

# Comparative Analysis of the Persian Garden and Park Pattern's Versatility as Urban Spaces in Iran

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**ABSTRACT:** Due to the thousands of years of Persian garden history, it has taken an indigenous color and aroma and its components have formed according to the needs that have existed over time; whereas the park suddenly entered Iran to induce modernism in the Qajar period. For this reason, its features don't fit the circumstances of Iran and instead fit with its territorial characteristics. A solely historical attitude to the Persian garden has led to the exclusion of this space from the process of regeneration and adaptation to recent needs. On the other hand, in the 50 years since the park's emergence in Iran, some of its features have harmonized with the context. Accordingly, the research question is: following the characteristics of urban public spaces, which patterns of green space -Persian garden or park- might be more adaptable to the Iranian context. Several experts' opinions were used to respond to the research question. The criteria for reviewing were selected from the project for public spaces and the results of the questionnaires were analyzed in the form of the hierarchical analysis process method and were adapted to the theoretical background. Although regarding some of the use and activity criteria, the park has more adaptability as a public urban space in Iran, in terms of access and linkage, comfort and image as well as overall measurements, the garden is more adaptable than the park.

**Keywords:** Persian garden pattern, park pattern, urban public space, Iran.

## INTRODUCTION

In recent years, the appearance of viewpoints on the necessity of creating social interactions in the environment has given importance to urban public spaces, and subsequently, in different cities of Iran, parks have been increasingly made in diverse shapes as the only kind of such spaces, regardless of the features of each city. On the other hand, the mental load resulting from the large private use of the Persian garden as museum work, in much of its history, has excluded it from the regeneration process. The purpose of the present research is to answer the following question: which of the two patterns of Persian garden or park will work better as a public urban space? This will be achieved by extracting the features of urban public spaces, surveying the experts, and comparing the results with the theoretical background.

Using semantic-oriented, functionalist, shape-oriented, and space-oriented approaches and the perspectives related to environmental psychology, climate, and energy, many pieces of research have previously been conducted on Persian gardens, each of which has addressed a part of identification. The present study presents a new approach with the feasibility study of the restatement of this historical type.

## Theoretical Background

### The Pattern of Persian Garden and Park

In the Islamic encyclopedia, the word Garden is defined as "often an enclosed area, built by a human using flowers, plants, trees, water and special buildings based on geometric rules and beliefs" (Mousavi Bojnordi, 2002). Pope and Ackerman (Pop & Ackerman, 2008), in a paper entitled "Gardens" by citing the

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Fig. 1: Examples of Persian garden pattern: Left to Right: Shazdeh Mahan, Dowlat Abad (Meth, 2020), A view of the Persian garden pattern on a stamp with the same name (Manaalbum, 2020)



Fig. 2: Examples of park pattern: Left to Right: A View of Mellat Park, A view of Saei Park, Laleh Park plan (Kojaro, 2020)

term "Persian Garden" and its history of 5-6 thousand years frequently believe that thinking of the Persian garden as one of the components of Iranian architecture has begun from the distant past in Iran and gradually developed and improved until the contemporary times while spreading to other territories (Mousavi Bojnordi, 2008).

Persian gardens, besides possessing unique features, have a single pattern with an inherent nature in their general structure, which is referred to as the "Persian Garden Pattern" in this research. This pattern is defined by the semantic system, architectural system, planting system, irrigation system, and common sound system for most Persian gardens (Fig. 1).

Oxford dictionary defines "Park" as a large area of land with trees, landscaped for promenade purposes by the public (Oxford English Dictionary, 2004). In this research, a parking pattern means a kind of public green space that has been built in the last century in all cities of Iran with almost identical generality under the name of the park (Fig. 2).

### Urban Public Space

In the broad sense, public space is a place that is accessible to all and includes different types; from the national park to the halls and city centers. Typically, urban space is like a public place, a center for social gatherings, and spending leisure time (Shaftoe, 2008).

