TERRESTRIAL PARADISE

RECLAIMING THE SYMBOL OF PERFECTION AND WHOLENESS THROUGH THE PERSIAN GARDEN

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Contents

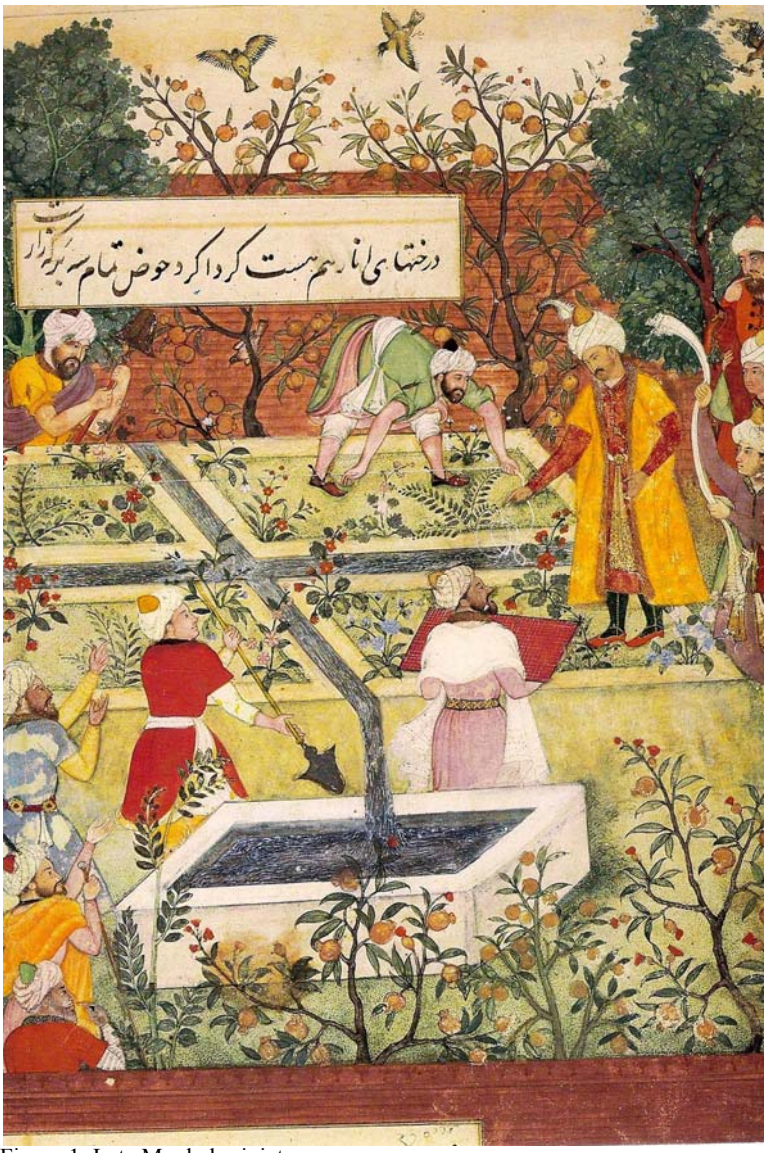

Figure 1. Late Mughal miniature.
Source: Lehrman, J. B. (1980). *Earthly paradise: Garden and courtyard in Islam*. Berkeley: University of California Press. (P.7)

If there be a paradise

on the face of the earth,

it is here, it is here, it is here!

Sadi

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Paradis Terrestre
RÉCUPÉRATION des symboles de la perfection et de la plénitude à travers le jardin persan

Avant-Propos

Grâce à une enquête de deux études de cas, cet article explore les émotions, les caractéristiques physiques et sociales de l'historique Jardin persan et met en évidence certaines de ses caractéristiques essentielles qui peuvent contribuer à l'architecture d'aujourd'hui. Le jardin persan a été conçue comme un symbole du paradis sur terre. L'un des principaux éléments de l'architecture iranienne, sa combinaison d'ingrédients naturels ou d'origine humaine fournit un témoignage unique de plus de deux millénaires et demi de développement culturel en Iran. Son essence binaire, y compris ses perpétuelles, des aspects mythiques et mystiques d'une part, et ses aspects fonctionnels et techniques, de l'autre, représentent une expression pensive de l'expérience humaine. L'aspect subjectif de jardins peuvent être explorés avec une appréciation symbolique et mythologique combiné avec le contexte historique. Ceci sous-tend la qualité de la relation réciproque entre les attributs objectifs et subjectifs du jardin et crée un voyage entre le réel et l'univers imaginatif. Une enquête approfondie construit sur cette entité mixte est la clé de récupération plénitude perdue.

Foreword

Through an investigation of two case studies, this paper explores the emotional, physical and social characteristics of the historical Persian Garden and highlights some of its essential features that can contribute to today's architecture. The Persian garden was conceived as a symbol of paradise on earth. One of the principal elements of Iranian architecture, its combination of natural and manmade components provides unique evidence of over two and a half millennia of cultural development in Iran.

Its binary essence, including its perpetual, mythical, and mystical aspects on the one hand and its functional and technical aspects on the other, represent a thoughtful expression of human experience. The subjective aspect of gardens can be explored with a symbolic and mythological appreciation combined with the historical context. This quality underpins the reciprocal relationship between objective and subjective attributes of the garden and creates a journey between the real and the imaginative universe. A comprehensive investigation built on this dual entity is the key to reclaiming lost wholeness.

Introduction

This paper provides brief information about the structure of the Persian garden and courtyard of the past. We can achieve the essential properties of the Persian garden through a tangible experience of existing examples. My personal experience of two case studies, Mohammad Ali Khan garden and Golshani house courtyard, crystalize the physical and emotional features of the Persian garden. To render the space of these gardens, their elements such as the four-fold structure, pavilion, watercourses, trees and

flowers will be explored. Analysis of these features and their reciprocities involves a study of their characteristics such as texture, smell, pattern, light, movement and view. In addition, the cultural context of place and emotional aspects will be presented. Both cases have not been documented yet belong to the Qajar era in Esfahan, one of the most memorable cities in Iran.

The Golshani House no longer exists. It used to be my grandparents' house. The scheme of this house has been extracted through my own memories, oral history and sketches provided by my relatives. The Mohammad Ali Khan garden is one of the rare surviving and yet undocumented examples of the Qajar gardens in Esfahan. It provided me with a unique opportunity to experience the tangible attributes of gardens from that period. The ornaments and the level of elaboration on the second floor of the pavilion secure this garden as one of the most significant examples of the Qajar era.

My analysis and conclusion is based on my exploration of some of the most important Western and Persian texts on the Persian garden from 1962 to 2011. They are introduced here in the bibliography and literature review. As an Iranian, my experience visiting several Persian gardens and courtyards enabled a rigorous survey of these case studies. My personal experience and memory of the space enables me to describe it in a meticulous fashion. I chose these two cases in order to explore the similarities and differences between two very key features of Persian architecture. Being familiar with Esfahan through my parents and living there for ten years allows me to analyze the cultural landscape in connection with the place.

The literature review in chapter one discusses some of the most disputed topics on the Persian garden. Chapter two addresses its physical aspects and essential elements,

followed by the comparison between the Persian garden and Persian courtyard. A brief explanation of the history and essential attributes of Esfahan will comprise chapter three. This chapter provides a gateway to reach the analysis of the first case study Mohammad Ali-khan garden that will be discussed in chapter four. A concise history of this garden as well as its objectives and subjective attributes will be presented in this chapter. The drawings and sketches and images help to visualize the descriptions of the space. I chose the representation style of Persian miniatures in some of the drawings because its abstraction represents the subjective aspects of the Persian garden. The fifth chapter examines Golshani House. Since the house no longer exists the plan and description of the space are supported by interviews, sketches, and my own memories.

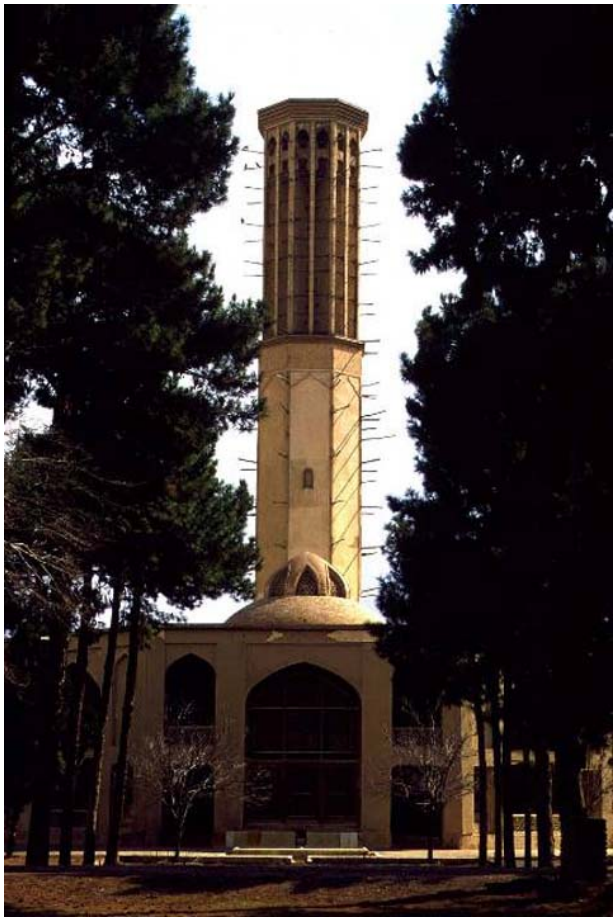

Figure 2. Bagh Dolat-Abad Yazd, by Aligholi Ziaee

1

A Literary Journey from Heterotopia[1] to the Persian Garden

Abstract

The exploration the Persian garden literature will be categorized thematically. These themes are linked to the attributes and aspects of Persian garden that crystallize its potential to reclaim the loss of harmony and meaning in our built environment. Accordingly, the aspects to be addressed include the investigation of the roots of the constant cross-structure of the Persian garden that is based on the diverse chronological approach of scholars. The other essential context of the Persian garden literature will be explored in relation to the concept of Paradise, which is connected to its four-fold structure. We can categorize the scholarly works based on their methodology and eventually their definition of the Persian garden. It is useful to establish those who explore the subject comprehensively. One of the aims of this paper is to investigate the research on influential aspects of Persian garden in order to provide the first step for intellectuals to determine ways to improve our future built environment. Since most texts about the Persian arts discuss the integration of literature with the garden and the theme of Paradise, it is crucial to identify the research in this area as well. In order to do this, it may be necessary to establish the link between arts and Persian garden in the present.

[1] Michel Foucault, who suggested the *Heterotopia* concept in human geography, believes in the Persian garden as a sort of microcosm representing the four parts of the world. It "has been a sort of happy, universalizing heterotopia since the beginnings of antiquity". (Michel Foucault. *Of Other Spaces* (1967), Heterotopias. http://foucault.info/documents/heteroTopia/foucault.heteroTopia.en.html

Introduction

The context of the archetypal garden has been one of the most explored themes since its initial formation among academics and researchers. Its binary essence, including the perpetual, mythical, and mystical aspects on the one hand and the functional objectives and technical aspects on the other, represent a thoughtful expression of human experience. As suggested by expert in Iranian architecture, Nasrin Faghih, *(2004)* "The mystery of eternal wonder of these very familiar and well-known gardens lies in the four cruciform structure of the very first garden," (p.28). The subjective aspect of gardens can be explored with a symbolic and mythological appreciation combined with the historical context (Faghih, 2004; Khansari, 1998; Moynihan, 1979; Wilber, 1962). This quality underpins the reciprocal relationship between objective and subjective attributes of the garden and creates a journey between the real and the imaginative universe. A comprehensive analysis built on this dual entity is the key to reclaiming the lost wholeness.

The Chronological Approach to the Persian Garden

Building a chronological order and a synchronizing approach helps scholars to follow the process over time and see how gardens disseminate across territories. One of the most elaborate and comprehensive approaches is a timeline, which Brookes suggests for the Islamic garden's parallel history with critical political, social and historical events in Persia, Spain, India and other regions. The timeline helps to identify how the Persian gardens were the most influential and travelled to other Islamic countries over time *(Brookes, 1987)*. In contrast, Wilson *(1976)* very briefly focuses on the era before

Islam to examine the origin of the structure of the Persian garden. His approach is not historical. We can see the same approach in a very limited way in Moynihan's essay covering the history of the garden from the Achaemenian to the Safavid era. She misses Pahlavi and the contemporary garden *(Moynihan, 1979)*. This approach is similar to Wilber *(1962)* who explores the history of surviving gardens of his time, from the Timurid to the Qajar dynasty. He goes back as far as 4000 BCE to trace the roots of the quartered garden in ancient pottery through scientific evidence.

The studies that include the pre-Islamic era follow the roots of the morphological aspects of the garden. Their aim is to show how the Persian garden affects the image of paradise in the Islamic world. The most comprehensive and elaborate approach belongs to Faghih *(2004),* who perfectly links history with morphology. Her study refers to the mythical garden of Babylon and Assyria from the first to the third millennium as ancient resources. She goes beyond the borders of Iran to follow the journey of the constant quartered structure of the Persian garden in Babylon, Assyria, Mughal and Kabul in India, the medieval Persian Garden, the Timurid and the first prototypes in Syria and Andalusia. Unlike Faghih, Khansari *(1998)* focuses only on the morphological evolution of gardens from the Achaemenid to the Pahlavid and categorizes them based on the cities they are located in. He presents an elaborate source that contains most of the documented garden's schemes and images. The tone of the book inspires further exploration however its lack of reliable evidence diminishes its value as a strong academic reference.

Another source that adopts a chronological approach is Brookes *(Brookes, 1987)*, who provides a gardener's point of view on the forgotten context of Muslim culture. In the

section dedicated to Persia, he starts from Pasargadae in the Achaemenid era. He presents some unknown gardens, which are not featured in other sources. Interestingly, he criticizes the contemporary Persian landscape, by analyzing both successful and weak examples that seek features rooted in the past. Since this text was written in 1987, an updated edition would be helpful for the future development of Iran. His analysis of the elements of the Persian garden is very general and could benefit from a look at the social context of the Iranian landscape today.

The Influence of the Persian Garden

As Faghih *(2004)* has pointed out, the "ancient royal gardens of Iran have been considered a reference for ideal examples of landscape gardening traditions in Islamic countries" (p. 28). This issue has been explored differently by Ettinghausen *(1976)*, who refers to the wide and varied range of influential aspects of Islamic gardens to the western world. Hobhouse *(2003)* gives credit not to the Islamic garden but to the Persian garden when he claims that 2500-year old Cyrus's Garden at Pasargadae was the prototype for all later developments. However, he does not provide any solid documentation in order to prove his claim about the influence of the Eastern garden on European and Western landscape. He just mentions a few examples of Western architects who followed the Persian and Islamic patterns:

The first ideas of a garden as a paradise were to be as vital in the history of the spiritual Muslim garden and the Indian gardens of the Mughal Empire as they have been influential in the gardens of Renaissance Europe and Western civilization *(Hobhouse, 2003, p. 14).*

On the other hand, Petruccioli *(1997)* and Faghih *(2004)* provide a wider perspective of

the history of the influence of the East on Western architecture with a range of comprehensive evidence. One such example is the growing enthusiasm of the West toward the Eastern and Islamic garden in the seventeenth century and its reflection in the Rococo style. During this period, exoticism emerges as a reaction to academicism. Some European gardens and palaces that were the result of this era, such as the Stibbert Garden in Florence and the Royal Pavilion at Brighton, clearly illustrate the influence of the Persian garden in the West in the seventeenth century. After Modernism, the interest in the Islamic garden in Western scholarship decreased. Over the last two decades however, there has been a resurging interest in this area of study. As a result, gardens previously undocumented have now been presented. As Petruccioli states, these studies are still not comprehensive:

A generation of English and American scholars deserve credit for systematic ordering of data, for the first historically correct classifications of residential gardens, even these publications often lack original graphic material and specific spatial readings *(1997, p. viii)*.

