The Persian Garden of Dampezeshki

A New Reading of Persian Garden for Today's Life*

Seyed Amir Mansouri

Ph.D. in Urban Studies with Specialty in Landscape, University of Tehran. NAZAR research center Tehran, Iran.

seyedamir.mansouri@gmail.com

Arash Zahedan

M.A in Architecture, NAZAR consultant engineers, Tehran, Iran.

azahedan@yahoo.com

Mahmoud Teymuri

Ph.D. in Architecture. Arak Azad University, Arak. NAZAR research center, Tehran, Iran.

mteimoury@gmail.com

Ayda Alehashemi

Ph.D. in Landscape Architecture, International University of Imam Khomaini, Qazvin. NAZAR Research Center, Tehran, Iran.

ayda_alehashemi@yahoo.com

Shervin Goodarziyan

M.A. in Landscape Architecture, NAZAR research center, Tehran, Iran.

 $shervin_amega@yahoo.com$

Abstract | "The Persian garden of Dampezeshki (veterinary)" is the second experience of Nazzar Consulting Co. in the design of urban parks based on the principles of Persian garden. In this project, the design group were in search for a new reading of the Persian garden, so while using a variety of patterns from it and emphasizing on historical perception, they will offer a new model adapted to the social dimension of the plan. In this paper, different policies and principles that have been considered in the design of the garden are noted and described in detail and the influential design principles of Landscape architecture is described in the design of Dampezeshki Persian garden.

Keywords | Persian Garden, Historical Perception, New Reading, The Garden of Dampezeshki in Tehran.

^{*} This paper is based on a research project which was conducted by NAZAR research center.

Introuduction | In the 1950's the project site was the Army complex of Dampezeshki that was being used until 2010 (Pic. 1). After that, the land of the garden was owned by the Municipality housing cooperative for the construction of residential buildings. In 2015 after the visit of Tehran's mayor and considering the resident's demands they decided on the construction of a park and green space in the site.

Proposal of Transforming the Site to a Persian Garden

Following the successful experience of the first park using the Persian garden pattern in Tehran's Vanak village and the great and positive feedback of citizens, Tehran's Municipality was determined to repeat this pattern in various parts of the city. So the design and monitoring of the project implementation titled "The Persian garden of Dampezeshki" was given to Nazar Consulting Co. in the summer of 2015 by the Tehran's organization of parks and green spaces.

Location and Area

The Persian garden of Dampezeshki is located in district 11 of Tehran between the streets of Navab in the West, south Eskandri in the East and Azerbaijan in the North . This area with a population density of 21.9 persons per hectare faces lack of communal spaces and urban areas. The area declared for designing the Persian garden is 16000 square meters.

The design area is among the deteriorated areas of Tehran. In this region small-scaled lots have been renovated before and it has led to an increase in the population density which consequently resulted in resulted in more demand of public spaces.

The residential texture of the west side is adjacent to the Navab buildings and the Etka store is located in the south. These two are considered as Residential-commercial areas adjacent to the site. These Eastern and northern textures are located on the edge of southern Eskandari and Azerbaijan streets.

Land use

In addition to the recreational dimension of the garden as a whole, sport and playing grounds are concentrated on the western edge as safety producer activities that increase social control in the park. On the other hand, on the eastern edge different land use influenced by residential texture has been located. Land use such as participatory flower-bed for planting vegetables and summer crops, fruit garden, multi storey parking and picnic area are designed. On the southern side between the garden and the parking a commercial-creational row is planned as a leisure edge.

Landscape Approach: A New Reading of the Persian Garden

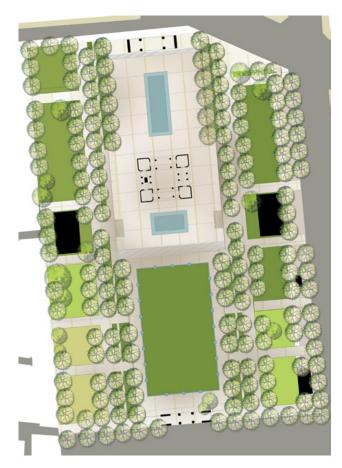
The Design team was looking for a new reading of the Persian garden by adopting a landscape approach towards



