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Acquaintance with Persian Garden

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ABSTRACT

Garden, this domesticated nature, at the same time, contains aesthetic values, and usefulness is high and, due to its multiple value affects all five senses. What is certain in Iran in arid and water scarce climate, identify the natural environment requires knowledge, experience and a special technology which in Iran it has a very ancient history. From ancient pattern to the paradises of the Islamic era, the art of Iranian garden creation in water supply saving, irrigation and water views, plant coverage according to the usefulness and beauty, creating a micro-climate and locating, has provoked wonder and curiosity of researchers over time until now. Method of information collection was library based and in this research the quiddity of Persian garden is going to be described from different perspectives (Geometric, physical and functional).

Keywords: Persian Garden; Anatomy; Function; Climate; Water

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ACQUAINTANCE WITH PERSIAN GARDEN

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Abstract

Garden, this domesticated nature, at the same time, contains aesthetic values, and usefulness is high and, due to its multiple value affects all five senses. What is certain in Iran in arid and water scarce climate, identify the natural environment requires knowledge, experience and a special technology which in Iran it has a very ancient history. From ancient pattern to the paradises of the Islamic era, the art of Iranian garden creation in water supply saving, irrigation and water views, plant coverage according to the usefulness and beauty, creating a micro-climate and locating, has provoked wonder and curiosity of researchers over time until now. Method of information collection was library based and in this research the quiddity of Persian garden is going to be described from different perspectives (Geometric, physical and functional).

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1. Introduction

Persian garden Category can be seen as a phenomenon riding on the heart of time. When will necessarily economically and in the lives of generations can also bring distinct sense of routine and we also find is that dialogue and, apart from interest, love, enjoy receive semantic times its capital also is displayed. Suburban and urban gardens within us despite all the deeds that are, in essence, that belong to the generation that has long lived in the land of garden.¹The question that arises here is that the Iranians first built the gardens, following what have been?

Persian Garden confined space with its mystery and memory of the place and could not remain in their own territory. It covers an area beyond the wall, including the natural environment, cultural and environmental potential that are located around it and beyond mere physical nature and objective of the association. Garden art tradition in the country of great age and long history as one of the main school gardens in the world. From ancient times until the 19th century, relying on empirical knowledge to be hidden gardeners understand and complete structure created an environment that reflects the close

relationship between the natural and cultural context, and also a sign of consistency and alignment of human needs and nature. Garden in addition to natural beauty and usefulness in the context of sustainability rotation, has played a major role and can regulate the ecosystem becomes rich.

2. Literature Review

2.1- Garden:

In 1982 in Florence Charter Historic Gardens Committee presented a description of the Garden: The garden is an architectural composition of inanimate objects, plants alive and represents the work of every nation, culture and climate, is home.

The main structure of all the historic gardens in the world based on the architecture of nature and synthetic or mixed method plants, water and buildings that regulate the body to create a suitable space for human life.

What garden as cultural and natural heritage in any place apart from other places, layers of meaning, the meaning and the physical and functional characteristics specific to each region.

2.2- Persian Garden:

Cultural phenomenon, historically, body in Iran and is usually confined area where plants, water and buildings in the distinctive architecture are combined with the favorable environment, provide safe and comfortable to humans, are made be.

Persian Garden " Link auspicious beauty and usefulness.² " Appearance Being and appearance are allows us to hear the voice of the universe ... Persian garden as a work of art should be invaluable in the process of spiritual art recognition. Recognizing the Persian Garden, the world's spiritual sound of the universe.³

In other words, the Persian garden space that combines natural and synthetic architectural structures such as water plants, meaning that embodies the visionary and imaginative.

2.3- A comprehensive model of Persian Gardens:

Based on research by doctor A. Masoudi reference pattern Persian garden can be seen as an early example of the intersection between Iran and the pattern in the carpet Persian gardens with garden plot flag is crystallized.

If chronological based approach based on the development of concepts and components that form the garden set, we act reference pattern Persian garden is described as follows:

The relatively large square or rectangular area that is enclosed by a wall around it. The level of this range with two axes (two atmospheric) intersecting perpendicular to each divided into four equal parts. Water from the fountain located in Mercer dock at the intersection of these two axes, erupted into four climate-driven and watering the trees in the square surfaces. The main building of the garden (Pavilion) at the intersection of two axes takes place.

