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## Study of the Mmechanism for Organizing the Environment with the Minimum Physical Eelements (Through the lens of Amos Rapoport Theory: Organization of Environment) (Case study: Qashqai Nomad's Dwelling)

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### Abstract

**Statement of the problem:** Looking at interactions of human being with the environment around throughout the history shows that the humans have always adjusted and organized their relationship with their surroundings through abstraction as well as subjective reading of space. Amos Rapoport, one of the most influential figures in EBS, argues that environment is conceptualized as organization of space, time, meaning, and communication. Organization of these four aspects of the environment is the outcome of underlying rules and culture, which reflects differing in responses to environmental quality. According to environmental organization theory of Rapoport which is an introduction to understanding the environment, since the human's mind needs to comprehend the environment and categorize it he is constantly organizing his surroundings. In order to use the natural blessings of territory, due to climatic-geographical conditions of Iran, Triba<sup>1</sup> colonies formed a proper kind of housing, a movable tent. Despite the ambulant life style of Nomads, they seek the regulation of their environment and assigning meaning to it. Considering nomads special lifestyle, they require flexible housing, thus physical elements can be found in their least quantitative features in the tribes' habitat. accordingly the problem that will be addressed in this research is occurring organization in nomadic habitation with the minimum level of physical embodiment .

**Research Methodology:** This survey has been conducted through number of interviews and field observation of the Qashqai tribes' environs. The main method of this research is qualitative based on analytical descriptive.

**Research Objectives:** The goal of this study is to identify mechanisms for spatial organization in the most optimal possible way. In this research, the authors investigated the issue through field observations and a number of interviews conducted on the life of the Qashqai tribes using research methodology.

**Conclusion:** The result of the research shows that minimalizing the body wouldn't cause any disorder in arrangement quality of the environment. Rather, the role of the body get less pivotal by substitution of the constructive components of the semantic system and time management.

**Keywords:** *Organization, Environment, Minimal physical body<sup>1</sup>, Nomads.*

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## Introduction and problem statement

Looking at the life of animals, one can see that they instinctively build their habitat by using spatial separation and organize their surroundings by creating schemas. Rapoport points out that the social and spatial relationships of humans are not coincidental. Rather, they are regular and orderly. First, differences are recognized, then humans describe them using language and bring them into existence with buildings. Thus, language and architecture are connected by this process: they both exhibit a distinction of places" (Rapoport, 2003: 2). Rapoport in organization of the environment theory, which prelude the cognized of the environment, proposes that man always organizes his own environment. "The human mind needs to distinguish spaces; in other words, classify, name and differentiate them" (Ibid: 64). According to him, the world is disorderly, and the human mind intrinsically seeks to regularize the disturbed world around him. Any form of architecture and environment (Built Environment) is the result of this inherent need of the human mind. "

Nomads, as a type of human communities, and recognized with their particular nomadic lifestyle, seek to regulate and give meaning to the world around them. Organizing their environment brings about affordance and desirability for them. "In the minds and language of the Qashqai tribes, Siah Chador<sup>2</sup> is the mental equivalent for a Place of habitanace" (Shakouri & Khodadadi, 2014: 4). Of course, the nomads' living environment is not constrained to this Siah Chador, rather, it includes Yourth<sup>3</sup>, or the natural environment around them. Many of the habitats' activities and behavioral settings are formed in this environment. Since the migrants' living environment has the lowest amount of material elements due to their different lifestyle, in this study, we address the organization of the environment and the rules of behavioral settings in order to respond to the subjective ideals of them.

The studied areas are the southern regions of Fars province (around Firoozabad), the Qeshlaq<sup>4</sup> regions

(winter location), and around Semirum in the south of Isfahan province , the Yeilaq<sup>5</sup> regions (summer location). The living environment of the Qashqai tribe, as one of the native human-built environments which is culturally integrated and less disturbed, is a good case for human-environment studies. Therefore, due to the cultural characteristics and Nomads' special lifestyle, the strategies employed by them to organize the environment have common and meaningful aspects, which will be identified and analyzed in this study.

## Literature Review

Undoubtedly, people have always been curious about the life of nomads, but studying this phenomenon in scientific terms, is relatively new. In the early 20th century, increasing influence of the West's over developing countries, caused the growth of acquiring information from these countries as well, including requiring data about nomads, though considerable research in this field was performed by Western countries, over the past two decades domestic researchers played an important role as well (Amanolahi, 2005: 20). Many dissertations and research papers have been written in this field, which are used for this research. Among them, the works of Shahram Pourdeyhimi and Mohsen Afshari (2015 & 2016), Reza Shakouri and Elham Khodadadi (2014 & 2015), etc. can be mentioned, which have been referred to in this research.