### Urban Green Spaces

Spaces such as parks, forests, green roofs, streams, and public gardens provide ecosystem services. Green spaces also promote physical activity, psychological well-being, and improve the general public health of urban residents (Wolch et al., 2014).

### The Project for Public Spaces (PPS)

This project is one of the international research institutions' studies that are oriented towards urban public spaces. As the result of reviewing more than 1,000 public spaces around the world, the institution realized that an efficient urban space has four key qualities (see Table1 and Table2): these spaces are accessible, people are engaged in activities, are comfortable, have beautiful landscapes and are ultimately good for communication (PPS, 2016).

### MATERIALS AND METHODS

#### Analytic Hierarchy Process (AHP)

This is one of the most applied techniques for decision making patterns and physical planning with the possibility of inconsistency control if the subject under the study has more than one option for each issue. The goal of this method is to prioritize options or to select the preferred one among several options (Asgharpour, 1998; Azar & Faraji, 2002) Although the Analytic Network Process (ANP) is the generalized form of

Table 1: Four main criteria and 33 sub-criteria for designing or evaluating urban public spaces (PPS, 2016).

Linkages & Access	Activities & Uses	Image	Sociability
Continuity	Vital	Walkable	Diverse
Proximity	Active	Suitable	Stewardship
Readable	Useful	Spiritual	Cooperative
Convenient	Indigenous	Charming	Pride
Connected	Sustainable	Historic	Neighborhood
Walkable	Special	Safe	Welcoming
Accessible	Celebratory	Clean	Friendly
	Real	Green	Interactive
	Fun	Attractive	

Table 2: Operational definition of PPS criteria for designing or evaluating urban public spaces (PPS, 2016).

<b>Access and Linkages</b>	Circularization and spatial connection, the visibility of the space and how it is attained and thus the safety and positive performance of the space, accessibility, continuity of movement and the presence of special social groups in different points of the space, the availability of sufficient parking and good connection with the urban transportation system.
<b>Uses and Activities</b>	The presence of social events, the types of activities and their uses and the potential to attract individuals and groups, and thus, the dynamism of space and its activation at different times; the dimension, and the frequency and duration of people's referrals to the space and their participation in various activities.
<b>Comfort and Image</b>	How to do physical organization and receive the mental comfort of the space, sustainability (the manner and extent of protecting the space), perception and visual desirability, and thus people's attraction, the desire to stop, walking and experiencing the collective life there.
<b>Sociability</b>	Creating opportunities required for social interactions, and thus feeling strong relationships with the place and society, determining the extent of the presence of various social groups, forming social networks, and living during day and night.

AHP and a good alternative to it in determining the complex relationship among the elements of the intended decision, AHP is appropriate to our research which is merely a comparison of criteria and sub-criteria.

#### Expert Choice Software

Expert Choice software is a powerful tool for multi-criteria decision making based on (AHP) method with the possibility of designing questions, the hierarchical decision-making chart, determining preferences and priorities, calculating the final weight, and analyzing the sensitivity of decision-making to variations in parameters of the problem.

The statistical population includes 20 architecture and urban planning university, professors. Using a questionnaire, they were asked to prioritize the degree of adaptation of each of the two patterns of Persian garden and park in terms of the main and secondary criteria in the form of paired comparisons and using a ranking of 1- 5. The results of the questionnaires were analyzed by Expert Choice. In the next step, the results of the survey were adapted to the subject literature.

## RESULTS AND DISCUSSION

Fig. 3 shows the survey's results on the paired comparisons and weighting the main criteria regardless of the space type.

It is observed that access and linkages are the most important necessity of urban spaces in Iran. Uses and activities, comfort and image, and sociability are ranked after, in that order.

#### Access and Linkages Criteria

The numbers in table 3 indicate, park in the continuity criteria, and the garden in the proximity and readability criteria fit more like an urban space.