3. Research Methods

Qualitative method to study the nature of Iranian gardens historical gardens and orchards Iran to recognize this is done on the basis of the existing library documents. In this study, three geometric point of view, physical and functional in the garden of continuing to refer Iran's case to be investigated.

4. Analysis & Results

4.1- The geometric structure:

In the simplest description of the geometric structure of the Persian garden to say, square or rectangular shape of the garden in full and proportional to the volume of water that can provide it. "In relation to the water and has a garden area garden area is enough water in the dehydration also can irrigate the garden."⁴

The earth is shaped to fit the characteristics of the ground (flat with general slope of the low, sloping, etc.) on a regular geometry or terracing of the plot.

The ground based on the three-axis or two axes parallel and perpendicular to the cross and divided into areas and each area of the square divisions that each of these divisions can be divided into squares, Crete classified there. Persian garden is built based on the geometry of square and rectangular predominantly is a perfect square.

In some studies the main cause of Crete Square Garden, ease of irrigation noted that "we have been common in agriculture thousands of years ago."⁵

Geometry imposed on Iranian gardens as a tool for cultural belief considered to be abstract, that is expressed environmental conditions in Iran "involves mathematics, the most abstract scientific application of science to the possibility, but the on the other hand abstraction, the material world absorbed in thought makes divine infinity of the world."⁶

If the geometry of visibility means we will also examine the geometry of the system is not limited only to the appearance of the garden, but the system as a tool abstract geometric relationship between the body of the human mind.

"When we move in the Persian Garden, the farthest point of the garden, the nearest point it looks. It can still be of geometry, but geometry is that the mind can understand it and live with it everyday interaction and pure that you walk to say, do ..." ⁷

The geometric structure of the multilateral system on a corpus of Persian garden Persian garden are:

- The main infrastructure and integration of natural and artificial elements of physical systems is a Persian garden.
- Organize and regulate the division of the land so that maximum possible use of the earth's surface is provided.
- It comes to agriculture.
- The irrigation system has been prevalent in the last matches.
- Virtualization creates a range based on the human optical illusion based on the main axis of the garden spots and places farther or closer than the actual size of his eyes.
- In addition to the physical geometry, geometry assumed creates a bond between the garden and the mindset of people.
- As a means to abstract cultural beliefs fit the paradigm has been at any period.

4.2- Functional systems of Persian garden:

Persian garden designs in different historical periods in its general form has no adverse change because we can say that the Iranian garden is a method, not a type.⁸ Persian garden can be used as linking the built environment and nature in Iran, according to the function of the buildings in which they were located, elements or special designs can also be categorized vast.

So far, the basis of various criteria Categories in Iran's gardens, including:

- Extent
- Functionality: residential gardens, public gardens, garden location - governmental, garden tomb and orchard.⁹ As well as government, Lords, and public ritual.¹⁰
- Design and physical characteristics of the land where the garden: The garden flat and low slope, steep gardens and with podium, packed gallery, garden constructed in complicated natural lands and gardens with lakes and rivers in the urban fabric.¹¹
- Climate
- The geography of the city and wrapping area Garden: Garden of Isfahan, gardens Caspian, Tehran gardens, orchards and gardens of Shiraz in the north and south.¹²
- Historical periods: the period of Achaemenid, Sassanid, ..., Safavid, ...¹³
 - The interplay of the garden, and the environment as well as specific elements: Garden tent, garden grille, garden pavilion and ...¹⁴

4.3- Persian Garden physical systems:

All historic gardens shaped body of three planting systems, water, and therefore the

system according to the climate and culture of each territory other than the territory is variable. Structure of a variety of natural and synthetic systems combined, and in fact the result of combining the body of the garden and the quality of its system.

According to Dr. Mir fendereski: "Garden as much as possible simple and clear material are formed and ambiguity in the relationship between man and does not leave space ... in arranging and creating an atmosphere of Persian garden, for clarity, applied mathematics it is. Because Persian garden is enclosed with a fence rectangular and with axes perpendicular and parallel to the sides of the fence divided the navigation system and other system-related settlement geometric garden including irrigation systems, planting system and architecture system provides. " ¹⁵

- Planting system

Planting the garden Iran, affecting the geometric structure and it is affected. On the one hand practical sense, planting and agricultural practices led to the creation of geometry knows and on the other hand planting system is also influenced by the geometry so that the planting of trees and plants mentioned in the Persian Garden and the geometry of the intertwining of water feature is has been known.

