

Research Article

PRINCIPLES OF GARDEN MAKING AND THEIR APPLICATION IN GOLESTAN GARDEN

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ABSTRACT

Throughout history, gardens have always been regarded as part of the structural framework of every city as well as its façade. In fact, gardens have been playing the role of connecting human being and nature. Our land has been well-known for having vast green areas and pleasant gardens, therefore, the methods applied in their formation have always appealed to other nations worldwide. However, such places have been tampered with and there are hardly any traces of such gardens available. What remains is the heritage passed on to us by our ancestors which places a great responsibility on our shoulders. The current paper deals with gardens from a historical point of view with a great focus on the present geometry of Iranian gardens. Through a library research, the present research aims at collecting historical documents to reach a comprehensive understanding of the history of gardens. Having adopted an analytical perspective, the practical use of gardening principles was studied with a specific focus on Golestan garden.

Keywords: *Garden Designing, Iranian Garden Making, Golestan Garden*

INTRODUCTION

Iranian architecture is an unprecedented work of art. This art represents the Iranian people's mindset, their worldviews and religious beliefs as well as their traditions.

An overview of the development of Iranian art indicates that, since ancient times, the architects living on this land have been involved in building a mere shelter to the most glamorous architectural works of the world. Apart from simple goals such as housing and protection from hot and cold weather, they cared about dividing different sections based on people's spiritual and physical needs.

Therefore, they found their idealistic and imaginative world in gardening due to their innate desire for natural environments.

Hence, gardens reflect cultures. Every work of art emerges in gardens, every wisdom rises in gardens, engineering innovations soar and gardens turn into a suitable place for realizing the traits and characteristics of every culture.

Gardens are a man-made nature derived from people's mind as well as imagination (Abolghasemi, 1997). With regard to the geological and climatic condition of this vast land, Iranian architects and artists made an attempt to innovate and design models specific to human housing. One of these ancient models is the Iranian gardening procedure with principles differentiating it from other gardens on other lands. Some of these principles such as ChaharBagh as well as checked webs had been consistently applied in Iranian garden design.

Golestan garden is one of the gardens reflecting Iranian gardening principles. Based on some documents, since Qajar dynasty, Iranian gardening methods were gradually influenced by other nations' culture and architecture leading to the emergence of environments characterized by curved lines and spaces as well as different plants. This garden was no exception to these changes and we can observe these changes in the historical part of the garden as well as its connected parts. Historical and ancient monuments which have been largely destroyed by natural phenomena are the results of years of endeavor made by artists and architects who were in charge of making, maintaining and restoring them.

These valuable masterpieces are actually representing Iranian culture and civilization. They have been made by the artists who were eagerly putting their hearts and creativity into the development and promotion of this art. It is now our job to protect our country's landmarks just as our ancestors did.

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History of Garden Making

Throughout history, mankind has been trying to understand and evaluate their environment, so they have tried to establish a healthy relation between nature and themselves. This objective has occasionally harmed the environment or in some cases has aligned itself with nature. As biologists put it, this phenomenon is the result of human beings' reaction against nature. Generally speaking, mankind is affected by their environment. They occasionally align their imaginations as well as their idealistic thoughts in the same direction as that of nature; therefore, lead to ecological conditions that cause a diverse range of plants on different lands.

Some researchers maintain that throughout history, especially before Christ, Parsiyan and Mesriyan Entertainment parks were the greatest source of inspiration for the art of garden making in ancient Greece, particularly in Plato and Aristotle's era.

A number of ancient Iranian masterpieces indicate that kings encouraged people to cultivate ornamental plants. With regard to Iranians' great desire for gardens, special innovations have been introduced throughout history which is nowadays known as traditional gardens (Pourrahimi, 2001)

Iranian Gardens

An Iranian garden is a precious masterpiece reflecting the spirit, culture and interests of the people in Iran. This piece of art is interwoven with Iran's vocations, agriculture and local arts. Garden making has an old history of thousand years in Iran. Iranians' peculiar attitude towards the universe manifests itself in Iranian ChaharBagh. Iranian ChaharBagh has been adopted by many civilizations from the farthest corners of the globe, adapting to the needs of every culture (Abooziya, 1994).

Iranian people's sensitive and delicate nature has been interrelated with nature; therefore, it gradually became common among people to build water canals and use gullies to irrigate gardens. Inspired by different types of Artesian wells and mineral water fountains, fountains were created in Iranian pools as a beautiful and entertaining phenomenon. Feelings were shaped like fountains and are still common in spite of the revolving history of the art of garden making.

Throughout history, the art of design and architecture has been largely influenced by environmental, economic and political issues, having its own ups and downs and sometimes even neglected. In fact, our experiences and traditions as well as our lifestyle have a great impact on our behavior towards the environment and nature. Accordingly, many things would be abolished or may have no specific style in a specific period.

