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Original Research Article

Using Local Components of Territory to Increase the Social Interactions in the Navab Residential Complex*

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Abstract

Problem statement: From the very beginning of the construction of high-rise buildings, social interactions have been considered a critical and effective component. However, when it comes to the construction of affordable buildings, the lack of attention to this component causes social anomalies and social disorders to increase.

Research objective: The purpose of this study is to explain the territorial components extracted from the Iranian neighborhood as a mechanism that can increase social interactions in affordable high-rise residential buildings. Furthermore, the purpose of this study is to answer whether the Navab Complex has employed these local components of territory and how much they are preferred by the residents.

Research method: Many researchers believe that the concept of territory is influenced by time and culture. So, this paper uses analytical and descriptive methods to extract the components of local territory as the cultural form of Iranian habitation. In the next step, the extracted components will be asked of the residents of the Navab residential complex in a questionnaire form.

Conclusion: Considering the outcomes of the research analyzing the social interactions in Navab, the satisfaction level of residents toward the social interactions was reported as below average. By examining the achieved components of the territory, very few percent of residents were satisfied with the current situation of their territory; however, many of them were keen to utilize these components in their space. About social interactions, although few people were content with the current state, a significant number showed interest in boosting the interactions. In the meantime, two components of ownership and centrality were considered much less tangible and visible by the participants.

Keywords: *Affordable high-rise residential buildings, Social interactions, Territory, Alley, Local components.*

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City)" that under supervision of Dr. "Seyyed Amir Mansouri" and in consultation of Dr. "Nasser Barati" which has been done at Nazar Research Center, Tehran, Iran in 2021.

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Introduction

According to plentiful examples and various research, one of the biggest issues regarding affordable high-rise buildings is social disorders and anomalies. The impact of this component is to the extent that in the 1970s and 1980s, many affordable high-rise buildings were left empty or destroyed. However, especially in recent years, the construction of high-rise buildings for middle- and low-class people has been highly considered in Iran. Research shows the existence of social disorders in these types of residential buildings. Considering that the purpose of this study is to increase social interactions in affordable high-rise buildings, the concept of territory is proposed as a platform that creates social interactions. In the following section, it will become clear that culture has a definite influence on concepts such as territory. Examples and displays of territory in different cultures and geographic places are noticeably different from one another. The neighborhood as a biological structure that is part of the culture of Iran will be used to extract instances of territory.

To utilize the extracted components in a modern instance, the Navab affordable residential complex was chosen as one of the symbols of constructing high-rise buildings for low-class citizens. By disrupting the current structure of neighborhoods and creating a living place for heterogeneous social groups, the Navab Complex tries its best to meet the needs of people on low incomes. The research done by Rafieiyan and other colleagues on this instance in 1988 and 1993 showed below-average satisfaction with social interactions from residents. Moreover, social interactions were not evaluated to a desirable degree. Now, this question arises: to what degree have the local territorial components been utilized in the recent complex, and whether the result has any connection with the number of social interactions?

Research Methodology

This research uses descriptive and analytical approaches and expresses the theories of researchers to deduce the role of territory in creating social interactions. With the drastic increase in low-income citizens and the use of affordable high-rise buildings, this research includes a large number of statistical populations, so in terms of scope, this study is a general one that includes a large number of case studies. By stating that the concept of territory includes specific local components, this study aims to explain the intended components in the alley, the first unit of traditional neighborhood territory. Based on that, a questionnaire including 20 questions was designed and asked of 60 residents of Navab who have lived in the complex for more than 5 years (Fig. 1).

• Exploring the social interactions in affordable high-rise residential buildings

A considerable number of studies have been done on the effects of height and population density on social interactions. It seems that in high-rise buildings, despite the overcrowded conditions and the physical closeness of residents, the not-so-suitable platform for creating social interactions makes residents less keen on communicating and participating in social organizations. Many researchers have also come across a non-linear relationship in this regard (McCarthy & Saegert, 1978; Huang & Chun, 2006; Nasri, 1995; Kashfi et al., 2012). This problem is very serious, to the point that while analyzing the current trend of high-rise buildings in the West, especially the affordable types, many projects have failed and were abandoned due to the disorders in social interactions and the resulting social anomalies. As a result, in recent years, many residential complexes of middle- or lower-class people in Western countries have built just six stories in terms of height and tend to focus on expanding the surface and using active collective spaces.