The studies carried out in this area have mainly focused on the elements of the Nomads' dwellings, and the cultural characteristics of their community. However, knowledge about the characteristics and the regulation of the environment and its associated spaces is limited. Even though in the joint works of Pourdeyhimi and Afshari, the Nomads environment has been studied with emphasis on their lifestyle, in this research, the authors specifically address this issue in extensive field studies, drawing on Rapoport's theory of environment organizing. Rapoport, as one of the theoreticians in the field of environmental recognition, has done a lot of

research on the anthropology of habitat and the various kinds of native dwellings. Since his views are drawn upon the context similar to our case study, it seems reasonable to refer to his theories as the foundation of this field.

### Research Objectives

The purpose of this research is to identify the habitat and environment of nomads' characteristics and to discover their knowledge in regulating the space and organizing the environment. The results of these analysis may be employed in today's environmental design and planning problems.

### Research Questions

This research seeks to answer the following three questions:

1. What are the examples of constructive and organizing components in Qashqai tribal life?
2. What strategies do nomads use in order to organize the environment?
3. How does minimum usage of material affect the organizing quality of the environment?

### Research Methodology

The main method of this research is qualitative which is based on description and analysis, and these analyses are underpinned by Rapoport theory of organizing the environment. The information was collected by direct observation of nomadic life through interview, observation of spaces, taking photo, and sound recording. Documentation and library studies have also been used to compile theoretical literature of research.

In this research, the data were collected through the following methods:

- Observation and field research of Qashqai nomads in the southern areas of Fars province and Isfahan
- Interview with the nomads<sup>6</sup> and those with relevant experiences in the past
- Analysis of monographs and memories of the nomadic life.
- Analysis of Qashqai's images, paintings and

handicrafts and review of their literary works, songs and folklore music.

This research, due to the specific circumstances of the studied community, requires an special planned research method for interview and observation.

Thanks to the familiarity of the first author with the Qashqai language and culture, some reliable information were collected. However, a more precise examination of the validity of the findings and the observations of the research needs to be referred by people with the exact same cultural background.

### Theoretical research (Organization of environment):

Theoreticians consider Rapoport theory, Organization of environment, serves as the prelude to environmental recognition. In this theory, Rapoport considers the environment as the result of organizing the four elements of space, time, meaning, and communication (Rapoport, 2001). He also points out: "The necessary step in creating the environment is arranging or organizing it." (Rapoport, 2003: 15). In this interpretation, the environment is not a random product of objects and people, but a set of correlations between components that are manifested in the relationships between objects and objects, objects and human beings, and human beings and human beings. (Rapoport, 1982). Regular relations has a specific pattern with organized structure. In other words, environment organizes life and the system that governs it (Rapoport, 2003: 203).

According to Rapoport, in the traditional societies, these four systems (space, Meaning, communication and time) were more united and more coordinated, and today this agreement and coordination are reduced. Therefore, native and traditional examples of architecture are examples of the organizing the environment. Rapoport describes the built environment as the material manifestation of the ordering systems and the schemas of each community, According to him, the organization of

the environment is the same in all societies, but the particular form of regulation and meanings used in the objective representation of that process are related to the cultural attribution of each society. He considers this as the reason for the differences in the structure of the environment in different societies (Ibid: 18,19).

In addition to the explanation of the organization of the environment from the Rapoport point of view, understanding the environment and its constituent elements (space, time, meaning, and communication) is necessary, for this purpose, we will define and review them in this section.

#### • **Space and spatial organization**

In the architecture theories, space is a generalized and inexact term that implies to one or some of the architectural features and objectives. For Arnheim, the metaphysical conception of space in the modern period has been replaced with two true notions : space created by things (relative space) and absolute space (Arnheim, 2015: 18,19); "He defines the first concept as fields of perceptual energies surrounding the objects' center which by receding from the center of the object, the power of these fields reduce, and in the second concept, those spaces are considered that are entirely unoccupied, but they are subjected to perceptual energies and become constricted." (Damayar and Nari Ghomi, 2012: 2). In the same vein, these two can be represented as the absolute space and the relative space. The existence of the relative space depends on the presence of things and events (Falahat & Shahidi, 2015: 4).

According to Rapoport (2005), the organization of space is planning and designing in all the scales (from the whole landscape and region to interior furniture) for various purposes and according to different rules prepared based on values and goals of individuals and groups. (Rapoport, 1982) Rapoport describes space as the 3-D area within the world surrounding us, which determines the relation of interaction between human beings, human beings with objects and objects with others. Organization of space occurs for various purposes and according

to different rules while reflecting the activities and values and goals of individuals or groups. In fact, space discipline shows ideal schemata between physical space and social space (Rapoport, 2003: 204).