Anyhow, these traditions have been prominently present in many existing cities in Iran, as in Tehran where we can find Golestan Garden.

During the Timurid dynasty, Tamerlane commanded that many gardens had to be built in suburbs as well as centers for social gatherings. For instance, there were gardens in Samarkand surrounding aristocratic palaces; however, they have been gradually ruined throughout history.

Among the features of these gardens, we may refer to their vastness, buildings surrounding the garden and the ornamented walls fencing around the garden. In some cases, it has been seen that buildings were placed in the middle of the garden with moats filled with water.

In such gardens, there are huge pools with as many fountains as possible. Stone benches, street pavements, waterfalls and crossed streets were very common especially when they were surrounded by infertile trees.

In the history of changes made in garden design, the Safavid dynasty was linked to the Timurid dynasty with some slight changes. In fact, it could be said that this era led to a new design called the Safavid style. One of the features of this era is that they created some sort of relation between indoors and outdoors, as in the small indoor pools ornamented by flower vases.

Streets follow a symmetric order, in other words, ChaharBagh was a new phenomenon in Safavid dynasty intended as a place of entertainment between cities. In such boulevards, trees were arranged in four to eight lines.

In this street (boulevard), small creeks were designed in different widths with carved stones at their bottoms. In some cases, some small water fountains were used.

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Since there is no stop to history and art and they become completed in connection to cultures, it was in Qajar dynasty specifically after Naser-All-din's visit to Europe that a combination of East and West styles was created (Golshan, 1996).

In this combined style of European and Iranian designs, we could see angled streets, gazebos, areas covered in thickets, zoological gardens, and pools around buildings.

In general, Tehran was known as the city of gardens; however, they were gradually destroyed due to population growth and turned into commercial centers.

When Qajar dynasty was overthrown, due to the facilitated travels between Iran and other European countries, it became very common to build villas, parks and gardens in European style or a combination of Iranian-European style. It is clear that the reason for their interest in these styles lay in their familiarity with European garden making designs as well as the growing number of cars commuting between different cities. Most of these gardens and parks were established in 1971. These parks were common in the form of public parks, parks intended for children as well as boulevards across cities. Moreover, during Pahlavi era, most old parks and gardens were redesigned in the form of semi-european ones (figure 1).



Figure 1: An overview of Golestan Garden

Design of Golestan Garden

Golestan Palace is a part of the historical citadel of Tehran. It dates back to Safavi dynasty and the time of Tahmasp I. This citadel was rebuilt in Karim Khan's period and devoted to the kings of Qajar. It is to say that during his life, Naser-All-din made a lot of changes in Golestanpark (figure 2)

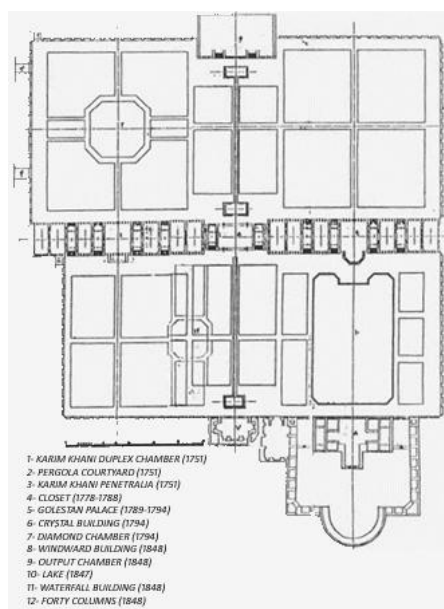


Figure 2: Plan of the exit door of the palace in Golestan garden, Naser-All-din era

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The courtyard as well as the king's residence occupied more than one third of the citadel. A vast area divided into large and small yards covered a diversity of buildings. Like other Iranian traditional houses, this residence also consisted of two parts: indoors and outdoors.

The outer part of king's residence was divided into two parts: the courtyard which was a rectangular garden as well as a square shaped garden known as Golestan garden. These two parts were separated by a narrow path.

Golestan garden was regarded as the outer part of the king's residence where a few private meetings were held with some occasional visits by close family members.

The main entrance door opened to the northwestern corner of Golestan garden to prevent the guests from having a complete view of the garden.

The old figures and plans of the garden display a garden covered in tall trees, several pools and creeks across the garden to the extent that water flowed all across the lower parts of outdoor buildings.

The east-west axis of the garden is a thin wall.

The axis separating the north south area is a creek. The latter is more emphasized due to the existence of two significant buildings on its sides: The Crystal Building and Diamond Chamber.

The axes cross over Golestan Palace where it creates a sort of harmony among the four sides around the axes. Such harmony is clearly obvious in the design of garden.

It is quite obvious that the design of this garden was intended to create a dynamic atmosphere enchanting its audience.

Principles of Designing an Iranian Garden

As it was mentioned before, Iranian gardens are known worldwide. Commanders, governors and kings of Iran has shown great interest in making vast gardens since ancient times and the Rise of Islam.