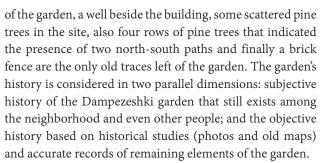
Pic 1: Aerial map of Dampezeshki complex 2010. This image shows the buildings and trees before the destruction which was done for the construction of municipality cooperative housing complex. Source: Website of Google Earth.

the designing of the garden of Dampezeshki. In the landscape approach different objective and subjective layers at various scales and maximal interaction with each other lead to the production of a space that establishes multiple connections with the residents and beneficiaries of it. The landscape approach of three influential layers in the design of the Dampezeshki garden is explained bellow:

- 1. Tradition layer: In the first step with the aim of taking advantage of the diverse patterns in the Persian garden and paving the way for the presence and use of its various capacities in response to the current needs of citizens, a relatively large study took place to identify patterns of the Persian garden, which are very diverse, contrary to the common sense. As a result, and in compliance with the plan requirements a combination of the pattern including Chehelsotoon Garden (vast open space with a large pool in front of the pavilion), Afif-Abad Garden (large field of grass in front of the pavilion), Fin Garden in Kashan (curved pipe transferring water as a scenery), Shazde garden of Mahan (playing with water, color and its reflection) were considered. Thus for the case of the Dampezeshki garden a main structure based on North-South axis and East-West subsidiary axis was considered.
- 2. History layer: After historical studies and interviews with senior/experienced residents of the neighborhood, the garden was identified as the first veterinary related complex in the country and thereafter the old structure of it was extracted. A single story brick building on the Eastern side



Pic 2: The Garden plan according to the first concept design. This option that was the design group's first priority includes large areas of hard and soft materials used to create communal spaces. Source: Nazar Consulting Engineers.



3. Contemporary layer: The garden of Dampezeshki as a local communal space with a very high population density in Tehran must possess new land-use that meets the demands of its new residents. Playgrounds, metro station, multi-purpose spaces, commercial zone, leisure and cultural spaces are among them. Suggesting these land uses in a garden with a traditional pattern, causes a conflict that at first creates a crisis for the design; but if it functions promisingly it can be turned into an opportunity for promoting the quality of space.

This three-layer interaction, determined the structure of the Dampezeshki Persian garden: A Persian garden with its major elements that contains the remains of the Dampezeshki garden within it and at the same time its current function



Pic 3: The Garden plan based on the first concept design. This option was approved by the employer because of having more green space. Source: Nazar Consulting Engineers.

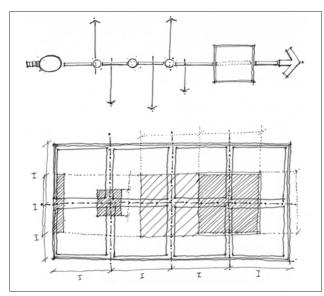
as a public space, has forced the designers to predict the appropriate spaces for today's modern life. The Garden wall, remaining as the noble element of the garden, works as a standing for separating crowded and bustling activities from the surrounding urban environment. As a result, the Persian garden of Dampezeshki is a center for resident's gathering in the area and surrounding neighborhoods and leisure activities for different social groups. Three policies were defined based on the landscape approach in garden design:

- Display and introduction of a new model of the Persian
- Preserving the historical perception due to identity factors and elements
- Selecting a new pattern adapted to the collective dimensions of the plan

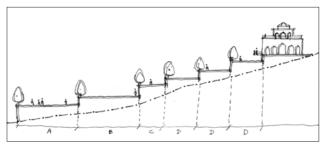
Final Concepts of the Plan

According to the project approach and the resulting policies two main alternatives were presented for the project:

First option: Due to the design field and the land gradient features, creatin urban areas and inspired by the Afifabad garden of Shiraz and Pasargad garden the design was the



Pic 4: The main axis is the element of cohesion and connectivity in The Persian Garden. Also the branching of subsidiary routes from it reinforced the garden space. The Plan geometry, the element's structure and the Dampezeshki Persian garden axes was formed according to this fact. Drawing: M. Jamshidian. Source: Nazar Consulting Engineers.