#### • **Meaning and semantic organization**

In defining the "meaning in the environment", Rapoport believes that while the spatial system itself expresses meanings (dominant meaning of "space"), it usually embodies meaning in the form of signs, materials, colors, shapes, sizes, furniture, landscaping, and etc. These concepts may coincide with the organization of space, as it was in the most traditional collections; however, it is also possible to create the meaning of an inconsistent system. Following this, the more pellucid the signs are, the more the spatial and semantic order is matched, and the more they enhance each other, as a result, the meaning will be even more pronounced and strong (Ibid: 16). In contrast to the traditional and indigenous sets of the past, the semantic system is separated from the spatial system, and these two systems operate in an almost independent way of others.

In the words of Rapoport, "space discipline is initially formed on the basis of the constitution of fixed components, and meanings are often created through the setting of unstable components. Unspecified components, for the purpose of expressing individual identities, provide the main role, and usually through a system of patterns (Pourdeyhimi, 2015: 201) (Chaoy, 1970); (Carr, 1973).

Lynch, in his book "The Image of the City", describes meaning, identity and structure as three components through which the mental picture of the environment can be explained to man, and defines it as the emotional and practical efficiency of the environment's elements. (Lynch, 2002: 18-24)

#### • **Time and temporal organization**

About the concept of time, Rapoport (2005) believes that people are living in time as they live in space. The environment is temporal and can be observed and studied in terms of organizing the

time or effects of human behavior on time. Spatial and temporal aspects affect each other. Rapoport also explains time at two different levels; First, as a macro level phenomenon such as longitudinal and periodic time, and the second level is rhythm of human activities (Rapoport, 2003: 204 & 205). As a result, human relationships can be managed not only in terms of space, but also in a timely manner. For instance not encountering different active groups with different rhythms is possible. So they may not meet each other. Therefore, one can say that humans live in space-time, and spatial and temporal aspects will have effect on their behaviors (Rapoport, 2003: 18).

#### • **Communication and Communicating Organization**

Rapoport (1980) describes the environment as a set of components that represent communication. According to him, human interactions with human beings and human beings with objects are created through space order, reflect the ideals of the individual and indicates the adaptation of the material to the social, perceptual, or any other condition - if the system does not work properly Incompatibilities would occur. Spatial regulation is a method that brings up distance, affinities, and interactions, and is the main factor in perception, analysis and comparison of environments with each other" (Pourdeyhimi, 2015: 201). According to Rapoport, the environment can effect spatial orders and semantic influences of the communication system. A system of spatial systems that conforms to the system of meanings can define and control the nature, direction and volume of communications (Rapoport, 1987: 21).

Rapoport highlights the effective role of this adaptation in communication regulation and maintains that agreement and coordination are important because understanding the meaning of the environment and its elements facilitate social communications between humans (as well as the relationships between the environment and humans). Therefore, Environments influence the organization

of social communication both physically and conceptually, and through meanings" (Rapoport, 2003: 17)

According to Rapoport, organizer of the communication in the environment, in fact, is a reflection of adjustment of other 3 other constructive components of the environment, and in an organized environment, these four components interact (Ibid: 207).

#### **Findings: (Investigating the organizer elements of Environment components in the life of Qashqai tribes)**

##### • **Spatial organization**

As mentioned before, we have two kinds of space: Absolute space and relative space. In typical architectural components, we usually observe the absolute space whose domain is definitely realized by environmental constructed elements. Entering a space, one can determine its borders by the constructed elements. Thus, space is divided into two internal and external parts. In this type of space, human needs more constructed elements.

The second type of space is Relative space; which can be seen in the nomadic dwellings and built environment. Nomads need to build the home with the minimum materials to have light, flexible and portable dwellings. With the usage of special elements in the environment which creates a territory for locating subordinated elements around it such as Yourth, Qash<sup>7</sup>, Qapou<sup>8</sup>, which all defined by Siah Chador in the environment. Furthermore, their boundaries, dimensions and geometry are proportional to the size and shape of the Siah Chador. Passing the years of living in this context, the nomads can realize the bounds each and every element creates conventionally.<sup>9</sup>

Another important issue in the discussion of the spatial system is the existence of flexible and multi-functional spaces; since one of the nomadic architectural requirements is flexibility, in nomadic dwelling, usually each specific space at different times is known and used as a different behavioral

setting (Ie, the proportional to the time, function of space is variable); Qapou is an example of a multi-functional space. According to what has been discussed, it can be concluded that in the nomadic environment, using the least use of body elements not only didn't cause any deficiency in organizing the environment but also worked in favor of the special lifestyle of the addressed due to achieving adaptable and multi-functional housing.