In Iran, several high-rise buildings have also been



Fig. 1. Navab affordable residential complex. Source: yun.ir/pug1u3

examined to investigate the desirability of this type of construction. As a result of many studies (Rafieiyan et al., 2009; Ghiai et al., 2011), the role of social interactions in the desirability of a place was explained. In many of these studies, social interactions were considered a component that was more effective than components of physical facilities. The importance of social interactions in the desirability and residential satisfaction of high-rise buildings can be concluded from this research.

• **Territory, a platform for social interactions**

Humans cannot be considered solo users of a dwelling. They also cannot be considered from a complete social and collective perspective. Rather, the presence of humans and their lives happens in a range of ways, from individuality and collectivity to solitude and community. The concept of territory is a tool to organize the space around a person through constant control over space, marking, and demarcation. This organization enables the residents of a space to showcase their individuality and be a part of the community at the same time. Heidegger believes that territory is like

an invisible bubble that determines any being's range of possession, and the matter of defense is a very personal, private, and bold matter that is inseparable from this concept. Summer mentions a red border around a completely private person. (Madanipour, 2005) In the meantime, many researchers (Madanipour, 2005; Altman, 2003; Lang, 2002; Pastalan, 1970) have mentioned the role of territorial behaviors, and they consider them necessary for the activation of physical territories. Behaviors like monitoring, ownership, responsibility, and identity are as such.

Territory can be considered a conceptual model that is shaped based on the relationship between humans as users and the environment, which transforms into distinctive and recognizable structures according to cultural or geographical assumptions. So, physical components affected by the environment do not form the borders between territories on their own. Rather, territories are formed and stabilized under the influence of behavioral components shaped by human differences and economic, social-cultural,

and even racial differences. Altman states several examples regarding the effect of culture and climate on the territory. The form of privacy and territory defined for houses in Middle Eastern countries is quite different from the shape and signs of the territory, such as the walls of the area or the doors and entrances defined for houses in the West (Fig. 2).

As mentioned, the instances of territory and its physical and behavioral components are quite different from one society to another. Perhaps, considering this dependence, it is not possible to reach a single structural model for all societies. Here, the traditional Iranian neighborhood will be territorially analyzed as a biological spatial structure that is affected by the social and individual needs of the residents to explain the characteristics that are in line with the local culture and climate.

• Components of territory based on Iranian Culture

To reach territorial components influenced by Iranian culture, which can be studied, the alley has been chosen as the first and smallest unit of territory. By looking closely at the organic shape of the paths in the traditional textures, it can be understood that, unlike the transit-oriented structure of modern cities, they are formed based on the social interactions of residents and their needs. According to Iranian traditional culture, which is based on Islamic lessons, humans have a collective and individual position combined.

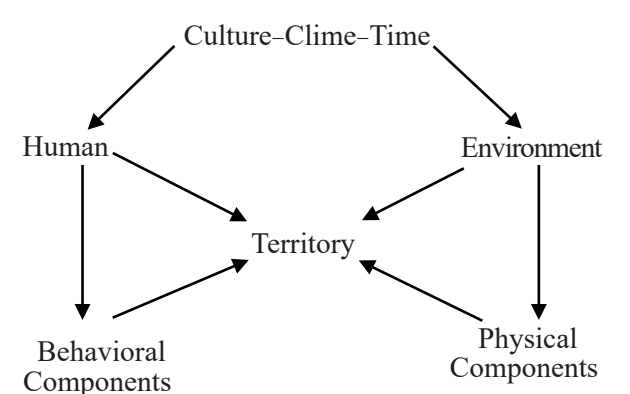


Fig. 2. Factors shaping a territory. Source: Authors.

Alley is also a physical-conceptual element that is mixed with society.