In these gardens it was common to plant the tall evergreen tree of cedar as the symbol of glamor, survival and consistency.

In the middle of the garden, there were pools in circle, hexagon, and or in rectangles so that they would reflect the buildings or the tall cedars around them.

There are four streets on the four sides of the pool dividing the garden into smaller square shaped gardens. Creeks flowed through these streets and the fountains which were installed in the middle of this creek created a very fascinating view.

Iranian architecture stands on five pillars of appealing the public, self-sufficiency, refraining from wastefulness, employing module (paymoon and nyareh), introversion, and Iranian artists more than others have been to them (Pirnia, 2005).

Gardens fall in the same category and to make them even more introvert, they were fenced all around with walls. In addition to providing protection, it would provide an atmosphere different from that on the outside for anybody who would enter into the garden from the hotness outside. And having it fenced requires more labor.

In Persian gardens, like any other artwork, the most effort have been exerted against wastefulness and therefore they have been following a certain logic in their use of plants and nothing would be planted out of this logic.

Geometrical organization and symmetry found in the design of fountains, pools and surrounding flowerbeds reveals principles of appealing to the public and employing module in designing Iranian gardens.

There was little variety in growing decorative flowers in ancient Iran, and the species included eglantine, Jasmin, copse, lily, violet, wallflower and... and this reveals the principle of self-sufficiency in Persian gardens (Hekmati, 1992).

Spatial Quality of Iranian Garden

Precise geometrical structure defines the framework of Iranian garden. This geometrical structure, as it demarcates the limits of the garden, or in other words, limits the surrounding space by means of walls and

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the inner space by means of perpendicular axes, and as result the emergence of particular spatial qualities in the garden, and now will try to analyze them.

Virtual Vastness

Installation of entrance on the horizontal axis of the garden, and main perspective laying out in front of the palace on the one hand, and plantation of tall trees on the either side of the path on the other, play major role in creating a perspective that presents the garden larger than it really is.

This visual error that is greatly due to the difference between human's visual angle above and below horizon, makes the palace appear closer to the entrance and prompt the viewer to pave this apparently short distance and on the oppositewhen somebody looks on the garden (particularly from upper floors)the path appears longer than it is and garden looks larger (Wilber, 2005).

Therefore, by adapting to natural context and factors, Iranian garden create a kind of virtual vastness in the vision.

Continuity

In addition to creating a kind of virtual vastness, Stimulation of eyesight and presence of a close visual relation among components and elements in the gardencreates a kind of wideness and continuity in the space of the garden.

In Iranian garden, in fact, we experience a transition from one space to another. Basically, one of the most important architecturalfeatures in Iranian gardens, in the combination of building and the garden, and sometimes these twoblend so uniformly that it is impossibleto say where the garden finishes and where it starts.This relation and integration is achieved through establishing spatial relations and the relations among constitutive elements of the garden and alsoemploying sense stimuli to create such continuous space such as garden-designing qualities in Iranian garden.

The building in Iranian gardens does not interrupt the garden, but vision moves through itand connects with other spaces in the garden.

Simulating eyesight and presence of visual relation between inner and outer space of the palace and leads to a kind of continuity between the two and therefore a kind of wideness in the space (Mirdanesh, 2001)

Water as an important element flows through the acequias, and by transferring the sound from the outside into the garden, intensifies this feeling.

Additionally, bird songs, blowing wind and other auditory stimuli reaches into the palace and enhances the continuity and integration of these two spaces.

Therefore, continuity, integration, and widenessof the space of Iranian garden, is created because of geometrical and visual stimuli and stimulation of human senses (and basically due to framework characteristic of the building and presence of the building in it).

On the whole, it is correct to say that framework structure of the garden is so that an organized and precise geometry demarcates the limits of the garden and through devidinginner space, defines the boundry between components and elements and also the geometrical relations among them, and the space produced by this geometry is so that creates a kind of continuity, wideness and limitless vastness (Kiani, 1998).

CONCLUSION

Green space (park) started in Iran, after introduction of the subject to Europe and the style inspired by it. But with historical knowledge and considering the past history of garden designing in Iran, it is easy to notice that this issue has its particularcharacteristics in Iran and these characteristics can inspire park and garden designers and planners,

In ancient cities, garden has always been an important element in urban designing and almost all ciyies were surrounded with green and lush gardens and quoting Will Durant in his history of civilization, Iranian garden was imitated by other nations was the source of inspiration for medieval Europeans (Zade, 2005).

It should be noted that such research and studies, which take a new look into the architecture in the past of Iran, aim at employing past architectural designing concepts and technique in architecturetoday, and

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understanding and protecting these precious legacy, and using past experiences does not mean defect in contemporary knowledge, but standing upon the soulders of fathers and seen farther into the distance.

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