Pic 5: The adaptation of the main axis as the major shaping factor of the Persian Garden with the natural ground slope led to a terrace like structure of the Dampezeshki Persian Garden and the creation of platforms along the main axis. These platforms have provided areas of public space. On the other hand, the Pavilion as a viewpoint element was placed at the highest platform. Drawing: M. Jamshidian. Source: Nazar Consulting Engineers.

main option considered for implementation (Pic. 2).

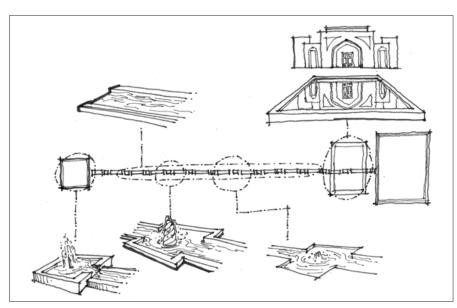
Second option: This option is inspired by the dense Persian garden, and, is in harmony with the current life within the site of the project. Because of using more land for planting trees than the first option it was considered and approved by the employer (Pic. 3).

Six principals for garden design

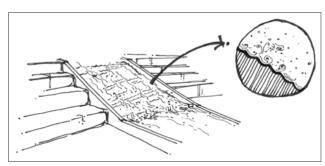
Six guiding principles of design using goals, strategies and design approach were considered:

1. Structured garden: The most important principle of Persian garden which is also used in the Persian garden of Dampezeshki, is the formation based on a main axis . This axis that has the major role in both the plan geometry and also the deep visibility of the observer in the garden space, is considered the main formation. In fact, this axis which is placed along the main entrance makes the chosen landscape which is in fact the main landscape and memory of the garden comprehensible by the viewers using purposeful management of their movement. On the other hand the placement of the important components such as stream of water, rows of trees and the pavilion (kooshk) in this route increases their value due to the role that they play in the garden. This cause the important events that shape people's understanding of space occur in this axis.

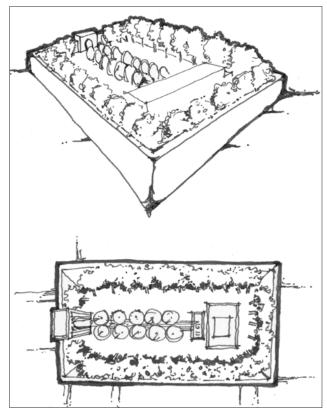
Also defining this axis as the major path and branching out sub-routes from it makes a clear structure in the geometry and spaces of the garden. Accordingly, people who enter the garden from the main entrance easily face the primary landscape and its identity. According to the signs of the path, one can understand the totality of the garden based on his/her subjective memory. This subject in addition to legibility will produce a landscape within which the



Pic 6: The beauty of water can be achieved by creating different forms and states. Beautiful pattern of water is realized by scenarios is accomplished. A series of water presentation has been used in order to strengthen this role in the Dampezeshki Persian garden. Drawing: M. Jamshidian. Source: Nazar Consulting Engineers.



Pic 7: Using water with different conditions in order to create various and orphic sounds and refresh the air is another reason for the presence of water in the Persian Garden especially the Dampezeshki Persian Garden. Drawing: M. Jamshidian. Source: Nazar Consulting Engineers.



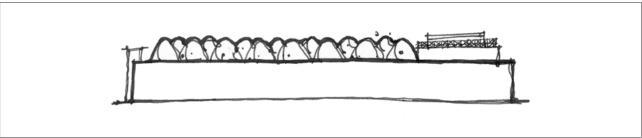
Pic 8: Creating a sensory and perceptual realm for the viewers by enclosing the garden and attracting the attentions to the interior, is one of the principles considered in the design of the Persian garden of Dampezeshki. Drawing: M. Jamshidian. Source: Nazar Consulting Engineers.

garden as a whole contains space and life inside it. All these elements create a desirable and beautiful landscape. Also by being located in the major routes; the people who enter the garden from sub-inputs will access the essence and spirit of the garden and understand the difference between the garden space and the outer layer (Pic. 4). This axis also plays a role in organizing the spaces and functions of the garden. Because of a north-south slope, the main axis was placed along it so the water display, the user's perception of the main landscape and various events happen while interacting with each other. Platforms that are formed in this axis and are connected by stairs were essential for the presence of large crowds of people and the improvement of the garden's social dimension. Thus the presence of people is highlighted in the major structure and enhances the efficiency of the garden's space. In this structure the pavilion that is an important perspective for the garden, is placed at the highest altitude on the main platform so in addition to displaying intended sights from the main axis of the garden it is also a turning point (Pic. 5).