The gardens have a physical enclosure through the peripheral wall, and even despite the square which is usually located in front of the entrance for public ceremonies and allows the continuity of the outer space to the interior of the garden, it has less connection with the outside environment. On the contrary, parks don't have walls and physical enclosures and are immediately connected to the surroundings. For this reason, the spatial and visual continuity in the park pattern is far more than a garden pattern.

Adherence of the Persian garden structure design to the geometric system has created a clear hierarchical system so that all of the components follow the whole. The garden passage network is such that when we get into the whole of it, the passages are broken up hierarchically. Consequently, a person placed in each section of this system, being aware of his location, will have a general idea about the other paths and



Fig. 3: Final weight and inconsistency rates of main criteria. (Inconsistency=0.04-with 0 missing judgments)

Table 3: Comparison of the pattern of Persian garden and park according to the sub-criteria of access and linkages.

Alternative	Continuity	Proximity	Readable	Convenient	Connected	Walkable	Accessible
Persian Garden	.200	1.000	1.000	1.000	1.000	1.000	1.000
Park	1.000	.200	.200	1.000	1.000	1.000	.500
L	.104	.031	.159	.068	.240	.045	.354

their connections with other sectors and leads to navigation. The ability to predict the paths is easily completed and rebuilt in the mind of the observer, so no complexity would occur for the visual perception of space (Mahdizadeh & Nikooghftar, 2011). In many Persian gardens, the axis, which is the product of the direction, is established and a hierarchy of spaces evokes a single path; whether it is a physical movement (movement direction) or merely sensory perception (sensory direction). As a result, readability reaches its ultimate meaning in the Persian garden (Bemanian & Saleh, 2011). This is while the flexible design without a geometric system in parks causes an interruption and discontinuity in the main and the secondary paths.

The entrance hall with its two-level specific architecture, as the only building at the garden's edge, while connecting the garden to the outside, clearly defines the entrance and alongside the closed and continued wall allows access readability at the entrance to the garden. The readability of the outgoing paths is determined by factors such as specific right-angled geometry, symmetry and hierarchy, the slope of the earth in the sloping gardens, the main axis which leads to the palace from one side and the entrance hall from the other side, sub-paths leading to the main path in a clear hierarchical system, terrace, rows of trees, water paths and defined floorings.

On the other hand, the dominant curve lines in park geometry, due to the less logical and structural cohesiveness and connection make the user unable to perceive his location. In

this case, to find the entrance and especially the exit position becomes difficult because of the path incommensurability. The feeling of anxiety and perturbation due to not recognizing the proper position and direction affects the person's relationship with the environment. Also, parks do not have a defined entrance and it is possible to enter the park from all the walls, so the readability of a park is much reduced.

The components of convenience, connected movement, walkability, and, to a degree, accessibility<sup>1</sup> which are considered as tracking criteria and can be planned to the same extent in both spaces are excluded from the comparison process.

#### Uses and Activities Criteria

Table 4 compares the Persian garden and park based on Uses and Activities Criteria.

The park's openness to the outside will attract some of the aimless activities into the park, creating a vital and active environment. However, the activities that can be spontaneously drawn from the outside into the garden and provide mobility in the space are less likely to be established compared to parks. This leads to a higher ranking of the park in the criteria of vitality and activity.

The continuity of the garden existence during the years after its creation, which would respond to indigenous conditions, makes a significant difference between the pattern of garden and park regarding the sub-criteria of usefulness, indigenoussness, and sustainability.

Table 4: Comparison of the versatility of the Persian garden and park pattern according to the sub-criteria of uses and activities.