Mansouri believes that alley in an evolutionary cycle has changed from a physical space of the city to a public space with the possibility of public services and eventually a public space that creates social interactions and becomes a single collective identity for all the residents (Mansouri, 2013). It can be said that the existing passages in the neighborhoods not only create the possibility of movement, but they are also places to pause. Barati and Zarringhalam also examines the different types of passages in Iranian neighborhoods from a linguistic perspective and believes that they have various social and physical levels. Furthermore, there will be an attempt to categorize the territorial approaches and state the quality of the concept of territory in the alley, with a closer look at the physical and behavioral components used in it (Barati & Zarringhalam, 2013). Many researchers like (Lawson, 2001; Bahreini, 1999; Altman, 2003; Ainifar, 2011) have addressed the effective components of territory. In this research, to come close to a conclusion, the mentioned components are divided into two categories: physical and behavioral. Components including demarcation, layout, and centrality go under physical components, and components including defense, ownership, and identity are examined regarding the behavioral components of territory in the alley (Fig. 3).

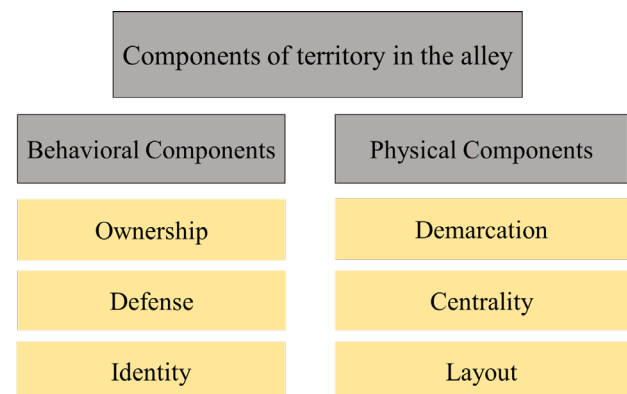


Fig. 3. The explained components of the territory in the alley. Source: Authors.

• Physical components of territory in the alley

It is safe to say that the physical components of the territory are one of the most effective factors in the gradual formation of the alley space and its interaction and coexistence with the private space of the house. Regarding alleys, the texture of Iranian traditional neighborhoods does not follow a particular order and has been a gradual phenomenon. Access to land ownership and territorial boundaries are key determinants.

The main alleys with access to the central areas of the neighborhood, dead-end alleys, porches, corridors, and vestibules, depending on the accessibility of the space, who is in charge of the monitoring or is responsible for them, or whether a person or a group owns that place, can be considered in a range from private to public. For instance, when the residents of one or several houses have common access to enter a vestibule, ownership of this space is shared between them, and accordingly, they are all responsible for actively monitoring, cleaning, and ensuring its safety. In this case, the spatial layout takes the space out of a uniform and consistent structure and changes it into different social-spatial clusters.

Centrality can be considered the component that is the core that forms the territory in alleys. The space in which humans can pause and start an activity can be considered the center of the territory. Norberg-Schulz considered the centrality of the territory as the point where the human can take a position as a being capable of cognition. The point is that by pausing there, they can experience living in a space (Norberg-Schulz, 1381). This experience can be individual or collective. Every footpath and existing stairs in steep alleys, openings, or climatic shelters in the neighborhood that can create the possibility of pausing and gathering are examples of this concept. In addition, saqakans, trees, and electric light poles, on many

occasions, can become the center of territories and create a space for residents to come together. In the territory of the alley, the components of demarcation are used to illustrate the range of the territory and prevent any encroachment into these private areas. The set of doors, gates, and shutters at the beginning of vestibules can be called visible boundaries in the alley. However, the territory has other signs and displays too. Stairs and ramps simultaneously make it possible to create a territorial center. The change in the height of the alley, covering it, or the change in the width of the alley can also be considered as visible bordering of the territory (Table 1).

• The behavioral components of territory in the alley

Territorial behaviors in the “alley” can fall under a range of behaviors associated with an individual or group and the public, each of which changes and occurs according to the location and position of the territory. These behaviors are demonstrated under the influence of competence in a place, neighborhood activities, as well as traditional and religious rituals being held in the alley.

Identity as a behavioral component is shaped based on the experiences and memories of a habitation. The more residents are close to the space and can intrude into it, the stronger their identity behaviors and the more obvious their expressions will be.

The alley as a permeable space, especially adjacent to the entrances and porches, provides the ground for territorial behaviors such as “watering and sweeping the alley when guests, especially important ones, arrive,” “lighting the alley,” or “burning wild rue, known as Expand in n Persian.”As a result, the scope of ownership and influence from inside the house was extended to the alley space based on an unwritten and collective agreement, and parts of the alley public space became semi-public or semi-private spaces. The collective activities

Table 1. Conceptual model of the physical factors of territory in the alley. Source: Authors.

