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A Study of the Concept of Wisdom in Iranian-Islamic Garden (Case Study: Dolatabad Garden in Yazd)

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Abstract

From the beginning, Iranian saw the garden as the earthly manifestation of spiritual truth; a reflection of paradise in this universe. For this reason, there was a relationship between its plan and artistic design and ontology and wisdom. The experience of looking garden was not limited to the perceptible universe but, also, to a certain extent, this made it possible for those who had insight and spirituality to directly experience the truth of the spiritual universe. Therefore, it was sacred art. Iranian garden, like Iranian architecture, was designed such that it matched the ecosystem and nature (climate) because, in Iranian culture, nature has been considered not only a manifestation of tranquility, purity, and freshness but also a holy element. After the advent of Islam, this sense of belonging to nature still existed, and only in the sacred view, an aspect of respect was added to it. Iranian garden is characterized by this concept and identity. The principles and geometry of the Iranian garden, the type of flowers and trees, streams of water alongside the shady trees, and overflowing pools are also characteristics of these gardens, which represent the garden as an image of paradise. The library research method is the most important one to achieve the goal of the present study. Among existing Iranian gardens, the Dolatabad Garden in Yazd has the most complete garden design in terms of structural (spatial elements), functional (landscaping elements), and aesthetic (decorative elements) aspects. So, in the present study, it was studied as a case study.

Keywords: *Iranian Garden, Wisdom, Elements of Persian Garden, Dolatabad Garden in Yazd*

Introduction

There have been different forms of the garden in the historical cities of Iran. Making and designing gardens have various dimensions and the form of gardens depend on the environment, climate and culture. The types of Iranian gardens are not limited only to single gardens. Since different aspects of this phenomenon can be considered in the private and collective lives of Iranians and the Iranian garden scale varies from the courtyard in small houses to the large garden in the city-for example, in capitals such as Isfahan in the Safavid era, the position of the garden in the Iranian city is of particular importance. Gardens, thickest, and streams have long been of the attachment of Iranians whose living environment is dry, and they have always loved nature, trees, and flowers.

Definition of the word "Garden"

In the Nazem al-Alba Dictionary, the garden is defined as follows:

The garden is generally an enclosed area in which flowers, fruit trees, rosy plants, vegetables, and so on are planted.

In Europe, the term "Pardis" is also known in the form of "Paradise", the name of heaven, and also in both Holy Qur'an and the Arabic language, it has become the word "Ferdows". It does not mean that heaven is an image of the beautiful gardens of this universe in the view of old people but also the materialists believe: on the contrary, it means that the gardens in Iran have always been the manifestation of paradise (Donald, 1969).

The history of garden design in Iran

In Iran, garden design has a long history and at all times, especially in the Islamic era, it has been significantly paid attention. The gardens had several functions. The public garden was sometimes designed and made for people to walk and spend leisure time in them. In the Iranian ancient religion and creed, the garden has been of special importance and it was praised. As can be read in Vendidad, (the 3rd Fargard, fragment 33), Zoroaster tells Ahura Mazda: "Oh! The creator of the material world! Who is the fourth to enhance the earth to the highest degree of ecstasy? Ahura Mazda replies: "The one who cultivates the most amount of grain and grows the most vegetables and plants the most trees, drains the marshes and farms in .

General characteristics of Iranian gardens

Iranian garden, like Iranian architecture, poetry, painting, music, and other artistic works, has many fine and interesting notes within the framework of tradition and rituals, and it includes plurality in addition to unity. In the Iranian garden, as in Iranian architecture, there is no unnecessary thing (or just for beauty). What is useful is presented beautifully and it reflects perfection and beauty. In the warm and arid climate, the design of the garden is trying to create the most shadow to deal with the heat of the sun. In a large part of Iran, the gardens are the place and shelf for those who tire of heat and those who are plagued with undesirable environments and seek a pleasant environment. It looks like a shield against the cold weather in the mountainous areas and the warm weather in the desert. It has a subtle and fine, coherent and strong combination. It is resistant to warm stormy winds and sandblasting and

