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Original Research Article

The Status of the River Valleys of Tehran as the Most Important Natural Edges of the City in the High-Level Document (Comprehensive plan) of the City*

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Abstract

Problem statement: The direct connection between the city and nature leads to the emergence of natural edges in the city. The present study investigates the status of the river valleys of Tehran, as the most important natural edges in this city, by studying the upstream management documents of Tehran. This study and critique of the current situation have been done concerning the studies done on these edges at the landscape level. Besides, by looking at the documents related to the status of natural edges, it has been tried to examine the viewpoints of those documents on these elements of the urban landscape.

Research objective: Considering these natural edges, this study seeks to identify and examine their status in urban documents and regulations of Tehran.

Research method: The present study is qualitative and is conducted through the content analysis of documents by library studies. This study is conducted in the field of theoretical foundations, documents and examples of foreign projects.

Conclusion: Comparison of the existing views of the river valleys of Tehran based on the landscape science and also study of the examples of urban edges in development documents indicate lack of attention to cultural or identity dimensions of natural edges and aesthetics of river valleys in the comprehensive urban plan document at the macro level. Under these two dimensions, issues, such as public participation and considering citizens' mentality of the river valleys are raised in the cultural dimension. Moreover, issues, such as their roles as the view corridors and perspectives related to these natural edges in the aesthetics dimension, are discussed in foreign documents. This can also be applied to the natural edges of Tehran. At the intermediate and operational levels, this study demonstrates a rhetorical and discontinuous viewpoint of the river valleys as large and influential green areas at downstream scales. Content analysis and reference to the foundations of the formation of plans, such as the comprehensive plan, show that with such an intellectual and philosophical basis, the place given to natural edges in the city is inevitable and arises from the modernist thinking of that time.

Keywords: Natural edges, Upstream Urban Documents, Landscape, River Valleys of Tehran and Comprehensive Plan of Tehran.

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Introduction

The environmental issues have highlighted the necessity to lay the city in a natural setting. Besides, the study of emerging sciences, such as landscape and addressing the city-nature interaction expand this subject beyond the realm of environmental issues and take a broader view of nature in the city. One of the areas of the emergence of city-nature interaction is how natural edges deal with the city and its artificial edges.

This study introduces the river valleys of Tehran as the most important natural edges in this city. After explaining the necessity of addressing these city-nature interactive areas, it is sought to discover their status in the high-level documents of urban development in Tehran. To provide examples of how to deal with natural edges in the city, documents from other cities around the world have also been studied and adapted concerning the landscape topics.

Hypothesis

The river valleys of Tehran, with their three functional, identity and aesthetic roles, have been only seen with a functional role in the most important high-level documents (comprehensive plan). The modernist origin and the resulting intellectual basis have caused this plan to have a comprehensive view of river valleys only at higher scales and to have a fragmented view at lower scales, deal only with the functional dimension.

Problem statement

From the beginning of the formation of any city, its nature becomes a part of the citizens' vision and forms the history and identity of the city. It is such that some experts consider the city the product of the human view of nature. In this regard, Naghizadeh (2006) believes that the city, before its role as a physical and lifeless framework, is a living space for humans, a manifestation of human cultural principles and values and a demonstration of the human attitude towards nature. Today, given the

sudden expansion of the city and lack of attention to the natural elements, the natural aspects of the city have disappeared. "Currently, there is no balance between urban networks and natural patterns and urban networks are increasingly overshadowing the vulnerable ecological networks" (Cook & Vanlier, 1994 cited in Kookhaie & Masnavi, 2014). Amidst architectural speculations, urban development plans have failed to achieve the right and sustainable response and policy for the presence of nature in the city. Only the artificial elements of the city are emphasized when discussing the structure and identifying elements of the urban landscape (Ghavampour, 2013 cited in Maleki & Saeedi, 2015). This trend, which still exists in many cities, has led to the removal of natural elements and landscapes, such as the natural edges of cities.

Natural edges are among the types of urban edges, where urban expansion reaches nature. These edges include mountains, valleys, rivers, seas, rolling terrain, forests and so on. Natural edges have different values for each city that do not only refer to their natural aspects. New environmental sciences, such as landscape, show that in his interaction with nature, man gradually imagines mental aspects that make his symbiosis alongside nature. Urban edges are one of the main elements of inscribing the city in the minds of the audiences. They create an urban landscape that is an important index in explaining the urban identity (Yarahmadi, 2010).