Among the scholars who have given a superficial role to the Persian garden, most are Iranian. However, hardly they depart from their obsessions and show a sign of clear strategy for using the gardens for development of today built environment. Iranian architect and curator Faryar Javaherian *(2004)* is more or less in the same group when she states: “the symbolic and mythological characteristics of Persian gardens provide a resource for all the Iranian arts in the past.” She wonders “how the Persian garden inspires the contemporary arts.”

With the exception of a few researchers who investigate the influential aspect of the

garden along with its social and cultural context, most overlook the essential connection between gardens and their cultural landscape *(Falamaki, 2011; Safamanesh, 2011)*. Urban designer and researcher Mansour Falamaki, emphasizes the importance of the context of the garden when he mentions five interdisciplinary realms of functional, physical, structural, formal, and meaning along with environmental aspects bond the garden with its surroundings. Another Iranian urban designer and architect, Kamran Safamenesh *(2011)* has the same concern when he states that "if we want to use of formal pattern of Persian garden we should be concerned about how it continues in Iranian life.

Brookes *(1987)* is one of the Western scholars who explore the contemporary social landscape of Iran. He analyzes the influence of Western culture on Iranian lifestyle. He examines the role of the traditional landscape and the Persian garden both in the past and to the contemporary landscape. He argues for the possibility of combining the traditional form with modern requirements; however, his study suffers from the lack of solid evidence and a clear methodology.

Paradise and the Persian Garden

The theme of Paradise in the Persian garden can be explored in both its physical and metaphysical context. In the seventeenth-century literature on the Persian garden, initiated by David Stronach's report, Wilber *(1962)* is one of the first to argue that the Persian garden symbolizes Paradise. He believes that the contrast between the green, fresh, soft ambiance of the garden and the arid, dry desert of the Iranian plateau creates a sense of paradise. Knasari *(1998)* debates this version of the origin of Paradise. He

wonders if the image of the garden as Paradise is a reclaiming of the memory of ancient Babylon rather than the result of this contrast between the lush greenery and arid desert that Wilber suggests.

Lehrman *(1980)* does not substantiate his claim but simply states that Islamic garden as a form of art reflects the sense of Paradise responds to its philosophic and cultural context. Similarly Hobhouse *(2003),* and Brookes *(1987),* state that Islamic gardens reflect the image of Paradise which is presented in the Quran. Javaherian *(2004)* is similarly convinced of this idea of the predestined Paradise as a result of artistic aspects of the Persian garden. She relies on a quote from Iranian cultural theorist Darush Shaygan: "what is the central paradise which is the resource of rhythm and breathing heart of Iranian art?" Hobhouse *(2003)* refers to one of the key quotations from Xenophon, a key reference for most of the garden's literature:

translated the Persian *pairidaeza(*a combination of *pairi* meaning, 'around' and *daeze* meaning 'wall' in to the Greek *paradeisos*, a term used for the Garden of Eden in Greek translations of the Bible. In modern Persian or Farsi the word *ferdous* means both paradise and garden *(p. 8).*

In contrast with those who do not deeply investigate the subject, Moynihan *(1979),* and Faghih *(2004),* provide an invaluable theory with convincing evidence for the origin of Paradise. They state that all the royal gardens built following the model of Sassanian palaces, are inspired by this ancient tradition. Therefore the word of "*Paradise*" comes from the name of Achaemenian's palace "*Pardis*". Islam adopted this word and turned it to "*Fardis*" which means "heaven" in Arabic. Moslem followed the same tradition of Sassanian Paradise gardens and the four-garden pattern. It is described by The Prophet

Muhammad in the following way:

The garden of eternal, and Eden, houses prosperous, salvaged, peace and comfort. It is located on the seventh sky and it has four rivers, four mountains and eight doors" *[...]* Faghih *(2004)*

This historical evidence presents the spiritual aspect of the Persian garden that has a potential to link humanity to the metaphysical universe.

As Faghih *(2004)* says: *"*It seems that the Islamic world has chosen this archetype, as Hanri Corbin states that "Heavenly bodies" define the relationship of humanity with the universe beyond the real world. Somewhere has turned into a utopia and the Eternal Paradise" *(p. 31)*. Similarly Moynihan *(1979)* refers to the myths related to paradise in ancient sources when he states that, "the paradise myth appears in the first known writing of mankind, the wedge-shaped impressions of Mesopotamia from proto-literate period of Sumer" *(p. 3*).

Alemi meticulously highlights the notion of culture in Paradise representation when she states that Persian cosmography affects the forms of the garden. Thus cultural context of time influences the reinterpretation of Paradise. She concludes that the paradise of the Avesta is visually different from the Quran.[2] However the common image in both is an "enclosed orchard garden with pavilions opening to wards watercourses and basins" which we can see in the Persian garden before and after Islam. *(2002, p. 75*)

The Constant Cross-structure of the Persian and Islamic Garden

[2] The Avesta is the primary collection of sacred texts of Zoroastrianism. Whitney, William D. 1856. "On The Avesta, or The Sacred Scriptures of the Zoroastrian Religion". *Journal of the American Oriental Society*. 5: 337.

Following further European discovery of the East in the seventeenth century, Persian and Islamic gardens became the center of interest for several Western scholars *(Petruccioli, 1997)*. Since then, the steady cross-structure of the garden raised the majority of academic interest. Some find their answers in decorative potteries of 4000 BCE, which "show[s] the world as if divided into four quarters" *(Wilber, 1962),* while others seek its origin in Hindu and Buddhist Mandala and Primordial patterns of the four-corner world *(Faghih, 2004; Javaherian, 2004)*. In both cases, this means that the four-folded Utopian paradise of the Quran is the legacy of ancient times. Alami believes the interpretation of Stronach about *char-bagh* (four-garden), which means dividing garden into four parts by two intersecting watercourses is wrong. She states that *char-bagh* means large garden. From the pavilion the garden should appear symmetrical, but it is actually not perfectly symmetrical from an aerial view.

Based on reliable and solid evidence, Faghih *(2004)* states that

In the Mazdaism, the ancient Persian religion, the world was divided into four parts. Number four, the four sacred elements, turns to this term. It can be found in Buddhist symbolism as well. The four rivers that flow from the center are the symbol of eternal life and fertility *(p. 31)*.

In contrast, some writers seek the origin of the quartered structure of the gardens in religious texts such as the Quran *(Brookes, 1987),* or interpret it as an analog of *char-rah* meaning "cross-roads" *(Pinder-Wilson, 1976)*. Brookes *(1987)* specifies two types of palace gardens, the large-scale four-folded walled garden that contains the palace and pavilion, and the inner court garden that is contained by the palace. Wilson *(1976)* believes that the repetitive pattern of Persian gardens from the Achaemenid to the Qajar

period originated from their function, which defines their early development. He provides some proof based on Kaemfer's illustration and the Garden carpet in the Jaipur Palace Museum, probably dated from the seventeenth century *(p. 85).* Moynihan *(1979)* proposes a different typology for Islamic gardens that includes the palace garden, the tomb garden and the pleasure garden. I agree with Petruccioli *(1997)* who rejects Moynihan's typology. He believes that "it is ambiguous and incomplete" *(p. ix).* Nevertheless, I do not agree with his rejection of the concept of the four-fold prototype where hesitates that in reality the gardens are much more complex and that the mythical prototype does not exist. The hidden cross-structure of the gardens is obvious through a simple study of the morphology of the gardens.

The definition and essential elements of the Persian garden

The dual entity of the garden provides the potential to explore the relationship between the real and the imaginary universe. Mythology and symbolism are the central focus of the literature on the cosmological aspects of the Persian garden. Among other writers, Faghih *(2004)* suggests an interesting definition that enhances the fundamental elements of the garden by focusing on its symbolism. She quotes Hanri Corbin: "Garden is an archetype of the first place in between the physical world and metaphysical world which we can call the imaginary world *(p. 31).* Pope who was obsessed by Iranian culture and aesthetics mentions the same approach of combining the physical world and the universe beyond when he states that "Iranian garden is not only a safe heaven and comfort, that in the meantime is a place for contemplation and research. Where exhausted soul achieves peace and refreshes to discover new

diminution of the landscape." He adds that "in every Iranian's mind a garden is hidden"*(Pope, 1938).*

Faghih suggests five mainstays of the garden. The first and second are periodical time and transcendental time. The third is the element of dividing the garden into four parts, symbolizing the four-seasons, in Buddhism, a sign of eternal life and fertility. The fourth element is the center of the garden. Finally the fifth element of this utopia is the pavilion, which is located in the center of garden and has view to four sides. *(Faghih, 2004)*

Lehrman *(1980)* suggests a very different organization than Faghih, one that is more tangible, and involves characteristics such as order, space, form, texture, pattern, light and movement. However, he does not justify his approach toward these categories by presenting sufficient supportive historical evidence. He names water and flowers, but not as essential elements of gardens. He overlooks the crucial role of two elements that are rooted in the archetypal aspects of garden. Unlike Lehrman, the majority of the scholars of the garden are convinced of the significant role of water *(Brookes, 1987; Hobhouse, 2003; Khansari, 1998; Lehrman, 1980; Wilber, 1962). "* Water was ever dominant, and central and most essential element in the Persian garden. Since the first settlements in the Near East, water had been the controlling force in the lives of the people. It was considered as a source of life in the earliest civilization of lower Mesopotamia" *(Moynihan, 1979, p. 5)*. "One of the oldest myth of immortality is about water which is the source of life and a female is the manifestation goddess, a symbol of love and fertility" *(Javaherian, 2004, p. 16)*.

Water has been always an integral part of the tree. That is why it comes next to

the water as the second sacred element and becomes the focus of most of the writers *(Brookes, 1987; Faghih, 2004; Hobhouse, 2003; Javaherian, 2004; Khansari, 1998; Lehrman, 1980; Wilber, 1962)* "Nature myths, which endured for centuries, were among the early oral traditions in this archaic" *(Moynihan, 1979, p. 5)*. Within the literature on the Persian garden, the theme of the tree is always linked with flowers and its significance in Iranian cultural and Persian literature *(Hanaway, 1976; Wilber, 1962).*

Literature and Persian garden

Among the Persian arts, poetry and prose has been one of the focuses of the researchers as a key link to the Persian garden *(Hanaway, 1976)(Hobhouse, 2003; Wilber, 1962).* There are two types of poetries linked to the garden and Paradise. One is connected to its physical entity and reflects earthly gardens and its beauty in the real world, as in Manoochehr Damghani poems. The second type scholars refer to the poems that reflect the abstract, symbolic gardens, called the Eighth clime, as in the Molana poems *(Hobhouse, 2003; Javaherian, 2004; Lehrman, 1980; Schimmel, 1976).* There has always been a debate about which one was first, the garden or the poetic imagery of the celestial, green, peaceful place as Javaherian quotes from Hanri Corbin: "I don't know if first the garden created and a poet steps in or first a poet became a gardener and made a garden for himself" *(Javaherian, 2004, p. 17).*

The life cycle of nature as manifested in the garden is parallel to that of man. Through this imagery man, placed in the larger context of nature, sees his own life cycle in miniature unrolled every year before his eyes. Furthermore, the disorder of daily life is

balanced by the larger order of the natural cycles, and this contrast is graphically displayed in the arrangement of Persian garden, where its chaos of individual flowers is framed and controlled by the larger order imposed upon it. *(Hanaway, 1976, p. 62)*

Hanaway does not focus on significant aspects of the Persian garden and what makes it different from Islamic gardens, as much as he emphasizes Persian literature. Accordingly he ignores some of the identical attributes of Persian gardens that were derived from Persian poetry. In other words, the Persian garden is an integral component of Persian poems.

Schimmel *(1976)* explores the poetic connection between Persian gardens and Persian poetry. She states that "as the gardens in poetry changes, from image to symbol, the content of imagery evolved from the earthy and sensual to the abstract and this mystical symbol returns once again to earth, and in our time" *(p. 27)*. Her analysis provides a potential for understanding the connection between literature and architecture. In other words, the integration of the earthly tangible aspects with the mystical non-tangible ones is the same process that links architecture to poetry. When an architect inspired by poetry essence of mystical metaphysical entity evolves to some physical imagination about the space. She refers to mythology as the second aspect of imagery gardens and he mentions poetries as source of some myth. In her essay she attempts a parallel shift between actual and imaginary gardens as providing a dynamic context to play with the reader's mind. She summarizes her methodology by arguing that garden enriches Persian literature in terms of symbolism and imagery. The strength of this connection lies in man's union with nature. The cycle of nature, which is significant in gardens, is metaphoric for the same process for man. The power of this imagery derives from its

ability to reconcile man and nature *(p.62)*.

Conclusion

Future studies on the Persian garden with further emphasis on its connection with Paradise and its eternal quartered structure is required. It could provide a key to the discovery of the unknown mystical dimension of gardens. Furthermore, research on its connection with Persian poetry and prose would strengthen an understanding of its influential aspects on arts and architecture in the past cultural landscape including the global urban and architectural development. Research on the Persian garden can crystallize "its unique potential to contribute to the development of the built environment in the future, not only in Iran but beyond its borders" *(Faghih, 2004)*. Therefore, a comprehensive strategy for analysis of the pattern of the garden is required to generate an efficient methodology, in order to take first steps towards this goal.

Figure3. Bagh Shahzadeh, Mahan

2

The Structure of the Persian Garden

The real gardens and fruits are within the heart;

The reflection of their beauty is falling upon this water and earth'

Rumi

Figure 4. Chehel Suton, Esfahan

The Persian garden is an enclosed rectangular space with a pavilion at its center. It is enveloped with sensational aspects–the perfume of flowers, fruits and greenery, the sound of water rushing in the channels, bubbling up in the fountains, and chuting in small waterfalls. An expansive variety of textures and colors in the vegetation and the views towards the pavilion make it exceptional.

Beyond these aspects, what makes the Persian garden unique is its dual quiddity. It is a combination of wisdom, intuition and imagination (Moradi 2011). The ancient wisdom of how to overcome natural resources such as water and soil, merges with intuition and imagination.[3] The Persian Garden was enhanced with their advanced knowledge of water

[3] Read more about the philosophical aspects of the Persian garden in the following resources:
Petruccioli, Attilio, and Khalil K. Pirani. 2002. *Understanding Islamic architecture*. London: Routledge. Curzon. (P9);
Nader Ardalan, "Simultaneous perplexity": the paradise garden as the quintessential visual paradigm of Islamic

management and agriculture and represents their philosophy towards the world.

This chapter will briefly address the structure and essential elements of the Persian garden. A comparison of the Persian garden and Persian courtyard will follow, leading to a concise exploration of a evolution of the Persian temporal elevated platform.

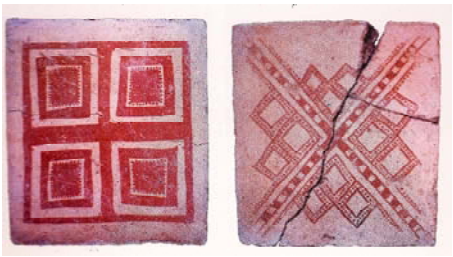

Figure 5.Painted tiles from the Baba Jan site, presents cross

Source: Khansari. M., Moghtader, M. R., & Yavari, M. (1998). *The Persian garden: Echoes of paradise*. Washington, DC: Mage Publishers.Late-eight-century B.C. structure of *char-bagh*,

As Wilber indicates, the eternal attributes and structure of the Persian garden may originate in the pottery of the agriculturists who settled on the plateau of Iran as early as 4000 B.C. The features such as the pool of water shaded by tree of life or the world divided to four parts with water at the center are found among these potteries and can be connected to Persian garden attributes *(Wilber, 1962, P. 19).*

The structure of the Persian garden reflects a striking unity of essential attributes from the Achaemenid to the Qajar era. The Persian garden, the large- scale walled garden, the inner courtyard, which is surrounded by enclosures, have the same philosophical roots *(Pinder-Wilson, 1976, p. 85)*. The physical principles of the

architecture and beyond; Javaherian, F. (2004). "Persian garden, Lost archetype." *Persian gardens old wisdom new perspectives* (pp. 29). Tehran: Contemporary Art Museum.Tehran.

pavilion and the contained palace differ but share common features such as water, tree and flowers and the two intersecting symmetrical axes.

