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## The Effect of Connecting Route on Urban Development Case Study: Haft Bagh-e Alavi, Kerman\*

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### Abstract

The development of cities depends on their special conditions such as natural, economic, social or political factors. Routes in modern cities create the city's main structure and can contribute to the development of the city. Due to the narrowing of the boundary between city's texture and margin, routes have been converted to a stimulant for city's development. In suburbs depend on the location and time circumstances, these routes have become the main elements for the cities that follow landscape purposes.

The main issue in this research is to develop successful evaluation criteria in communication routes in urban development. Different cities have various features and personality, so their motives in development are different with each other. Studies in Kerman, as a city, whose the development is correlated to yesterday communication routes, propound the question that is Haft-Bagh route has any proper planning with regard to evaluation criteria?

The position of this route in urban development and its prosperity needs different assessment. To this purpose, data has been gathered from site visiting, searching in the library and then, matching with urban landscape criteria, sustainable development and comparing with Sadra route in Shiraz. Results of various studies illustrate that this route ignores the sustainable urban development and landscape criteria, so routes will not be a proper factor for Kerman to develop based on them. Moreover, the generalization of these criteria is inappropriate in the absence of attention to the characteristics of the context and the city, therefore urban development criteria should be shaped based on city's personality.

**Keywords:** *Urban landscape, Sustainable urban landscape, Haft-Bagh Alavi route in Kerman, Sadra route in Shiraz.*



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## Introduction

A city for its inhabitants is like a home for them, in which all the events and memories of the people are shaped; which these events create a peaceful spirit for residents. In other words, a city can be recognized through a concept behind its body. The body of the city is influenced by memories and events that have been shaped through history and can still shape now. It is true that urban body is derived from the dimension that has been developed based on the mental issues, but in the first encounter, the city's body catch people's attentions, so it must presents a proper narrative of the climate, history, culture and the lifestyle of people. In the past, each of the cities in Iran used to be created based on their circumstances and inherent features, therefore they used to be different from each other in terms of physical appearance. For example, the landscape of Yazd city with intrusive brickwork buildings have been created in the heart of each other, and the windrowers have been raised from every house, are contrary with northern cities with sloping roofs and wooden terraces that have been built around the building. This diversity results from a difference in attitude, climate and the life style of people of every region that appears on the city's appearance. Therefore, if a city will develop for various reasons, its development must be based on identity and characteristic criteria of the city.

The topic of urban development in relation to communication routes are one of the most influential factors on the city and its inhabitants is a hotly debated issue in the field of architecture, urbanism and landscape architecture. Many studies have been conducted in this field, but the most important studies in this field are as follows is:

Zangi Abadi (1992) in has been focused on how city of Kerman is shaped, and he has developed a pattern of physical development in the form of united central circles and with the new evolution. Moreover, Ali Nejad Tayebi (2010) has been explored the efficacious factors on the development of the city of Firoozabad in 2010. The results of the research illustrate that the comprehensive plan of the city played a major role in directing the physical development of the city. By contrary, the physical development of the city

had not been coordinated with expanding of services function and urban amenities, and these users do not have a decent spatial distribution and do not even meet the usual standards. In addition, Dalir & Hadily (2006) in an article have been investigated efficacious factors in urban development in Iranian cities in 2006. Vahedian Beigi , Poorahmad & Saifodini (2011) in a study have been surveyed the effects of Tehran's development on land use changes in district 5 in 2011. Also, Taghvaei, Varesi & Oraman (2012) in a study have been perused sustainable urban development and some of their effective factors in 2012. analyzed the physical development of residential areas (case study: Kerman). Several questions have forced the mindset of the writer to do this research. One of the questions is to identify the criteria for the success of urban development in the direction of communication axes and to examine whether Haft-Bagh route is a successful stimulus for the development of the city of Kerman? To answer the questions and fulfill the research goals, the writer assumes that the future development of the city of Kerman is along the Haft-Bagh artery, and this motivation is a successful factor for Kerman's development. The criteria were obtained by library studies and interviews with the experts by analytical-comparative method. Then, by visiting the Haft-Bagh route and comparing it with Sadra-Shiraz route, the success rate of this axis in urban development was evaluated.