This research seeks to address how to deal with natural edges in high-level documents of Tehran. The physical-environmental-identity importance of these edges, conceived of natural elements of the city in leading sciences, such as landscape, raises the question of whether the most important natural edges of Tehran, namely the river valleys, as urban landscape elements, are correctly placed high-level documents or not. The most important high-level document in Tehran is the comprehensive plan of the city, through which this study carefully examines the role of the rivers in Tehran. Considering the global experiences and based on the definitions and

principles of landscape science, this study seeks to answer these questions:

- 1. Do the river valleys of Tehran have a proper and suitable status in the high-level documents and related plans?
- 2. Considering the river valleys of Tehran as elements of the landscape, which roles do they play in the city's landscape?

Research method

The research method is qualitative. Also, this is an applied study extracted from the author's master thesis of architecture aimed to help the process of architectural design. The required data were collected through documentary and library studies, field analysis and observations.

Research literature

The research literature can be classified into several general categories and the studies conducted in each category are reviewed.

The first group of studies is related to the relationship between the city and nature, namely naturalistic cities, naturalistic urbanism, naturalism in the city. In this regard, several studies have addressed the ecological design of the city with an emphasis on urban rivers. For example, Kookhaei and Masnavi (2014) conducted a study entitled "Environmental Design for Ecological Infrastructure of Urban Landscape through Aggregate with Outlier Principle (AWOP) in Order to Enhance the Quality of Urban Life; the Case of District Two, Tehran City" and Habibi Ardabili, Masnavi & Malekmohammadi (2018) carried out a study entitled "Ecological landscape design of urban rivers with emphasis on run - off water control, case study: Ziyarat Gorgan river". The second group of studies, which have been performed on dealing with natural edges in the city, has been mostly related to the landscape and urban landscape. In an article entitled "Surveying the role of edges in the realization of landscape goals" Yarahmadi (2010) stated the problem in a more general way in a case study of Tehran to describe the incompatibility of natural and historical structure with the urban structure of Tehran's natural edges and examined the role of edges in creating urban legibility. Furthermore, Rastegari (2010) conducted a study entitled "Dezfoul sahel darad: Barresi-ye zarfiyat-ha-ye manzarin-e roud-e dez" (Dezful has a beach: a study of the landscapes of Dez river) and Zandi (2015) carried out a study entitled "The role of city garden in shaping behavioral setting, case study: Tehran", specifically referred to two different types of natural edges in the city. However, Alehashemi (2014) specifically discussed the river valleys of Tehran in an article entitled "Viewing corridor management in Tehran". Although this study addressed the visual aspect of natural edges, considering their identityinducing role is a new and thought-provoking issue. In another study examining the role of river valleys in the urban development documents of Tehran, Karimi Moshaver (2013) studied the potential of river valleys o Tehran in urban development documents and the main results were the superficial and minimal attention of urban documents to these components and presenting two suggestions to create a human axis and attention to the capacities of river valleys in the organization plans.

What is remarkable in the research literature and explanation of the innovative aspect of this article is comparable to the study of Karimi Moshaver. To complement the previous studies, in addition to content analysis from an urban planning perspective, this study attempts to criticize and analyze the approach of the comprehensive plan document based on the theoretical foundations of the landscape. Besides, considering the documents of cities with natural edges, the method of dealing with these edges has been studied in the form of landscape in this article.

Natural edges in the city

In this study, the natural edges of the city are defined as parts of nature that are surrounded by the development of the city that is formed between the city and the surviving natural parts. Therefore,

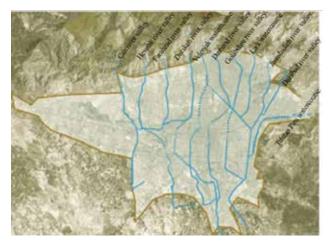
these edges have a natural and pristine basis and the green spaces that were created artificially at the later stages of urban development are not included in this definition. The natural urban edge is the result of the adaptation of the urban edge to the natural features (Askarzadeh & Shokouhi Bidhendi, 2016). These definitions and the status of the natural edges in the city, inherently indicate the significance of explaining their status in the upstream urban documents. Given the role of the edges in the identity of the city landscape, it is necessary to obtain a general policy for their management (Yarahmadi, 2010). It is a multifaceted view of these urban elements in their management that will lead to a sustainable response. Planning for the riverside and managing the landscape events of the site will be fruitless if various dimensions of the river role in the city (environmental, sensory, visual dimensions, etc.), on the one hand, as well as the history that has passed on the coastal landscape and its role in the minds of the residents, on the other hand, are ignored (Rastegari, 2010).

