aspect in the field of architecture. The goal of sustainable designing is to find architectural solutions that provide the coexistence of the three aspects. The first two bases are technical and are connected to the material, construction methods and renewable energies. But the third one is derived from man, culture and his lifestyles and is considered as social sustainability. The direct contribution of residents in designing and creating spaces and considering the views, expectations and culture of the residents, together with creating and empowering the social interactions between the residents, increase the sense of belonging to that environment in the residents and lead to the social sustainability in the residential complex.

Keywords: Social interactions, housing, social sustainability, residence quality, identity.

Introduction
The concept of residence is something more than just a shelter that protects man and his activities from the harm of natural elements. Finding the shortcomings of this definition and the boundaries of this concept is very difficult and varies with regard to factors like regional conditions, religion and racial group, the amount of money appointed for the housing and also the person's historical background in relation with residence and his or her tendencies and approaches. The term residence, has a much more expansive concept than housing and it stands for a series of family's living activities that include personal-group activities on the one side and social-economic activities on the other.
An urban center should be the focus of social interactions, trading and also cultural activities, and not just a combination of non-related and discrete functions. A way to create a lively dynamic urban center is to bond institutions like libraries, museums, etc with modern commercial activities. Sale as an active urban system, in combination with all the other functions causes the creation of stronger functional connections with people's presence. For instance, there are residential complexes that are designed all over the world, which have several functions like store, gym, auditorium, etc. Meaning that together with the fact that urban centers have multifold functions, each of their parts on their turn can have multiple activities.

Sustainable architecture was formed during the process of the critique and review of last century's architecture in general and modern era architecture in particular. In the modern era, together with great achievements, man has witnessed fatal contradictions in social and environmental fields that gradually led to the human's basic concern for reviewing the basics and methodology of modernism. In response to these efforts, sustainable development was formed as the latest method in the field of growth and development during the process of critical and humanist analysis of modernism. Sustainable architecture as the latest idea in the field of planning and designing artificial environment is derived from the ideology of sustainable development. After reviewing the concept of sustainability, the origins of social sustainability and its role in improving living qualities in residential complexes are discussed.

In this paper, by analyzing the concept of residence and the factors of increasing social interactions in residential complexes and reviewing the common concepts and terms of sustainable development, basics of sustainable architecture and its characteristics, it is tried to first, reach the conclusion that the residents' direct contribution in designing and creating spaces and considering the views, expectations and the culture of the residents causes the empowerment of their social interactions with each other and the sense of belonging to that environment and ultimately leads to social sustainability in that residential complex.

**Goals**

1. Building a proper complex to house residents, create job opportunities and revenue by utilizing funds to construct this complex
2. Creating a place with the nature of increasing social interactions and connections and cultural exchange among the people and preventing mental illnesses
3. Providing the grounds for devising the regulations of construction with the approach of increasing social interaction to improve the quality of residential complexes
4. Localizing the regulations of construction to increase social interactions

**Hypotheses**

- It seems that by creating a residential complex with the goal of improving the level of social interactions, cultural exchange increases among the people.
- Apparently, socialization in different spaces has a direct connection to the quality of understanding in a man-made environment.
- It seems that the skeletal physical space is effective in the formation of social interactions.

**Research method**

In the first stage (the theoretical field of the research), first library study was incorporated by collecting study samples and gathering and forming a data base (social interactions), then, the needed standards for a residential complex and also psychological studies regarding the approach of increasing social interactions are done. Then, the quality data are first reviewed by analyzing their content and consequently, common fields are identified and then quantity data are categorized by
description and inference. In the end, by utilizing the information and modeling them, the designing phase commences. In this stage, the theoretical subjects of the research are utilized.

**Defining housing**

The concept of housing, together with the physical place, includes all the residential environment; that is, all the necessary services and facilities for a family to live better and working, education and health plans of the people. In fact, the general definition and concept of housing, is not a residence, but includes the residential environment too. In other words, housing is more than just a physical shelter and includes all the public services and facilities needed for human being's welfare.

**The general social goals of housing**

The subjects that are included in the framework of the general social goals of housing, meaning the analysis of subjects related to sheltering, family life, economic stability, family collaboration in the social life and access to public facilities form the effective factors in the need for housing and to know them, the current state of housing in the country in social terms can be assessed. The aspects of the need for housing are either related to quantity or quality. The quantity aspect includes the understanding of subjects that are related to the loss of shelter or the shelter itself, which is different from housing, but has a relative amount of construction safety and the amount of access to them is in the attention. In other words, the rate of responsiveness without considering their quality is focused upon.