#### • Meaningful (sematic) organization

##### • Symbols

In the context of the social and cultural life of Qashqai tribes, elements are seen as Symbols, which have certain meanings in the mental system of nomads. Ojagh<sup>10</sup>, Baydagh<sup>11</sup>, Karreh<sup>12</sup> are examples of these elements.

Ojagh, in addition to its function in the nomad's life, as the most important part of the house, is placed at a special point in the main tent and the kitchen. The family, devotion to Ojagh causes that in the cold season it would be located in the center of tent, this center functions as the geometric and spiritual point of house and also is the place of family and social interactions. According the nomad, This fire (Ojagh) should not be shut off (Fig. 1).

Baydaq is a symbolic cloth placed on the top of nomad tents in many ceremonies. Regarding the type of each ceremony, it has been used to indicate concept and meaning of the celebration. The Qashqai's four-color flag is the symbol of "great fortune" which is used for brides to cover their faces or as an asset in traditional dance. Karreh (stones which are placed in a specific order) is one of most functional symbols. The number of stones and

the way they have been arrayed signify different meaning in local culture.

When it is impossible to carry something with them, they alert others by putting some stones around that to stay away from. This sign creates a moral prohibition from getting close to it which breaking that is on the contrary with the common law.

One other type of shaping stones looks like a cylinder which is placed in center of a gigantic open space. Plays an important role in defining a wide square as a dancing scene. Basically dancing and liturgical gatherings happen in an incorporeal field centered by a Karreh. A short stoned wall is one of the other shapes of the Karreh, which provides the privacy for people in the environment. As there can be different meanings for different activities, their behavioral setting sets according to importance of the activity.

According to the above, one of the reasons for using signs and symbols in architectural environments are to express the most information in space with the least materials. Therefore, markings and sign elements in the nomadic environment are more likely to be seen, due to using less material in creating space and borders (Fig. 2).

##### • Color and form

Color as an important element in nomads' life represents some meanings. There are some colorful nodes on their tents serving as spell blockers and tend to create visual texture diversity. Their tents, due to color contrast with the plain are distinctive and also as an infrequent orthogonal shape in the context can be considered as a symbol (Figs. 3 & 4).



Fig. 1. Nomad's attachment to Ojagh. Source: authors, 2015.



Fig. 2. Different types of karreh in the nomadic environment. Source: authors, 2016.



Fig. 3. Nomadic dwelling in Qeshlaq region. Color contrast & form difference in the environment. Source: authors, 2015.

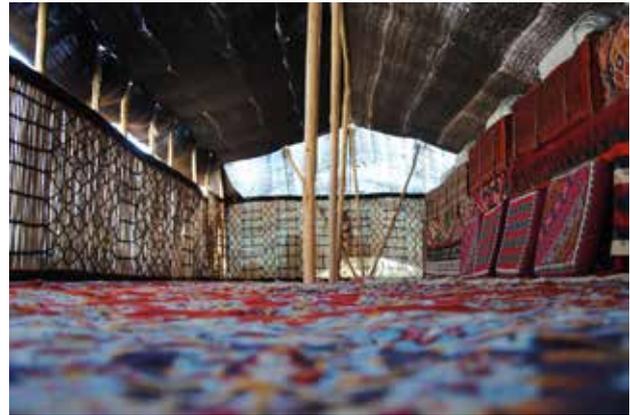


Fig. 4. Color in nomadic living space, in Qeshlaq region. Source: authors, 2015.

#### • Material

The form and materials of Siah Chador are such that it can act as a viewpoint. Yourth's Environment and the location of Chador are chosen so precisely so that the boundaries of them can be recognized by five senses. This ability is based on the extrovert trait of the Tribes. Therefore, the minimalism of the Tribes' dwelling is not a weakness, but also fulfills their needs and allows more perception of the environment (Fig. 5).

"Transparency of Siah Chador expands the view for users. A Tribal person perceives the landscape on a panoramic scale, while at the same time has the micro-perception of the texture and its diversity" (Shakouri & Khodadadi, 2015: 9); (Fig. 5).

#### • The Meaning behind Spatial Elements (Synchrony between Space and Meaning

Looking at nomad's life, it can be realized that most of the spatial planning has been taken place just to

fulfill the need for mental meanings, and they are derived from their values, beliefs and needs.

According to Abu-Ghazze (Abu-Ghazze1994: 185) the layout of the elements in a built environment reflects the beliefs of the dweller and represents the domains, distance and the dimensions. Concepts like confidentiality, Social positioning, Personal and communal domain, sacred and profane, boundaries between women and men are parts of the value system of every society that built environment according to the space order.

As a matter of fact, space in nomad's lifestyle is disciplined according to their culture and intellectual meanings. Thus the communication of dwellers will be disciplined as well (Fig. 6).