Physical factors of territory	Neighborhood examples	Indigenous components of the territory	Description
Layout	Dead end alleys, an alley that its end is blocked and has no way out	Spatial hierarchy	The possibility of categorizing and staging common space based on the level of access from public to private
	Corridor, covered way that leads to one or more houses (private) A vestibule, a mostly covered space at the entrance of one or more houses that could be closed with a door		
Demarcation	Gate/doors	Demarcation with physical elements	Using physical solutions including all kinds of doors with entrance frames to show the change of spatial ownership
	Ports or thresholds		
	Arches/Sabat		
Centrality	Stairs and ramps	Demarcation with dimensional changes	Using the height and width parameters to display a more private space/the smaller the height or width, the more private the space becomes
	Covering the space		
Centrality	Changes in the width and height of the alley	Spatial separation	Spatial additions/unplanned pits that have the possibility of occupying a specific group / a place to stop without disturbing the passage
	Indentations in the alleys		
	Pits or rows caused by differences	Spatial joints	A space that can be accessed from different routes
	Vestibules and dividing spaces		
	“Saqakhane”s		
Springs/watersheds	Settings	Familiar and obvious elements with the ability and spatial possibility of gathering with a small or large number in a short or long time	
Trees and natural elements/electric poles			

of the residents are one of the most obvious behaviors of the visible territory in an “alley.” These activities are based on religious or ancient occasions.

Behaviors arising from a sense of ownership and responsibility in the alleys have many manifestations, including the monitoring of parts of the alley by residents who are adjacent to a house. In some cases, these behaviors used to result in a state of surveillance in the defense of the territory. Collective use of the alley by its residents is one of the most obvious types of territorial behaviors that used to be practical in traditional neighborhoods. It is clear that during the day and in different seasons, there was a change in the composition of groups of men and women of different ages.

The economic behaviors of the residents of the houses in the alleys and the neighboring houses are another type of territorial behavior. It can be concluded that even though the behaviors are caused by the sense of territory in traditional Iranian neighborhoods, they were

mainly dependent on the popular culture of the time, and they may be unlikely to be adapted in recent years and today’s normative and cultural changes, which are increasingly moving towards global patterns, but by scrutinizing them and going beyond the layer of current behaviors, we can reach the important needs in contemporary times. In this regard, the following components are categorized and expressed (Table 2).

Results

Based on the presented research, the territory has three components under the physical factors, which are layout, centrality, and demarcation, and three components under the behavioral factors, which are defense, ownership, and identity. After examining the alley as the first single unit of territory in the neighborhood, local physical and behavioral components were suggested. Continuing the research, it is necessary to study the quantity or quality of the components as the local components of territory in affordable residential complexes

Table 2. Conceptual model of the behavioral factors of territory in the alley. Source: Authors.

Behavioral Factors of Territory	Examples In Neighborhood	Local Components Of Territory	Description
Ownership	The Collective use of children and teenagers of public space of alley	Exclusive use of public spaces	The possibility of occupying the collective space by a certain group of residents for a certain time
	The use of adults (women), adults /possibility of holding meetings to resolve issues related to the alley		
	Use for ritual or ancient ceremonies A space for baking offerings	The possibility of holding ritual ceremonies	Allocation of collective and public space for holding ceremonies
	Buying and selling by children or women of every alley (providing household products such as food or clothes)	The possibility of doing economic activities	Spatial and functional planning for the possibility of space allocation for residents' economic activities
Defense	Monitoring the alley/ splashing water from the window or roof/watching the alley from the window	Visual Monitoring	The possibility of residents monitoring the current events of the collective space and common areas directly or indirectly
	Sensitivity to lighting at night Employing night watchmen		
	Inquiry about the come and goes of strangers	Getting to know the neighbors	Relative knowledge of neighbors / less concern about issues such as theft and insecurity
	Getting to know new neighbors		
Identity	Illumination of the street on the occasion of holidays/ installation of cloths and flags	Use of special elements	The possibility of placing elements in common spaces that rely on the ownership or personal desires of the residents/ flowers and plants/signs/flags or cloth
	Giving offerings to neighbors / welcoming and seeing off guests in the alley		
	Watering and sweeping the alley when guests arrive	Cooperating with neighbors	The possibility of performing behaviors based on the identity of each resident
	Sensitivity to solving neighbors' problems		

such as Navab. In that case, a questionnaire was prepared and evaluated with the participation of residents.