Physically the Persian garden and Persian courtyard complement one another as a total reflection of the cosmos and therefore paradise. The garden opens towards the four sides of the pavilion creating the centrifugal form of the macrocosm. In the courtyard the four iwnas reflect the microcosm and provide a centripetal movement towards the fountain *(Ardalan, 1973, p.68)*. Water runs through the watercourses towards four sides of the garden paralleling the views that flow to the four sides of the garden through the four *ivans* of the pavilion. For the same reason *ivan* plays a critical role in the connection between inside and outside.

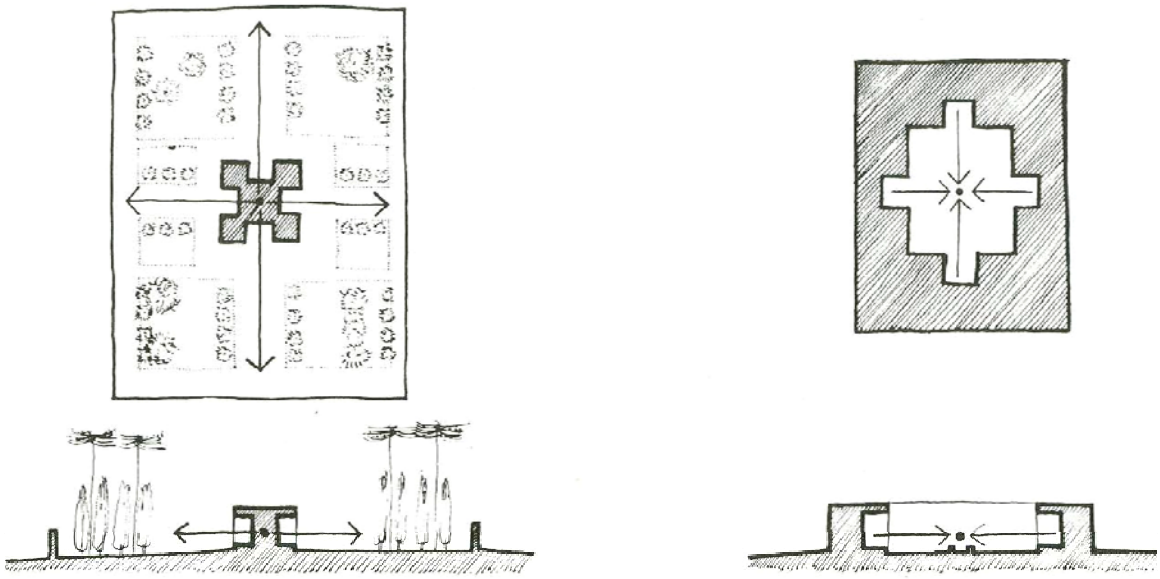

Figure 6. The comparison between the centrifugal concept of the garden as the representation of macrocosm on the left and the centripetal concept of the courtyard as a reflection of the microcosm.

Source: Ardalan, N., & Bakhtiar, L. (1973). *The sense of unity: The Sufi tradition in Persian architecture*. Chicago: University of Chicago Press.

The Water, Tree, Flower Trilogy in Epics

Both the open space of the Persian garden and the courtyard garden contain the three essential elements of water, tree and flower. These elements are rooted in Persian myth. The epic Gilgamesh, "the greatest surviving work of early Mesopotamian literature",[4] describes water as the source of life and as a manifestation of the Goddess of Love and Fertility. Any place with water becomes sacred and mysterious *(Javaherian, 2004, p. 16).*

All religions somehow reference a holy tree. The Eternal Tree in the Avesta and the Knowledge Tree in the Bible and finally the Cosmos Tree connect the sky to the earth. The tree is a symbol of fertility in Persian myth. In pre-Islamic myth the cypress is the holiest tree. The Achaemenid kings were proud to plant trees by their own hand *(Javaherian, 2004, p.16).*

In addition to water and tree, the red rose has often been mentioned in Persian poetry and prose as an important feature of the garden and as a symbol of celestial love.[5] In the Gilgamesh epic the rose is a sacred flower grown in the bottom of the lake and while picking the blossom Gilgamesh injures his hand and becomes eternal *(Javaherian, 2004, p.17).*

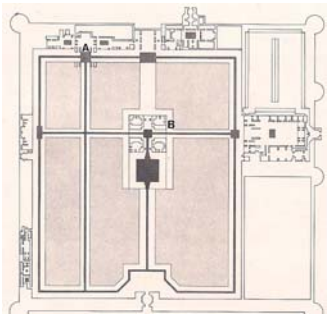

Figure 7. Bagh-i Fin, Kashan.
Source: Lehrman, J. B. (1980). *Earthly paradise:Garden and courtyard in Islam*.Berkeley: University of California Press. (P.126)

[4] George, A. R. 1999. *The epic of Gilgamesh: the Babylonian epic poem and other texts in Akkadian and Sumerian* : translated and with an introduction by Andrew George. London: Allen Lane.

[5] For more information about the connection between Persian garden and poetry see (Hanaway, 1976, P41-67).

Water

Irrigation is one of the crucial aspects of the garden, reflected in the organization of the watercourses. The geometrical channels define the planting area. In the rectangular garden, the pavilion sits on the highest point at the intersection of two axes adjacent to a vast pool. The garden's irrigation system is through a *qanat*, an underground irrigation network of channels innovated by an Iranian in the Achaemenid era.[6] The *qanat* collects the subterranean water, which then gushes out from the fountain of the central pool.[7] The geometric pools vary in size and shape from the large rectangular "little sea" to a very small octagon. Most are rectangular but there are some examples of round, octagonal, lobed, and cross-shaped pools. *(Lehrman, 1980, p.113).*

Water is treasured beyond its functional role. Its reflection in the deep basin creates a textural distinction; its movement through the watercourse gives direction while its sound brings excitement to the garden. A reservoir sources the courtyard while a running channel in the lane serves as a water source in the garden. In both the gardens and courtyards, the basins function as water storage. Most of the pools contain a fountain, gutter and two inner recessed levels. The surrounding stone gutter catches the overflow and brings the level of the water to its edge. It creates a gleaming and unconfined surface, which merges reflective images with the reality and connects sky to the earth. "Because there was no coping to cause disruption it supplied a striking

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6 "The source of qanat water is snow which falls down on the mountain." *Mir ab* or master of water was in charge of the water supply distribution in the city or village. Water was a sign of power and consequently creates conflict. The flow of a channel used to be rented based on a certain length of time daily or weekly bases (Wilber, 1962, PP. 21,2).

7 See (Khansari, 1998p.24-27) and (Wilber, 1962, p.20).

symbolic representation of image on substance, of heaven on earth" *(Lehrman, 1980, p.113)*.

Figure 8. Mohammad Ali khan garden

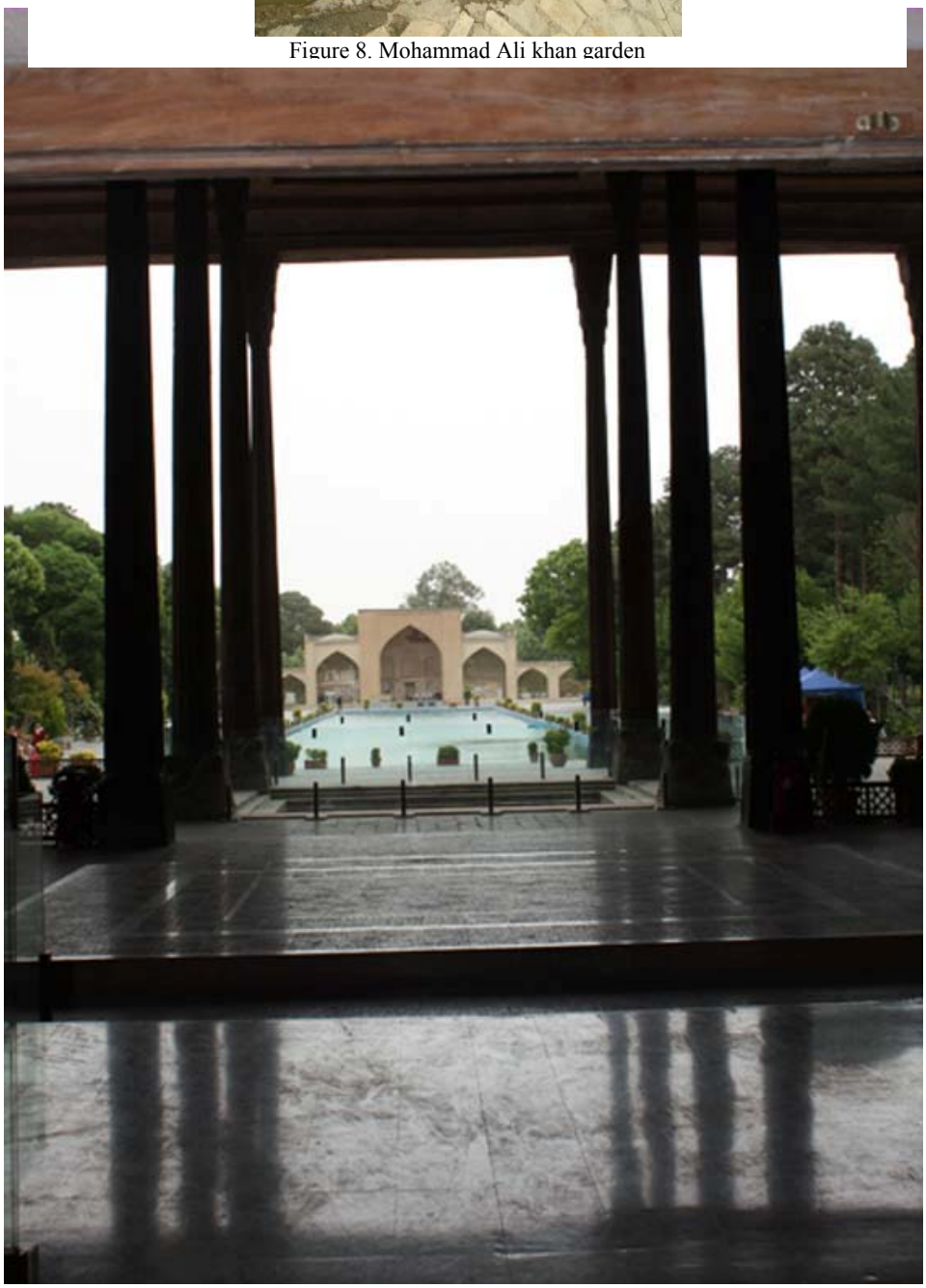


Figure 9. Chehel Suton, Esfahan.

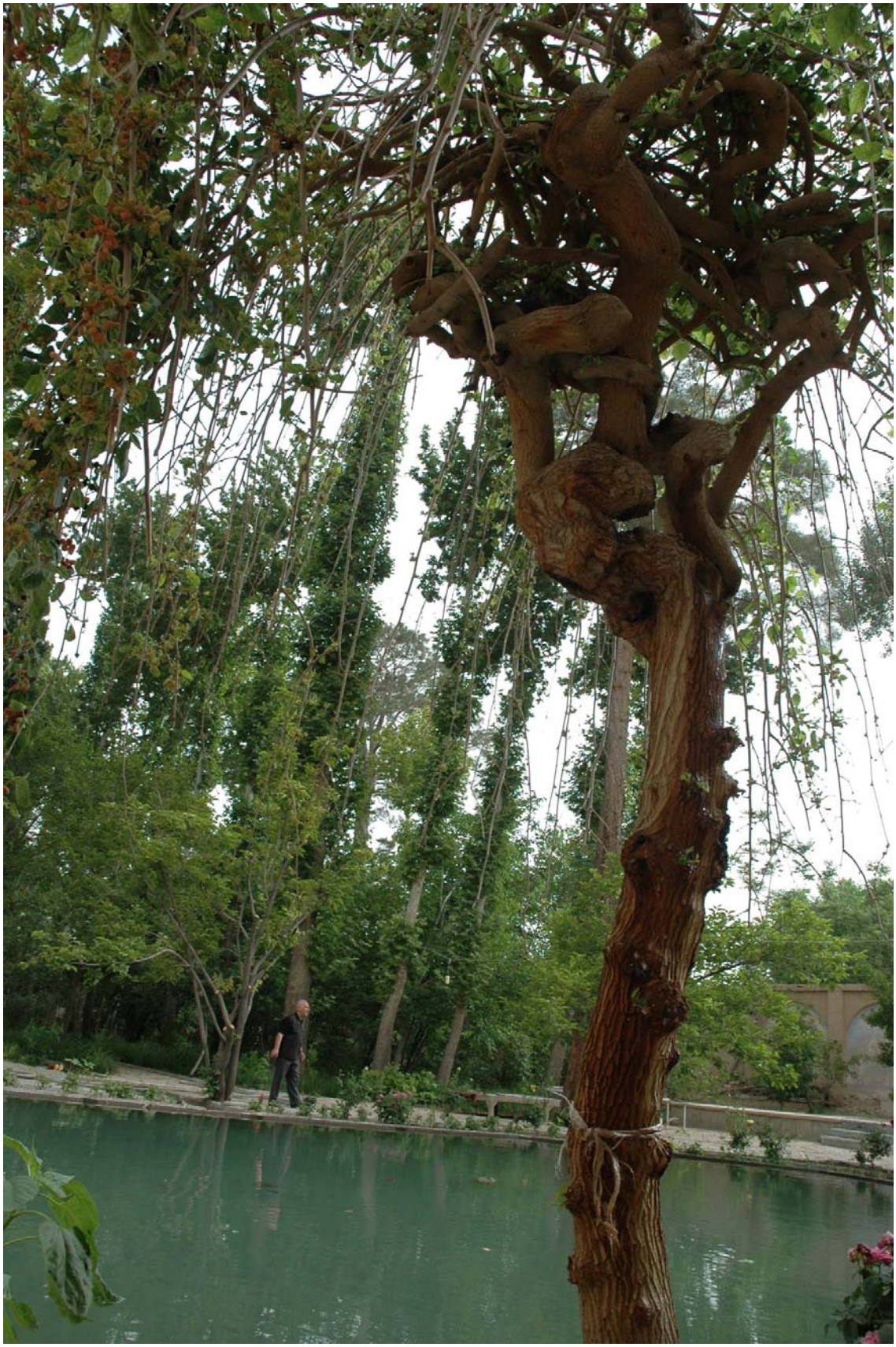


Figure 10. Mohammad Ali Khan Garden

Tree

In the Persian garden, trees are appreciated for their shadows. Sycamore and plane were planted on two sides of the path to create deep shade. Poplar was valued because it grows quickly. Poets appreciated the cypress as a symbol of eternity and death because it does not regrow after being cut. “In contrast the delicate rosy sprays of almond or silver flowering plum were emblems of life and hope. Elm, ash, pine, oak, maple, spruce and willow together with hawthorn and myrtle bushes were also found in the Iranian garden.” The fruit trees were desirable not only because of their fruits but also for their glorious blooming *(Lehrman, 1980, p.114)*. [8]

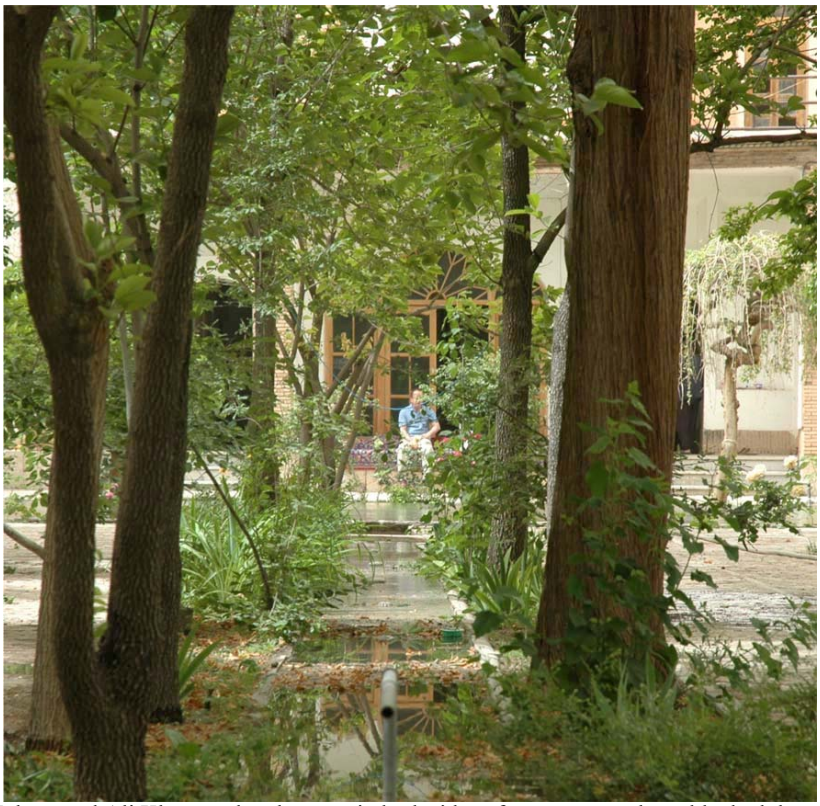


Figure 11. Mohammad Ali Khan garden the trees in both sides of water course have blocked the pavilion view

[8] For more information about the trees in Persian gardens see *Lehrman, 1980, p.113* and Khansari, 1998, pp. 157-159

Figure 12. The painting by Lotf 'Ali(1797-1869).