#### •The Meaning behind Distances and Spatial Dimensions

Afshari and Pourdeyhimi in the "the Environmental Adaptation of Human Lifestyle" article, had



Fig. 5. Transparency of Siah Chador expands the view for users, the environment is visible from inside the tent, but inside the tent is not visible from outside. Source: authors, 2017.



Fig. 6. The meaningful distance between Nomad's Yourth. Source: authors.

declared that in Yourth the distances and spatial dimensions is used to represent mental meanings in social interactions between Qashqaies (Afshari & Pourdeyhimi, 2016: 9).

Other concepts such as social and economic Positioning of a family or an individual is presented by the dimensions of the Siah Chador, the corral and Qash and even the layout of these elements in relation to other Siah Chadors. It must be considered that the dimensions in local environment is relative and indicate meanings. According to Bourdieu (1984: 174) this meanings can be understood through the contrasts and relations (Figs. 7 & 8).

• **The layout and locating of the spatial elements**

In nomad's Yourth, depending on the meanings associated with each activity, the arrangement of spaces is different and meaningful. Sub-spaces or spaces for activities that require more privacy (such as bathing or women-related activities) is less exposed in the arrangement of space (mainly behind the barn or away from the main spaces). In this regard, Afshari and Pourdeyhimi also point out that the value of their activities and their sequences influence the layout and arrangement of the spaces (Afshari & Pourdeyhimi, 2015: 10). In the arrangement of space in the environment, the Siah

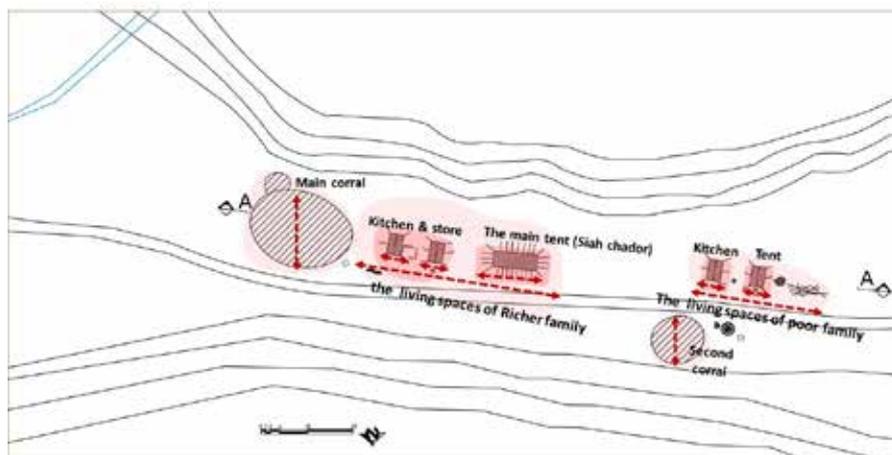


Fig. 7. The living spaces of the richer family are larger and more luxurious, and the tents of the poorer family are smaller in size, and are located with a significant distance from the main tents in the surrounding. Source: authors.

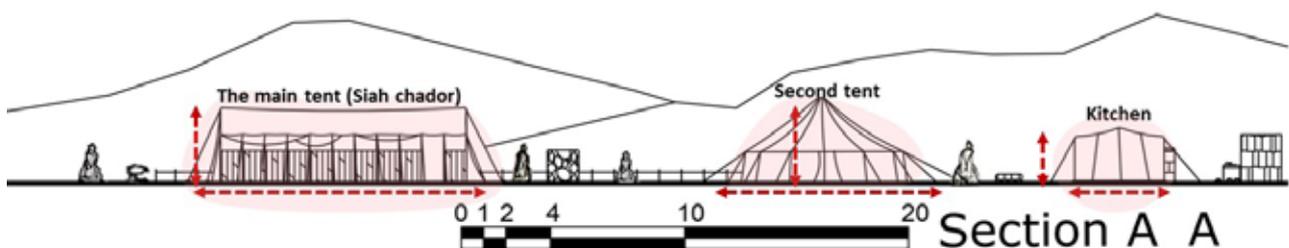


Fig. 8. The tent is based on the meanings that govern the women-related activities in space (observance of privacy) and stands with distance and in smaller dimensions in the environment. Source: authors.

Chador as the main space displays the social status of the family at the first sight. The lateral spaces in this arrangement are retrofitted (meaningfulness of the front and back); in some cases, visual barriers are used to reduce the emphasis on sub-spaces and the Siah Chador considers as an important component.