River valleys of Tehran, the most important natural urban edges

Given the above definitions and the approach of the article to address this issue, the natural urban edges of Tehran have been identified. The main natural urban edges of Tehran can be divided into two types, one along with the Alborz Mountains in the north and the river valleys in the downtown.

The study of natural components in the city of Tehran specifies three major elements in the city. The river valleys, natural mountain slopes in the north and south and the four hills stretched along the east-west line in the northern half of the city are the three main natural elements in Tehran that interact with other urban elements (Fig. 1).

The river valleys of Tehran, resulting from several major rivers passing through the city, can be considered as the most important factor in creating natural edges in order to study the natural urban



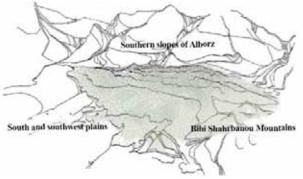


Fig. 1. Above: the twelve main river valleys of Tehran, originating from the slopes of the southern Alborz; below: the position of Tehran connecting to the surrounding mountains. Source: authors.

edges in Tehran. The twelve main rivers are the main natural urban edges in the downtown of Tehran.

Today, these edges, which are linearly formed along the twelve rivers in the downtown, do not have a clear definition as natural edges. One of the reasons for the lack of definition for these edges is the managerial approach to the city and the negligence of these elements by city managers, who do not consider its role in the development and management of the city. In the same way, this trend leads to the neglect and decline of these elements in the urban plans to the point that they are not seen as essentially a part of the city, leading to their destruction and disappearance in the city.

Natural edge in the urban landscape

Dealing with the natural urban edges of Tehran and bringing them into the decision-making process for the urban landscape requires recognizing their role in the urban landscape. One of the definitions of the urban landscape is citizens' understanding of the city, which is performed through the perception of its symbols (physical dimensions of the city) and considering their related meanings (mental and memory dimensions). The three goals of the urban landscape are 1. Aesthetic 2. Cultural-identity 3. Functional (Karimi Moshaver, Mansouri & Adibi, 2010). In a summary of other definitions of the urban landscape and the classification of its various dimensions, Karimi Moshaver, Sajjadzadeh & Vahdat (2014) expressed the dimensions of the city landscape in three physical, aesthetic and identity-spatial aspects based on Table 1.

By referring to landscape resources, the goals of landscape interventions in the city can be studied in three cultural, functional and aesthetic areas. Landscape management of urban edges, like other landscape interventions, includes three cultural, functional and aesthetic goals (Yarahmadi, 2010). Therefore, it is possible to identify natural urban edges in the following three areas:

Cultural aspects

The cultural background and role of a space or spatial component are generally rooted in its history and identity. For this reason, understanding the background of the presence of river valleys in the lives of Tehran citizens is part of recognizing their cultural dimensions. In this regard, Zandi (2015) examined the historical and cultural status of

Table 1. Definition of urban landscape dimensions by different researchers. Source: Karimi Moshaver, Sajjadzadeh & Vahdat, 2014.

Researcher	Aspects of the urban landscape
Linch, 1997	Perception - identity - functional
Mansouri, 2008 Karimi Moshaver, 2010	Aesthetic – functional – identity
Abdullah Khan Gorji, 2008	Aesthetic - identity - space - functional - identity - Environmental -
Mahmoudi, 2006	Stability – identity – aesthetic - unity

natural elements in the city. She introduced river valleys, such as Tajrish along with Emamzadeh Saleh and Darband along with Emamzadeh Qasem, as behavioral settings and pointed to the role of these natural edges in defining these settings. She considered these two river valleys as the most important elements of creating behavioral settings for the citizens of Tehran (ibid.). In another article, she indicated that the character of these intra-urban gardens is that they are in perfect harmony with the morphology of Tehran. They are influenced by five important river valleys and structural and behavioral hierarchical patterns depending on the location of different heights of the river valley, forming the cultural paradigms of an Islamic-Iranian society (Zandi, 2014). These studies show the deep cultural and identity roots of the river valleys in Tehran.