In this questionnaire, the standard for spatial hierarchy under the layout component and the standard for spatial joints, settings, and spatial isolation under the centrality component, as well as the use of physical elements for demarcation and the use of dimension changes to show the spatial borders of different territories under the demarcation component, were questioned. In regards to the layout component, around 70% of the respondents believe in the existence of spatial hierarchy and public-to-private arenas in their complex (Fig. 4). Regarding the demarcation component, around 48 percent believe that demarcation with physical elements is evident in their complex, and demarcation with the change in dimensions is recognized by only 25 percent (Fig. 5).

Regarding the centrality component, about 20

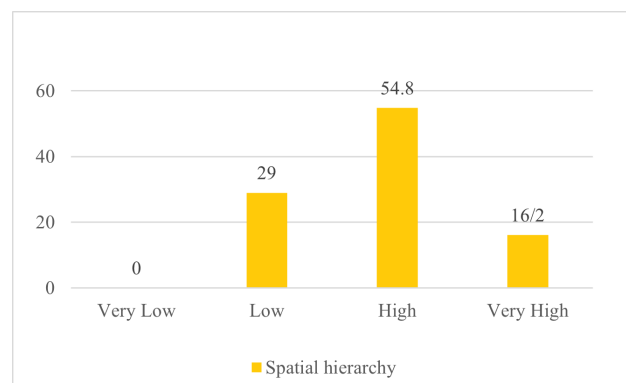


Fig. 4. A comparison of the percentage distribution of the frequency of layout. Source: Authors.

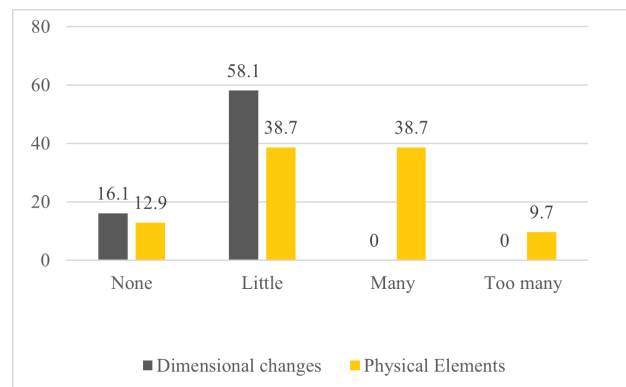


Fig. 5. A comparison of the percentage distribution of the frequency of demarcation. Source: Authors.

percent of the Navab residents believe in its existence in their complex. Meanwhile, the factor of isolation was 22%, the spatial joints factor was 29%, and the setting was evident only for 16% of the residents (Fig. 6). As a whole, a little over 40 percent of residents believe in the existence of the physical components and criteria of the territory in their complex, but nearly 60% of the residents do not consider the existing components tangible and existent (Fig. 7).

In the meantime, layout was expressed as the most visible component and centrality as the least visible territory component in the environment. It should be noted that to get a more accurate answer in this questionnaire, the median and average limits were not used so that the respondents could express their opinions more clearly.

In analyzing the behavioral factors of the territory, factors like the possibility of economic activities, the possibility of holding ritual and ancient ceremonies, and exclusive use of public space

were placed under the ownership component. Factors such as visual monitoring and cooperation with neighbors were placed under the identity component. According to the results, 38.8% use public spaces often and very much. 25.9 percent participate often and very much in holding traditional or religious events such as Muharram or Nowruz. Among the respondents, only 13% are very likely to set up seasonal, monthly, or weekly markets to sell products produced by residents in the public space of the complex (Fig. 8). Regarding factors related to defense, 77.4 percent believe in visual monitoring, and 42 percent are very familiar with their neighbors on the same floor as them (Fig. 9). Regarding the identity component, only 25.9% participate very much in establishing traditional or ritual symbols such as Muharram or Nowruz. 61.3 percent of the respondents very much cooperated with neighbors (Fig. 10). In total, 54.8 percent strongly believe in the existence of behavioral components in