#### • **Meaning and quality of the details**

Other issues, such as the quality of furniture and decorations in the Siah Chador, represent the household's social and economic class (The features of the class system in Qashqai, like other societies, are visible in the shape, form, and ornaments of the dwelling.) Nowadays, because of the prevalence of the tarpaulin tent<sup>13</sup>, among the tribes, in some cases, to distinguish the father or first person of the family from the family, they attempt to identify the Latafs<sup>14</sup> of Siah Chador to cover the main area. As far as, among the tarpaulin tent in the environment, the main tent can be easily identified due to its different material and form. In some cases, it was observed that the tribes symbolically provided this concept to indicate this distinction by covering the Latafs on the tarpaulin tent or placing it on a prefabricated metal structure.

According to what has been said, in nomadic life environment, the capacities of the built environment and the spatial system have been developed based on their cultural meanings. Nomads due to this adaptation (spatial and semantic systems) and by employing symbols and meanings in space, have prevented disturbances in the environment organization. In fact, by using more meanings, they compensate the minimal presence of material in space.

#### • **Temporal organization**

Based on Rapoport's definitions, there are two different understandings of time in place: First, time in the larger scale and second, in human activities.

#### • **Linear time and circular time**

Nomads change their location to find sufficient forages (Grasses) for their animals as the seasons change.

Migration used to be common not only among tribes

but also in the introverted style of Iranian houses. Moving from summer spaces to winter spaces along with the cycle of time strengthens the combination between time and place in Iranian architecture (an issue that has received less attention in contemporary architecture).

In some examples of Ancient Iranian Houses, there is a separate design for each activity in a specific time (or related to the person's gender).

Also along with the seasons' changing, residents of the house moved from summer spaces to winter spaces (migration within the houses).

During some hours of the day or the seasons, some spaces of the house would remain unused; this issue caused the multiplicity of the spaces and made the plan and the section of Iranian Introverted Houses more complex and sophisticated. Since the result of multiplicity in architecture is using more building materials, such a style was not compatible with the tribes' lifestyles.

Therefore, they used other methods like time-management and adapted to the spatial organization, or they used flexible and multi-functional spaces to form the behavioral settings instead of the multiplicity of spaces.

#### • **The rhythm (the order) of human activities**

In the cultural system of Nomads, some activities like bathing, and women-related activities like carpet weaving and cooking and etc. which require more privacy, (as well as being taken into consideration when designing behavioral environments), are controlled with time-management and minimalized activity overlay in the house to provide the necessary privacy for women .

Time management and organizing the sequence of activities has an effective role in managing human relationships.

In categorizing, considering women's and men's activities, or in unique circumstances like having guests in Yourth, time management, as well as the categorizing of behavioral settings, is convenient (Fig. 9).

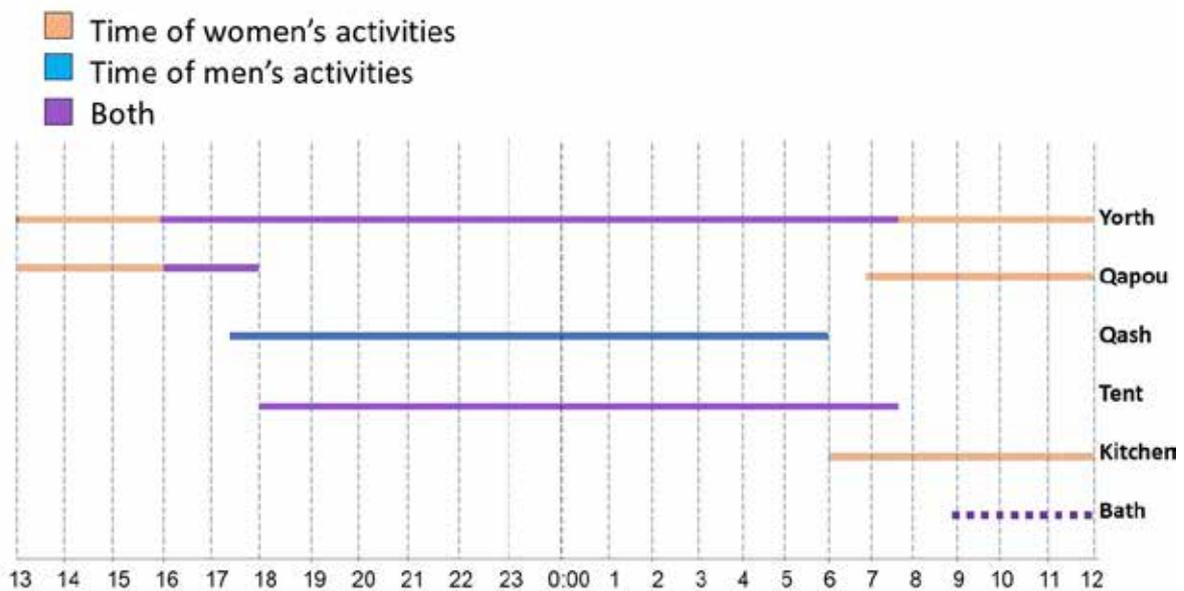


Fig. 9. Temporality of the activities in the main spaces of yourth (based on gender). Source: authors.