However, the important point in understanding the identity of natural elements in the city is to recognize this identity. The first step in recognizing the identity is the ability to recognize the phenomenon based on its similarities with homogenous phenomena and its differences with non-homogeneous phenomena (Yousefi Najafabadi, 2016). Accordingly, process of recognition is, in fact, based on intrasimilarity and interclass differentiation and this similarity and distinction include all the apparent, functional and semantic features of the phenomenon (ibid.). Now, if in the process of change, the recognition factors of a phenomenon are taken away at a certain level, its identity is strongly questioned. This issue has a lot to do with natural systems (ibid.). This is because natural systems in the urban environment are severely affected by and inevitably undergo, many changes.

Functional aspects

Certainly, the most important functional aspect of the natural elements in the city is their environmental impact. Rivers, as natural channels for collecting and transmitting precipitation, have always been of interest to human societies from ancient times and small and large civilizations have emerged and spread along with these natural phenomena

(Habibi Ardabili, Masnavi & Malekmohamadi, 2018). Besides, their infrastructural effects on the development of urban green space cannot be ignored. Natural elements, such as river valleys, watercourses and network access, are irreplaceably significant as air corridors and faults and high-pressure lines are significant as potentials for the creation of green corridors in sustainable growth and development of the city, the revitalization of the urban environment, as well as the creation of an ecological infrastructure network (Kookhaie & Masnavi, 2014). The natural infrastructural role of these elements, as set out by experts, shows their ecological and functional importance.

Aesthetic aspects

The aesthetic aspects of these urban elements are rooted in their role as view corridors and beautiful urban landscapes. One of the important roles of view corridors in visual and landscape studies has always been creating images in the minds of citizens that make it possible for them to perceive the city. In other words, part of the city aesthetics related to its mental images in the minds of citizens is obtained through view corridors. In this regard, elements, such as river valleys and urban canals, are among the most important platforms for their creation. In new north-south highways, the view corridors have been formed towards Tochal Peak and the northern heights of the city due to coordination and adaptation with the seven river valleys of Tehran and the natural topography of the city (Alehashemi, 2014). Besides, the presence of more detailed elements in these corridors gives them an aesthetic aspect. For example, the reflection of the special tree in the Farahzad region - mulberry tree - intensifies the sense of pleasure and understanding of the beauty of the landscape on the edge of the Farahzad river valley for citizens (Yarahmadi, 2010).

Research method

This research is qualitative and uses non-quantitative analysis. In the theoretical stage, library study was used to study the recent literature. To examine highlevel documents of urban development in Tehran and abroad, a documentary study was conducted and existing documents have been translated. In the Discussion section, the results of analyzing the content of the high-level documents of Tehran has been adapted to the principles derived from the theoretical foundations of the landscape as well as the policies of the studied foreign documents to make conclusions.

The status of natural edges in upstream urban documents (Tehran)

With a common understanding of the natural edges in the city of Tehran and presenting the relevant examples, it is possible to search for their traces that have been left or not left in the urban documents. Until recently, the general approach of urban management has generally looked at the city as a man-made element that considered the natural components in it either as redundant elements or only in terms of its functional and environmental aspects. However, components, such as natural urban edges, have different potentials created throughout history and through the interaction of citizens with their environment. In the view of landscape science, these components are effective in the city with three roles of identity, aesthetics and legibility (which is a kind of function) (ibid.). The same approach has been prevalent in the existing urban planning documents and regulations in Iran until recent periods when it has moved away from the initial view.

Studies on the high-level documents of Tehran and how they deal with the river valleys of Tehran indicate a change in the way of looking at these urban edges. Tehran has had three comprehensive plans so far. In the comprehensive plans approved in 1968 and 1990, the river valleys have been considered as a tool to control floods. In the comprehensive plan approved in 2007, this view of the river valleys was changed greatly and these components, in addition to controlling floods, also have the capacity to create recreational spaces (Karimi Moshavar, 2013). The instrumental view of the river valleys in the first