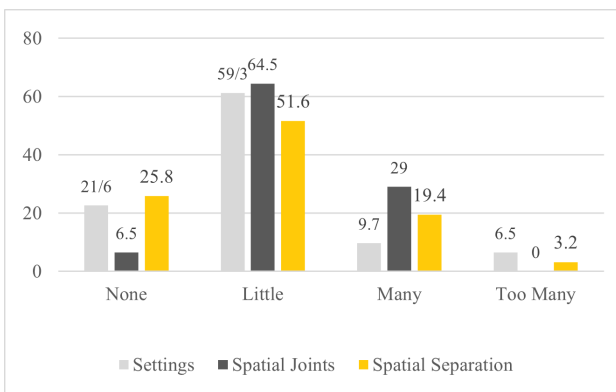


Fig. 6. A comparison of the percentage distribution of the frequency of centrality. Source: Authors.

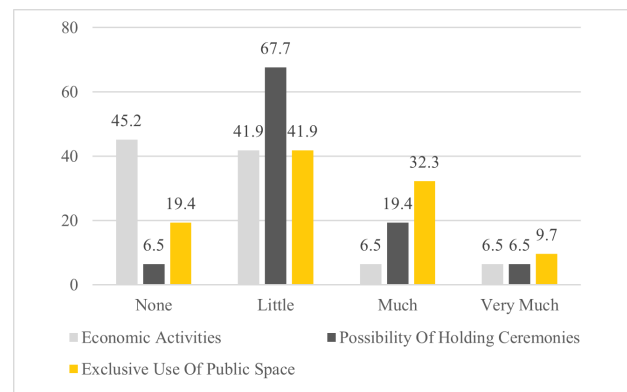


Fig. 8. A comparison of the percentage distribution of the frequency of ownership. Source: Authors.

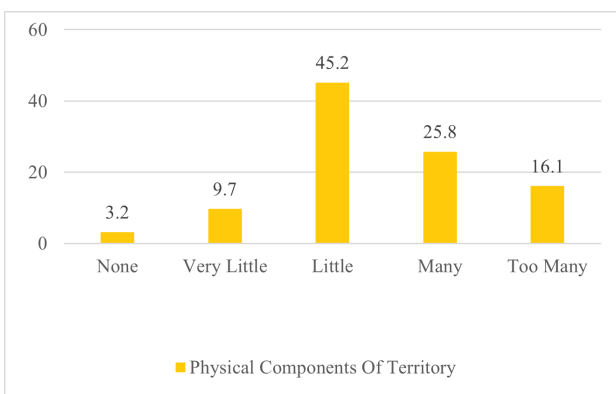


Fig. 7. A comparison of the percentage distribution of the frequency of physical components of territory. Source: Authors.

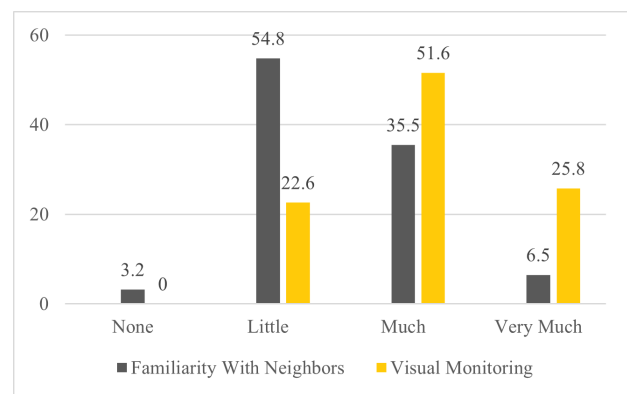


Fig. 9. A comparison of the percentage distribution of the frequency of defense. Source: Authors.

the Navab complex (Fig. 11). Meanwhile, the territory defense component was identified as the most visible factor, and the sense of ownership over the environment was identified as the least positive response.

By analyzing the questions in both physical and behavioral dimensions (Fig. 12), the current state of the territory and the expected state of the territory in the Navab complex were measured

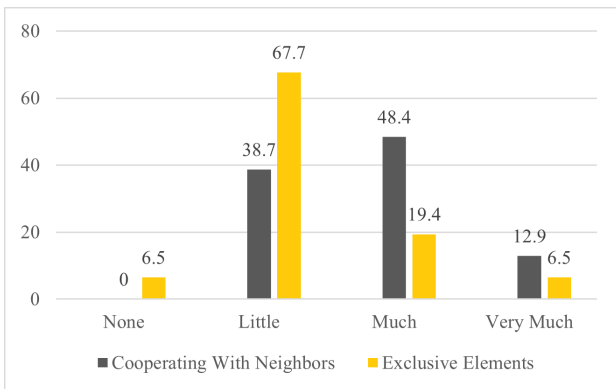


Fig. 10. A comparison of the percentage distribution of the frequency of ownership. Source: Authors.