## Communications Organization

### • man-man interaction

In Qashqai nomadic life, social and kinship interactions and closeness to each other are arranged by placing the elements considering the distances between and proximities of them. Although all the people in Yourth are relatives, their level of closeness can be easily understood from the distance between their tents. On a bigger scale, the distance between Yourths shows the level of familiarity and closeness in different tribes of the Yourths.

Also, issues like genders, privacy, etc. are among effective factors in the human relationships. Nomads seek to regulate human relationships in their living environment through ways such as spatial and semantic regulation, time management, or the adaptation of each of these constructive components. As explained, using time and space management, or the sign elements, men's and women's activities are separated in space, and the scope of human interaction is regulated.

### • Man-Environment interaction

In the nomadic life, it is essential to have authority over the Yourth, in order to protect the livestock and

securitize people against human and natural threats. Massive communication with the environment and awareness of it has led nomads to experience a different relationship with the environment. The minimal possible boundaries of the dwellings are effective in this regard. "There is continuity between the inside and outside of the nomads' tents. Physically, minute holes and small distances in the texture of the tent allow airflow and passage of light, sound, and fragrances. This weakens the boundaries of the dwelling. Similar dressing of women inside and outside of the tent indicates that the spaces have become uniform." (Shakouri and Khodadadi, 2014: 7). In interviews with nomads living in Semirom, we observed that they were dissatisfied with canvas tents and the changes they caused. These tents contradict with their biological experience in the conventional tents (Siah Chador) and have caused changes in the quality of human-environment communications. Moreover, as a producing community, nomads make all their tools, furniture and elements of their living environment in accordance with their own standards. Therefore, one of the best examples of the coordination

between humans and objects can be seen in the lives of nomads.

**Conclusion**

The quality of the man-man relationships and the human-the environment are very important in nomadic culture; therefore, the control of relationships can be regarded as the most important goal in organizing nomadic environment. The nomadic cultural system is also the result of this continuous interaction between human life and the natural environment. The ratio of "the architectural framework quantity and housing quality" in Qashqai tribes' accommodations have been arranged in a long-term interaction between humans and the natural environment, providing flexible, light and portable housing. Also achieving maximum perception of the environment would cause a better relation between human and the environment. In the nomadic lives, the physical elements plays a very important role in regulating human relationships with the environment, so that the smallest changes (such as tent material) cause disruption in this relationship (relationship between human and the environment) and make people dissatisfied.

Based on the field studies on nomads, using the least amount of physical elements, caused no disruptions in the quality of the environment. The nomads have shaped the semantic and spatial orders using

solutions such as applying meaningful signs for space production and using space-related features (such as distance, size, direction, layout). This also reflects the adaptation of these two systems (semantic and spatial) in the context of nomad life. In the other words, the quadruple constructors of environment (space, meaning, communication, and time) have a fundamental solidarity in the nomad life, and their linear and interstitial relations have made it impossible, to examine each separately . These four components always interact with each other in a collaborative function. This interaction has been the result of nomads' efforts in providing a favorable living environment (Fig. 10).

Spatial organization varies in different times and in different human relationships. The methods which is used to create the nomadic environment are designed to organize the same place, at different times and with different meanings with the aim of regulating man-man and man-environment relations, So that in the yourth, there is no contact between two separate and unrelated activities at the same time. This has led to an increase in the capacity to gain more from the environment in proportion to the time shift, and thus, the need for a large and bulky body has been decreased. with this small body can , nomads can displace two times annually (Table 1).

In conclusion, our analysis shows that minimalism

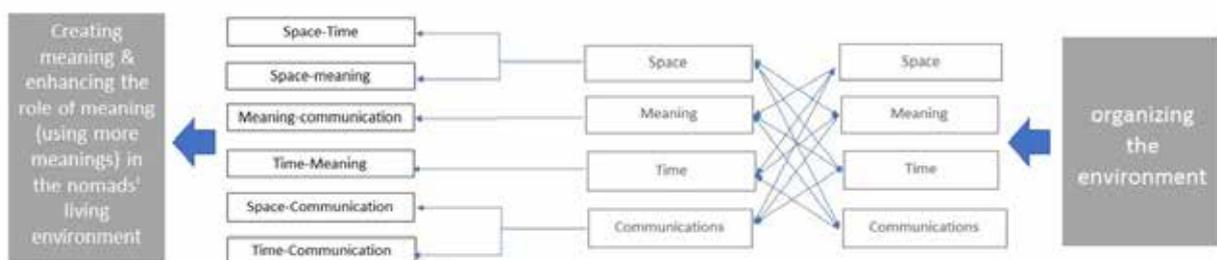


Fig. 10. The process of organizing constructive components of the environment in Qashqai tribe's Yourth. Source: authors.