Source: Hobhouse, P., Hunningher, E., & Harpur, J. (2003). *Gardens*

Flower

The fragrance and color of flowers were valued in the Persian garden. Since there is no clear evidence, we can assume the most common flower types in the Persian garden through the exploration of poetry, pottery, and carpet design. The most widely grown include lilacs, lilies and roses. In Esfahan, mostly irises and marigolds were cultivated, and jonquils and tulips elsewhere in Iran. Jasmine, narcissus, anemones, carnations, crown imperials, cyclamen, daffodils, hollyhocks, hyacinths, violets, larkspur and pappies were often planted *(Lehrman, 1980, p.114*). Fragrant flowers such as pink roses

combined with the fruit trees next to the pathways leading to the pavilion perfectly combine to welcome visitors.

From the Nomadic Tent to the Temporary Platform

In both the Persian garden and the Persian courtyard, the consistent element of the pavilion and the house is the elevated *platform*. It acts as the transitional space between *inside* and *outside*, extending the horizon of the inner space towards the garden. The profound example of this platform is *ivan* which has evolved over twenty-five hundred years in the Persian garden. This essential space is rooted in the nomadic legacy of the Iranians. Ardalan addresses similar features as a temporal elevated surface and calls it socle *(takht)*. He believes it is rooted in early Asian mythology and manifests a "mountain" according to its architectonic sense. He seeks the continuity of this element

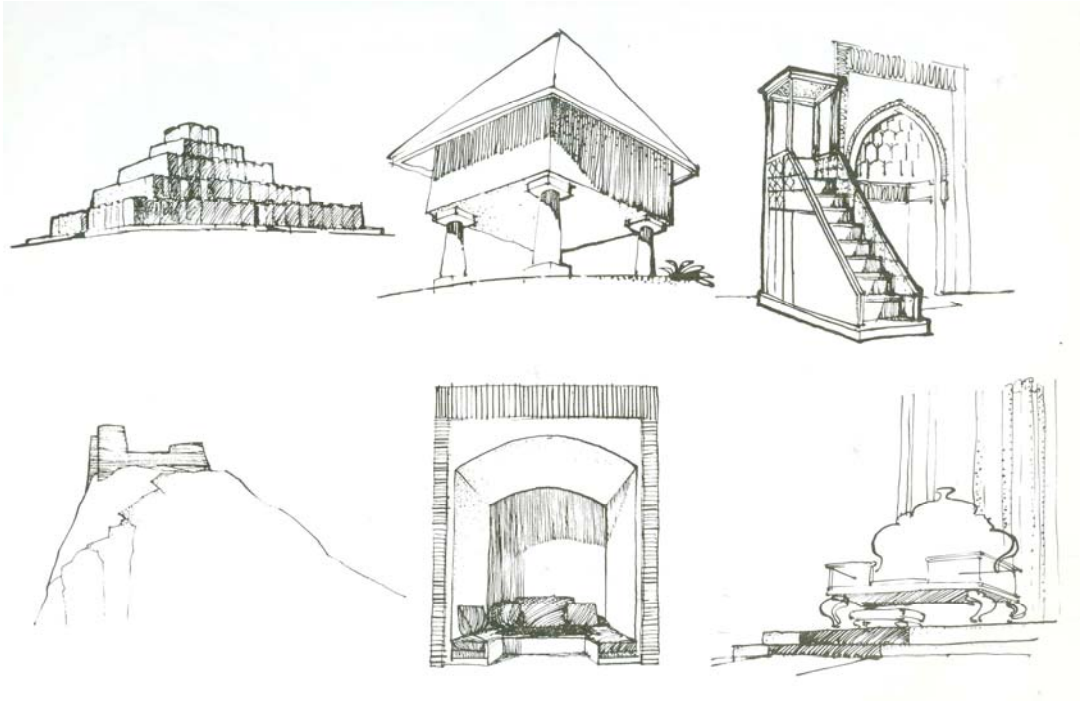


Figure 13 Socle,

Source: Ardalan, N., & Bakhtiar, L. (1973). *The sense of unity: The Sufi tradition in Persian architecture*. Chicago: University of Chicago Press, P.69

in thrones in Achaemenid palaces (Ardalan 1973, 68).

Wilson highlights the functional aspect of this element in Persian palaces. He calls it a portico and explores the physical attributes of this feature and its location in two Pasargadae palaces, as early as 600 B.C. According to Wilson the purpose of porticos was to offer shade from severe heat and to enjoy the prospect of the garden. He concludes:

Thus the garden was for the delegation of the senses in the shelter of the house, but not for exploration. This function, already defined in the sixth century B.C., has constantly pertained to the Persian garden and explains why the pavilion with its exterior element whether portico, *ivan* or *talar* is such an indispensable adjunct *(Pinder-Wilson, 1976, p. 72)*.

To confirm his assumption he refers to one of the most recalled coats from Chardin who said:

Persians don't walk so much in Gardens as we do, but content themselves with a bare Prospect; and breathing the fresh Air: For this End, they set themselves down in some part of the Garden, at their first coming into it, and never move from their Seats till they are going out of it.[9] "*(Pinder-Wilson, 1976, p. 72)*.

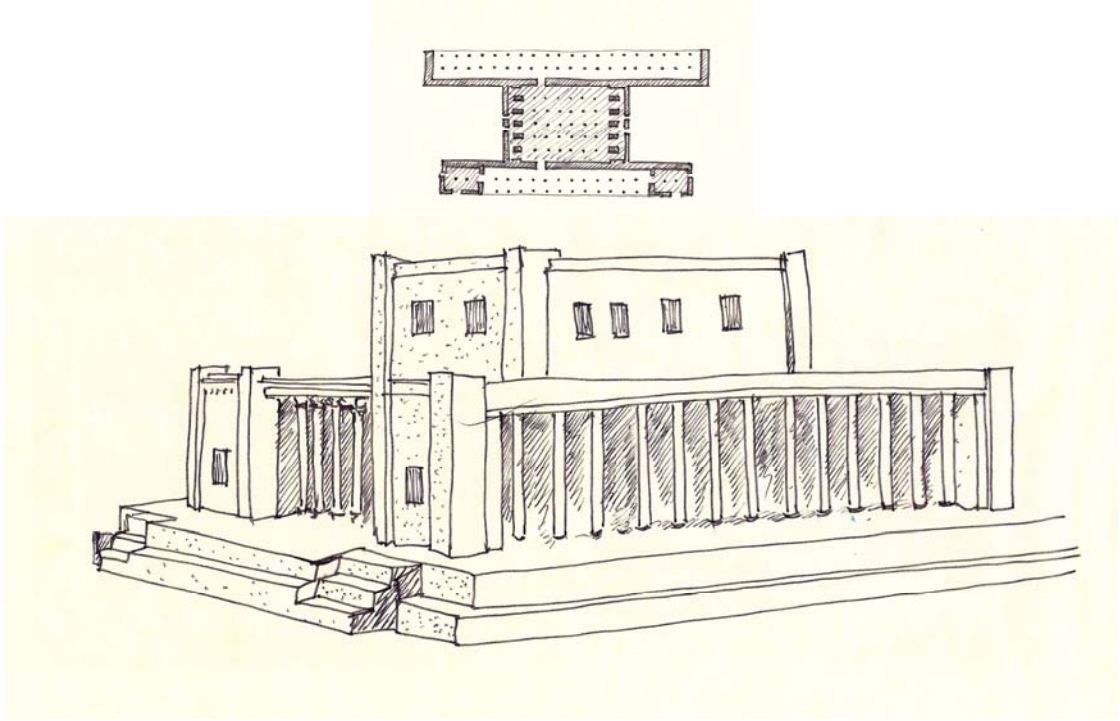


Figure 14. The reconstruction of the second palace of Pasargadae represents the concept of portico as early as 600 B.C.

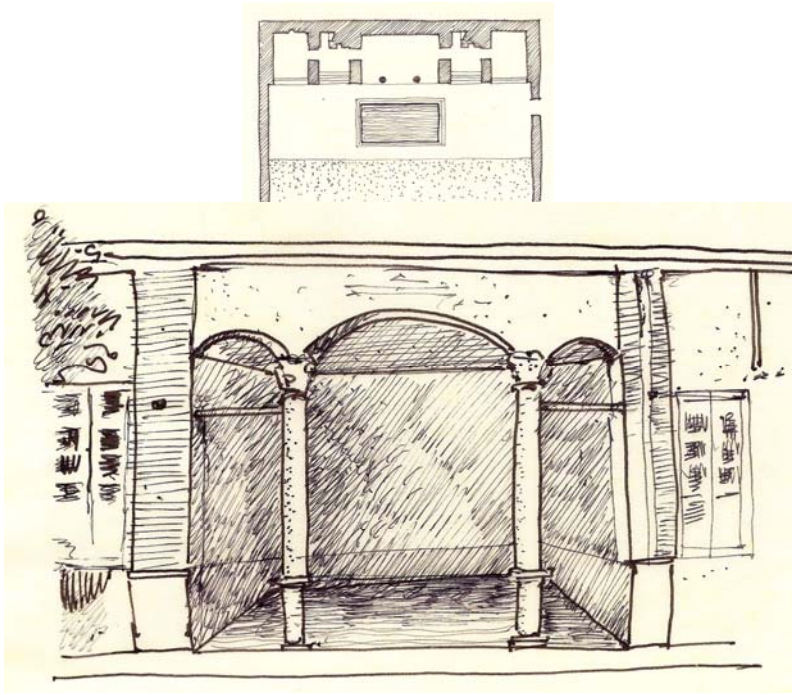


Figure 15. Two Column ivan as one of the intermediate spaces

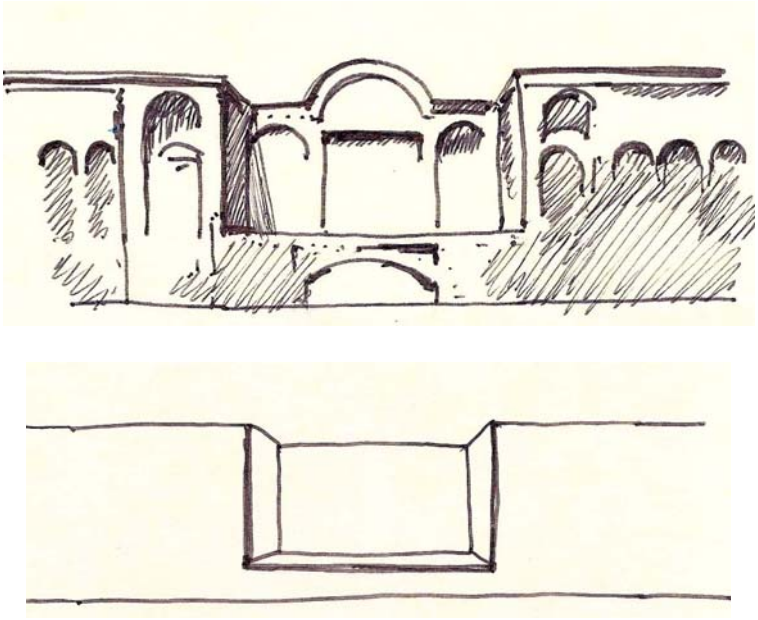


Figure 16. Uncovered terrace extends the inner space to outside

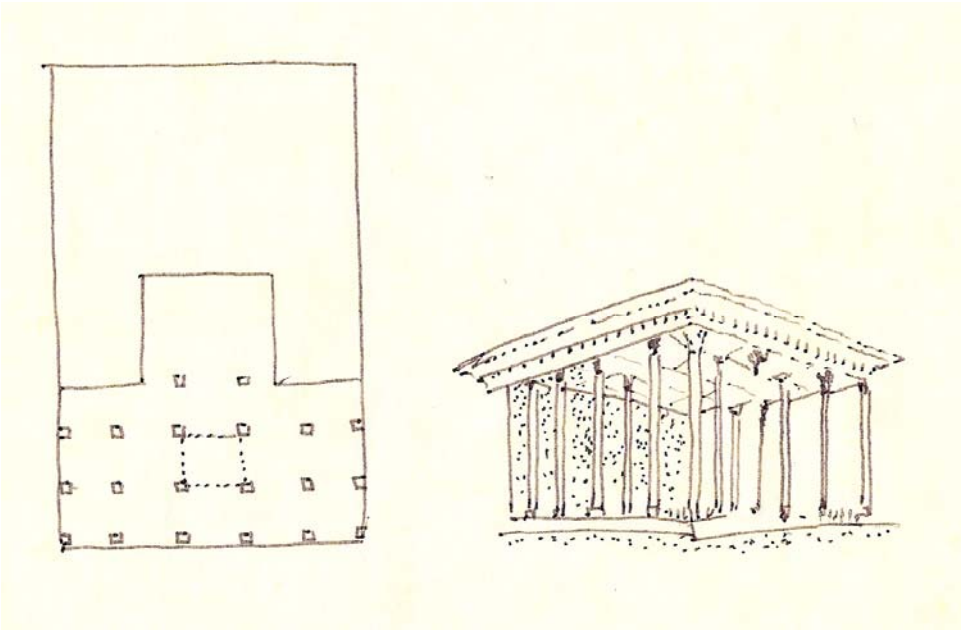


Figure 17. The *talar* in Chehel Suton Esfahan

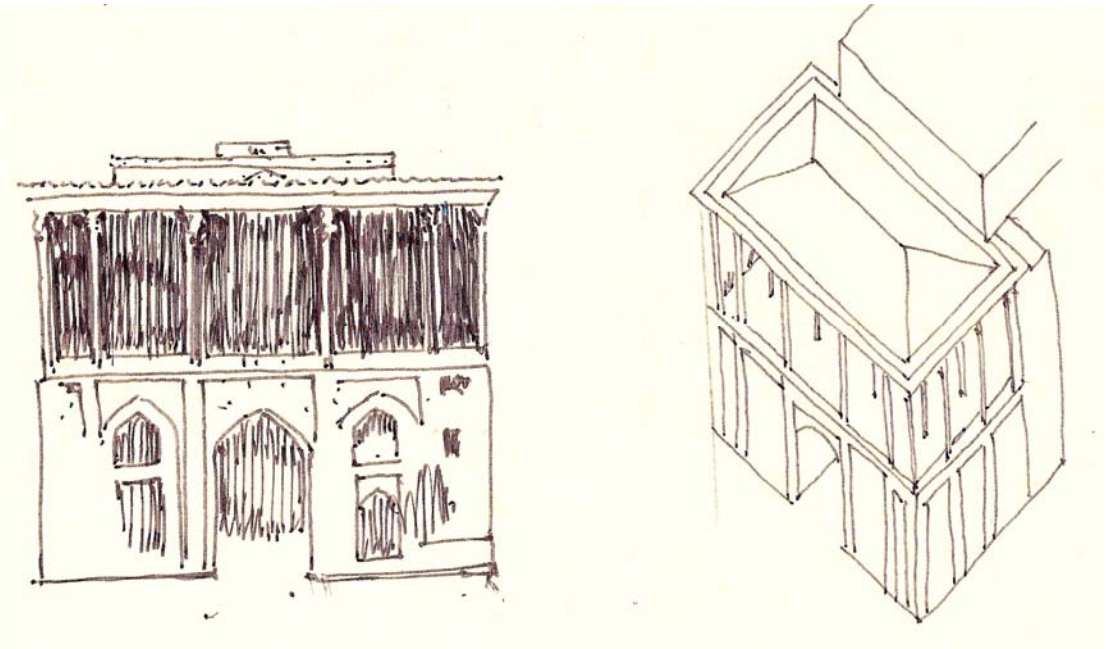


Figure 18. The *talar* in Alighapoo, Esfahan

However beyond its functional purpose the *ivan* contains a spiritual dimension as Ardalan suggests. The concept of *ivan* as transitional space between the temporal and terrestrial world is one of the essential features of Islamic architecture. "Metaphysically the *ivan* can be viewed as the locus of the soul moving between the garden or court taken as spirit, and the room, seen as body" (Ardalan 1973, 71).