comprehensive plan of Tehran was the basis of many subsequent plans and measures and provided the ground for covering canals and channeling the rivers in the disposal plan of surface water of Tehran in 1974. The intellectual basis of this plan continued to appear in the plans prepared in 1991 and the strategic plan of Tehran Municipality (1995). However, in line with global changes concerning natural and cultural values within cities, the river valleys of Tehran became a significant place in the Comprehensive Plan of Tehran (2006). At the macro-scale, the initial idea of Tehran's spatial and physical development was presented based on a decentralized and multisystem structure according to a gridiron pattern of axes and hierarchy of origins. The main axes and networks of this project are formed following Tehran's northern-southern natural water grounds (Boomsazgan Consulting Engineers, 2006, A: 32 & 33). At intermediate and micro scales, river valleys were considered as recreational and tourism areas and identity-inducing components (Alehashemi, Bagheri & Akhavan, 2015). In the basics of the idea of the development of Tehran, the use of Alborz slopes has been suggested as the residential northern boundary and the continuous recreational axis. In this plan, the northern-southern river valleys of Tehran have been considered to decentralize the downtown and density of non-residential functions in the north-south continuous axes. This plan aimed to mediate the polarization process of north and south of Tehran by distributing and establishing public places on the banks of river valleys and equipping urban centers, distribution and different scales (Comprehensive Plan Studies of Tehran, 2006). However, there are ambiguities in how to deal with them comprehensively with the dominant functional load and identity, cultural, or aesthetic issues have no place in the literature of this idea.

In summarizing his studies on the high-level documents, Karimi Moshaver (2013) revealed that "a review of comprehensive, subjective and local plans related to river valleys in Tehran shows superficial and minimal attention to these components, while

the specific natural and geographical conditions of Tehran have always given vital and multifaceted roles to the river valleys throughout the history. Paying due attention and understanding all existential aspects of these natural components is the first step in planning and managing them in the city (ibid.). In the analysis of the abovementioned proposition in the report of Boom Sazgar Consulting Engineers and the how of dealing with river valleys in this multi-system structure, the study and analysis of various maps of Tehran's comprehensive plan can be presented.

There are two main criticisms of this status in the analysis of the main maps of the comprehensive plan and the study of the status of the river valleys in Tehran. The first is a hierarchical look at the main plans of this plan. At a higher scale and in the proposed Space Agency map, as shown in Figs. 2 and 3, the surrounding areas and the river valleys themselves are considered as the large and wide green areas. As the map guide shows, this graph shows the types of green spaces, mountains in the northern areas and the green belt of the city on the map of Tehran Space Agency. These north-south "connecting" axes have been interpreted as vital arteries that play an important role in the city's space agency and are of great importance in the large-scale decision-making regarding the spatial organization and connection of other urban elements.

However, the path and decision made for these axes, which include some of the river valleys of Tehran and not all of them, are changed in the subsequent decision-making scale. In the 1:10000 map, the initial approach does not dominate the plan (Fig. 4). A brief graphical look at this map shows that the decision-making path deviates from the first target. The wide green line on the outskirts of the river valleys has become thinner and is sometimes invisible. In contrast, it is the business and service areas that stand out.

This gap between the two maps of the Space Agency and zoning in the comprehensive plan can be seen in the next levels of urban plans. A cursory glance

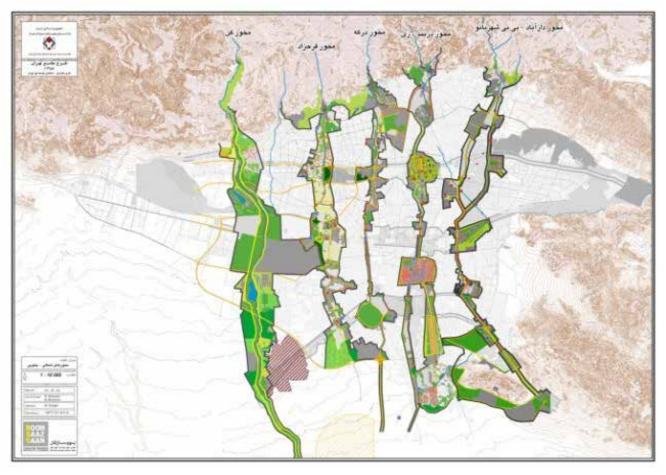


Fig. 2. North-South arterial axis network in Tehran Space Agency. Source: Showra-ye Ali-ye Me'mari va Shahrsazi-ye Iran, 2007.

at the approved detailed plans in areas with the potential for river valleys indicates dying out of the original idea of these vital arteries in the city. By the time it reached the operational stage, it had almost completely faded and only a slogan remained. This evolution eventually led to the provision of a subjective-local plan, as set out in Appendix 4 to the Comprehensive Plan Document, which means postponing the subject matter to subsequent decisions.