Plots on the basis of logical order, extent of coordination, follow the directions and specifications of the environment, efficient use of sun, wind resistance, confrontation and hatred with maximum heating comfort and abundance of the harvest, providing a quiet and refined environment, diversify contact air and dynamic beauty, are partitioned.¹⁶ Planting locations and any of the trees, flowers or plants is unclear.

Planting of the main axis of vision in regard to the location of the pavilion highlights and so on to see the importance of moving its main axis. So for linear, surface and volume of crop cultivation practices are the result, in the garden create

different visual qualities among which we can mention the following:

- create closeness in sight to overshadow by planting trees.
- Create major and minor axes Diderot instead of the aisle in the garden.
- Create virtual density by planting practices.
- Vertical axis view with high emphasis on planting trees and creating green body.
- Create a cone angle of view instead of in the main axis.

Planting a variety of trees and plants attract birds in different seasons and thus causes the Sweet sound of their garden space to be filled. Also, the breeze passing through the trees and plants, according to the morphological features and the planting of specific sounds are created.

Planting and growing flowers in the garden Persian Iranians to express interest in spreading fragrance fragrant garden space and it was. In addition to edible vegetables and herbaceous plants are also used for treatment. Medicinal herbs of Crete and in the sun away from the palace garden to be planted.

- Water system

Water generated from the garden and in Iran, where two-thirds of its land area is hot and dry, water supply, water extraction, water conductivity, water sharing and use of water with unparalleled accuracy and sensitivity, as well as the application of science and technology with a special permit be. The most important sources of water is, underground water and heavenly water. Underground water resources are driven by aqueduct to the garden and with a special system appears to be diverse while also providing various needs.

Water flowing movement on the ground and to the public in accordance with the slope geometry, linear water in the garden creates. Atmospheric circulation within the permanent plots but plots with irrigation water and sink it to the next plot flows. But the water in the gutter of the main shaft at the foot of trees for smooth passes and is always displayed.

One of the important characteristics of the water system in the Persian Garden, a high tendency to display it, because water was usually very low and very dear, it was a strange garden architecture building games and played over water into the ground indescribability and carried out.¹⁷ this is in addition to wasting (evaporation of water in hot weather) to minimize water provides a beautiful view.

Water Show not only for linearly moving streams, Water handlers and get up around dock that can be seen in the garden but also making normal pressure water jets that were made on the basis of law related containers may boosting moving the water vertically from bottom to top and thus creates a vertical line.

Large water storage in reservoirs for use in low water seasons of the year and the vast areas of water in their water levels reflection will show. The water level in the pool or shallow horizontal plane and in particular with different forms of squares, rectangles and polygons are displayed. The water in the order of reflectivity transparent surfaces planting rows of trees reflected in water level caused on the vertical axis and in terms of emphasis and the virtual area or infinity adds more garden space.

Forms a linear, surface and water volume to respond adequately to the needs of various Persian garden as well because water has a variety of functions, the system of irrigation water in the garden requires both mental and Blue Shells fit any of the trees and plants as well as accountable

Since the circulation of water in the garden begins the task of clean water is transferred. Water system, sound system and system features landscape garden is very effective.

Water movement and find it hidden in the garden in addition to displaying the various sounds created in the garden. "Move, water colors, the sound of water, the water and even water in a small pond and a large and various forms, hope and life instrument. The sound of the song is agreeable to hear, and a wave of water from the pond to the man comes, forgiveness or compassion is subtle and delicate. " ¹⁸

- Buildings settlement system

Iranian gardens buildings establishment of the system in the building and all synthetic elements order, organize the garden space and in combination with planting system and water system to the physical integrity of the garden. Buildings settlement system as well as two other systems on the geometric structure and elements of man-made garden conform to the shape of land and buildings, is based on it. In addition to building physical structures and systems as well as system deployment, other elements also determines the garden.

All the elements in the Iranian garden to garden enclosed by walls and fences as a framework for all these elements is derived. A literature review showed that in describing the Persian garden all researchers on the wall surrounding the garden as one of the main physical characteristics of Iran has maintained garden and it is considered for various functions, which include protecting garden in the top security functions animals wild and expressive injury Reading garden products, garden and protect its residents against the attacks of enemies and conquer it and also create a lack of mental peace with security for residents and climate functions, including the protection of Garden of the wind blowing hot and

dry, the sand mental status keep moisture in the garden and create more shadows that give rise to differences inside and outside the garden.