The cultural and spiritual aspects of Persian architecture originated in the epics. The history of the pavilion may highlight some aspects of this context. Bernard O'Kane investigates the connection between tents and pavilions. He believes that the desire of rulers for tents came from their nomadic background. He adds that the tent could be

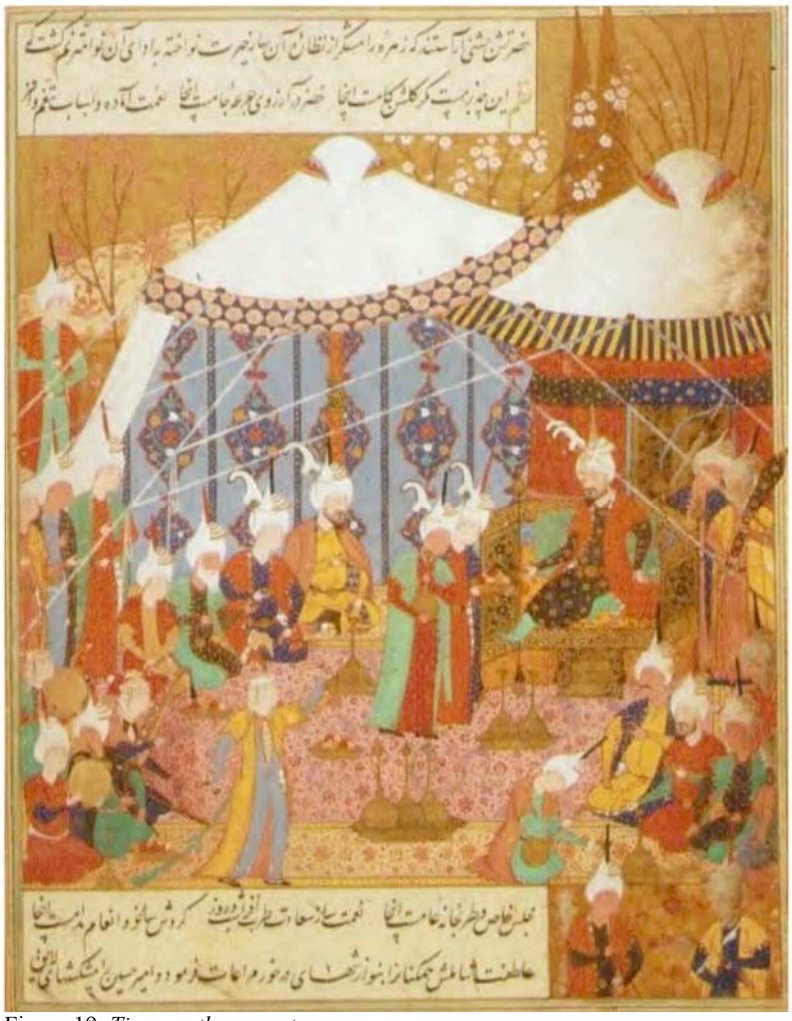


Figure 19. *Timur enthronment.*

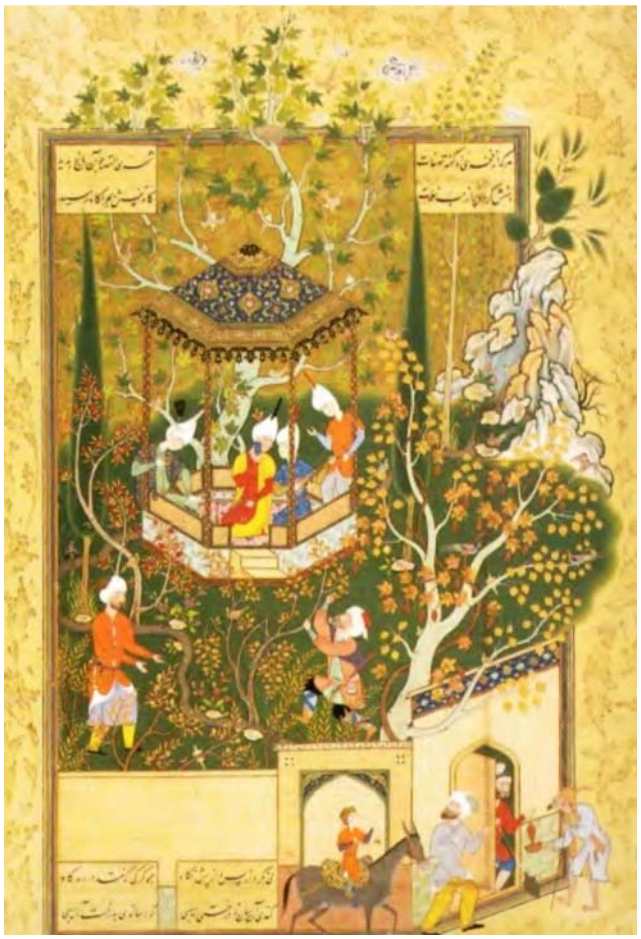
Source*: British Museum, LondonFrom Robinson, Persian Drawings from the 14th through the 19th Century*, P.119)

Figure 20. An example of a wooden platform in the garden.Seventeenth-century miniature from Shahnameh manuscript.

Source: Khansari, M., Moghtader, M. R., & Yavari, M. (1998). *The Persian garden: Echoes of paradise*. Washington, DC: Mage Publishers. (P.33)

Figure 21.The hexagonal kiosk in the middle of the garden(from the *Haft Awrang byJami). The Fee Gallery of Art, Washington DC (from Welch, Persian Paintingfive Five Royal Safavid Manscript of the Sixteen Century, p117).*

Source: Gharibpour. M.(2009), Pavilion Structure in Persianate Gardens reflections in the textual and visual media, Georgia Institute of Technology.



considered a mobile palace according to some historical evidence from the early fourteenth century. He presents an example of a Timur's garden that a golden trellis tent with a golden throne occupied its center (O'Kane 1993, 250). It seems that during the time, the Persian inclination towards the tent led to a pavilion containing the *ivan* or *talar* up to the Qajar era. Alemi refers to this evolution in a different way when she says that the Safavid *talar*[10] of Chehel Suton is rooted in Achaemenid hypostyle palatial halls. She adds that the *talar* extends the alcove space towards the garden in order to provide more space to accommodate additional guests. She believes the *talar* has been changed to a more diffused version of the *ivan* on two columns in the Zand and Qajar pavilions (Alemi 2002, 76). In the history of Persian architecture this kind of intermediate space has evolved from an uncovered simple terrace to very articulated *tallar*, but it never disappeared. The throne rooted in Persian mythology has survived as a temporal lifted platform in the present garden and courtyard. In some cases the pavilion evolves to an independent element such as a pergola or grapevine trellis associated with a sitting platform adjacent to the water and greenery. It is located next to the pool with a view to the plants.

Several scenes in Persian miniatures feature figures sitting in tents, pergolas, *ivans* and thrones or on an elaborated platform in gardens. Such images suggest that the concept of sitting on a temporary loose platform was favorable among Iranians. This can justify the reason for the surviving temporal wooden platforms that still function as sitting platforms in Persian gardens and courtyards. My personal experience in visiting several gardens and courtyards including the Golshani house and MohammadAli Khan

10 *Talar* is a hypostyle with light wooden structure roof on wooden column.

confirms that these platforms play a key role in social interaction. In Golshani House the platform was the center of most activities and in Mohammad Ali Khan the platform adjacent to the water and the garden was a platform for gathering. Beyond these two case studies there are several examples where these features function in the same way. They bring people together since they are rooted in the Persian nomadic heritage as well as the cultural desire to sit and enjoy the garden.

Figure 22. Two- Column *ivan*. Ali Abad e Damghan.
By Ali Gholi Ziaee

3

Esfahan: A City of Gardens

Have you seen Isfahan, that city like Paradise,

That holy cypress, that soul nourishing Eden;

That palace of the nation and that throne of government

That face of the seven spheres, that eye of the seven lands.

Jamal al-Din Isfahani[11]

Figure 23. Esfahan Chabagh " Paradise Garden" Carpet, 17th Century. Source: Faghih, N. (2004). Four-garden, Eternal example of the important gardens of Islamic civilization. *Persian garden old wisdom new perspectives* (p.42). Tehran: Contemporary Art musuem of Tehran.

11 Jamal al-Din Isfahani: Divan-i Kamil, ed. Vahid Dastgirdi, Tehran, 1320, p. 410.
Didi tu Isfahan ra an shahr-i khold-i Paikar
An sidr-yi muqqadas, an cadn-i ruh parvar
An bargah-i millat va an takhtgah-i dawlat
An ruy-i haft 'alam an chishm-i haft kishvar.
(Walcher n.d.)

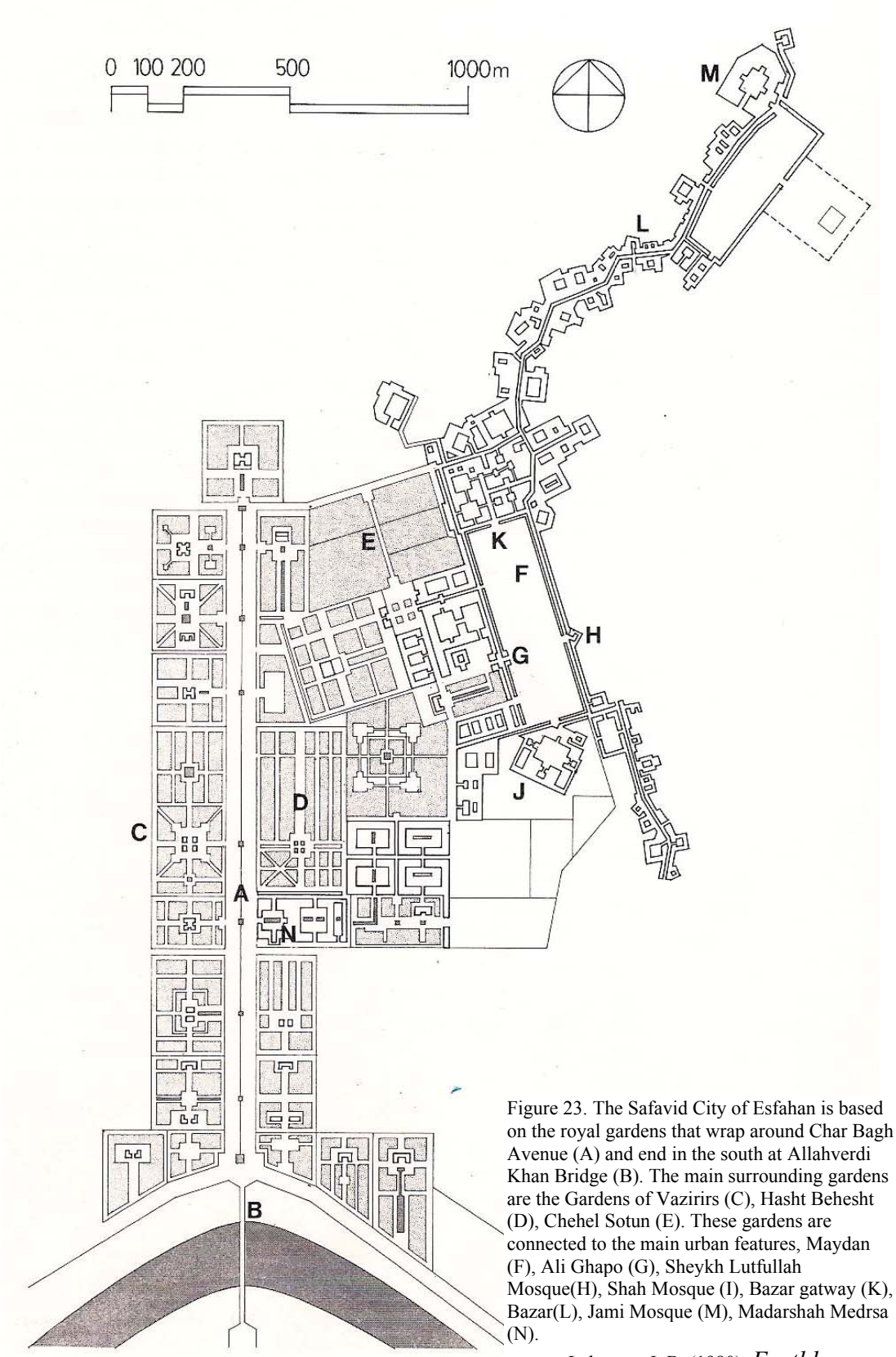


Figure 23. The Safavid City of Esfahan is based on the royal gardens that wrap around Char Bagh Avenue (A) and end in the south at Allahverdi Khan Bridge (B). The main surrounding gardens are the Gardens of Vazirirs (C), Hasht Behesht (D), Chehel Sotun (E). These gardens are connected to the main urban features, Maydan (F), Ali Ghapo (G), Sheykh Lutfullah Mosque(H), Shah Mosque (I), Bazar gatway (K), Bazar(L), Jami Mosque (M), Madarshah Medrsa (N).

source: Lehrman, J. B. (1980). *Earthly Paradise: Garden and Courtyard in*

UNESCO designated Isfahan as a world heritage city. The province of Esfahan has a gross area of 106179 km^2, about 6.25% of the area of Iran, and includes Esfahan as the third biggest and one of the oldest cities. Its citizens are reputed for their handcrafts, artisanship and education. The strategic location of Esfahan on the important trading roots of the past has provided economic potential for this city.

Esfahan has been an important urban center since the Sassanians chose it as their military camp. In the sixteenth century Shah Abbas The Great chose Esfahan as the capital because of its geo-strategic location, rich soil, mild climate and its easy access to abundant water by the Zayandeh River (Zayandeh means the life-giving) *(Walcher, 2000, p.333)*. The best scholars of the time provided a new scheme for the city with a series of gardens and a garden avenue that perfectly sits on the north-south axis. This avenue, which is called Char Bagh (meaning four- garden), links the royal gardens to both the medieval city in the north and the Zayandeh River in the south. The intersection of the river and the avenue created a *char bagh* in the scale of the city. The char bagh was influenced by both the Persian and Islamic paradigm of the garden. Since the Safavid kingdom had Turkish roots it represents both Turkish culture and the attributes of a royal capital city. (H. Walcher, 330). This combination presented Esfahan as an open city without any defense wall for probably the first time in Iran. (Sadeghy 2012, 42). Notions of the garden and Paradise influenced Esfahan urban design.