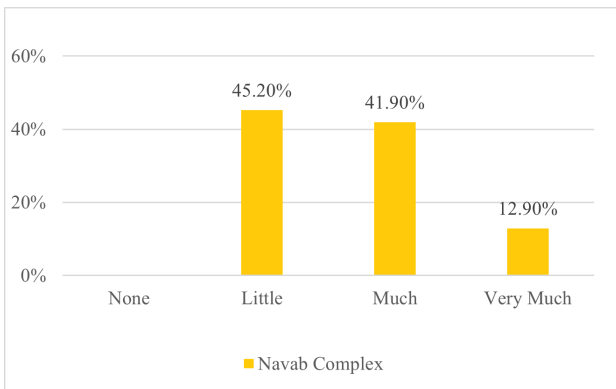


Fig. 11. A comparison of the percentage distribution of the frequency of behavioral components of territory. Source: Authors.

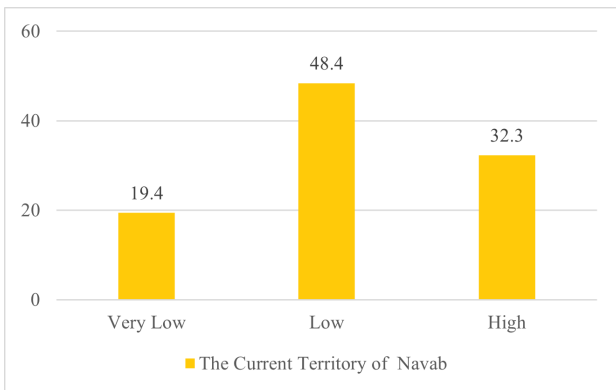


Fig. 12. A Comparison of the percentage distribution of the frequency of the current situation of the territory of the Navab residential complex. Source: Authors.

(Fig. 13). Furthermore, to obtain a more accurate estimate of social interactions, the current situation (Fig. 14) and the preferences of the residents of Navab were investigated (Fig. 15). In the research, the correlation coefficient was used to measure the relationship and influence of the two components of territory and social interactions in the Navab Complex. The correlation coefficient was 0.398, and the significance level was 0.001.

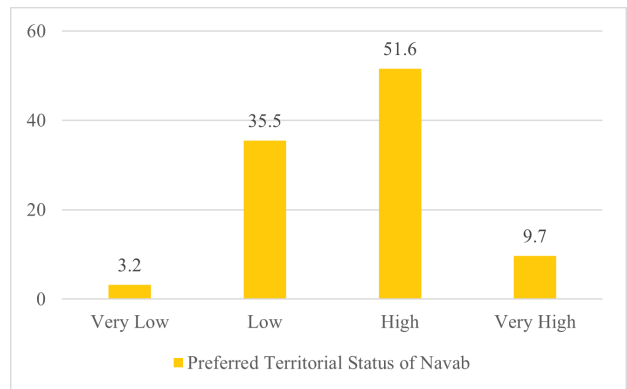


Fig. 13. Comparison of the frequency distribution of the percentage of the preferred territorial status of Navab residential complex residents. Source: Authors.

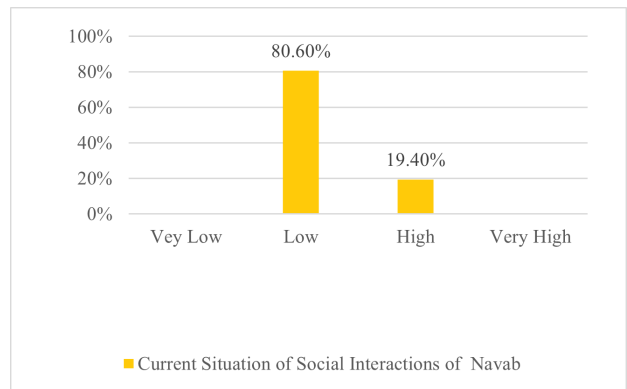


Fig. 14. Comparison distribution of the frequency distribution of the current situation of social interactions of Navab residential complex. Source: Authors.