A basic look at this high-level document can shed light on the reason for this formal and managerial path. By reviewing this path and referring to the intellectual foundations governing the comprehensive plan, as the main tool of metropolitan management, the modernist foundation from which this plan and the like were born in the contemporary period can be considered the main reason for this incomplete view of Tehran river valleys. A historical review of how the idea of these plans was formed also indicates that the theory related to the comprehensive plan of Tehran is linearly (longitudinally) originated from Surayamata's proposal for the city of Madrid in 1882 and Tony Garnier's project for the industrial city and the re-weaving of London after World War II (Madanipour, 2002). After the comprehensive plan of Tehran, Lord Lovlin Davis, the designer of the cities of Washington and Milton Canis in Britain, designed and proposed a linear-administrative centrality plan for Tehran with the model of street network (ibid., 340).

The outcome of the thinking of urban modernists, including Patrick Grace and Louise Mumford, enshrined in the Athens Charter of Modern Urbanism in 1933, was a product called the Urban Comprehensive Plan. One of its features

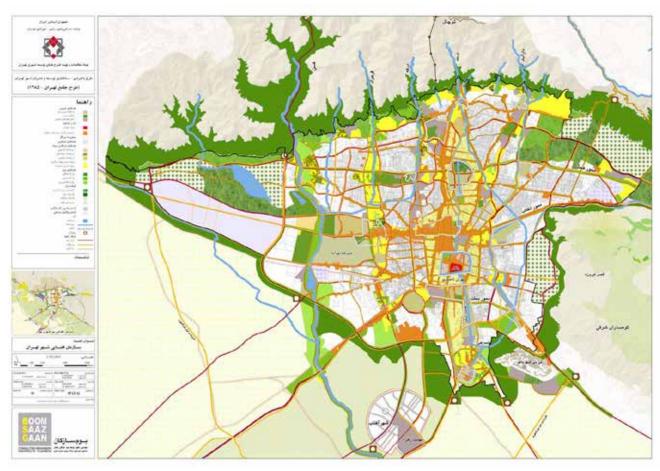


Fig. 3. Tehran proposed map by the space agency. Source: Showra-ye Ali-ye Me'mari va Shahrsazi-ye Iran, 2007.

is that it is largely immutable and its design idea is physical geometry; in other words, it places too much emphasis on physical properties (Parsipoor & Ziatavana, 2013). The modernist view of natural elements, such as the earth, is also evident in the city. In the modernist view, the earth (or nature in general) has no value of its own, unless it is a source of human benefit. Therefore, one of the key aspects of modernism is the idea of "overcoming nature to produce a wealth or commodity" (Pajouhan, Eliaszadeh Moghadam & Fathi, 2013). In such an intellectual framework, all other dimensions of the city and urbanization will be influenced or sacrificed by attention to the functional and physical dimensions, as the postmodernist critique of these plans shows. Modernist urban planning can be studied at two levels: the first level is the physical and social problems in the modern city, such as

inequality, fragmentation of the city and alienation engraved on the appearance of modern cities. The second and higher level of the crisis in recognizing cities is the values of urban life and urban identity, which on the one hand have broken with their traditional and historical past and, on the other hand, have not achieved acceptable results (Besteliu & Doevendans, 2002 cited in Pajouhan, Eliaszadeh Moghadam & Fathi, 2013). This issue has also been considered in studies that have examined the events of the modern era with a reference to the past of cities. These plans remained indifferent to the economic and social patterns and cultural differences by planning the expansion of the city based on quantitative population growth (Zamani & Shams, 2014). In a fundamental view, material and economic aspects become the main goal of urban planning projects due to the emphasis of modernism