2. Beautification with water: In the Persian garden, water is the major element of landscaping that gives meaning to the garden. The presence of water based on the perfectionist beauty rule simultaneously has three main roles:

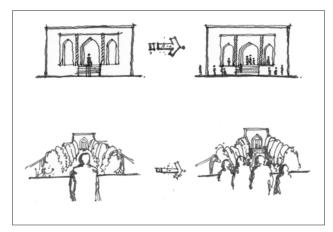
The first is the semantic sanctity of water. Water in the Iranian culture both in ancient Persia and the Islamic period was known as a life-giving Holy and respectable element, and possessed a transcendental meaning. Because of that in the Persian garden and architecture, water is always at the center and major axis and has a strong presence. In the design of the Persian garden of Dampezeshki with regard to the conceptual role of water, the ponds and fountains are located at the entrance and exit to define the beginning and the end. On both sides of the pavilion and also the main space, water is the fundamental defining element of the garden center.

Second the beautiful and significant/generating role of water in configuration of the Persian garden. For creating this role, water flows in different forms like fountain, pond,



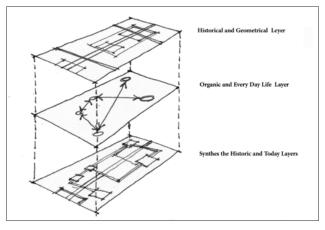
Pic 9: Planting trees next to the Garden wall, has created a strong egde for the Persian Garden that reinforces the closeness. Drawing: M. Jamshidian.

Source: Nazar Consulting Engineers.



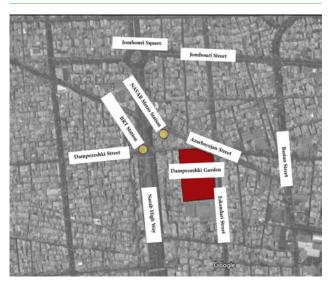
Pic 10: The pavilion's alteration from being a ceremonial element that used by certain people and the government to a public space with preserving the viewpoint role, defined a new pavilion in the Dampezeshki Persian Garden which is exclusive to this project. Drawing: M. Jamshidian.

Source: Nazar Consulting Engineers.



Pic 11: The Conformity of traditional and historical-identity layers of the Persian Garden with the modern layer needs a new landscape that exclusively belongs to the Dampezeshki Persian Garden. Drawing: M. Jamshidian.

Source: Nazar Consulting Engineers



Pic 12: Aerial map of the Dampezeshki Persian Garden and adjacent elements position.

Source: Nazar Consulting Engineers.

stream and waterfall through the garden and for stimulating and influencing the sight, hearing and touch senses it is displayed in different forms of stillness, movement and seethe. Fountains, with their specific arrangement and quantity create flowing water throughout the garden and also display an outlook of springs in all parts of it. Ponds in various sizes create a translucent or reflective perspective of water which by reflecting the image of the surrounding environment and producing virtual landscape creates visual and meaningful attraction. The streams flow the continuous current through the mainstream aligned with the main axis. The noise of the rushing water is another mode that is created by waterfalls and curved ramps in slope breakpoints. In the design of the Dampezeshki Persian garden almost all types of fountains, pools, etc. that can found in a typical Persian garden are used. The two pools on the North and South of the pavilion with details similar to the typical Persian Garden pools make the water surface visible for observers. The reflection of the pavilion and the trees on both sides of the path in the pool creates an identified image of the water, tree and architecture combination in the garden. The main axis on the southern half is defined by the water flow and orderly fountains. By preparing waterfalls in three different heights in this axis the designers have tried to represent noisy effects of water in contrast with the calm flow in the streams (Pic. 6).