## Route position in urban development

The physical expansion of cities is a continuous and dynamic process in which the physical boundaries of the city and its physical spaces in the vertical and horizontal directions expand slightly (Qarkhloo, Hesam & Garanjik, 2010: 75). There are several factors involved in the urban development, which vary in each city depending on citie's location. The study and studies of domestic and foreign pundits in this issue show that the city's inletand outlet arteries, nature, government policy, economy, urban polygamy, proximity to transportation stations and population growth are among the most important factors in urban development (Zangi Abadi, Nastaran & Kamali

Baghrah, 2015:25). Homer Hoyt believes that in the physical development of the city, the house rent can act as a guide to study the city. As the area of expensive residential units starts to expand from their main area along the lines of the commuter network, and such units are located to a flood-free land and restrictive factors of the environment (Shiea, 2010). "William Hurd", also relying on the importance of input and output routes of the city, considers the main expansion of the city along these routes (Zangi Abadi et al., 2015:25). Mandia and Ania in a study, have analyzed the changes in the land use practices and urban development using remote assessing and GIS. The results of this research indicate that the communication network has affected urban development. So the city has been developed linearly along the main roads that has led to the loss of forests and urban expansion. In a paper on urban growth in Shanghai, the results of the study show that the city's expansion will be mainly along the west to the east and a north-south axis. The road network plays an important role in guiding the development of the city of Shanghai (Ibid: 26).

### **Sustainable development**

According to "Peter Hall", sustainable development is a form of modern development that ensures the continuous development of cities and urban communities of future generations (Hall, 1993). The concept of sustainable development is an important change in understanding the relationship between man and nature and humans with each other. This contrasts with the view of last two centuries, formed on the basis of the separation of environmental, social and economic issues. In the past two centuries, the environment was mainly considered as a separate subject of humankind, and consequently, for human exploitation and humanitarian problems were found locally. In this view, the relationship between man and the environment was perceived as man's overwhelming nature and believed that human knowledge and technology could overcome all environmental and natural barriers. This view is related to the development of capitalism and the industrial revolution and modern science. As "Bacon", one of the founders of modern science, states: "The

world is made for mankind, not human beings for the world." (Falamaki, 2002: 300).

### **Sustainable urban development**

There are different concepts and perspectives on this important subject in different areas. From environmental perspective, the concept of sustainability is simply the sustainability of ecological systems and the relation between its creatures and natural and artificial beds. It should be said that ecological systems are composed of non-technical living organisms that are unaware of their decisive contribution to the system and its outcomes, so they are unable to modify themselves. By contrary, the city is a changing and developing phenomenon that organizes its own pattern of system, not an eternal form, or a mechanical repetition that is once ruined. The city does not even have a constant repeating cycle like the ecological one to be destructed (Delkhosh, 2014:3). However, there is sustainability for cities that promote cultural continuity and help sustain citizens' survival and sustainability, providing or reinforcing their individual growth, and adding to the sense of time and space correlations. In a sustainable city, the sense of belonging to a place increases (Mahmudinejad & Oloomi, 1999: 35). Sustainable urban development, the conditions that today's urbanized people and tomorrow's citizens can live in peacefully and securely, while enjoying well-being, have a long and constructive life (Salehifard, 2001:56). Determining criteria for sustainable urban development is difficult and, to some extent, impossible, due to the wide range and qualification of some indicators. However, various studies in this area highlight that it is possible to determine the criteria for sustainable development of the city, but it should be noted that these indicators are not enough, and other criteria, depending on the context of the city and the original urban landscape, should be included in this areas to be considered.

