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River as a Symbol of Power
Role of the Kamoo River in Shaping Kamoo Village

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Abstract
Kamoo village in the central plateau of Iran is recognized as an ancient village in Iran and has an inseparable connection to natural elements. Its identity is related to its natural elements such as the Karkas Mountain, river, and topography of the region. The Kamoo River, as the main component of a natural landscape of the village, plays a vital role in the village genesis. Employing a library research method and field observations, this study deals with the position and importance of the river in the formation of Kamoo Village. The results show that the main river of Kamoo village, as an important natural element, follows a hierarchical order based on social power and dignity of its inhabitants. In addition, it follows aesthetic, ecological, physical, and economic hierarchies. This hierarchical order, namely a social hierarchy, has a significant role in the village development and structure. In addition to a social hierarchy, economic and physical hierarchies relevant to the main river are essential as well. Thereby, nobles’ and masters’ houses have been built in upstream and farmers’ houses have been built in downstream referring to the social hierarchy present in the village. Moreover, the proximity of architectural pieces to the river in order to dominate the main water source with farmlands behind these layouts has shaped an economic hierarchy. Lastly, the location of the important components of the village including the main route, village center, main mosque, and collection sites points to the significance of this river in shaping the physical hierarchy of the village. A physical-semantic dependence of the village on the main river, through hierarchies and their relationships with the village inhabitants as well as circumference over time, introduce it as the main component of the natural landscape of the village.

Keywords
River, Social Hierarchy, Economic Hierarchy, Physical Hierarchy, Kamoo River.

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Introduction

Basically and mostly, the genesis of a village depends on environmental conditions as well as its geographical position. The reason is that natural events influence its layout, distribution, domain of influence, physical development, village morphology, etc. Occasionally, they operate as a positive or negative factor (Velayati & Akbar Gholi, 2007). The rehabilitation of human societies on the earth has been based on their access to arable lands. Obviously, this attempt has been based on some principles which are nowadays interpreted as “locating science” (Ghadiri Masoum, Jafarbeigloo, Mousavi Rosen & Bakhshi, 2013).

Rivers play significant roles in shaping the structure of human habitations from past up to now. The dispersion of water networks as well as natural events such as flood clearly specifies the position, pattern, and shape of habitations (Saeidi, 2015). The presence of water as a natural element has certain effects on urban landscape development owing to its importance in the structure and identity of a city. Therefore, it is present in varying urban scales (Sheibani & Farahani Fard, 2013). The presence of water in cities and villages of Iran along with their various manifestations like rivers are extremely effective in their structure, architectural pieces, gardens, and farmlands to the extent that a river, to say it in other words, was a fundamental formative. Water is the most basic and vital natural component that affects the structure of cities and villages of Iran. For example, Semnan as a fluvial city was influenced by streams and tributaries of a main river based on which architectural pieces were constructed in their borders (Sheibani & Esmaeeldokht, 2015). Ahvaz city is another sample of this structure, that is, “the Karoon River is the spinal column of the spatial-cognitive structure of the city affecting the concentration of activities in the realm of the city center, urban morphology and the potential of this pivot to connect the north and south of the city. The physical structure of Ahvaz was firstly affected by the Karoon river which serves as a natural rim and reckoned as a visually, mentally and ecologically determining invaluable factor in designing and shaping cities” (Zalaki, 2016).

The emergence of villages, as primary structures of cities, followed this pattern as well. That means that permanent and ephemeral rivers were exceedingly important in physical-semantic shape of Iran villages. Meanwhile, these effects influenced the shaping of physical structure, vitality, and microclimates of villages as well as the economic dependence of their inhabitants. In addition to investigating the effect of the river on physical structure and texture of Kamoo village, this research is an attempt to investigate the significant relationship of the element—river—with other aspects of the village like social and economic modes.

Hypothesis

In addition to ecological, aesthetic, physical, functional, and economic dimensions which are the main components and dimensions of any river in a city or village, a social hierarchy as a hierarchy type affects the structure of the Kamoo River. The emergence of villages, as primary structures of cities, followed this pattern as well. That means that permanent and ephemeral rivers were exceedingly important in physical-semantic shape of Iran villages. Meanwhile, these effects influenced the shaping of physical structure, vitality, and microclimates of villages as well as the economic dependence of their inhabitants. In addition to investigating the effect of the river on physical structure and texture of Kamoo village, this research is an attempt to investigate the significant relationship of the element—river—with other aspects of the village like social and economic modes.

Research Methodology

In this research, firstly, the authors investigate different dimensions and components of a river and their effects on a city or village. Thereafter, by employing field observations, authors analyze Kamoo village as a case study and identify the components of the village based on the main river. In addition, they investigate and introduced physical, economic, and social structures in the village.