Minimum housing is dependent on observing standards and basic criteria, simultaneously, considers the limits of basic life needs for residence and space quality. It also coordinates with the economic and social aspects of housing and the social characteristics and the economic ability of the family. In the end, minimum housing plan can present the spatial pattern of residence in the social and economic conditions of the society (Minimum Residence, 1988: 29).

But in action, buildings that were constructed under the title of minimum housing for the poor or below average sectors of the society in many cases lack the features mentioned in the definition and are only limited to the general physical and economic basics. In the quality aspects the subjects of homelessness, bad residence and small residence are dealt with.

**The importance of housing in human life**

Man's basic material needs are categorized into three groups: living needs, economic needs and social needs. Housing has special roles in fulfilling each of these needs. They are shortly noted below:

- **Shelter:** In article 31 of the Islamic Republic of Iran's constitution, access to proper housing is considered a right for every Iranian family.

- **In terms of economy:** In the past, housing was considered a personal property and it was economically non-productive. Today it is a type of investment for increasing payment and it has economic significance. In fact, the best, most profitable, quickest and most assured field of investing in the private sector is investing in the lands and housing.

- **In terms of the society:** Housing's primary function, added to its role as a shelter and provider of proper conditions for the family, is to achieve family activities. One of the positive results of this matter is the stability and unity in the family.

- **In terms of creating job opportunities:** Constructing houses forms a notable share of our country's GNP and creates jobs for a great number of people. Also, having a proper house has direct effect on subjects such as profitability and efficiency and therefore, effectively causes economic and political development by increasing the amount of employment and income.

- **In terms of mentality:** Human societies, especially in the modern era, suffer from various stresses. A proper house can be a place for peace, resting, relaxing and thinking for people and help
clean the mental and physical tiredness of routine work off the body and prepare the person mentally for another day of activity.

In terms of connective advancements: The expansion of information technology in different fields decreases man's physical presence in different parts of the city and increases his presence at home.

Housing clustered

Although it has been more than a quarter of a century since constructing this type of residents has started, there is no proper equivalent for the English term "Housing Clustered" in Persian. In the conversations and terminology regarding urban planning, it is referred to as group housing, collective housing, social housing, etc. none of which are a complete and concise definition of this term. The most important rising era of designing this type of houses was in the 1950s. Now in Europe and especially in Japan, by demolishing old neighborhoods that were constructed based on the segregation and conveying of pieces of land in the 50s, new plans are incorporated that have the pros of detached and semi-detached houses and also have the facilities of social housing.

A famous example of housing that has gained popularity in Iran and from the beginning of the century starting from the 1920s and with the abolishment of traditional houses with internal courtyards is the trend of houses in a row. Basically, this type of housing is based on segregating pieces of lands and personal property of residential pieces of land, and in case it was only for one house, it is called detached or independent house. In this type of housing, which in everyday language of the people is referred to as villa, even if the house was a residential building of any number of stories, it still is for only one family and only one family can utilize it.

In Iran, because of the change in consumption pattern in the field of housing and the improper efficiency of detached housing, with regard to the high prices for safe guarding it, and with the change in urban planning regulations and increase in compression, another type of housing and row houses is formed that has several architectural and urban planning issues and problems. In those same one resident houses, with the increase in compression, residences are constructed that only have a very small shared courtyard (often a place for the passing and parking of private cars) and multiple families replace the one family that used to live there. This type of housing, although has segregating walls from the other residences, is not detached and independent and is considered as semi-detached.
Residential complexes

Like open spaces, there are different definitions about residential complexes. In this type of complexes, generally, the possession of a part of public and semi-public spaces is collective and using them follows some special and general regulations (Eynifar, 2000: 110). The scale of these complexes is normally very different and varies from a small number of residential units, such as buildings that are constructed in an integrated way in a denotative piece of land, to very tall residential buildings.

In residential complexes, except for private houses, the other parts and spaces are common and collective. But a residential complex may be formed from all the detached houses or apartments with 2 to 8 stories or more. Some of the residential complexes are small and some are very big and compressed. Tehran's Ekbatan neighborhood, with a population of one hundred thousand people is an example of big and compressed residential complexes (Saeidnia, 2009: 87).