### **Sustainable urban landscape**

Urban development is a kind of intervention and ultimately a change in the city's landscape, and the achievement of sustainable city development from this prospect requires the existence of a sustainable urban landscape. There

are several definitions for the readability and evaluation of urban components; “Kevin Lynch” considers three perceptive, physical and functional factors in the city’s perspective (Rezazadeh, 2008: 23). Mansouri considers the urban landscape as people’s perception of the city which is related to the perception of its symbols and the association of related meanings, and identifies three-dimensional urban landscape objectives: 1. Aesthetic 2. cultural-identity 3. Functional (Mansouri, 2016). Georgi believes that the dimensions and characteristics of the visual, physical, spatial, activity, identity and environment of the neighborhoods and urban areas constitute the city’s total landscape (Abdollah Khan Gorji, 2006). Mahmudi states in his research that the urban landscape is an objective reality that is seen in the observation of each individual. In other words, it describes the reality of the physical structure of a city. This description is free from the image played by the observer’s experiences in his mind, and the key features of it can be considered sustainability, identity, beauty and unity (Mahmudi, 2006: 60); (Karimi Moshaver, sajadzadeh & Vahdat, 2015).

### Sustainable urban development criteria

As stated above, the identifying of sustainability criteria due to their nature is not easily achieved and varies depending on the conditions in different cities. However, there are some basic criteria that if a city want to expand sustainability, should be shaped based on them. These criteria can be distinguished and identified by summarizing information in the context of Sustainable Urban Landscape and Sustainable Development as well as by exploring the identity, nature and landscape conditions of the city (Fig.1).

### Kerman urban development

One of the main cities in Iran, which has experienced rapid growth and physical development in recent decades, is Kerman whose development used to be radial in the past, but now is along the communication routes (Karam, Afsharmanesh, Sharifi & Aghaalikhani, 2014: 108). A comparison has been carried out since 1956 on the factors affecting the physical development of the city and the results indicate that from the year 1991

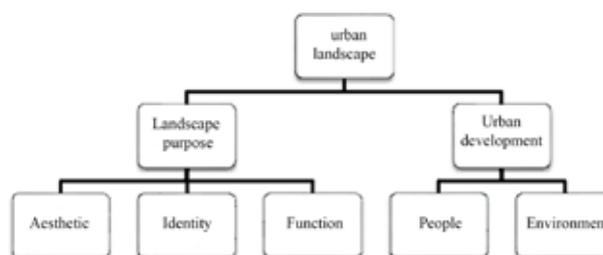


Fig.1. The criteria are need for a city to expand along them to have a sustainable urban development. Source: Authors.

to the current, the expansion of the city of Kerman has been along the communication network (Ghazanfarpour et al., 2012). The arteries today have become one of the most important causes of the linear development of the city (Sadiqmirzaei & Sojodi Haghighi, 2013: 113). Based on the comparison of the old and new texture of the city, and also according to the aerial map, it is clear that the physical development in recent years has been along the arteries, which predicts the future development of the city around Haft-Bagh route. In addition, the vast areas of the new texture, the very low- density of buildings and their dispersion around the arteries make this possibility even more difficult (Fig. 2 & 3).

### Haft Bagh route

One of the outer arteries that provide access to Mahan is Haft Bagh route. Regarding the development of Kerman on the margins of the routes and the special potentials of this route, it is anticipated that the future development of the city will be drawn to Haft-Bagh route (Karam et al., 2014: 119). Haft-Bagh route, because of the historical nature of the city of Mahan and People’s need for recreational spaces in Kerman, is one of the most important outlet route in the city to fulfill their dreams (Ibid). Among the capabilities of this artery, one can point out the connection between the two historical joints, the proper location, the urbanity sign, the tourist and recreational uses, and most importantly the vast empty land. In the systemic viewpoint, Haft-Bagh route, despite the capabilities mentioned, has failed to provide the link between urban landscape components in order to improve the quality of life. In terms of the identity, Haft-Bagh route, despite the historical and