The third role of water in the Persian garden is the functional role. In the historical pattern, this role was related to irrigation and water transfer in the garden which operates independently from the decorative role of the water. In the experience of the Persian garden of Dampezeshki the functional role of water as an air refresher and humidifier of the dry and unpleasant city environment close to it was also considered (Pic. 7).

3. Enclosed garden: closeness is one of the major features and integral principles of the Persian garden. The role of walls in this garden is not limited to its protective function but it is a multi-concept element that encloses the garden and so plays an important role in the creation of meaning and identity. The Persian Garden provides a field for contemplation and observation of nature and the power of God that can't be perceived without limiting the people's sensory and perceptual realm (Pic. 8).

In the historical pattern of the Persian garden, the interior space and its surrounding environment are distinctively in contrast. Inside the garden a regular and systematic collection of water and plant with specific geometry is provided that is different from the irregularities and dryness of the outside. Strengthening and defining these two distinct areas are defined by a powerful edge that wall is the main element of it.

Also In designing the Persian garden of Dampezeshki the closeness of the garden is supplied by a combination of the



Pic 13: Land use map of the Dampezeshki Persian Garden axes. Source: Nazar Consulting Engineers.

artifact element (walls) and the natural elements (trees) (Pic. 9). On the West side adjacent to residential texture and also the southern side two or more rows of poplar trees that are used in the Persian garden for defining the garden and farm fence, have created a green wall. While producing the sense of closeness, the trees hide the long and diverse row of adjacent buildings from the observer's sight. On the Eastern and Northern sides a brick wall, defines the edge of the garden. In the design of the wall's architectural details designers have tried make the walls function merely as a

fence and not the subject of design; thus, the wall is simple and the colors and textures are harmonious with the garden landscape. Along the wall, frames are created to produce a guided visual connection to the major parts of the garden.

4. Bicolor garden: Another principle of Persian gardens that was considered in the Dampezeshki garden is being bicolor. This color combination which usually contains the ocher and turquoise color has innovatively changed to the ocher and white colors in this project. The reason of it was the project approach toward a new reading from the



Pic 14: The major axis of the Dampezeshki Persian Garden and the designed platforms have created space with historical pattern but urban function by different presentations of water following the landscape approach of design.
Source: Nazar Consulting Engineers.



Pic 15: The new pavilion of the Dampezeshki garden which by being located on the main platform maintains the symbolic and perspective role, has a cultural and collective function. Source: Nazar Consulting Engineers.



Pic 16: Map of Dampezeshki Persian garden final design. Source: Nazar Consulting Engineers.

Persian garden pattern and the use of simple architecture instead of the decorative type. This matter has made a new meaning of the bicolor Persian Garden while preserving the authenticity of it.

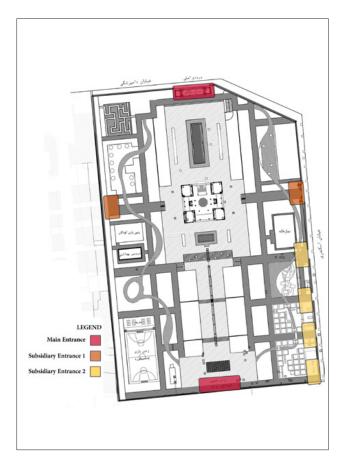
On the other hand this difference in color leads to the difference in the type of materials used. In fact, in the garden of Dampezeshki by substituting white instead of turquoise, tile is replaced by different kinds of stone. This has greatly helped in separating routes and better transparency of the garden structure; because in the present scheme the main routes are marked with white color and stone material and the subsidiary routes and other spaces are ocher-colored and made of brick. This matter increases spatial resolution and the user's perception.

Following this principle has had impact on the architectural and design elements of the garden's buildings. The Pavilion's architectural style follows sincerity oriented architecture and has taken some distance away from common decorative style in recent years. This issue is considered in the entrance facade design which is partly a combination of bricks and bezel (Negin).