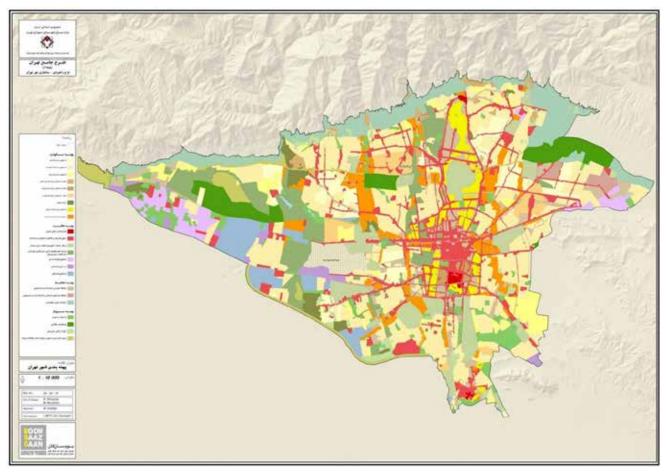


Fig. 4. Zoning map proposed by the comprehensive plan of Tehran. Source: Showra-ye Ali-ye Me'mari va Shahrsazi-ye Iran, 2007.

on materialism in the fields of architecture and urban planning. Therefore, construction is on the main agenda of urban planning and the organic scale of man and his socio-cultural needs are forgotten (Naghizadeh, 1999, 85).

Global experiences

The study of selected plans from other countries was not only for a complete comparison but also examining the views of these plans on the subject of natural edges. Moreover, this study is not limited to the dominant natural edges in Tehran - the city's river valleys. However, the approach of these plans in the first document is related to the distance between the city and nature, in the context of managing London's views toward a central river and the strategic plan of Jeddah toward the coastal edge of the city, which

have been considered as the natural edges in these plans.

• Kyoto landscape document

This document, which examines, studies and ultimately makes suggestions for the development of the landscape of Kyoto, is developed in four sections. In the first section, entitled "Recognition of Kyoto's Landscape", the components of the city's landscape are identified. In the urban section, geographical location, climate, topography, historical zones, changes over time, industries, people's daily income, culture and tradition, architecture and streets are examined, which shows the comprehensiveness of this plan's viewpoint on the urban landscape. According to this section, one of the aspects of landscape recognition about the surrounding nature, including mountains and their slopes, is the identification of "boundary areas",

which can be called "natural edges". Explaining these areas, the document states that: "the area has been added to the city as the population grew and the city expanded on the edge of the mountain, in the Housing Development and Land Reform Project to accommodate more than one million people in 1931. This plan has specified the policy of building high-quality detached residential villas in the area and has prevented crowding or damage to natural green landscapes" (Kadokawa, 2010). In the description of each part of this boundary area, there is an approach to preserve existing natural landscapes and infrastructures in the intersection with the city.

At the beginning of the third section, the general policy of the document states that "Kyoto's urban management must consider the relationship between the buildings and the surrounding mountainous areas because the city is in a basin". With this in mind, a basic policy has been set out on the building heights: "in the commercial and central sectors, buildings are taller than other areas and their heights gradually decrease downhill" (ibid.).

The diagrams of the final section, along with other criteria and strategies presented in this document, considered the natural edge of the northern mountains as the most important determinant of the urban height. The fourth part of the document, which focused mostly on the managerial aspects of the plan, is based on citizens' mentality and their participation and collective identity to control the landscape.

• London strategic plan (london view management framework)

This document, as one of the supporting documents of the strategic plan of the city of London, formulates the London View Management Framework by classifying important views and strategic landscapes into four categories. These four categories are "Extensive Panoramic", "River Views", "Urban Landscapes" and "Linear Landscapes" (Greater London Authority, 2010).

One of the four important categories of these landscapes is views of an urban natural edge. The Thames River, which flows through the city as the most important natural element in the city, has the largest number of these landscapes. Explaining the importance of these views, the document asserts that: "views of the Thames River and its landscape elements provide key images of London, strengthening the city's identity because these views have run across the river and from one bridge to another, representing the capital and encompassing many of the city's symbolic buildings" (ibid.). The importance of an urban natural edge and the management of its views to the city is the most important part of this document's consideration of the natural urban edge.