environmental changes in the sabulous areas. With all these characteristics, the Iranian garden is a beautiful, multifunctional and applicable artwork. Iranian garden is designed with special proportion, enjoying respect and confidentiality, emptied of futility and extremes, and it is profitable, efficient, and stable. Despite these characteristics, it has such a justified and harmonious design. Its principles and rules are recommended even in areas with desirable weather and the best results have been achieved. Iranian garden is an answer to the needs, from climatic to individual needs, even the needs of domestic animals and the needs of the garden itself. Iranian garden has the most efficiency. It is infinitely self-sufficient. It is useful in general, and all its details are useful too. Balance among objects, plants, water, and observation of human scale is of the premier features of Iranian gardens. This attributes the result to logic, considering environmental conditions and observation of proportions. Iranian garden design aims to create a space having flourishing trees and plants, a diversity of colorful flowers, a dynamic presence of water, and fish, the sounds of birds, a delicious atmosphere and desirable and fresh air, aromatic space, and finally, energy saving in all of its dimensions.

Iranian garden design is based on the special use of the square in its overall composition and details. This distinctive feature of the Iranian garden has long been paid attention to by others.

Some general characteristics of Iranian gardens:

1. The garden is often designed on the steep ground;
2. The garden is enclosed by a wall;
3. The garden is often divided into four sections;
4. Straight lines are used in the garden design;
5. The is a building in the center or the highest part of the garden;
6. A permanent mainstream is considered in the garden;
7. The water flows in such a way as its sound can be heard;
8. The lacquered rocks are used on the floor of the jet to reveal the water wave (Sine- Kabki);
9. There is a close relationship between the garden and nature and there is no gap between the building and the garden;
10. There is a pond or swimming pool that provides water and a beautiful landscape in front of the mansion;
11. A great number of shady trees are planted and there are narrow walkways in the garden;
12. Most of the garden is assigned to planting fruit trees;
13. Ornamental and medicinal flowers are used;
14. Roses are used more than other types of flowers.

Introduction of the physical spaces of the gardens

Portal building

In many residential, governmental, and residential-governmental gardens, a building was constructed in the entrance area. In most cases, it was a place for guardians, gardeners, and other service workers in gardens. Only in the very few gardens, it could be a large building in which the main inhabitants of the gardens lived. In many residential-governmental gardens, the building located in the garden entrance was used as a government or court building, because the rulers and bureaucrats could deal with the governmental affairs in the same building, that one of its sides was in the garden and the other side was next to the path or the square. Thus, the clients did not need to enter the garden, and as a result, the privacy of the arenas was well preserved and the residential area was distinct. In some residential-governmental gardens located in the capital or important city, a ceremonial square was constructed in front of the court building, located in the entrance area, for organizing ceremonies and parades and ceremonial and religious gatherings. In this case, on the side facing the square, an Iwan, with or without columns, was often constructed on the upper floor. It was used as a place for national and state elders during the ceremony. Isfahan's Ali Qapu Mansion, which is now existing, and Tehran's Ali Qapu Mansion, which is now ruined, are mentioned as such a mansion. These types of mansions are often called palaces, and in some cases, the tribunal (Mojtaba, Hadi, 2007).

Inner Mansion

The traditional architect seeks order based on the productivity of natural gifts and in harmony with the order governing nature. He seeks to prepare a place where everything of natural gifts is provided as much as possible, without disrupting privacy. In such a way, the most intimate inner garden is built and it is called a yard or urban garden. In this inner garden, environmental and climatic conditions are provided through qualitative changes, and Orange or pomegranate trees are planted in it, and this is the culmination of harmonious technologies that its concept is permanent and does not change over time unless the presence or absence of environmental factors changed. In a variety of residential gardens, especially residential-governmental gardens, one or more mansions were considered for permanent residence. They were often referred to as "Andaruni (means inside)" because they were designed in such a way that they had specific limitations in terms of social and physical aspects. If a party was held in the pavilion of the residential-governmental and the outsiders were entertained, the privacy inner arena was preserved and in this way, the family life would continue there without any problems. Andaruni was designed and constructed in a garden in a way such that its privacy was preserved and it could be distinguished from other parts. In this case, one or

more central and enclosed or semi-enclosed open spaces were considered (Gholam Reza, 2006).