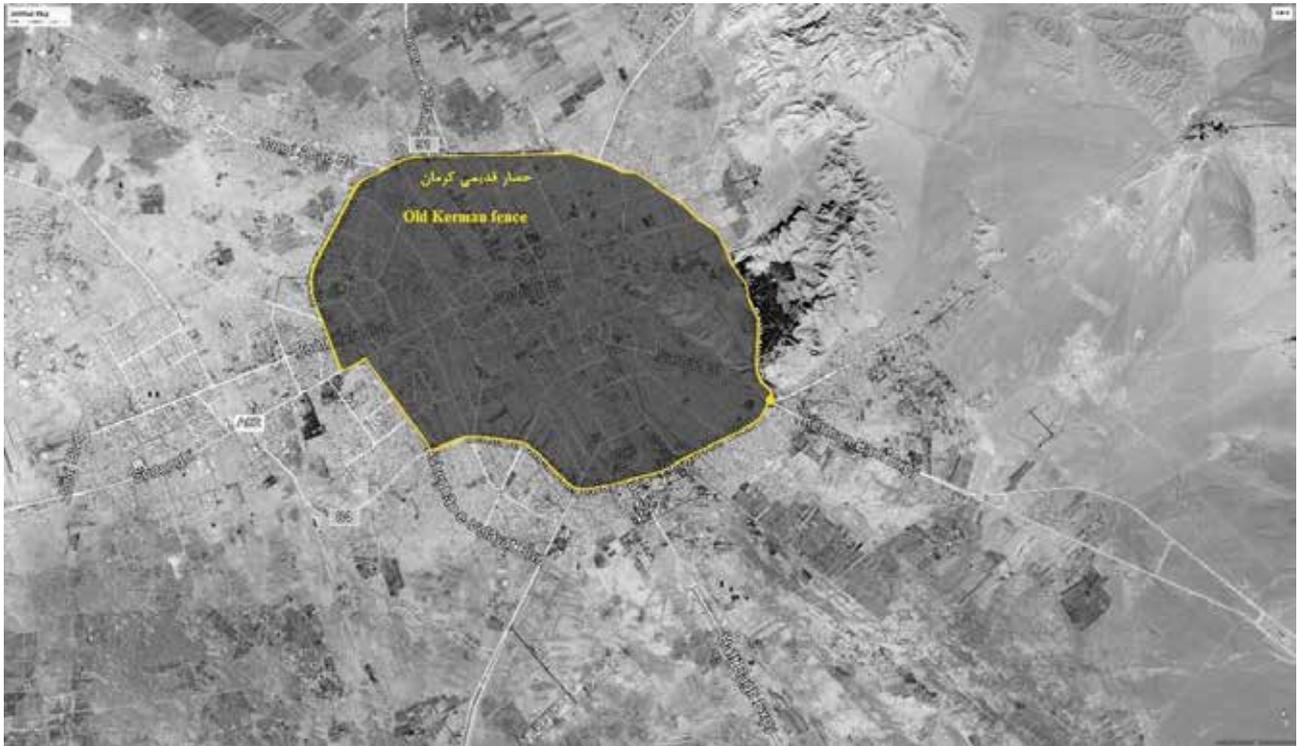


Fig.2. The old town of Kerman is located in the old wall. Source: Authors, 2017.