Alternative	Vital	Active	useful	Indigenous	sustainable	Special	Celebratory	Real	Fun
Persian Garden	.200	.200	1.000	1.000	1.000	1.000	.500	1.000	1.000
Park	1.000	1.000	.143	.111	.111	.333	1.000	1.000	1.000
L	.312	.108	.074	.051	.025	.018	.035	.155	.222

As Iranian architecture, there is nothing unnecessary in a Persian garden; every useful and necessary demand is presented in a beautiful form, and it is a manifestation of perfection. Persian garden is a beautiful, multi-purpose, and functional artwork (Abolqasemi, 1995) Avoiding loss of resources and providing comfort in all parts of the garden was given importance. Due to the shortage of surface water in the central regions of Iran, most Iranian gardens are built around aqueducts (Bemaniah & Saleh, 2011). The area, shape, and proportions of each garden also depended on the amount of water available for irrigation. In the steep terrain, the direction of the garden fits the slope and the garden axes were adapted to the main slope so that while the garden adheres to the natural context, optimal irrigation would be allowed. In hot areas, gardening in the north-south direction provided more shading possibilities. Persian gardens are considered as the practical solution of overcoming and relieving extreme climate during summers and winters in the Iranian plateau (Rostami et al., 2016).

The garden wall, if initially produced for physical and mental relaxation through the prevention of the arrival of animals and strangers, gradually would become a symbol that carries different meanings (Mansoori, 2015).

In the gardens of the north of the country where there is high humidity, the wall enclosing the garden was porous, so as not to barricade commuting and the flow of winds. In desert areas, to capture moisture from the waters available in the garden, the wall was enclosed. This factor along with other climatic considerations, including providing shade and preventing warm and dry winds and the penetration of sand, by distinguishing the climate of the two sides of the wall and creating a refreshing space between the walls, a microclimate was formed between the walls (Masoudi, 2003) Regional winds lose the temperature and dust when hitting the water surface, and make the air smoother by producing cool breeze. Climate comfort in the palace was also provided by observing the region's climate and utilizing natural energies.

Garden plants were mainly planted to make shadows, harvesting as the supplier of a part of the city's need, and as a sustainable source of income (Pourmand & Keshtkar, 2011). Selection of plant species based on the type of region, the possibility of coexistence with other species, and better resistance to the air as a filter, water requirement, drought resistance, long lifespan, and the possibility of life in four seasons (Diba & Ansari, 1995). In the structure of planting, terraces were made based on logical order, harmonious spread, observance of geographical directions and environmental specifications, optimum use of the sun, wind resistance, dealing with maximum and minimum heat, easy planting, the abundance of harvesting, providing a calm environment, and creating a desirable variety and a dynamic beauty (Abolqasemi, 1995) that is based on ancient re-creation, of giving back to nature (Yusoff Abbas et al., 2016). Fertilizer required for garden plants were provided from the excreta of doves built-in gardens as the place of

living for pigeons. The gardeners mixed excreta with ash and soil and used or molded and stored it. This is while merely beauty was considered in the selection of appropriate plant species for green spaces in Iranian parks and the trees- from a species of short and broad crown trees like elms and privets, not observing the needed distance- were massively planted in a disorganized pattern, regardless of the climatic conditions of each area (Rabbani et al., 2011).

Water and moisture are essential for the metabolic processes of grass. Because the water doesn't reach the root of the grass, due to rapid evaporation of water in dry areas of Iran, and also due to the limitation of water resources, covering large parts of the park with grass, while incompatible with water resources, has no economic justification (Hosseini & Mohammadzadeh, 2014). As water resources are limited, the effects of climatic incompatibility become more apparent. However, plants such as clover used as a covering plant in historic gardens were a good alternative to grass. Growing with little water and resistance to drought, protection of trees against frostbite, stabilizing nitrogen in poor soils, and protecting it, resistance to pest attacks, and high growth rates were also allowed. Planting trees and grass together in the parks results in frequent and shallow irrigation and the upward movement of deadly roots of trees due to the exploitation of surface water layers which, in the medium term, ultimately causes the trees to fall in the wind (Kafi, 2010). Ignorance of climatic conditions reduced the resistance of plants to temporary weather conditions that occurred in the exceptional years<sup>2</sup>. According to the survey, there is a huge difference in the specialty of the garden for Iranians. The Iranian artist attempted to create a garden-like paradise from where human beings were expelled since the beginning of creation. The garden symbolizes the center-oriented face of the small or inferior universe in which space is enclosed by the limit of the building's and tree's place. Building a pond in this relaxed atmosphere provides a center as a positive direction for creative imagination (Ardalan & Bakhtiar, 2001)