Service spaces

In many large gardens, according to the breadth, type, and function of the garden, as well as the number of the social position of people using the garden, one or more service spaces such as stables, warehouses, cafes, baths, and Ab Anbar (water reservoir), were constructed. The size, location, arrangement of these spaces, and other physical characteristics of these spaces did not follow specific and constant patterns, but each case was affected by other main features of the garden. In some large gardens, residential spaces were constructed for staff and servants. These spaces were never on the main axis and were mostly located alongside the walls. For example, in Fin Garden in Kashan, There are two baths, one for the servants and another one for the ruler, which is located on the east side of the garden.

The geometry of the Iranian Garden

Iranian gardens were constructed either on flat ground and called a plain garden, or on steep ground which made it possible to make the garden more beautiful with more waterfalls and trees, such as the Natanz Taj Garden, Mahan Prince Garden in Kerman, and Takht Garden in Shiraz or some gardens in Mazandaran.

In the Persian Garden, particular attention was paid to the geometric shapes and the square which illustrated the distance between the elements of the garden simply and was especially important. At the time of planting the tree, the first step was to carefully determine the distance of the planting site from each side, and in this way, some squares were determined and the rows of trees could be seen from each side. The distance between the trees was determined depending on the type of trees. And the distances between the trees such as walnut or berry trees, yellow plum, black plum, and apple trees, and the fruitless trees were different. For example, in a plot, among the trees such as pistachios that become fruitful later, peach trees were planted. They were destroyed for 6 to 7 years, and the main trees remained and became fruitful. The trees, either together or separately, were planted on vertical lines, in a square form. Another important principle in Iranian garden design was that the openness of the main landscape had a rectangular form. In these gardens, in front of the building, there was an open and long space that was right in the main landscape. In this space, tall trees were not planted. The plants planted in this space were always beautiful and did not block the openness of the landscape.

The background plant was usually alfalfa, which is now replaced by grass. The main building was constructed in different places. For example, the main building was in the middle of the garden and was seen from four sides, and the secondary buildings and portals were placed around it on the sides. Or the main building was on one side and other buildings were on the other side there were two crossed ways and the main landscape was along the length of the garden (Gholam Hossein, Mohammad Karim, 2011)

Yazd's Dolatabad Garden

A-Location

Yazd's Dolatabad Garden with an area of more than 40000 square meters is considered one of the most famous and beautiful gardens in Yazd. The main entrance of the garden is on the western side and opens towards Dolatabad Boulevard. The entrance, which is now in use by the public, is on the southern side of the garden, next to the dried river. In addition, there is another entrance opening in Inghilab street and on the northern side of the complex.

B. Indices of Yazd's Dolatabad Garden

This garden is one of the most beautiful and most famous gardens belonging to the Zandieh era, which was built at the time of Karim Khan Zand. The main characteristic of this garden is its high octagonal windcatcher, with a height of 33.8 meters, which is known as the tallest windcatcher in the world. Because of this windcatcher, the wind in any direction is easily and quickly guided to the lower parts. On the other hand, there is a pool below this windcatcher. When the wind blows on the water surface, cool air is created inside the building through this windcatcher.

This garden is a collection of several main mansions including: The vestibule mansion (main pavilion) consists of a springhouse and windcatcher, kiosk, Behesht-e A'aein (portal building), Ayeneh hall, a south portal, and a secondary mansion such as large stables, services buildings, Ab Anbar (water reservoir), pantry, housewares, kitchens, well facilities and water tank with a governor and from the south, it is connected to the area beneath the windcatcher through the corridor. The portal building (the common border between the Andaruni (inside) and Biruni (outside)) is the main mansion of the Behesht-e A'aein Garden, which consists of two floors, and its ground floor consists of a portal, a vestibule, and a large room, and several small rooms and several corridors (Johannes, 2010).