French jeweler Chardin, the famous travelers who used to live in Esfahan for eighteen months, reported:

The long boulevard called Isfahan Course is definitely a novelty. This is to my knowledge the most beautiful alley. Spacious promenades are shadowed by several

ranks of plane trees; the boulevard is flanked at both sides by a suite of gardens linked to each other by pools and watercourses in cascade.[12]

Esfahan was the capital until 1722 when Afghan assailants sacked the city. At this time the tendency towards maritime over traditional land trade through Esfahan weakened the city's economy. The conflict between Zand and Afsharid dynasties did not give them a chance to leave a substantial architectural inheritance. After Tehran was designated as the Qajar capital in the nineteenth century Esfahan lost its bold political role. Although its title as *nisf-I jahan* (half the world) persisted, its urban situation as well as its metropolitan image faded. As a result of wealth and self-sufficiency, "Isfahan stated itself as a semi-autonomous state with a tradition of disobedience of the royal government's authority" (H. Walcher 2000, 337).

The Qajar elites either ignore or ruined most of the Safavid palaces. The first access to the water in the west guided the development of the city westward. Consequently the eastern part of the city and the villages were abandoned. Furthermore the relationship between Persia and Europe after the Industrial Revolution and Persian tendency towards modernism weakened the significant role of the Bazar. Imported goods replaced handcraft production thereby affecting the economy.

The palatial development of the Qajar era in the nineteenth century did not fit into the "confines of the old and proud capital" (H. Walcher 2000, 346). Thus there was no room for Qajar palaces in Esfahan. The exceptional examples of pavilions and gardens from that era mostly belonged to merchants or princes. Mohammad Ali Khan is one of those examples. However the surviving articulated merchant courtyard

[12]. Jean Chardin, *Voyages du chevalier Chardin en Perse etautres lieux de l'Orient: Nouvelle édition, conférée sur lestrois éditions originales et augmentée par L Langlès*, Tome 8(French edn), Adamant Media Corporation, 1723.

gardens such as Golshani mansion are among the abundant examples of this era. Several of the remaining houses from this period are in use as wealthy merchants residences, hotel or administration purpose.

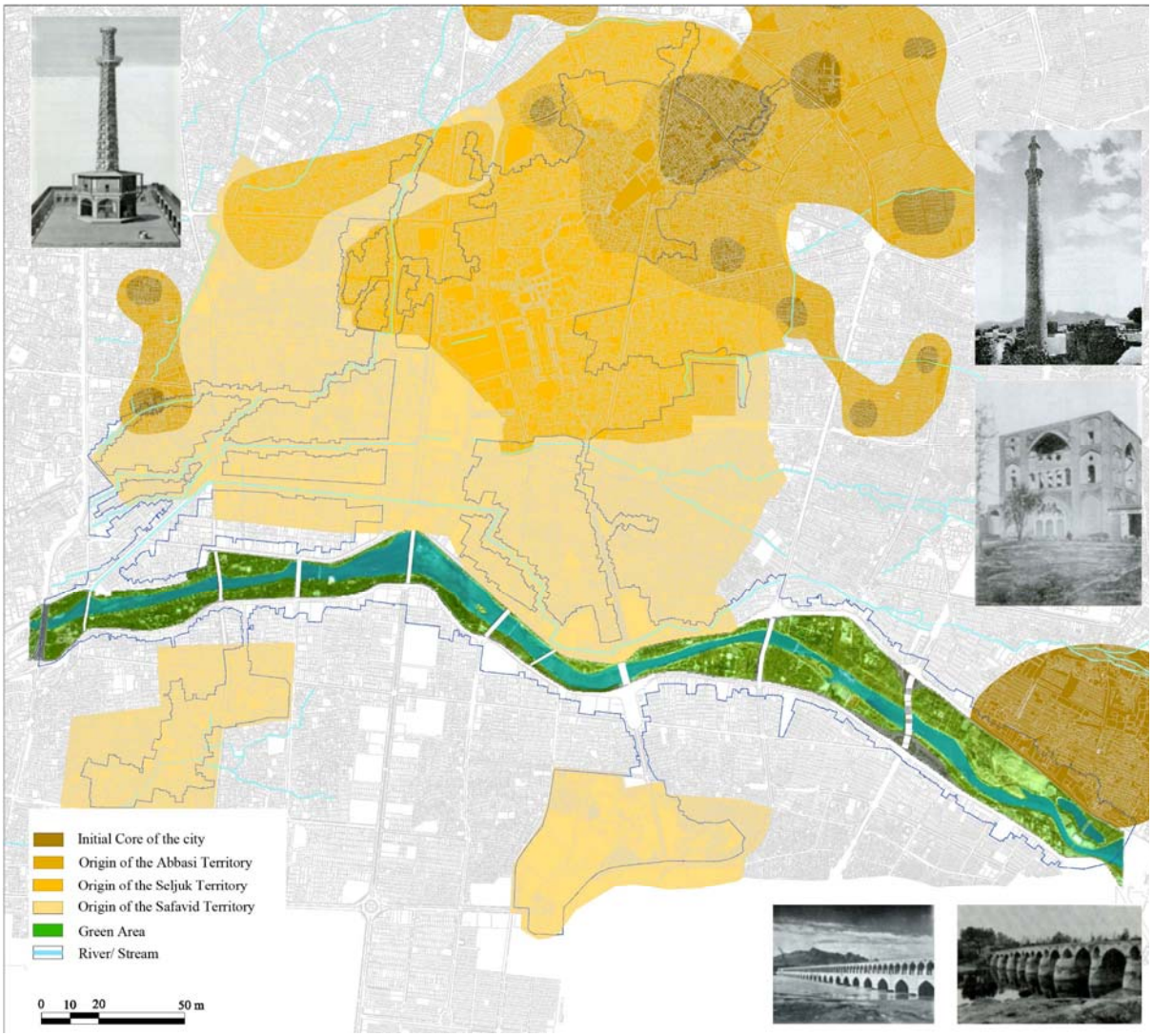


Figure 25. The stages of the city formation.
Source: Bavand Consultants, Architects, Planners, Designers

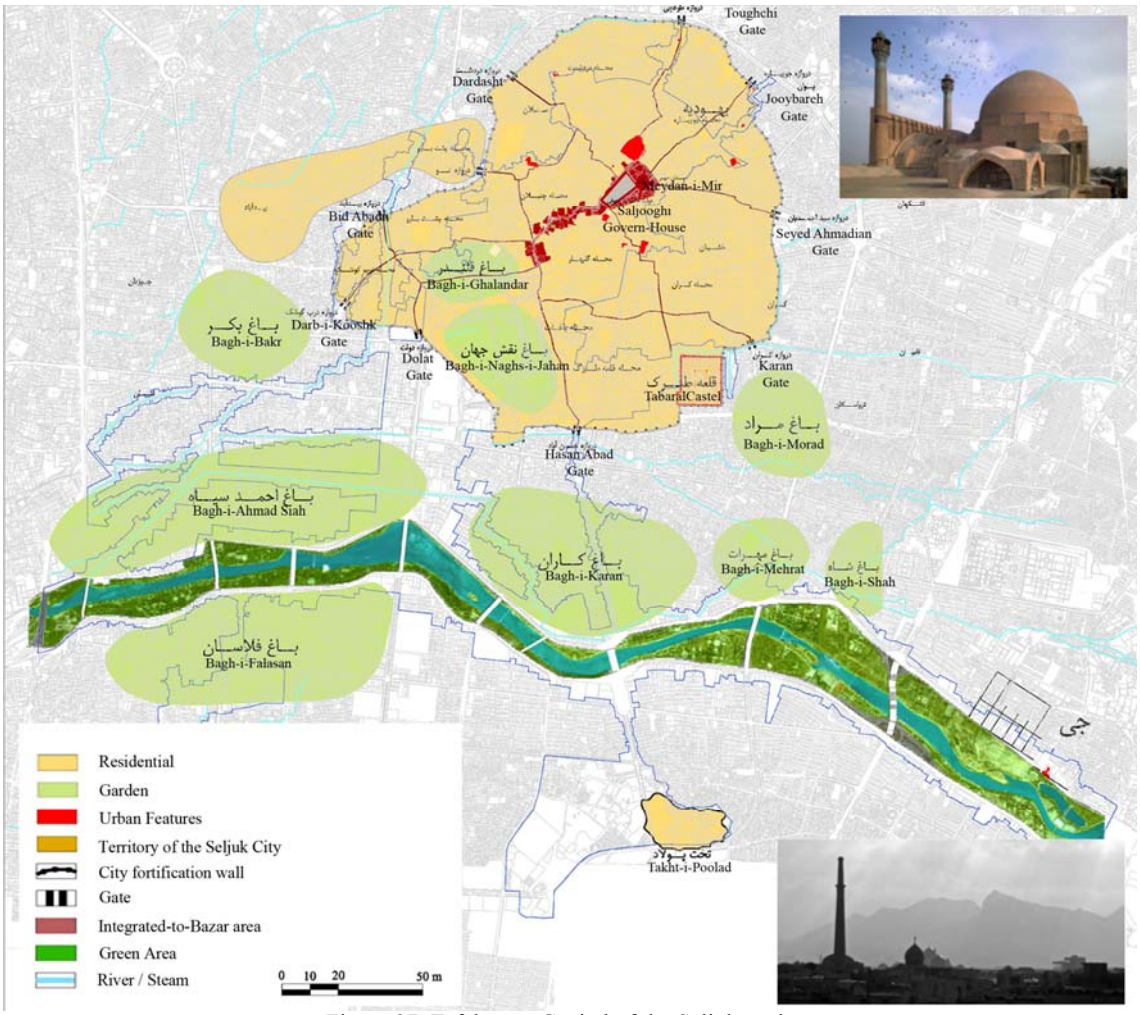


Figure 27. Esfahan as Capital of the Seljuk territory
Source: Bavand Consultants, Architects, Planners, Designers.

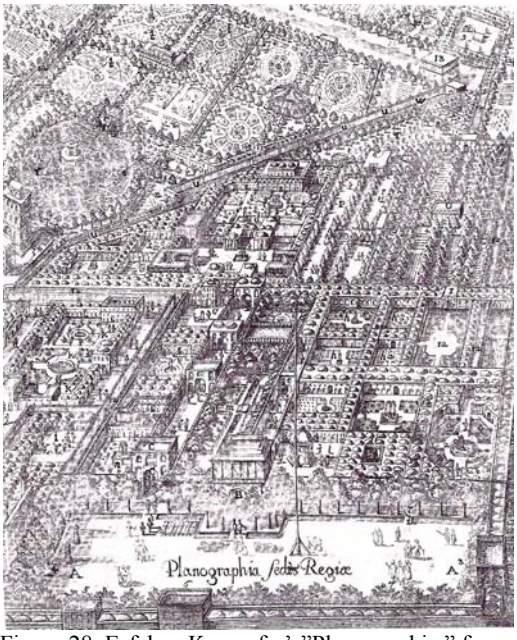


Figure 28. Esfahan Kaempfer's"Planographia," from an engraving in his Amoenitatum(1712)Source; Babaie, S. (2008). p.114

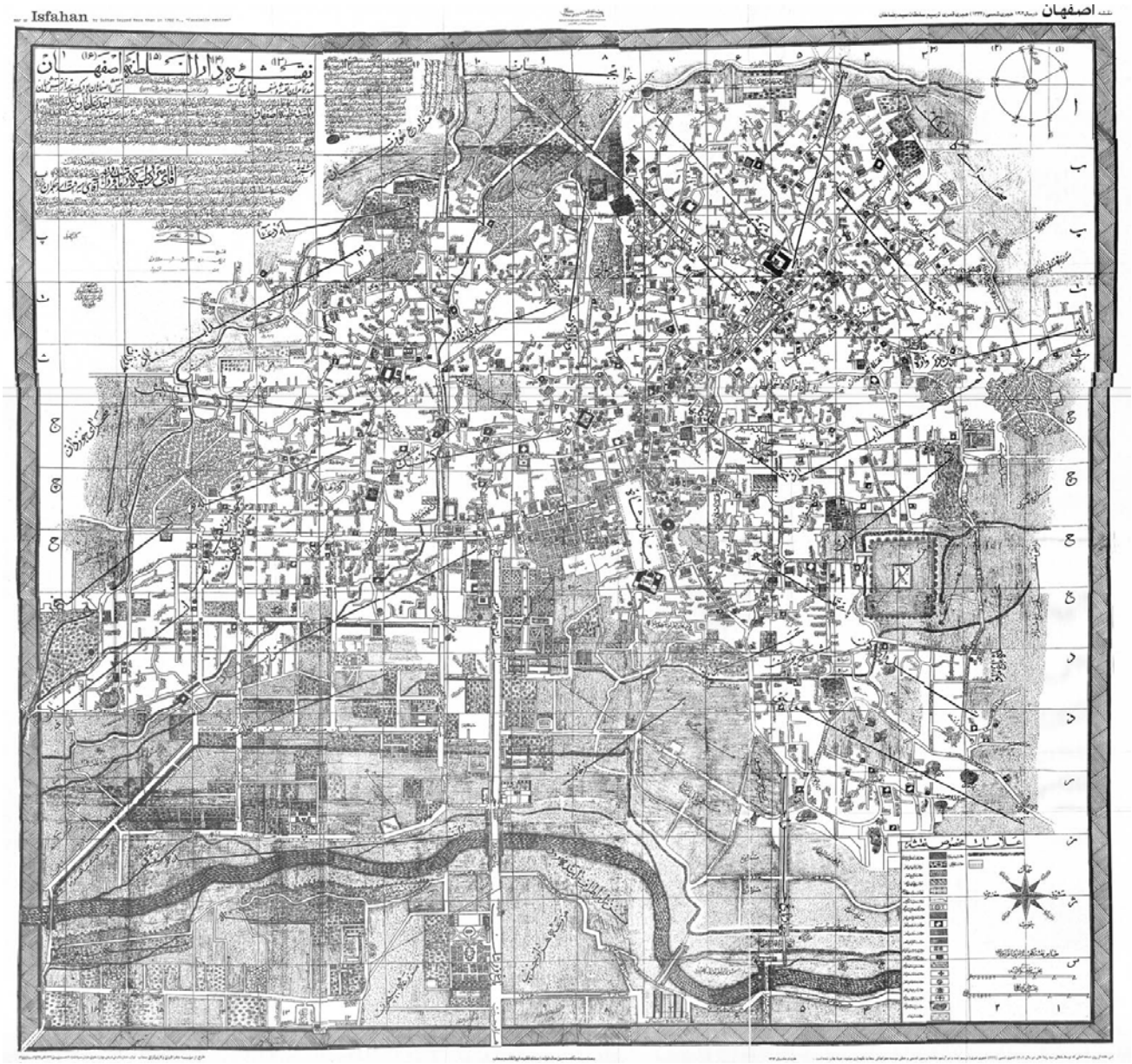


Figure 29. Esfahan map by Seyed Reza Khan Pahlavi the First King.
Source: Bavand Consultants, Architects, Planners, Designers

Figure 30. Esfahan in 2010 map,
Source: Bavand Consultants, Architects, Planners, Designers

Figure 31. Mohammad Ali Khan garden main Path to the north

4

Mohammad Ali-Khan Garden: Analysis of a Qajar Garden in Esfahan

When the rose is withered and the garden is gone

You will hear no longer the nightingale's song;

When the rose is withered and the garden laid bare

In attar of roses the scent is still there

RUMI

Source: Khansari, M., Moghtader, M. R., & Yavari, M. (1998). *The Persian garden: Echoes of paradise*. Washington, DC: Mage Publishers.

This chapter will address sensational and physical aspects of Mohammad Ali Khan garden including a brief history based on my personal experience, a physical survey, photography, and the limited documentation that I was able to recover. The schemes are developed based on my survey and the unclear and incomplete layout that I gained from *Iran Cultural Heritage, Handcrafts and Tourism Organization*. This garden is located in the western part of Esfahan, on Boostan Alley, in the Kafshran district on the north side of Atashgah Street. This garden, today part of the western margins of Esfahan, was at that time a summer resort and outside of the city's boundaries. It was almost five and half yards away from the west border of Esfahan in the Qajar period.