It is also possible to hold celebrations and ceremonies in the distinguished and spacious area of the central palace along with the entrance hall as a closed space and among the garden plots as open space. Celebrations held in the entrance hall can be watched from the outside of the garden due to the connection of this space to the outside. Nevertheless, parks are deemed to be more suitable for celebrations due to having plenty of different buildings as well as extensive pause spaces among the open spaces. The "fun" criteria, which is related to the existence of activities that enhance the economic dimension of the space, and the "real" criteria, which is related to measuring the potential for the economic development of the land and the increase of its value, can be equally planned in both the garden or park environment.

#### **Comfort and Image Criteria**

According to table 5, amongst all of the comfort and image

Table 5: Comparison of the versatility of Persian garden and park patterns according to the sub-criteria of comfort and image.

Alternative	Walkable	Sittable	Spiritual	Charming	Historic	Safe	Clean	Green	Attractive
<b>Persian Garden</b>	1.000	.333	1.000	1.000	1.000	1.000	1.000	1.000	1.000
<b>Park</b>	.333	1.000	.333	.333	.143	.333	.333	.333	1.000
<b>L</b>	.018	.061	.22	.311	.035	.156	.025	.065	.108

sub-criteria, being sittable is the superior criteria of the park compared to the garden, and attractiveness is equal in both spaces. In the other sub-criteria, the garden with different degrees is more adaptable compared to the park.

The sub-criteria of walkability is a feature that at first glance exists in both garden and park patterns. In gardens, the geometry of the land and the palace landscape and the directed axes, especially the main axis, create a sense and motivation for motion; in particular, the landscape makes the palace seem closer than what it, in reality, is, which is itself an incentive to walk. To reach the palace or the mansion gate as the ultimate goal, destination, and a sensational sign, moving along the water and the sound of it activates the sense of exploration. Besides, the diversity in the path and between the main axes as longer walking paths and the secondary axes as shorter paths with different qualities of light, color, plant, and smell, stimulate all the senses and attract and invite the audience to walk. Besides these factors, the readability and continuity of the secondary paths resulting from the geometry of the garden and the feel of relaxation from the ability to navigate and return to the main path from any point in the route as well as the security of the garden allow for longer walking. Paths surrounding the garden wall can also be used as a bike path without interfering with pedestrian routes. On the other hand, parks motivate the walker to discover new paths and spaces because of the curved paths and different spatial qualities. However, the results table shows that experts believe that walkability in the garden is more tangible than in the park. This is probably since the diagonal movements in parks often arrest the attention of the sight to the park's range, and the end of the visual horizon is incompletely limited to huge vegetation coverings with uniform vision intentions in terms of sense and form, not persuading the viewer to choose paths and move (Hosseini & Mohammadzadeh, 2014). Also, the unreadability factor of the paths and the lack of reliable navigation, despite the desire to explore and discover that comes from the ambiguity of the space, acts as a negative factor to start or continue walking.

Although it is possible to prepare sitting places in all of the main and secondary axes of the garden, due to the nature of passing through the axes, there is no possibility of making pausing spaces. But, the flexible geometry of the park allows for the provision of pausing spaces and suitable benches to sit. This is the reason for the sitting advantage of the park compared to the garden.

About the spirituality of the two spaces it can be said that in the Persian gardens, the materialist ultimate ascends to spiritual infinity. The garden, as long as it is possible, is formed simply and clearly and leaves no physical ambiguity concerning humans and space (Mirfendersky, 2004). The Persian garden is considered as a physical and spiritual experience and possesses the features that exist simultaneously in the most abstract and direct experimental level (Hardegg, 1990).