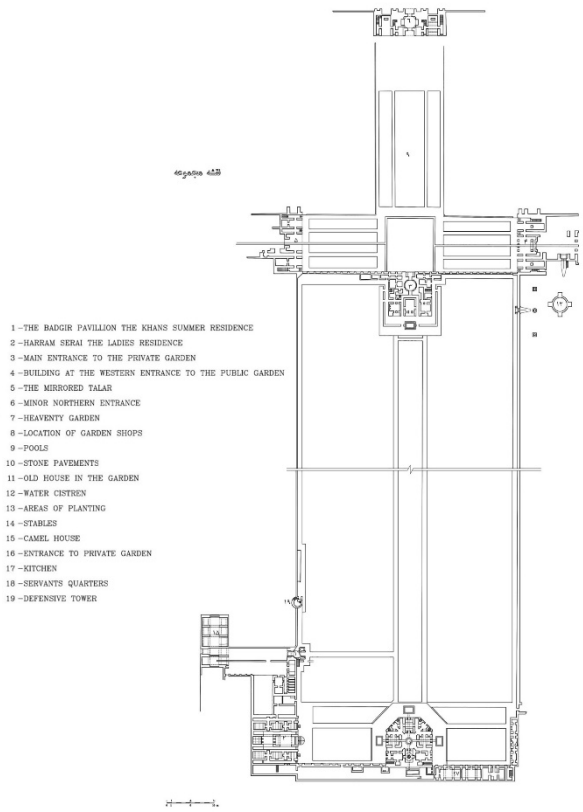

Figure1: The site plan of the Dolatabad Garden, Yazd

C. Description of the garden

In the Dolatabad Garden, there is a building in the upper part of the garden with a windcheater, and then a vestibule and three rooms are placed above it and on the sides, and a building on the right and another one on the left and also, it has a portal. In this garden, The water is first seen under the windcatcher of the vestibular mansion and in the integrated marble pool in which it boils and comes up. Then it enters the pool in the middle of the mansion and flows into three rectangular long pools in the three alcoves. In front of the three sash windows, there are three Sine-Kabki made of marble and curved in a way to form a wave and show the volume of water more than its real volume. From each Sine-kabki, water enters a small pool. Then, it flows in the large fountain of the garden. Then, it flows in two streams located on both sides of the plot and arrives at the portal. Sometimes, at this step, it enters a beautiful Abgardan. In the Dolatabad garden, it was destroyed completely. Then, it flows in a large dodecagon pool in the north of the mansion and then flows into three rectangular pools on the other three sides. Finally, it flows towards streets and villages and is used in agriculture (Ibid, 2010). (figure.1)

The constructor of the Dolatabad garden wrote in his deed of endowment that God damn those who use the water before it exits the garden even if he waters a bird. The products of this garden were endowed to Imam Ali's holy shrine in Najaf.

Unfortunately later, the Qanat was closed and its water was not allowed to enter the city the water required to water the garden and fill the pools, was provided through a well.

Marble is one of the specific materials used in this building. It was completely provided by Maragheh City. It is surprising because Yazd marble is of high quality and has been always well-known. The mansions of the garden are including the outer mansion located on the west side and consist of a high windcatcher and springhouse. There is another mansion on the east side which was Andaruni and also there is a portal building which was the court. The windcatcher of Dolatabad Garden with a height of 33 meters and 80 cm, is the highest windcatcher known in Iran.

The vestibule mansion and windcatcher are the most important parts of the complex, in which the combination of air and water was taken place in the most beautiful form. The very fine kabaddi on the ceiling of the vestibule was made by Haj Ali Akbar Akhond. A repaired door with a sash window consisting of colorful glasses increases the beauty of this building.

The Dolatabad Garden was destroyed after Mohammad Taqi Khan, and although it was restored, it never looked like its first form in the era of Khan Bozorg.