Figure 2: Ekbatan residential complex (source: www.google.com)

If the facilities and services of residential complexes were not easily accessible, the welfare, quiet and comfort of the residents is taken away and causes people to go outside the residential areas and even in some cases to the green spaces out of town.

Most people in their residential environments meet, understand and experience other people, and therefore, they have the possibility to evaluate. Personal and social connections in the shape and structure of life do not play as big a role as they do in residential complexes. Therefore, gathering and movement are among the characteristics that should be in the center of the attention in the field of housing. Residential complexes must have a limit.

The cultural origins of residential complexes

Rappaport is one of the most famous theoreticians in the field of culture and architecture. In his book Cultural Origins of Residential Complexes, first he criticizes the western racist approach and by analyzing cases of non-western group life, presents his theory in the end. Giving order to the living environment based on the subjective view of the world is the book's main idea.

Residential complexes are forms of regarding human housing on a big scale, a complex as a neighborhood. But, with the difference that in a neighborhood, there was a form of convergence among the residents (which is no more there) with which the neighborhood was defined, but the new residential complexes are to some extent empty of this feature.

Social interactions

Whenever an act is incorporated by a person that coordinates with the response from another, this mutual act is called social interaction or social mutual act. A social connection is formed between two people. It should also be noted that in the field of creating and forming social
interaction, the presence of other people is vital and important. In a way that a person should consider other's presence in connection with them. For instance, if two kids were to busy themselves completely independent from each other, no social connection is formed between them. On the other hand, it should be noted that, during responding to the social act, it is necessary for the other person to understand the meaning of that person's action properly. In other words, a person shows that he or she has understood the expectations of the other person by his or her behavior. The result of mutual social act leads to the formation of another concept, which is called social group.

Figure 3: Social interactions (source: www.google.com)

Positive mental effects of social interactions

Forming social interactions with other people is very effective in relieving people, even for a short period of time, from the mental pressures of today's mechanical life. Proper gathering places can bring the views of people with different mental backgrounds and characteristics closer by attracting different people and groups and creating the proper conditions for forming social interactions and help people in completing their mental and social development (Bahrami Samani, 2013).

When people interact with other people, they feel a stronger bond with their living place and society. The result of these interactions is receiving a sense of group identity, self respect, honor, increasing group skills, social collaboration and providing the human's need for loving and being in a group. Added to the items that were mentioned, social interactions are useful for all age groups, especially children and the elderly, because it causes growth and actualization in children and prevents depression caused by loneliness in the elderly (Rafieian & Sofyani, 2005).

Figure 4: Social interactions in the complexes' environment (source: www.google.com)
Public spaces and social interactions in residential complexes

The complex's yard can be considered as a continuum of the spaces and properties of people's private lives, therefore, in designing complexes, measures must be taken so that this access becomes easier. Most of the residents are often more attracted to public spaces that are closer to the place they live. In fact, the value of open and public spaces of a residential complex is not dependent on its importance or size, but on the intimacy of that environment and its closeness to the private living place. Green and open spaces, as places that can help gather different classes of the society, are of unique significance. The gathering of different types of people can be effective in creating cultural interactions and adjusting the society. These spaces create the possibility for interaction between people, entertainment, walking, spending free time, playing, gathering, meeting, conversing, etc for every one (Seyyed Mohammadmehdi Moeini, 2006).

These spaces are good and efficient for creating face to face interactions, common space experience, forming human contact with the structure and also holding group and public activities of the residents. The presence of people in the place and playing an active role in group spaces is derived from the sense of place and the place creates and intensifies the sense of belonging to a group of people by limiting the social interactions in a certain confined area and therefore, increases the compression of face to face relations (Sarmast & Motevasseli, 2010).

In fact, the positive impacts of public open spaces (green spaces, etc.) can be stated as follows:

- Forming better social interactions between the residents
- Creating new working and employment possibilities
- Accepting and knowing some of the social indicators (norms, values, subcultures, etc.)
- Socialization of people and finding new friends to fill in the times of loneliness
- Propagating beliefs and ideas of moral values
- Creating a proper atmosphere for entertainment in leisure time
- All the other social effects (reviving the mentality, characterization, etc)

Sustainable development and its definitions

The term sustainable development was first used in 1992 in the global conference of sustainable development (known as "Earth Summit") by the global committee of environment development as to "fulfilling the needs of the modern age without risking the needs of future generations, and with attention to environment and future generations". In this summit, a resolution

Figure 5: Social interactions in the lobbies of the complexes (source: www.google.com)
was issued to present methods for sustainable development and each day, its aspects increased to put proper strategies in this field in the world's access.