The architecture system in the Persian garden creates a system of five senses concentration by organizing landscape systems and linking physical and semantic systems. The peripheral breakdown-semantic attachment in the garden enriches the sense through the creation of a sense of confinement that, in a thought-provoking environment, guides humans towards a kind of relaxation, desirable privacy, and ultimately self-actualization (Ardalan & Bakhtiar, 2001; Mahdizadeh, 2014; Shahcheraghi, 2009). Despite the presence of natural elements in parks, all of the senses are less involved compared to gardens. The lack of walls and an entrance gate as a barrier between the inside and the outside will despoil hierarchical structures, and the sensory perception of this space is interfered with by street sounds, and thus the person's relaxation is disturbed and desirable privacy would not be achieved (Hosseini & Mohammadzadeh, 2014).

Persian garden is a combination of independent spaces so none of the spaces is the remains of the other one. The attention of the artist to design the complete space in a way so that the identity of each space can be addressed and called by its name forms a part of its aesthetics. Independent spaces such as the main street, the street around the garden, the palace courtyard, the garden forecourt, the backyard as independent landscapes with their particular spatial sense and spirit, make it possible to explore the garden, feel diversity, discover the landscapes and understand different spirits (Mansoori, 2015) which make it a charming space. Having factors like flexible geometric structure, visual appeal due to vegetation covering with diverse landscapes, the existence of water in particular points, uncertain topographic points, and the smell of plants, makes parks provide attractive spaces with the potential of stimulating the material senses.

Being historic is the most prominent feature of the Persian garden. Over centuries, the Persian garden has reproduced itself in many ways. Such a form of sustainability indicates a close relationship between civilization and nature, and a deep

correlation between this element and other aspects of Iranian culture. (Abdul Latiff et al., 2017) In particular, this is due to the gardening style that has continued after the arrival of Islam to Iran (Barati, 2011). This is while the park pattern as a new imported design has not become a semantic-shaped package containing historical signs among the Iranians.

Studies on social safety in the design of urban parks provide the following items to increase security: enclosing large parks, restricting entry and exit to the park, pruning and cutting box-trees and hedges, overcoming the privacy, and isolating low-traffic spaces by allowing specific uses (Abedi, 2010); the solutions have been dismantled in the transition from garden to park, allowing the appearance of crime in the environment. Simple and readable design, avoiding any complexity, breaking the outer environment through the peripheral wall, and defined entrances with the possibility of controlling the entrance, increase the safety aspect of the garden<sup>3</sup>. Besides, the regular and direct planting of long trees in linear paths creates bright channels for sight from the beginning to the end. The activities established in the palace and entrance gate at the two ends of the main axis and the other mansions at the end of the secondary axes will allow the user to monitor the garden environment. But, due to the lack of clear geometry, the presence of meandrous spaces, unreadability of paths and entrances, unobstructed edges, etc. undermine the security index in parks. The compression of the trunks of the trees and shading of their crown results in closed vision in sitting and standing manner through the creation of blind spots (Rabbani et al., 2011).

Cleanness of a public space can be examined in two ways: first, the management and paying attention to space which is provided by external agents and is possible for each space, and second, the potential of the environment itself to keep the space clean. In Persian gardens, the peripheral wall, with long, broad-leaved trees around it, to a large extent prevents the entry of dust particles and other air and sound contaminants into space. Regular planting of long trees also makes a corridor for the motion of air, the blowing wind in the garden, and the outflow of contaminated air from the environment. On the other hand, the selection of productive plant species will provide food and shelter and attract species of useful animals for organic control of pests in the garden (Nikbakht, 2004). However, irregular planting of short broad-crowned trees eliminates the possibility

of air movement and conditioning, and unlike the garden where water is often in motion, stagnant water in the park's ponds increases the possibility of contamination of the environment.

Although both spaces are existentially green, the survey results show that this characteristic occupies a higher rank in the case of Persian gardens; perhaps because nature's representation in Persian gardens is not just a matter of green space. Nature in Persian gardening art is an independent personality that plays a role in both creating and paying attention to the landscape and designs a single scenario. Respect to its concept is because of the role it plays concerning man and his fosterage (Mansoori, 2015).