• The strategic plan of Jeddah

Jeddah's strategic plan has been prepared under the direct supervision of the mayor of the city and presented in 13 sections (Municipality of Jeddah, 2009). In addition to the coasts, the strategic plan of Jeddah Municipality requires the municipality to prepare a separate plan called the "Comprehensive Plan for the Management of the Seaside," which should include components of management areas, physical elements of the landscape, natural features, ecological vital processes, human needs and preferences and the development needs of the industrial sector and businesses within the scope of the project in detail. In other parts of the document, this main natural edge of the city has been addressed. In terms of environmental and urban services, the coast is considered as one of the sensitive areas in waste collection and environmental quality. In the tourism section, the natural coastal edge has been introduced as one of the major tourist attractions. In this section, which specifically focused on the coastal side of the sea, three main topics were studied, including "integrated watershed management", "quality protection and enhancement" and "public access and recreation".

The section on "open spaces and leisure time" is another volume of this document that dealt with the natural edges in detail. Attention to open spaces along the coast and their role in filling citizens'

leisure time is the subject of this section, which was mentioned in the five main policies of the section and covered lots of topics, such as "public and private participation", "access to public spaces and social areas on the beach", "creating a variety of facilities and capabilities for all groups of visitors", "integrated management and comprehensive maintenance" and "providing facilities and services for citizens and visitors".

The following diagram shows the summarization and the theoretical foundations of the research. If

the role of landscape elements or the three landscape goals in the upstream plans are considered as the cultural or identity, functional and aesthetic roles, the approach of the comprehensive plan of Tehran and the studied foreign samples will be as Fig. 5. Although the scale of the comprehensive plan of Tehran has been larger than other documents and should be more comprehensive, the view of this plan to the most important natural urban edges, as elements of Tehran's landscape, is limited to functional dimensions and cultural positions.

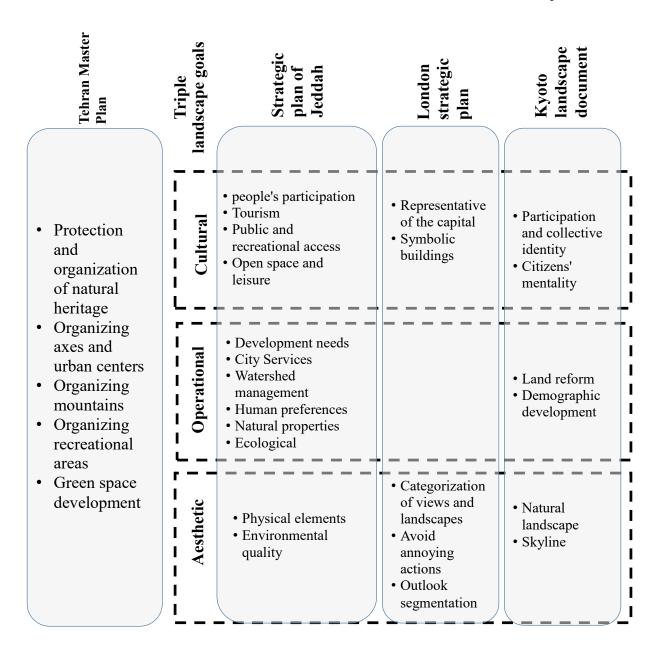


Fig. 5 Comparison of the status of the natural edges of Tehran in the comprehensive plan of Tehran with global experiences based on landscape foundations. Source: authors.

Conclusion

The position of the river valleys of Tehran in the comprehensive plan of Tehran is very weak, in cultural and aesthetic dimensions, at the macrolevel of the urban landscape. Issues, such as public participation, tourism, attention to the perceptions of citizens, identity and symbolic issues have no place in addressing natural edges in the comprehensive plan of Tehran. Among the aesthetic issues, the lack of attention to the river valleys, as the view corridors and their related landscapes, which support the identity and culture, as well as the environmental, visual and physical qualities, is very evident compared to the studied international plans. In the meantime, only functional issues such as organizing axes or developing green space and of course recreational and tourism areas, which can have a cultural burden, can be seen. However, the superficiality or minimalism of this issue is also evident at the operational level. The hierarchical study of the map of the Space Agency and the zoning of the comprehensive plan shows the promotional viewpoint of this plan toward the river valleys as wide green areas in the space agency. Although this position seems incomplete in the definition of an urban landscape today, referring to the ideas of such plans in the modern era makes it clear that such a view of the world, city and nature results in nothing but a physical, instrumental, or functional view. Besides, it neglects any component outside the modern materialist view. The river valleys of Tehran, as the natural edges of the city, have not been immune from this view and coercion in the comprehensive plan of this city.

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