Table 1. Strategies used by nomads, to organize constructive components of the environment and their Consequences. Source: authors.

	Consequences	the mechanisms used by nomads for organizing	
1.Space and spatial organization	Needless to constructed elements for space making Creating meaning in the Environment/Improving the quality of human communications Flexibility/ Diversity in Behavior and house Consequences	Multi-Functional spaces The Existence of Relative spaces in the environment Minimality of constructed elements for space making the mechanisms used by nomads for organizing	
	Creating meaning/Managing human relationships	Symbols	
2. Meaningful (sematic) organization	Creating meaning/Managing human relationships	Color and form	
	Improving the quality of perceptions & human relationships	Material The Meaning behind Distances	
	Creating meaning/Managing human relationships		The Meaning behind Spatial Elements
	Consequences	The Meaning behind Dimensions Considering the layout of spatial elements Controlling the details and quality of details the mechanisms used by nomads for organizing	
3.Temporal organization	Improving the quality of human-environment communications	the adaptation of spatiality & temporality	Linear time and circular time
	- Needless to the multiplicity of the spaces & constructed elements - no contact between related activities at the same time Consequences	Using the Multi-functional & Flexible spaces the mechanisms used by nomads for organizing	The rhythm (the order) of human activities
Human -Human interaction	Creating meaning/Managing human relationships	Synchrony of Spatial, temporal & semantic features in the organization of activities & environment	
Man or Human-environment interaction	Improving the quality of perceptions & relationships with environment	Special features of the constructed elements for space making	

in nomadic dwellings has not degraded communications regulation and organization quality. Nomads have been able to organize their living environment using different meanings aroused by communications regulation over the time. In fact, they could exploit different ways of time management, semantic creation and deployment and less use of materials to create complex spatial regulation in the environment.

### Endnote

1. In this research, we introduce nomadic dwelling as an example of a minimalist body of housing. In this regard, we particularly focused on the amount of materials used to make space in the architecture; in reaching this definition, by using the deductive method of the traditional introverted housing (desert area houses) as an example of a maximal-dimensional architecture, it can be compared with nomadic dwelling. During this comparison, it can be seen that the number and volume of constructed spaces and the volume of materials used in creating each space in two environments are quantitatively and qualitatively different. In a slightly quantitative analysis, the calculations clearly showed that the volume of materials used in the construction of the natural walls of nomadic housing, as compared to other samples, is very poor housing.
2. Siah Chador: Nomads' black tent. Siah Chador is the main space in nomadic dwelling.
3. Yourth: It is called to the settlement of tents and it's usual for each tribe to remember where it was born forever.
4. Qeshlaq: winter location in nomadic life.
5. Yeilagh: summer location in nomadic life.
6. Observations and interviews have been carried out by referring to the yeilagh Yourths of Dareh Shouri tribes and qeshlaq Yourths Of Sheshbolouki tribes. All pictures are also taken by authors.
7. Qash: The night or midday place of livestock position, which is called Qash in Turkish language and is almost equivalent to corral (Aghol in Persian).
8. Qapou: The yard of the nomadic life, which is called Qapou, and where most of their activities and behaviors occur. This place is defined in the form of convention in the nomad's mind.
9. These Kinds of spaces which their existence does not rely on physical elements, come from the substance of meaning and setting. Spaces like Yourth, Qash and Qapou that primarily get their existential validity from the existence and placement of the main Siah Chador in the environment are examples of contractual spaces.
10. Ojagh: Fireplace in nomadic housing.
11. Baydagh: Baydagh is a symbolic colorful cloth placed on the top of nomad tents in many ceremonies
12. Karreh: Stones which are placed in a specific order. It is one of most functional symbols in nomadic life.
13. Whilst observing different kinds of Yourths, we noticed that today, a number of nomads use tarpaulin tents instead of lataf tents, From the interviews done with a number of families of sheshbolouki and Dareh Shouri tribes, it was specified that the reason of this change is the lower cost of tarpaulin tent. The nomads believed that the arrival of this unfamiliar element in their lives was a sign of the disappearance of tribe's life and their memories. They expressed dissatisfaction with the failure of many qualities due to these changes as propositions of feelings such as unhappy and caged in their experience pf living in Siah Chadors.
14. Lataf: It is known as an dore bohon among the tribes of kohgiluyeh and boyer-ahmad, which forms the Siah Chador's wall, can be obtained from the sewing of two or three laths.

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