### Sociability Criterion

Based on Table 6, the park is more adaptable in the criteria of the diversity of the components, Neighborly and welcoming, whereas regarding the components of stewardship, cooperation, and pride, the garden operates more appropriately. For the criteria of having a friendly and interactive environment, both spaces are evaluated identically.

Comparing the sub-criteria of diversity for garden and park patterns shows that the Persian garden pattern is less likely to attract diverse users and activities; but, the flexible design of the park's space can embrace this variety.

Though the Persian garden's presence has paled in contemporary times, the collective memory of it still lives in the mind of Iranians (Amani, 2014) and it is always an environment familiar to them (Mardomi et al., 2013). Therefore, the Persian garden is capable of sensitizing people and producing a common sense for maintenance, monitoring, and paying special attention to itself to maximize quality and efficiency. It becomes a kind of mental aspect and a common element to link the people of the community (Ahmadi et al., 2018).

The pattern of the garden has been an important factor in establishing the link and giving identity to the garden throughout the history and geography of Iran, as well as amongst the countless buildings of other types<sup>4</sup>. Therefore, the importance of its role as an honorable entity belonging to the Iranian community can be considered as an agent gathering Iranians as a nation<sup>5</sup> (Barati, 2004).

If the park exhibited repetitions and similar structures in different places and times of Iranian history, it would inevitably

Table 6: Comparison of the versatility of the Persian garden and park pattern according to the sub-criteria of sociability.

Alternative	Diverse	Stewardship	Cooperative	Pride	Neighborly	Welcoming	Friendly	Interactive
Persian Garden	.333	1.000	1.000	1.000	.200	.333	1.000	1.000
Park	1.000	.333	.333	.333	1.000	1.000	1.000	1.000
L	.155	.030	.104	.047	.023	.344	.070	.227

have a semantic-cognitive packet that would establish links, unity, and identity to people with cultural similarities. The resultant sense of belonging, at the very least, would make the park's space work better. However, since the pattern of the park is an imported one, it has not become indigenous and exclusive, and the park is used only as a place to spend time (Hosseini & Mohammadzadeh, 2014).

Parks don't have walls and individuals and their activities can be seen and accessed; therefore, the desire for presence in the space increases. The park invites aimless people. By the entrance of these people, the entry of others will also become easier. The level of connection and involvement of the park with the neighborhoods around it and the establishment of more social interactions is higher than in the garden. The spatial diversity and lack of clear and readable geometry also invite the audience to explore the park. This factor may operate in the reverse direction, causing an individual to be disturbed by the vagueness of the space and thus the non-presence of him in the park. Conversely, the closed walls of gardens, by hiding the people inside the garden and their activities out of the sight of outsiders prevents the passerby to be attracted; however, once these people are placed in front of the entrance to the garden, several factors invite them to the inside, including used perspectives, the orientation of the garden geometry towards the inside, especially in sloping gardens, the sound of water and birds heard just from the beginning of the entrance, and in general, all the factors that reflect inside the garden as an island different from the outside and motivate the desire for presence and exploration of the island in the audience. Many researchers believe that the concept of the garden is not accompanied by any particular establishment pattern or spatial design, but rather a sense of connection with pristine nature and social activities (Alemi, 2008). Therefore, in re-reading the Persian garden and considering its geometric structure, the environment of it can be a suitable platform for social interactions due to the reliance on the main, more general, axis.