To collect data, the researchers apply the library method to explore previous studies on the role of natural factors—particularly water and river—in the formation of habitations in geographical, social, and economic fields.

Review of the Related Literature

Examining various resources indicate that the way
villages are dispersed and rehabilitated depends on natural and geographical factors such as the presence of water sources near villages. In this regard, numerous papers, in addition to emphasizing on physical aspects, have dealt with recognizing and counting those factors that influence a village development. In a study on a dry river in Tabriz, Mojtahedi (2010) introduced this natural component of the city as a quantity which controlled the quality of the urban landscape from three functional, aesthetic, and identity dimensions. This was achieved through a holistic and systematic thinking and by paralleling the city and nature (Mojtahedi, 2010). In Scully’s view, one property of the best cities is to have current rivers and arable lands (Scully, 1998). Masoumi, et al., highlighted that rivers as important geographical-political elements. Moreover, they play significant roles in economy which can have many effects on social, political, economic, and security aspects (Ghadiri Masoumi, et al., 2013). In addition to their emphasis on aesthetic, cognitive, and functional aspects of rivers, Zandiyeh & Jaferman (2010) introduced them as open ecosystems. In addition, they supply continental and ecological comfort, they can serve as social platforms and play roles in cities’ vitality and succulence. In another study on the dry river of Shiraz, Habibi and Masoumi claimed that water was a key source of stability and played a main role in the environmental quality of the city. Emphasizing on the complex relationship between water and city, they stated that rivers were environmental constructors. Moreover, they aesthetically created beautiful landscapes and possess ecological values (Habibi & Mansouri, 2010). Mohzab Taleb (2006) conducted a study on dry rivers of Mashhad in his paper and referred to their potential to compensate for the lack of urban open spaces. Ferdowsi, et al. defined rivers as a chief factor in ecological quality of cities. They help environmental stability and add greenness to regions. Moreover, they influence the identity and appearance of regions and have measureless impacts on inhabitants’ livings (Ferdowsi, Diasalar & Shokri Firoozjah, 2015). Zargar (2009) stated that the form of villages is influenced by various geographical, social, economic and cultural factors. These factors don’t operate separately from one another. They influence and are influenced by one another. Sirous sabri & Fereidounzadeh (2012) explained that four factors including natural-artificial regions, the social culture governing a village, geographical factors and the role of habitation’s tradition are effective in the development of a village texture. There are similar studies in this regard (Rahmani, 2004; Mahdavi Hajoie, Ghadir Masoom & Mohammadi Yeganeh 2004; Velayati & Akbar Gholi, 2007; Namaki, Ali Akbari, Sharifi & Ghiyasi, 2008; Anabestani, 2010; Mousavi Kouhpar et al., 2011; Ranjbar & Rashidzadeh, 2011; Bahrami, 2011; Rasteghhar, Bayat & Azizi, 2012; Aziapour & Shamsi, 2014; Ghadir Masoum, Jafarbeigloo, Mousavi Rose & Bakhshi, 2013; Fazelnia, Hakim Doust & Yar Mohammadi 2015; Riahi & Zamani, 2015). The comparisons of their results with the results of this research showed that, in addition to statistically and non-statistically investigating positioning, locating, and developing of urban and rural habitations, they described environmental factors relevant to this issue as well. The focus of studies were predominately on the role of natural factors including climate, topography, vegetation, geology and water resources. In his article on the limitations of water resources and their effect on the instability of rural areas in Khorasan province, Yasouri (2007) analyzed the relationship between dispersion of population and water resources. Fazelnia et al., (2012) described access limitations to water and lack of this natural factor in Zanjan city as an effective issue influencing social and economic aspects of the region. Meanwhile, Sheibani & Esmaeeldokht (2015) emphasized the role of rivers as “Iranian Shaarbagh” in developing cities and villages of Iran. In their papers, the researchers believed that the setting pulse of urban aggregations
depended on the way the water was supplied. In this respect, Iranian gardens are key factors in shaping cities’ structure and their traditional landscape. Therefore, they are considered as a connective factor of architectural pieces, green infrastructures and natural figures of cities.

Theoretical Framework: Various Dimensions of Rivers
A village or a city, tantamount to a complex system, comprises many elements and components where natural elements like rivers are the main ones. The effect of rivers on shaping a city or a village is occasionally recognized as a chief component. Isfahan and Semnan cities have been built based on this component (Sheibani & Esmaeeldokht, 2015). Accordingly, a river comprises different components and dimensions as hereunder:

Aesthetics Dimension of a River
Aesthetics is a field of philosophy defined as a theory of reflecting on aesthetic judgments, the essence of aesthetic, and its relationship with cognition (Hallingdale, 2014). The aesthetic aspects of landscape surpass external, visual, stylistic, and ornamental properties. Rather, it is related to human cognition and his or her multilayer experiences from the environment (Hemmati, 2016). In relation to a river, one looks for a mental and reminiscent tranquility when he or she encounters a river. Human try to mentally evacuate him-or herself and reach tranquility when he or she turns to a river. Meanwhile, they communicate with this atmosphere to create a memorable and reminiscent atmosphere for themselves (Zandiyeh & Jaferman, 2010).