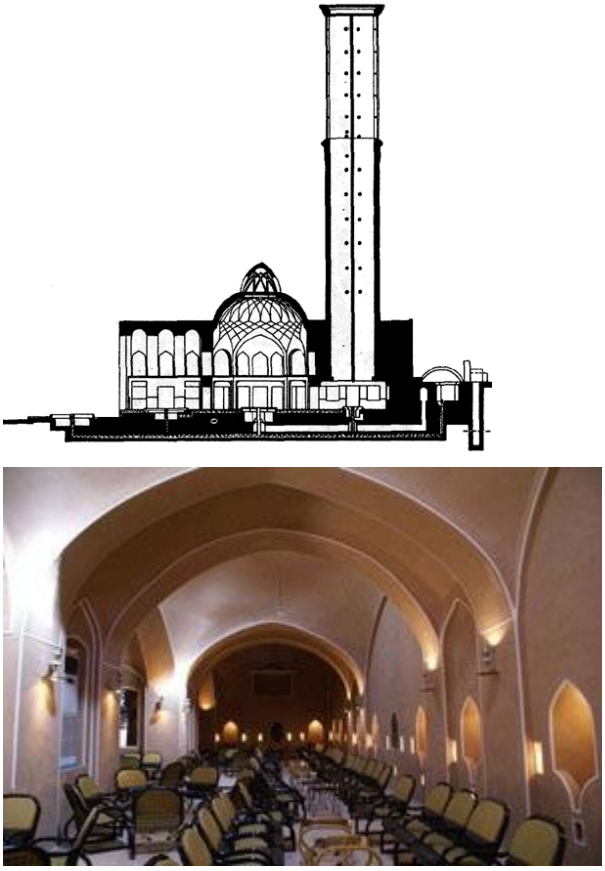

Figure2: Dolatabad Garden

The repair and reconstruction of the Dolatabad Garden began in 1937 by the Technical Office of the Cultural Heritage, Handicrafts, and Tourism Organization, and continued until 1969. (figure.2) Those parts of the complex were restored including the Ayene hall mansion, the mansion of servants, the kitchens, the Tehran mansion, sunshade and water reservoir, the seraglio MANSION, the windcatcher mansion, the Cedar mansion, Behesht-e A'aein mansion. Also, during the years 1976 to 1982, the operations of garden design and landscaping were performed in the Dolatabad Garden. On March 13, 1968, the Dolatabad Garden was registered with No.774 in the list of national works of Iran. Yazd's Dolatabad Garden is one of the great gardens of Iran in the desert, which has the highest windcatcher. However, the most interesting part of this garden is its plan and division of its main plots so that the plan is simple but also seems modern. (Gholamreza, 2015)

D. Geometry governing the Dolatabad Garden

The geometry of the garden is regular that divides the garden area into two rectangular parts perpendicular to each other (inner and outer gardens). The symmetry axis of the larger rectangular - the main axis of the garden - in the northwest-southeast direction, is placed with a 30-degree angle to the west-east axis.

This is the same axis that connects the portal building to the vestibule. The fountain, which is exactly placed on the symmetry axis of the inner garden, divides the garden area into two symmetrical rectangular plots. The larger rectangular area (the Dolatabad Garden) formed the inner garden which was, in fact, the private garden and residency of the family. The smaller rectangular area on the north side defines the area of the outer garden (Behesht-e A'aein Garden). Behesht-e A'aein Garden rectangle is divided into two square areas by a large rectangular pool perpendicular to the symmetry axis of the rectangle. The main plots of the Behesht-e A'aein Garden are these two squares. The vestibule mansion is located end of the main axis of the garden and connected to the south wall is the pavilion of the garden. The vestibule mansion has three large rooms and a springhouse (with a marble integrated pool) in the middle. Its layout is similar to other Iranian pavilions and the upper floor has a hall. There is a magnificent parlor on the east side of the vestibule mansion which has a square-shaped windcatcher facing the garden. On both sides of the parlor, there are halls, platforms, and shabistan on one floor. Their doors and opening are facing the parlor. Under the parlor, there is a deep basement, connecting to the garden through two steps, and from the south, it connects to the area beneath the windcatcher through a corridor (Donald, 1969). (figure.3)