Mohammad Ali Khan garden was erected between 1876-1879 in the Nasser Al-Din Shah Qajar kingdom by Mohammad Ali Khan, one of the Qajar dignitaries. According to unconfirmed information gained from one of the old local

Finding such a garden was like a dim spark hidden under the ashes. I never expected to find such a valuable example of undiscovered architecture in Esfahan. Today is one of those cloudy and humid summer afternoons. I am supposed to visit the Mohammad Ali Khan garden.
I pass by a lush green alley; the weeping willows are washing their leaves in the little creek, which is running in the middle of the alley silently. The abundant gardens in this part of the city along with the running water create a pleasant breezy feeling.
The alley is windy. After a couple of waves I find myself in front of the old double-swing solid door of the garden. The old gardener lets me in with a welcoming look.
I enter the backyard with red walls framed by yellow brick. Seeing a fragment of the garden through the darkness of the vaulted passage in the south corner of the backyard makes it mysterious. The moment I enter the garden I find calm and stillness within its walls, away from chaos of the city and crowded world outside. I am impatient to see the whole but first I should see the owner. After the usual Iranian greeting we sit in the small portico on a shabby Persian carpet in front of the basin to talk about the history of the garden.

architects Homayoon Mirza, Zell-e Soltan's son was the owner of this garden and it was sold to a doctor before the present owner purchased it. As the owner states, since the previous landlord was not satisfied with the traditional fashion of this garden, he decided to sell it.

Figure 33. Mohammad Ali Khan pavilion

Figure 32. Mohammad Ali Khan gaden from backyard

"Twenty years ago my mother bought this garden. It was in very bad condition—almost ruined. She was responsible for everything still in good condition here. The renovation of the decorative stuccoes, the painting, the brick pavement of the garden, were all done fifteen years ago. She spent a lot of money because she loved this place." The owner said.

The plot consists of a two-story gate-pavilion on a 16,000-square-foot area within a 58,000-square-foot garden of the Qajar period, attached to a 50,590-square-foot fruit garden in the south. The pavilion occupied the north and partialqu eastern part of the garden. The half-octagon, principal entrance to the north provides access to the garden through a domed octagon vestibule and a U-shaped corridor. As in most residential gardens and mansions of this kind, a corridor blocks the direct view to the garden while separating the *andaruni* (the inner domestic quarter) in the east from the service quarters in the west. The double-swing half-round massive wooden entrance door is recessed about four feet and has two sitting stone platforms on both sides with a transverse-arch ceiling. The west wing of the U-shaped corridor is connected to the *shekam-darideh* (cruciform room) used for dining, and the kitchen and *talar*, used now as a living room. Before the corridor ends in the garden, it provides an eastern and a western entrance to a rectangular room with a flat ceiling and half-round niches decorated with stucco and a triplet wooden half-round door. The east wing connects to the dock currently used as a game room. This room with a quadripartite vault ceiling used to provide services for horses and could be reached through a small backyard in the northeast of the garden. In addition to being a service access, it accommodated the horses and their provisions.

Before my father passed away five years ago, we used to come to this garden every year on the thirteenth Farvardin. About one hundred guests from the whole family used to gather here. The young people played in the current billiard room, which was the old storage room, or they would play in the garden. The adults used to sit and talk in the *shahneshin* next to the entrance. We usually had our meal inside the *talar* next to the kitchen.

The pavilion is situated on the north side of the enclosed garden. Following the constant cross pattern of the Persian garden it has two perpendicular pathways. The north-south axis begins with an uneven octagonal basin in the north, which is hugged by the pavilion and ends with a small waterfall in the south. The surrounding three-foot stone gutter and three-foot green margin make the basin more significant. "This gutter was necessary since, in order to appear shimmering and unconfined, the pool was filled to its brim, the edges were precisely leveled and water flowed over on every side" *(Lehrman, 1980, p. 113).* The basin with a fountain in the middle is about 45.7 feet length by 34.28 feet width and served as a reservoir.

Figure 34. Mohammad Ali Khan Garden view to the north

Figure 35. Mohammad Ali Khan Garden small octagonal basin

A two-foot wide watercourse runs about sixty feet along the axis of the basin until it reaches an octagonal stone reservoir. This basin with a protruding carved stone edge, two-foot overflow gutter, and eight fountains sits on the intersection of the two axes of the garden. It links two symmetrical watercourses in north-south direction. All the fountains are connected underneath, including the ones in the center of the basins, their gutters, as well as the ones in the axial watercourses. They were a part of the irrigation system in the past when the qanat was the water source. In the central part of Iran rainfall was not sufficient for irrigation of the garden. They used to buy channeled

water coming from the qanat based on a certain length of time. This was independent from the *madi*, the open water channel in the north alley. The *madi* was a water network system specific to Esfahan sourced from the Zayandeh River. These waterways flow down the streets and lanes of Esfahan and some are still a part of the water management system. Their presence creates a pleasant breeze, views, and green space.

The water for the Mohammad Ali Khan garden used to flow from the elevated fruit garden through the small stone waterfall at the south end of the garden axis. After recent developments this system of distribution was discontinued. Currently the new established wells provide the required water for irrigation and drinking. The booster pump brings water to the surface and distributes it south to north. Since the watercourses no longer have a function, they fill with water for manual irrigation and become dry after awhile. Because the circulation of the water and its sounds are essential features of the garden, it has lost one of its most profound effects.

Figure 36. Mohammad Ali Khan Garden southern waterfall

The recently established paving on the garden is different from typical ten-square-inch brick paving in Persian gardens. It does maintain some features of the historic paving. A two-inch wide brick border with diagonal geometry surrounds the grey stone paving with a random matching pattern. A four-inch running grey stone defines the border of the green space. Sometimes an old solitary tree interrupts the pavement. In this case a course of two-by-four-inch brick creates a curved border for the tree. The presence of the old trees in the middle of the pavement shows that the border of the green space has shrunk with the recent renovation.

The north west of the garden includes a one-and-a-half-foot raised platform that has been paved in the same way. It has some flowerbeds and an octagonal garden on the north side. There are some young pine trees next to the walls and plantings of yellow, red and pink roses in the octagon. A single almond tree is next to the octagonal garden.

There are two types of trees in the garden, young fruit trees and older trees such

If you want to see the sky raise your head. You see how the old trees hand to hand huge a piece of blue sky and whisper the wind to her ear.

as pines, chenar and cypress. The bushes of the one-hundred-and-thirty-year old chenars, pines and cypresses are taller than eye level. In reverse the younger fruit trees (four to five years old) are shorter and spread their young leaves at eye level. The combination of foliage creates an interesting view if you raise your head toward the sky. Their shadows on the ground are fascinating and playful. The trees in the central parterre adjacent to the channel cast deep shadows on the walkway pleasing the visitors. The seasonal flowers offer their fragrances along the main path. This is unlike the regular pattern of the Persian garden. Usually the axial watercourse does not combine with a parterre or trees so that you are able to see the pavilion while you walk in the central pathway. Probably in the original garden the green margin was not adjacent to the water.

There are a couple of direct accesses to the outside from the garden. One is a double-swing door, which opens to the north alley. There are three in the south leading to the fruit garden and one connecting to the eastern alley. Among the direct accesses from garden to the outside, the southern ones are most articulated. Two symmetrical fences, double-swing half-round doors, and two sides of the small waterfall sitting on four stone steps, act as a welcome point to the fruit garden. A half-round and half-foot wide yellow brick pier frames the doors. The wall of the garden has almost the same treatment. It contains a half-round repetitive brick frame that sits on a two-foot brick base. A brick frame hugs the waterfall along the axis of the runnel on the southern wall.

Usually in the Persian garden the pavilion sits on the highest point and the water is distributed from the upper to the lower level. Having the pavilion at the lowest point in this garden with the distribution of the water originating from the opposite side is questionable. The main pavilion that was used as a summer residence in the southern part of fruit garden has most likely been demolished. If this is the case then the current pavilion could be considered as a gateway and a winter residence. Similar patterns found in gardens from the same era, such as the Shahzadeh in Mahan, confirm this hypothesis. Another debatable point is the nonsymmetrical structure of the building, which is unlike most Qajar pavilions from the same era. This fact supports the hypothesis of a ruined part in the west. The plain finishing of the west and south façades of the western stairways and the unusually large new platform in the west further support this idea.

The old trees bend to see themselves in the mirror of the water.

I start walking around the garden. The big surface of the green water celebrates the presence of the pavilion and brings the sky and the earth together in its reflection. According to Persian myth the pool is the allegorical place of rendezvous for the cosmos and the real world.
I flew back to the glorious days of this garden when Mass'oud Mirza Zell-e Soltan, eldest son of Nasser-al-Din Shah and the governor of Esfahan, sits on the veranda upstairs and watches the garden with his guests one summer evening. He invites the princes who are sitting on the two-column ivan facing the street watching the rest of the guests swimming in the *madi*, to come to the veranda and sit beside him.

The owner asks me to follow him to the roof. The passage of the stairway is narrow – about four feet – and the brick risers with a wooden edge are about three-quarters of a foot high. A tiny wooden window with narrow Islamic geometric mullions and thin colorful glass is the first thing you see at the end of the stairway. It gets darker as we rise, so seeing this little window casts a ray of hope on the dark end of the exhausting stairway.

We emerge on a nice vast veranda with a perfect view to the garden. There are several examples of this kind of uncovered terrace on the second floor of most Persian gardens and courtyards. It often acts as an outdoor sitting area because of its view and pleasant breeze. It has a sense of in-between space and an open platform adjacent to closed space and attached to open space. It affects social relationships in the garden and brings people together like the *talar*, *ivan* and mobile wooden-platform discussed earlier.

He likes to be dominant in the garden and see everything from this vantage point. But still he can hear the fountains playing the song of gurgling water to the garden. The biggest fountain in the middle sings a bass song and the ten smaller fountains create the background sounds. The overflow of the pool cascades down the stone edge of the basin to reach the gutter. The water is flowing from the gutter to the stone watercourse, along the axis of the basin, pleasing the ears of the guests and cheering up the nightingales that drink from the watercourse. The small octagonal basin sparkles at the heart of the green space and connects the crossing pathways. A mild breeze plays with the leaves and lets the sun cast a moving filigree of light and shadow on the ground

I see the signs of a more articulated structure at this level. The axis of the symmetrical structure is defined by a *shahneshin* (alcove) with two raised entrances on both sides. The gate of the opening is half-round with muqarnas work. The three-door room closes the façade perfectly while it emphasizes the *shahneshin*. On the façade a one-and-a-half-foot yellow brick frame defines the spaces of each room. The full-height wooden triplet-window of the *shahneshin*, with colorful glazed sliding panels and arabesque geometry, gives it a formal look. The yellow, red and blue colors of the glass recall the seasonal flowers of the garden. It is an irony to see both the real garden and the abstract garden of the decorative window of the *shahneshin* (alcove) in parallel views.

When I step inside, the amount of details and ornament exceeds my expectations. I realize why this place used to be the Qajar prince's resort. This is one of the most articulated treatments of the royal pavilions in

My imagination is interrupted when the owner invites me to eat some fruit. They place four ordinary wooden beds adjacent to the large basin under the shadow of an old chenar. I sit on the red carpet over the bed. Watermelon, cantaloupe and cherries look colorful and exciting in white dishes next to the red carpet. The owner introduces his relatives who accompany him today to enjoy the garden.

A bunch of grass and yellow leaves sticks out of one of the fountains and slows down the movement of the water. It distorts the reflected image of the garden. Isn't it an irony about the destiny of this distorted image of the garden? It can be a metaphor for the dawn of the garden in its history?

the Qajar era. The sequence of the rooms is well arranged to emphasize two rooms on the main axis, the *Shahneshin* and the adjacent five-door room. The three-door rooms that are located on both sides of *Shahneshin* have access to the street by a two-column angled *ivans*.

Repetitive recessed niches with almost similar rhythm define the walls of all the rooms. The ceilings are decorated with a similar treatment as the walls. The very detailed mirror works is combined with stuccos, paintings, and the glazed colorful handmade ceramics on the floor. A poem that is carved on the running three-foot marble skirting of the *shahneshin* confirms the date of construction and the owner of the garden.

I come back to the veranda, but my mind is still enrapt in ornaments, history, poems and painting. This part of the building is damaged and needs serious renovation since it has been hidden and unused for more than twenty years.

> I say goodbye to the owner and his relatives. The glamorous days of the garden's past and its silent, lonely present, run through my mind. The ornaments and painted sand mirror works are falling apart bit by bit, but each piece of mirror still shows a part of the proud days of the past.