**The concept of sustainable development**

Sustainable development is a general, vague and common term that tries to encompass the increasing worries about the future of planet earth by discussing the complicated relation between environment and development. In spite of the global aspect of this term, there is no definition about sustainable development that is globally agreed upon. In Redclift's view, the loss of definition for this term is precisely because of the different approaches about development in this term, itself (Potter & Evans, 2005: 287).

The concept of sustainable development and sustainability has been defined from different scientific approaches, each of which has been for a certain reason and was used in different fields. In the Earth Summit that was held in Johannesburg in 2002, the report of the development of the previous Earth Summit in 1992 in Rio Du Janeiro was analyzed and the increasing environmental issues such as the destruction of the ozone layer, climate changes, deforestation and desertification were announced as the negative consequences of the current patterns of global economy and commerce that work in the opposite way of the goals of sustainable development (Zahedi, 2006: 107). This type of development needs the approach of environmental planning in which all the allowed limits of sustainable development are observed. Also, it holds the change in the relation between human beings and between men and nature in the current time and during the years (Fanni, 2000: 46) in which man is the center of attention and human beings in coordination with nature deserve a life with health and prosperity (Movahed, 2000: 43).

In this approach, the balance principle between the socioeconomic and ecologic needs of each generation with regard to the share of future generations from the earth's limited resources is the basis for urban policies and the formation of residences (Emekchi, 2004: 1). Therefore, sustainable development finds an expansive meaning that encompasses all the aspects of the life of men in which policies in economic, commercial, technological, natural resources, education, health and industrial fields are planned and designed in a way to ensure the continuation of economic, social and environmental development (Movahed, 2000: 4).

**Social and cultural aspect of sustainable development**

It is believed that after two decades since the beginning of the subject of sustainable development, the human aspect of sustainability is neglected and the focus has been on the physical aspects of economic development and growth. Not succeeding and great failures of this approach leads to the creation and production of a meaningful change and renewing the concept of social sustainability and the other related aspects. Since according to the simple famous sustainability triangle, one of the heads and main factors and elements of this triangle is gathering whose main element is man. In the discussions in the sustainable development theory, opinions, beliefs and all the related subjects find a special place from which culture, as man's activity environment that is derived from his mental environment, meaning his world view, is of basic and vital significance. In fact, the world view has the responsibility of the general guidance of sustainable development through a mediating ring (meaning the culture) (Naqizade, 2008: 26).

**Social sustainability**

Social sustainability is put under broader concepts such as social equality, proper distribution of resources and avoiding depriving acts, giving allowance to the residents for active and full collaboration in the community in social, economic and political terms and also the sustainability of the society. Sustainable social development like the sustainable development of human societies has
environmental, material, social, economic, legal, cultural, political and psychological, all of which should be put into consideration.

Sustainable designing is a type of designing that tries to respond to the needs of today without damaging the resources of future generations. In sustainable designing, social and economic sustainability should be given as much importance as the energy consumption and environmental effect of building and cities. Therefore, proper and elegant housing is a vital need for personal welfare and independence. If constructing houses does not have a sustainable trend, no society can reach sustainable development.

Social sustainability in residential complexes is a state in which the residents are satisfied with living in their house and complex and enjoy being neighbors with the other residents. All the conditions of life are in a way that as the time passes, social interactions increase and most people get attached to their living place. Therefore, they unconsciously safeguard health and its sustainability and have collaboration and coordination in keeping and improving the current state of things and consequently, the duration and prices of residences in this type of complexes is more than the other complexes. Social sustainability maximizes the profitability of the complexes.

Conclusion
The analyses done in this paper indicate that the direct contribution of the residents in designing and creating spaces and considering the views, expectations and cultures of the residents, added to creating and empowering the residents' social interactions, increase the sense of belonging among the residents and lead to social sustainability in the residential complex.

The constant presence of the residents causes the formation of face to face connection between the residents and having more information about each other and consequently, increase social interactions. Added to these, the sense of belonging and safe guarding among the residents increases by creating a spatial hierarchy to reach the residential complexes, which in turn cause the formation of shared responsibilities and interaction between the residents and as a result, native residential complexes with sustainable architecture can be achieved. Also, considering proper measures in residential complexes leads to the creation of revenue, the utilization of investment and increase in the quality of residential complexes and social interactions.

References

Openly accessible at http://www.european-science.com