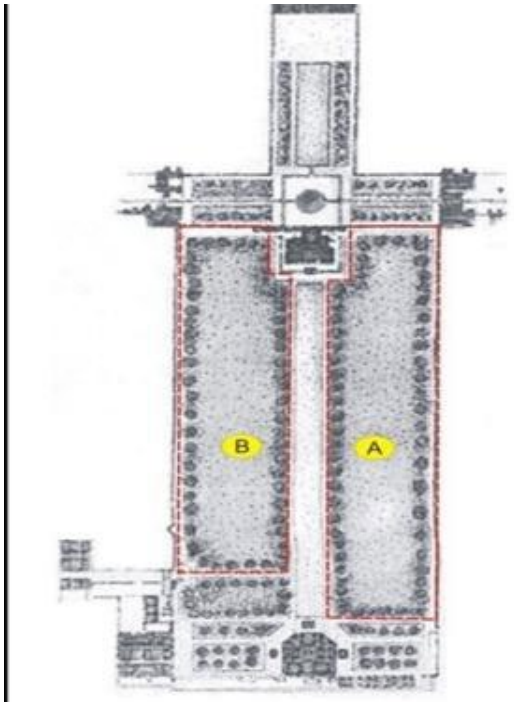

Figure.3: Geometry governing the Dolatabad Garden

E. Plants in the Dolatabad Garden

In the Iranian garden, the plants were planted to create shadows, crops, and decorations. Most of the plants in the garden are including shady and cherished trees, and there are fewer flowers and ornamental plants in the garden. There were three types of plants in Iranian gardens: shady plants (Willow, Sycamore, Elder, Cider, Cottonwood, Eastern redbud, Three of heaven, and Mulberry); Fruit Trees(Sour Apple, Black Prune, Peach, Pomegranate, Apricot, etc.); Bushes (different types of roses and all kinds of jasmine flowers, etc.); Ornamental flowers (violet, Lilium, irises, tulip, sweet William, etc.). The area of Dolatabad Garden is divided into two parts: a private garden for the family and a garden for ceremonies and sports. The winter residency of the family is located in a private garden facing the south, and on the other side, there is a summer residency located in the shade and it is cooled by five ponds and a breeze blows in the windcatcher. In the strip located between the two buildings and on the central axis, the clover is planted while on both sides of this trip cherry and pomegranate trees are planted. The garden has different rows of trees most of them are cedar and pine. Fruit trees are grape and pomegranate trees planted in the plots. There are plenty of roses in this garden.

F - Water in Dolatabad Garden

In the Dolatabad Garden, water is exhibited intact. The water is present in all parts of the garden. The water is first seen under the windcatcher of the vestibular mansion and in the integrated marble pool in which it boils and comes up. Then it enters the pool in the middle of the mansion and flows into three rectangular long pools in the three alcoves. In front of the three sash windows, there are three Sine-kabki made of marble and curved in a way to form a wave and show the volume of water more than its real volume. From each sine- kabki, water enters a small pool. Then, it flows in the large fountain of the garden. This fountain is exactly on the main axis of the garden and its dimensions are proportional to the height of the windcatcher of the vestibular mansion, which reflects the image of the mansion completely in the water. Then, the water enters the Behesht-e A'aein Garden and then, flows into a large dodecagon pool in the north of the mansion, and then flows into three rectangular pools on the other three sides. Finally, it flows towards streets and villages and is used in agriculture. The architect simply was not satisfied with the flow of water from the underlying layers of the ground and watering the trees, but also brought the fresh water to the ground and exhibited it to saturate the spirit of the inhabitants living in the desert with water (Faryar, 2004).

H-Conclusion

In the design of the Iranian Garden (Dowlatabad), the architect (architects) always seeks to define a strong axis. Even when using two perpendicular axes, he prefers one over another, which is the same axis defining the garden. In the Dolatabad garden, it can be seen clearly and (with the help of other design elements) presents the garden space as much bigger.

Iranian gardens hide the codes of Islamic wisdom and mysticism in themselves. They are the rebuilding of the cosmic event and the rebirth of paradise. Muslim architects have found the basis of their plan by finding the missing presence and adapting to the level of existence in which the garden, with its nature and the dominance of refining elements such as water and trees and the sky, makes humans forget themselves and relates human beings to spirituality.

In the present study, using the analytical-descriptive method, the principles and basics of the Islamic worldview have been identified as the source of extracting the meanings affecting the Iranian garden, and the concepts such as monotheism, unity in the multiplicity, and the manifestation of the Lord in the created world have been explained.

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