Gardens and parks can have the same degree of a friendly environment. Garden in Iran has become a public aspect in the field of architecture and urbanization, so some of its elements have taken the urban concept. Chaharbagh Street in Esfahan is the best example, a garden for the city and its citizens. The

leisure and tourism aspect of the street has been conceived in a way that overcomes its passage aspect. Thus, in the form of a long garden, Charbagh Street arises as a vivid and dynamic urban space, a place to see and be seen, a space to listen and be heard, a place to hold ceremonies and urban rituals, a place for national solidarity, a place for leisure, sitting, watching and listening to shows, a space for drama<sup>6</sup> (Ahari, 2006; Beheshti, 2008; Della Valle, 1969). This has been reflected by tourists, who have visited this place, such as (Chardin, 1996; Kareri, 1969; Olearius, 2000).

### CONCLUSION

Once the versatility level of both patterns was compared regarding the sub-criteria of the four main criteria, this goal was pursued concerning the four main criteria. The results from the comparison of the two spaces are presented in Table 7.

It should be noted that the numbers in this table are affected by the numbers in Fig. 1 which highlights the significance of the four criteria for any type of general urban space in Iran.

In terms of comfort and image criterion, Persian gardens have the highest level of adaptation to urban public spaces, whether in their category or comparison with the park. In terms of access and linkages, the Persian garden is again more adaptable than the park. These sentences can be interpreted as follows: If instead of the park pattern the Persian garden pattern is used in designing urban public spaces, the space obtained will benefit from these criteria twice more than the park will. On the other hand, the weight of the criteria indicates that Persian gardens will be less capable of providing social spaces with different uses.

Finally, the rank of the Persian garden in comparison to the park was obtained in all of the criteria to answer the research question. The number assigned to the Iranian garden is 0.554 and to the park is 0.446; meaning that the adaptability rate of the Iranian garden pattern as a public urban space in Iran is higher than the park, and if it is used in the designing of public spaces, more responsive spaces will be provided. Here are two points to note. Even if the Persian garden had the same ranking as the park, the use of the garden pattern as a public urban space still does not diminish the quality of this space compared to what the parks provide in the status quo and the equal position,

Table 7: Versatility of garden and park patterns to main criteria and as urban public space.

Synthesis concerning	Persian Garden	Park	L	Overall inconsistency
Access & Linkages	.588	.412	.45	.02
Uses & Activities	.417	.583	.235	.03
Comfort & Image	.697	.303	.217	.04
Sociability	.413	.587	.097	.03
Summary	.554	.446		.04



the recommendation to use the garden is still effective.

Since gardens are the cultural-historical symbol of the Iranian nation and as a common language, they can undertake a significant role in linking the cultures and sub-cultures of the Iranian people. To visit the gardens as museums neither allows the gardens to be maintained nor can it reflect their true nature. But, the injection of the new use will lead to the real recovery of it. Another point is that according to some survey respondents, historical gardens have fewer advantages than parks on some criteria. This might be since, by the sudden arrival of parks to Iran, Persian gardens as a traditional phenomenon were excluded from the regeneration process and lost the opportunity to adapt to the current conditions. In re-reading the Iranian garden pattern, by restoring it to the spatial planning process of the city, it will be allowed to contemporize the criteria that are not currently ranked high, to revive the pattern of the Persian garden and use the opportunity obtained to have efficient urban public spaces.

## ENDNOTES

1. Transportation services for the gardens have a higher planning capability due to having a defined entrance.
2. This situation can be exemplified in the rare cold weather of 2007 when many plants non-resistant to cold, such as olives and figs were severely damaged (Kafi, 2010).
3. The peripheral wall may also trigger a feeling of insecurity arising from a sense of isolation from the outside.
4. People derive an important part of their identity from the environment, and they become closer to a certain group by attributing themselves to an environment and its dominant patterns.
5. The word "park" has entered Persian from French (Dehkhoda, 1994) this means that the arrival of an element called Park was probably another achievement of the Qajar kings from their frequent trips to France.
6. The most important ceremonies held in Persian gardens follow as: polo, Ghobaghandazi, traditional Sassanid watering celebration, feeding celebration, which was a privilege specific to ancient kings, Nowruz as the celebration of ancient Zoroastrians and pertinent to the spring equinox and ceremonies of Muharram mourning (Alemi, 2008).

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