Garden buildings are made in two sizes: large-scale and small-scale partnerships like that in the main garden-like atmosphere that defines the garden. Major monuments like the garden often devoted to life outside and small buildings like the inner life in the form of small courtyards or rooms around the entrance to the sides of the chamber wings are usually in. Like the original spatial order and geometry on the small garden not.

Large scale like: Mansion entrance of the house, the main palace building, usually in the upper chamber axis parallel to the main garden and the garden are large-sized buildings that are like them by matching the military establishment The geometric structure of the garden is done so that in the Iranian garden geometry open space in the garden is the geometry of the buildings and assign to them gives meaning.¹⁹ Thus the great buildings like the great visual emphasis can be seen in the perspective of the main axis of the garden.

Small scale-like: Other garden buildings such as bathrooms, stables and storage services function, and in some cases (according to the climate and the orientation of the garden in the overall deployment) predominantly summer, winter Location staff and crew also featured predominantly in the especially in the walled garden and confining walls assign fall garden. The buildings garden space in the garden for outdoor enclosures are not distorted.²⁰ on a small scale like what is important is that the garden area (empty but full of nature) have perfect geometric shape and not offensive in any way with any building on it.

Buildings in the garden full deployment of square or rectangular space within the garden so that the system follows the perspective of the garden to showcase a

perfect geometric figure. That's why sometimes irregular spaces located within the walls outside garden area expands. In fact, regular geometric shape-finding inner space of the center, mainly of open space, the beginning and towards the outside grows, and indoor the non-visible from the outside, the irregularities surrounding tissue, compact and comes with different measures be coordinated.

5. Discussion & Conclusion

Iranian garden architecture system, how to discipline Find all natural elements, artificial physical systems (planting, water and the establishment of structures) identified a he does. By examining the physical system became clear that physical Persian garden design very careful and calculated based on the geometric structure formed, mainly in the form of a perfect square or rectangular outer perimeter of the garden, and the garden with the walls relatively long enclosed clearly isolated from the surrounding environment. In this way, the walls of the elements defined in the Persian garden space would be enclosed garden and the separation of the two areas of garden space both inside and outside stresses and therefore introduces clear boundaries.

So in the Persian Garden definite boundaries between inside and outside the garden, on a square or rectangle defined geometric shape. But in addition to the geometric proportions delimitation of outer, inner space divided basis as well. The overall atmosphere of compliance within the geometric structure and perpendicular lines can be divided into smaller spaces. The system determines the geometric structure detailed physical plan of the garden, so that the outer boundary of the garden, water systems, planting system and settlement system of buildings, based on the structure defined so that all categories of tangible definite boundaries and visible.

On the one hand there is the prospect of the long main straight and stretched the

garden, in front of the pavilion and planting tall trees on either side of a central role in the creation of the garden longer perspective effects, and on the other hand, which in most of the gardens of the natural slope Iranian used a perfect opportunity for wrapping pavilion in the garden provides a high point and low point of human vision when placed on your distance to the elevated point less than the time until the distance feel the high point looks. The Persian garden, with its natural context of implementation of the factors and creating a virtual vastness and infinity of space in terms of the system.

In Persian Garden has witnessed the transition from space to space Garden else. Basically, the most important architectural features combined built in Persian garden and the garden and the two sometimes it felt so mixed that cannot be terminated where the gardens and where to get started. The use of sensory stimuli such individuals to create a continuous space, including the qualities of the Persian garden is a garden. The Persian garden space in the garden, not cut, but rather a man of the past and linked with other garden spaces. Inside the garden space to cannot create life and contour. Picture the kind of interference in their water and mix of garden and building. Integration, interaction, integration and garden space Iranian border, by the geometric relationship, the relationship between visual, sensory, primarily related to the physical characteristics of buildings in the garden and wrapping them. This emphasis on continuity of space gives the definite boundaries between space and a space without boundaries become blurred.

Finally, we can say that the fusion of the physical architecture of the Persian garden planting, water, settlement building, shadow, sound, system landscape based on geometric structure, determines the shape of the space in the garden: continuous Without Borders, midway between outside and inside, a large man with a sense of

unlimited synergy that takes a refreshing and soul in it.

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