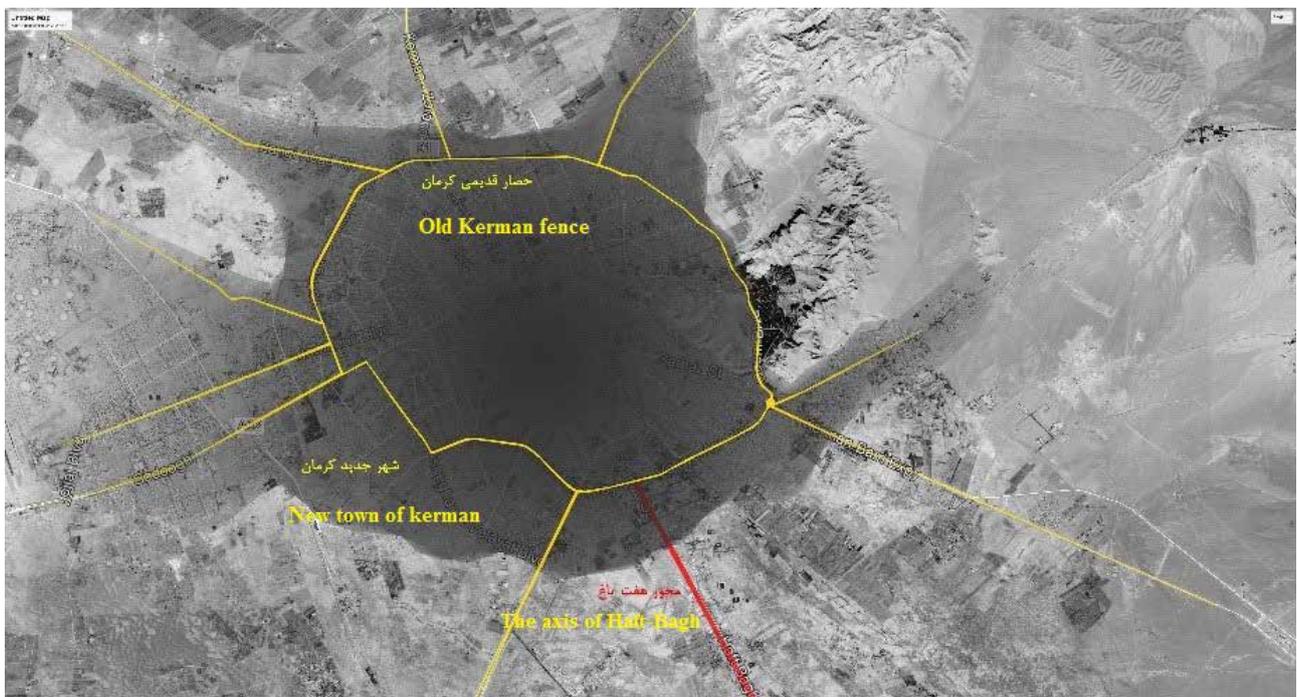


Fig.3 . The sprawl of urban spaces along the urban arteries shows that urban development is in the direction of communication routes. Source: Authors, 2017.

identity of the two cities of Kerman and Mahan, is an uncoordinated route with the history and culture of the city. This project has been formed with a purely physical look based on the logic of traffic and real estate sales, and then the concept dimension with correlate to inhabitant's memories, the identity of the person and the relationship with the environment and the surrounding environment are ignored.

Landscaping on the margin of the pedestrian path has been formed with elements such as artificial grass and inconsistent design of the climate, . pristine nature of the desert has been created. This suggests that the concept of beauty in the design of this project should be derived from common features that are used in all cities without reference to the natural, historical and cultural context. The function of this artery is also variable in the state of transit between the transit road, the first passage artery and local access, and inaccuracy causes mental disturbances to the performance of the route. Based on what has been discussed, it can be said that the landscape of Haft-Bagh is inadequate in the current situation and as a result of inappropriate orientation in planning, design and implementation, the successful future it is not foreseen because the presence of the people in this project has been ignored and the necessities of operation and economic profitability is at the top of the agenda (Fig. 4). A variety of factors such as inhuman scale, lack of space for human recruitment and participation, inappropriate planting plan, uneven home-garden construction with native Kerman's architecture and desert areas climate, creating closed vaults along the path margin and disconnecting to nature, immediate and inappropriate location of habitat on the sidelines with the high-speed ride, has led the people not to use this artery as a public space. This may disrupt the development process towards Haft-Bagh route. Haft-Bagh route alignment with the sustainable urban development criteria and sustainable urban landscape and its comparison with the same but successful axis in the development process of the city of Shiraz, called Sadra, will determine the result.

### Sadra route in Shiraz



Fig.4. Haft-Bagh route unrelated to the climate and historical memory. Haft Bagh of Kerman. Photo: Shiva Afshari, 2017.