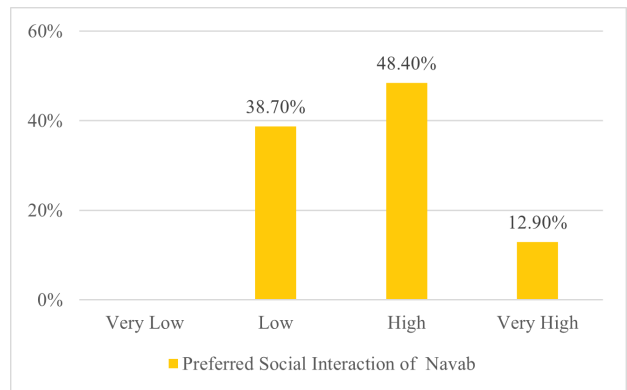


Fig. 15. Comparison of the frequency distribution of the preferred social interaction status for the future residents of the Navab residential complex. Source: Authors.

Discussion

The results of the analysis of the collected data show that the territorial components are considered in the Navab case on different levels. In the study of layout, most of the residents believed in the existence of the component. However, regarding the physical index of centrality, most residents did not believe in the existence of centrality in their existing living environment. Regardless of the index of demarcation, over 50 percent of the residents were certain that territorial demarcation does exist in their environment. Regarding ownership, only about 16 percent had a sense of territorial ownership. But regarding behavioral factors, over 80 percent agreed with the existence of the defense component, and 63 percent had the same feeling about identity.

Among other physical criteria, centrality had the lowest percentage of responses in the questionnaire. This criterion has sub-criteria of spatial isolation, spatial joints, and locations that can be conceptually simulated and analyzed in other samples. Centrality and the sub-criterion of setting are some of the most important components in creating collective spaces, which seem to be absent in this group from the respondent's point of view, while their presence is desirable and necessary. Also, the sub-criterion of spatial separation was not noticeable and was not used according to responses. Small spaces, along with public places, can be used for collective or individual matters.

In the case of demarcation, separating spaces by physical elements such as no-entry signs, security kiosks, or entrance gates has been considered more effective than demarcation with changes in dimensions by respondents. However, it seems like creating spatial borders that are non-transparent through dimensional changes can create the feeling of being in a separate space for the residents. The behavioral factor of ownership also received the lowest response rate.

This criterion includes the sub-criteria of exclusive use of the public environment, the possibility of holding ritual ceremonies, and the possibility of economic activities for the residents of the complex. Among these sub-criteria, economic activities seemed possible for only 13 percent of the respondents. All in all, according to the analysis, only 32% of the respondents are satisfied with the current state of their territory, while 61% of them prefer the mentioned territorial components to be used more. In the meantime, what is noteworthy is that according to the examination of the questions that addressed the status of social interactions in Navab, only 19% were satisfied with the current condition. On the other hand, 61% of the respondents are eager to increase social interactions in the complex. This correlation suggests a linear and positive relationship between the components of territory and the social interactions in Navab. Now, it seems like by reviewing and applying the two components of centrality in the physical and ownership in the behavioral dimension more than before, positive changes can be made in the current territorial conditions and social interactions can be increased.

Conclusion

Territory is not necessarily just physical borders but is more like an objective and subjective platform for organizing the space to create social interactions. In traditional neighborhoods, social interactions coexisted with spatial and behavioral territories. But nowadays, social interactions just exist to the extent of necessity, and physical and behavioral territories are kept to a minimum. So, in this article, assuming that the territory creates social interactions and makes them flourish, we try to clarify the physical and behavioral components of the territory to create social interactions. Even though, in the traditional settlement pattern, territories were more socio-

cultural and physical, and today they are more physical, However, by redefining the territorial components that were extracted from the neighborhood and using them in affordable high-rise residential complexes, it is possible to improve the extreme individualism towards a balance between individuality and community. According to the results of this research and

some of the mentioned studies, today's high-rise building residents are keen to have social interactions and use territorial solutions to organize their environment. Unfortunately, the spatial and behavioral plans and studies for the presence and role of residents in the collective spaces of high-rise buildings are less available, and this has caused the existing individualism to increase even more.

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