Ecological Dimension of a River
Being aware of the complexities and ecological processes is very important in identifying the value and significance of rivers. Rivers play numerous ecological, social, and economic roles, since they are known as elements connecting natural environments to human-built structures in cities and villages. They operate ecologically as a natural respiratory system as well as a corridor of ecological currents helping displacement and transfer of air (Yazdgerd, 2011). Additionally and according to the connection concept of rivers, these areas are defined as open ecosystems developing physically and chemically from the source to their own downstream and basins. This concept allows the river structure to be ecologically predictable. If a river doesn’t face compulsory changes caused by external factors, its ecosystem remains unchanged with its natural cycle over time (Zandiyeh & Jaferman, 2010). The ecological components of a river, influencing directly and indirectly a city or a village, are ecological order, water quality, vegetation, human nonintervention, minimum reduction of water pollution (Ibid).

Physical and Functional Dimensions of a River
Physical and functional dimensions of a village refer to the main structure of a city or village and its structure based on accessibility, functionality, transmissibility, natural, historical, etc. components. In other words, a physical order is applied to the chief morphology of a city or village elevated from an organic order and geometry, lines, natural elements, architectural pieces, and continental conditions of that city or village. Attention to riverine aspects of a river is vital in restoring a city or village as well as its structure. This leads people to rush into these regions, since they are rare in most cities and villages. These regions can be used as spaces that people can access in their free time, and because they are close to city centers, they can be used as resting and recreation places (Ibid). The development of numerous places such as accessible sites, city or village centers, many recreation places, main functions of cities or villages all affirm functional dimensions of a river. In addition,
exploring rivers historically indicates that these natural elements create a platform for inhabitants’ social engagement as well as a place to pass their free time beside them. Thereby, they develop a basis for the development of ceremonial concepts, religious customs, and water-related praise (Yazdgerd, 2011).

**Economical (Agricultural) Dimension of a River**

The formation of a city or village structure based on natural conditions and components creates an order which depends on farming and gardening. Farming and gardening as chief careers of a village or city habitants necessitate their main formatives be shaped according to farming or gardening structures. In other words, the economic component, influenced by natural resources like gardens, farmlands, and water, which creates a hierarchy in the formation of cities and villages of Iran. Moreover, rivers are significant elements in economic activities and places for the purpose of agriculturally-based marketing. In addition, they are panoramic and identity elements that influence not only continuous mental imagination of their inhabitants, but also they create senses of purposefulness and legibility (Yarahmadi, 2010). For instance, the development of Isfahan city based on Zayanderud river and ‘Madi’ of Isfahan was founded on water sharing. In fact, the ‘Madies’ of Isfahan were constructed to transfer water from the Zayanderud river to farmlands and gardens (Ghalenoei & Alikhani, 2014). Actually, the formation of farmlands in Isfahan based on these ‘Madies’ has created an economic hierarchy.

**Social Dimension of a River**

Social dimensions are considered as the status and physical structure of the river based on the social power of individuals. In other words, since a river is a chief natural component of some cities, location of spaces, architectural pieces, gardens, farmlands (all village components in relation to the main river) are formed based on the power and dignity of people in structure and formatives of cities and villages. For instance, in cities of the Sasanian Empire, the construction of ‘Kohan Dez’ in city centers of Sasanian cities was due to security, military, and official reasons such that this place comprised a set of palaces, fire-temples as well as military and official organizations. It was constructed in the center of the city or in its best position at its highest point (Soltanzadeh, 1986). This issue shows a social and power order in Iranian cities.

Based on the mentioned components, a river is introduced as a complex system. A main characteristic of complex systems is their hierarchical structure. This structure depicts strong actions and reactions in any level and functional quality of each in a spatial-physical scale. Thus, a scale is a chief factor to study the landscapes hierarchically. Access to any component depends on having access to lower components of that system. A hierarchy is basic principal governing collections, components and phenomena existing naturally in the world, not existing as a whole or designed and produced by human. The base of a hierarchy is significant in defining the whole system as well as its components, and establishes a relationship among subsystems in a whole system (Tabibian, Charbgo & Abdollahi Mehr, 2011). As a result, we can say that a hierarchy is a systematic interrelationship among the components of a system. In addition, orderliness among these components depicts the value and position of them in relation to other components in a system (Naghizadeh, 1997). The hierarchies governing spaces, territories, cities and ecological collections follow this matter, too. That is, a village or city is similar to a complex system and its constituents are regarded as its subclasses or subsystems.
Kamoo Village
An Introduction to Kamoo Village
Kamoo village is located in Karkas Foot Mountains in the central plateau of Iran. It is one of the oldest villages of Iran in Ghamsar part of Kashan town near Isfahan city. It has protected its identity from the distant past till now and has a close relationship with natural elements such as mountains, rivers, tress, etc. to the extent that its architecture has been emanated from natural components of the village.