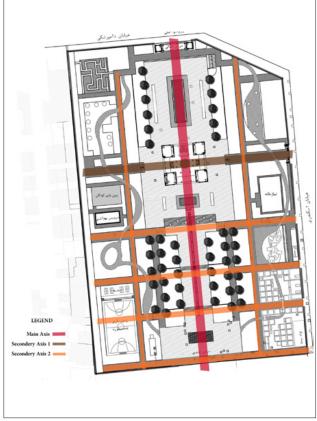
5. New pavilion: the pavilion is the most important building

in the Persian garden and because of its viewpoint function is located in a specific centric location. In the Persian garden, the Pavilion has a ceremonial function and it is usually used as the palace or alcove. Its important feature is creating a targeted view of the garden that develops a particular perception for the observers. For this reason the pavilion is placed on the main axis and on a strategic point of the garden. These principles were also used for positioning the pavilion building in designing the Dampezeshki garden; So that its location is on the major platform with an appropriate height at the intersection of the major axis and the main subsidiary axis in the garden. On the other hand its placement on the garden's turning point/junction strengthens its symbolic function to achieve the user's attention and familiarity with

The important point about the Persian garden of Dampezeshki's pavilion and its difference due to defining the social identity of the garden in the area, was transforming this ceremonial and private building to a communal and collective element. In fact, by predicting cultural and social functions in the pavilion and designing it according to that, the pavilion of the Dampezeshki garden of became a



Pic 17: Map of Dampezeshki Persian Garden axis. Source: Nazar Consulting Engineers.



Pic 18: Map of Dampezeshki Persian Garden entrances. Source: Nazar Consulting Engineers.

Research_



Pic 19: Map of Dampezeshki Persian Garden planting design. Source: Nazar Consulting Engineers.

public building that in addition to local residents attracts trans-regional visitors. So by the combination of signs and visual characteristics of the pavilion this characteristic has created public viewpoint in the center of the garden which is different with the pavilion in the traditional Persian garden. Hence the architecture of the pavilion is rather different. In the first step the location of the pavilion on a pilot connected the main platform with the public open space which led to space coherence and the presence of people under and around the pavilion. Also on the other hand, transforming the second floor of the pavilion to a roof-garden led to the continuation of people's presence and creation of a public viewpoint. The first floor of the pavilion was dedicated to functions like gallery, meeting hall and library. This dual function has given the pavilion both "outlook" and "social" performance and so it is named the new pavilion (Kooshke-now); (Pic. 10).

6. New landscape: This exclusive principle of the garden is the result of the historical-identity layer adaptation with the layer of modern city life that is different from the traditional landscaping. In fact, due to the design approach and in order to create communal spaces with new urban functions in the Persian garden of Dampezeshki, in addition to maintaining the main landscape and originality of the Persian garden, new landscaping has been done so that the modern Persian garden is shaped (Pic. 11).

The most important action taken in this regard is the establishment of the traditional garden landscape in the center of the area as a creator core and the placement of new spaces in its surrounding. Thus functions such as playgrounds, multi-purpose sport grounds, commercial zones, parking, public urban space, picnic area and flowerbeds planted by residents were organized in a structure surrounding the main axis.

On the other hand, in order to establish a connection between these two sections a route with geometry and materials in contrast with the Persian garden traditions is used. Accordingly, an organic dirt road goes around all peripheral spaces of the garden and in addition to developing continuity, connects them to the main garden core. Also In order to strengthen the historical and identity layers in some parts of the path events related to the old Dampezeshki garden is represented (Pics. 12 & 19).

Conclusion | The main structure of the first model of urban parks with the Persian garden pattern in Tehran's Vanak Village has persuaded the municipality to replicate this model in other parts of the city. At the same time, the unknown hidden potential of the Persian garden's diversity and urban management's traditional conservatism has led to the repetition of the Vanak's garden pattern. The Persian garden of Dampezeshki design team, according to the problem recognition and with regards to the employer's demands has achieved a new pattern compared with the

previous sample. The design team tried to take distance from imitating forms and instead used derivation approach. The modern knowledge of landscape and the project's landscape approach provided the context for accomplishing this demand. The Dampezeshki garden is an active public space that is located in the declined area of Tehran and in an area with high population density, while offering a perspective to perceive the nature, helps to improve urban life, increase social interactions, production of collective memories and the reinforcement of social cohesion.