Excessive population growth and economic problems are among the first causes of the formation of Sadra's new city, 15 km northwest of Shiraz. Sadra City Due to the cool weather in the summer, the abundance of vast water and land at affordable prices has provided a good place to live in the middle class of low-income communities and attract many people. Sadra's route initially merely played a role in the relationship between Sadra and Shiraz, but after several years, it became a destination for diverse commercial, medical, educational and recreational applications alongside this artery. What contributed to the evaluation of the artery and the attraction of people to this area is the design of the plan has been in accordance with the natural landscape and weather potential of the area. Sadra's artery in this evaluation, has been converted to a natural-tourism route for urban development (Fig. 5 & 6). Though two routes of Haft-Bagh and Sadra are different in appearance, they are similar in nature to the direction of city development. Based on the criteria, it is possible to predict the success rate of development in the direction of outlet arteries. These criteria have been compared in more detail in the two projects of Haft-Bagh and Sadra, and are shown in



Fig. 5. The position of Sadra towards Shiraz and the development of the city towards that axis. Source: Authors, 2017.



Fig.6. Sadra's artery has been created in full compliance with the identity and topography conditions of the region. It has been attract the attention of people and increased public spaces. Source: Authors, 2017.

Table. 1 . Comparison of Haft-Bagh route and Sadra's success artery in terms of compliance with urban paradigm and sustainable development, Source: Authors, 2017.

<b>Haft Bagh</b>		<b>Sadra route</b>
Not well-decorated and attention is just paid to the body Lighting: Lack of attention to the night landscape Space Scale: Non compliance with human proportions Color: Use of sharp colors	Beauty	Beautifully matched with history and people's memories Lighting: Lack of attention to the night landscape Space Scale: Human Spaces Color: Using nature and creating a relaxed atmosphere
An identity that is inconsistent with the historical identity of Kerman and Mahan	Identity	There is no authentic identity and is partly derived from symbolic elements
Having diverse but inappropriate layouts and lack of proper communication between users	Function	House-Gardens are compatible with nature
Form of buildings: imitation of the northern architecture and incompatibility with traditional Kerman buildings Materials: Non-use of indigenous materials	Architecture	Form: Climate-friendly architecture Materials: materials are in harmony with the climate
Uses created without the mediator and located in the edge of the route	Subsidiary access	Uses are provided by peripheral and subsidiary access
The creation of artificial artifacts to remind north-Iran forests and inconsistent with the desert nature of Kerman	Landscape Beds	Maintaining the nature of the region and paying attention to the people's memories
The location is proper for future urban development	Location	Proper location
Environmental degradation by planting non-native trees and disproportionate use of the nature of the route	Nature	Maintaining the environment by preserving trees and morphology of the area
Use too much of the trees and create a chaotic space	Vegetation	Proper use of different trees
Lack of appropriate lighting	Night landscape	Lack of appropriate lighting
Lack of attention to humans and human spaces	Human contribution	Well-organized spaces for people's participation

Table 1.

## Conclusion

The comparison of two Sadra and Haft-Bagh arteries shows that the Route alone do not lead to the development of the city. However, their success in this regard depends on their planning and how they are structured in line with the context and audience. Therefore, the extent to which an artery contributes to the development of the city depends on the components involved in the formation of its landscape; the components, which are said to be influenced by the meaning and concepts that human beings bring with themselves.

In Haft-Bagh route, due to the abundance of human interventions in the desert nature surrounding which is the identity element for the region, we witness a change from native nature to imitation nature and inconsistency of spatialization with the city's landscape of the city and its substrate. The discrepancy and lack of coordination between elements with the mentality of the audience from this area have made people to show a lesser tendency to use this artery. In addition, there are many factors that has been disrupted the nature, architecture and people, which are called landscape triple. Occupation of space by scattered villages and adjacent edges of the road and the absence of an axis of mediation for access, functions unrelated to the nature of the arterial tourism and the needs of the people, high and varied vegetation in the middle of space, and ultimately uneven architecture with the climate are some of them.

With such an effect on the landscape factors and signs of people's lack of gentleness from Haft-Bagh route, one can conclude that people do not know this axis as "their own", and this route is inconsistent with the memory, beauty and identity formed in their minds throughout history. Therefore, it can be said that the development of Kerman city along Haft-Bagh route does not seem successful. In the meantime, the most important factor that leads to unsuccessful development is the lack of participation of the people, which is influenced by the factors that drive people from the spaces created for various reasons.

This factor is presented in the general objectives of the landscape and is one of the main criteria for sustainable development.

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