The importance of a river is recognized as the main element of a natural landscape. This river has been the focus of attention in different spectrums from the genesis and development of the village up now. Therefore, historical resources refer to the presence of the main lake close to this village. In this respect, a historical text namely ‘Khodaainameh’ translated from Arabic to Persian by Ibn al-Muquaffa as well as a book written by ‘Jahanshah Derakhshan’ have pointed to the presence of a lake near Kashan in the Sasanian pedigree (Najafzadeh, 2017). The book says that “the original Persian and Arabic texts have been exterminated. However, Islamic historians accessed to Ibn al Muquaffa’s text and cited him in their texts. For example, Hassan Ibn-e-Mohammad Ibn-e-Hassan Quomi (4th A.H. century) cited Ibn Muquaffa and said that Ghasan (modern Kashan) had been a lake initially, which was named ‘Kasrud’. Thereafter, this lake dried gradually and this dryness continued. This report is in line with other scientific investigations and independent texts”.

The main river of Kamoo (Kasrud) is the main origin of the emergence and development of the village. Its importance as landscape element related to the environment and history of its habitants is such high that the name”Kamoo” is derived from the name of the river meaning ‘estuary’. The Kamoo river is very significant in the structure of Kamoo village to the extent that it has created different hierarchies in the village including (1) social hierarchy, (2) agricultural; (economic) hierarchy, and (3) physical hierarchy. The social hierarchy has been developed along the river and the agricultural hierarchy has been developed perpendicular to linear movement of the river.

Social Hierarchy of the Village
The river, recognized as the main natural component of the village, emanates from the Karkas mountain range and inrushes to this village and Choghan village located along Kamoo village. The river movement in trough line of the valley creates a befitting condition for village development. Accordingly, the linear structure of the village along the river produces a social hierarchy. Thus, not only physically but also semantically does the river create a concept representing a class system. That is, the houses belonging to dignities and masters are in upstream and the houses belonging to farmers are located in downstream (Fig. 1). The development of this architecture type along the river current from the source to fields illustrates a kind of power and class system of masters and farmers. The construction of dignities’ houses in upstream is due to their convenient access to more as well as clean water sources. In other words, more dominance over water sources shows more power among the village inhabitants.
Economic Hierarchy of the Kamoo Village

The Kamoo River’s current and the village structure developed another hierarchy namely agricultural hierarchy in this village. Hence, architectural pieces constructed close to water and farmlands were behind them (Fig. 2). One main reason for this kind of hierarchy is the nearness and availability of water. Dominance over water is of utmost importance and holding more water sources shows more power. In other words, water is tantamount to power in this village. The village is more powerful compared to other villages in its neighborhood because it owns main water sources and is located closer to the source. That is, the water right of its inhabitants is more than the other villages in this region.

Structural and Physical Hierarchy of Kamoo Village

In this village, the river is so important that the village center has been built at its borders. The village center including Mirzakhan Tower, Darband Mosque (with a crisscross plan), a pool, an old willow tree and an open room for local and rural events has been built at the river borders. The spatial center of this part of the village is like a pool and the habitations and rural houses have been constructed in its vicinity. These houses, contrary to other houses in the village that have an introvert system, have been completely built extrovertly. These houses occasionally have windows, terraces and verandas in their external walls overlooking the river. In other words, looking at the water or river, the main component of a natural...
landscape was the main concern of this type of designing (Fig. 3). Moreover, this river depicts the economic value of the village lands such that the most valuable houses have been built near water. The main route inside the village is also along the river current line and the main roads inside the village have been derived from this route (Fig. 4).

**Conclusion**
The village of Kamoo has been developed in an inseparable relationship with natural elements. The recognition of its identity is impossible without recognizing its natural elements. The development of the village linearly and along the Kamoo river forms the main pattern of the village creating three hierarchies including social, economic, and physical hierarchies in this village. The river is a symbol of power—that is—the more dominance over the water (the river), the more power. Hence, houses and architectural pieces are closer to the river compared to farmlands. The social hierarchy, as a different order or hierarchy shows the effect of social dignity—master and farmer in this village. The development of this hierarchy based on social power over a natural element (river) shows the dependence and high effect of the components of natural appearances in the villages of Iran. In addition, attention to rivers in different spectrums including architecture, location of the village center in water borders, the route and main road of village in water borders (along river current), etc. depicts its importance as a subjective-objective element—landscape.

**References List**


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