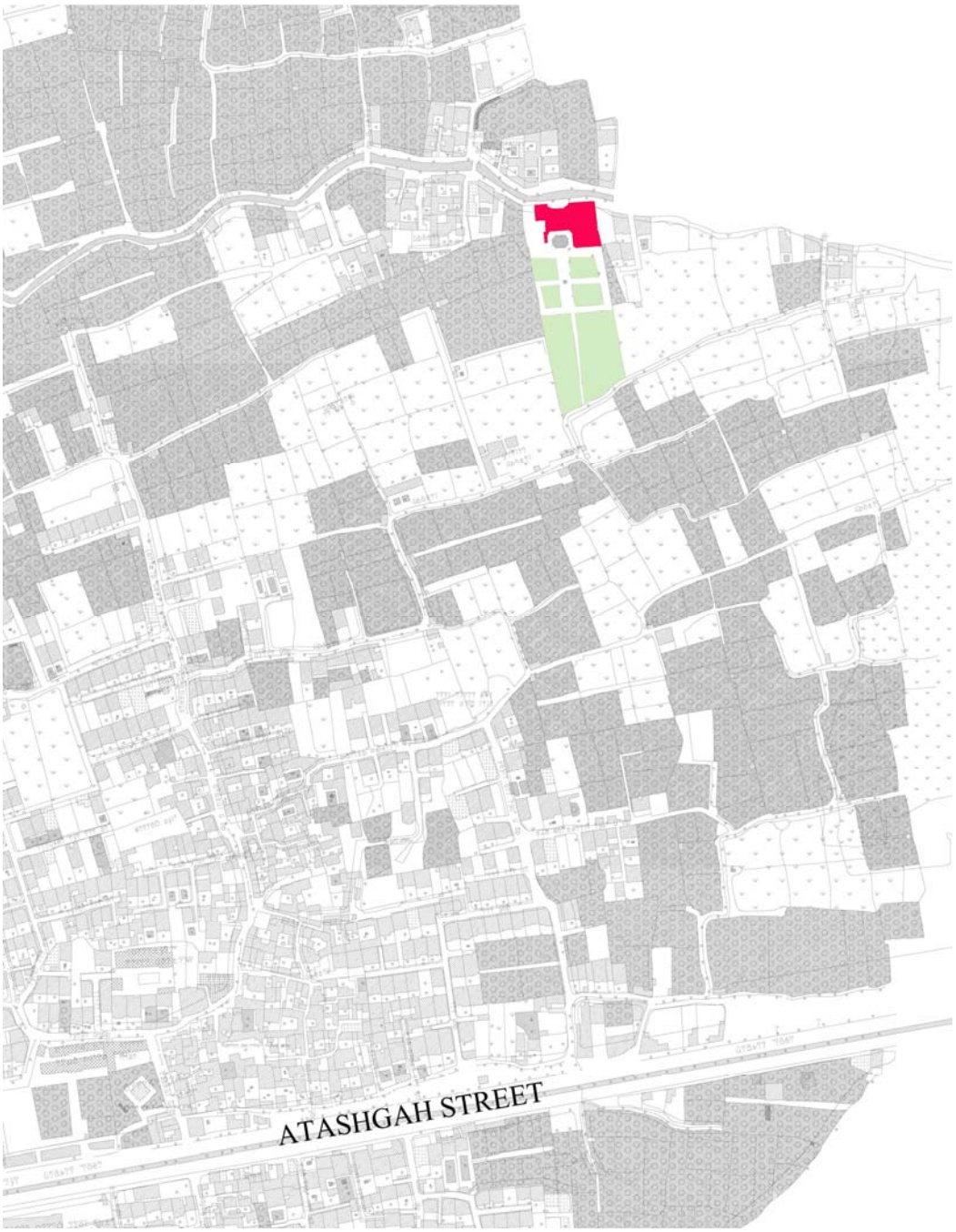


Figure 37. Mohammad Ali Khan Site plan and location map

Figure 38. The stairway to the second floor

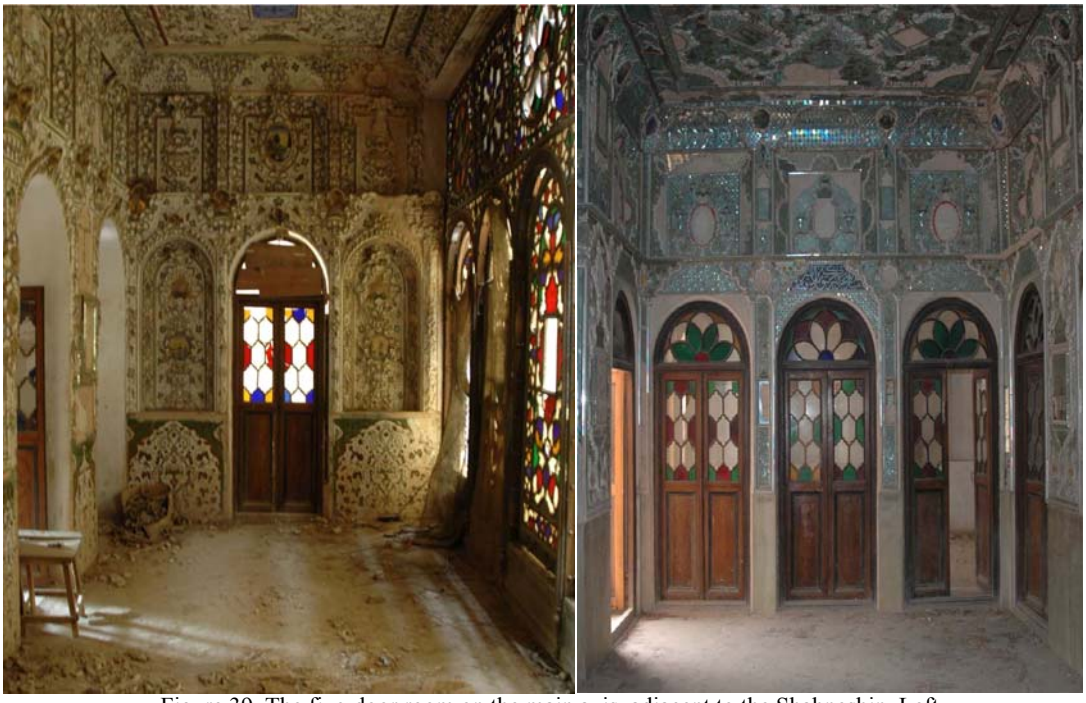


Figure 39. The five-door room on the main axis, adjacent to the Shahneshin. Left

Figure 40. The shahneshin and its connection to the adjacent 3-door room. Right

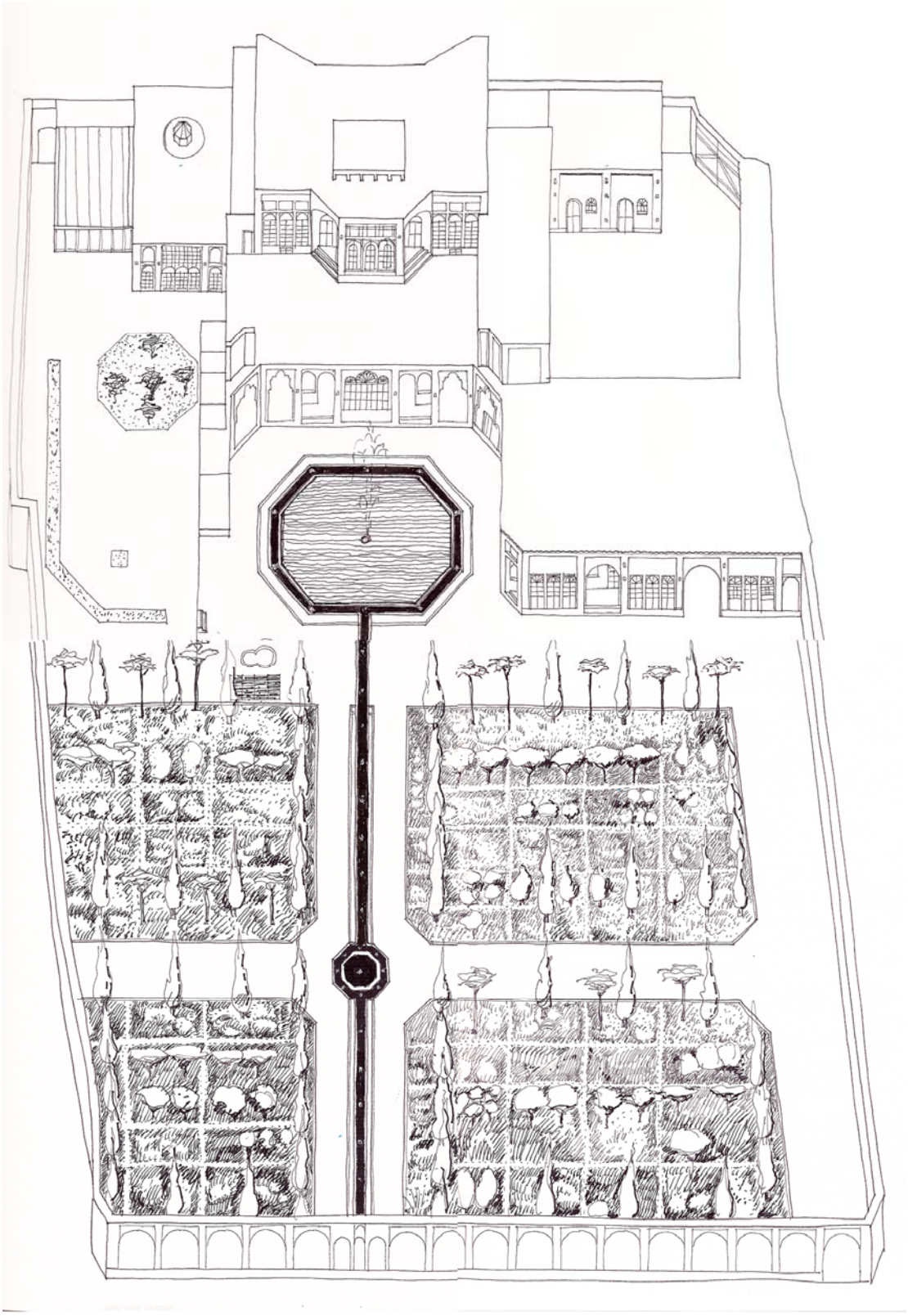


Figure 41 The Mohammad Ali Khan Garden

Inspired by the drawing by Nader Ardalan in Avery Library Archive, Colombia University, NY.

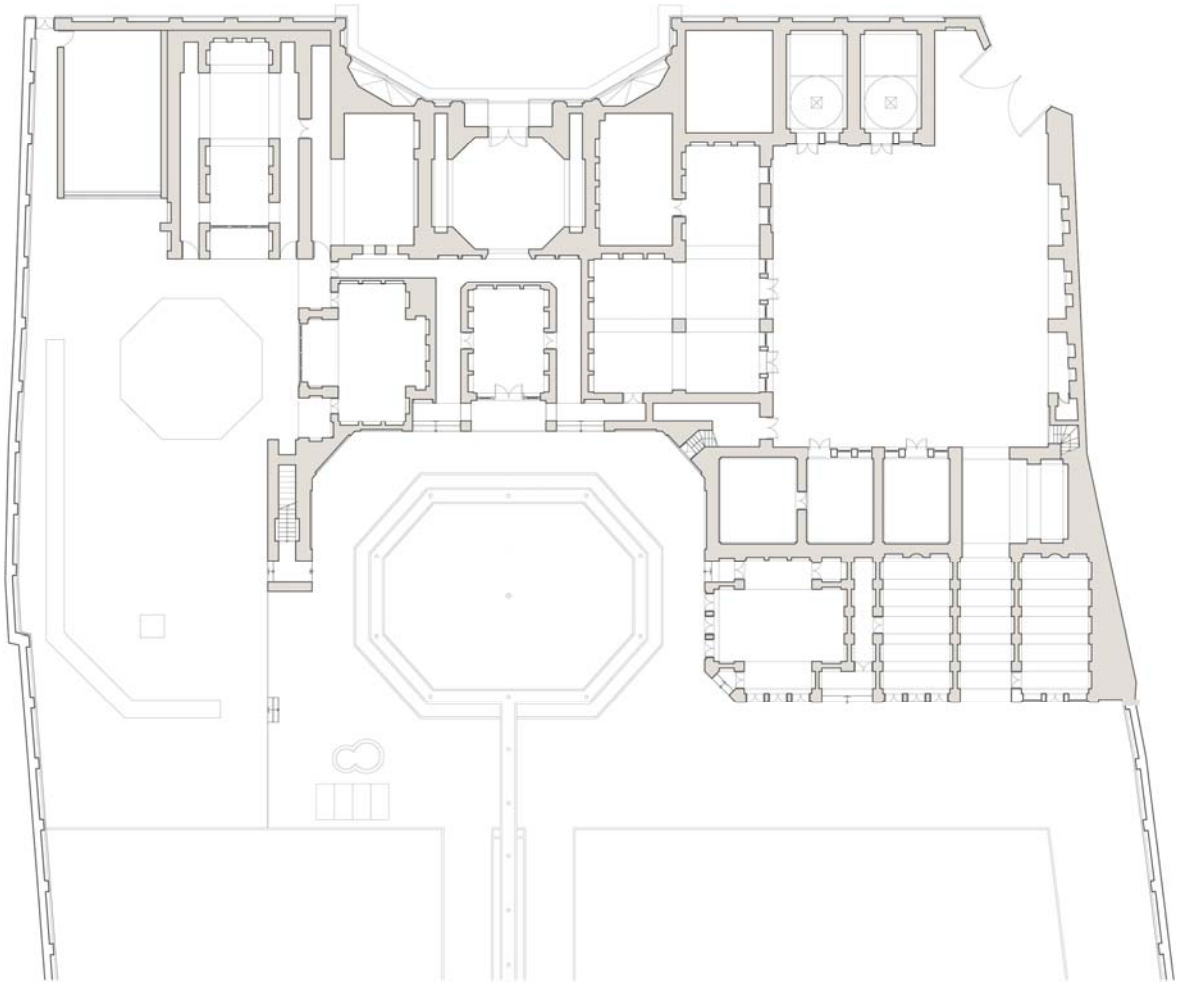


Figure 42. Ground Floor Plan

Figure 43. Section from main axis looking to the east

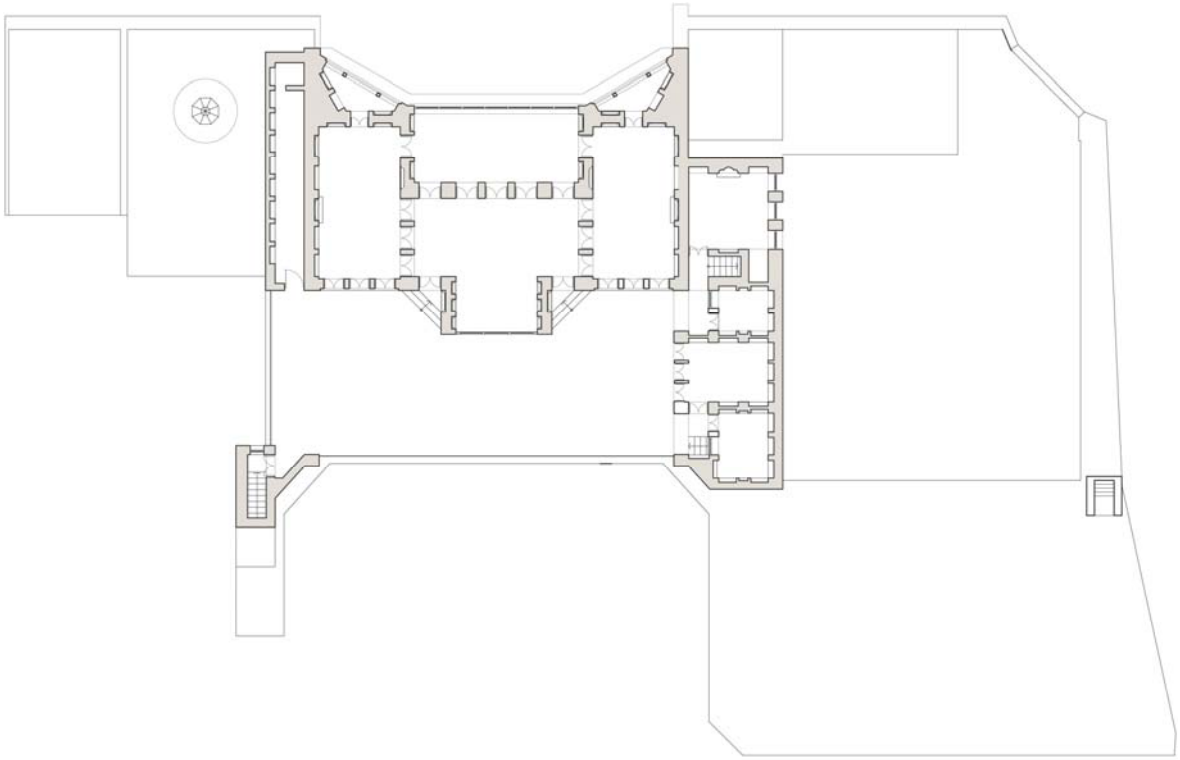


Figure 44 Fist Floor Plan

Figure 45. The entrance of the pavilion on the second floor

Figure 46 The northern Two-column *ivan* and its details.

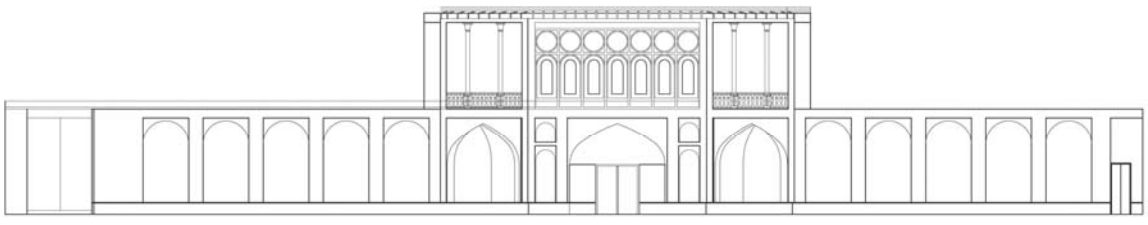


Figure 47 the north elevation

6

The Golshani house: Awakening a Qajar Courtyard House in Esfahan through Memories

I went to Iran to find a case study for the Persian garden. We had a wedding party and my cousins came to my mother's house. Usually when we get together we start recalling memories. It began with my grandma's house, which was a formidable house full of details and ornaments from the Qajar era, in *charsoo* district in the west part of Esfahan. I heard it was demolished a while ago. I thought it could be valuable to rebuild an artifact through memories. I could use my experience as an architect to rebuild it. So I interviewed my relatives and asked them to draw what they remember of it. Here is the story I put together about the Golshani house.

Figure 48. The Golshani location map

The deep blue light of dawn fills the courtyard and reaches out to the brick paving and pulls it out of the darkness. I open my eyes and see that everyone is still sleeping. A cool morning breeze wrinkles the water in the vast round pond and makes playful reflections of the celebrated and colored glass design window of the alcove (*shahneshin)*. Goldfish are still sleeping at the bottom of the pond. Little by little as the images of the blue sky, the white clouds and the crown of the *shahneshin* appear on the pond, the faces of the courtyard enclosure illuminate as well.

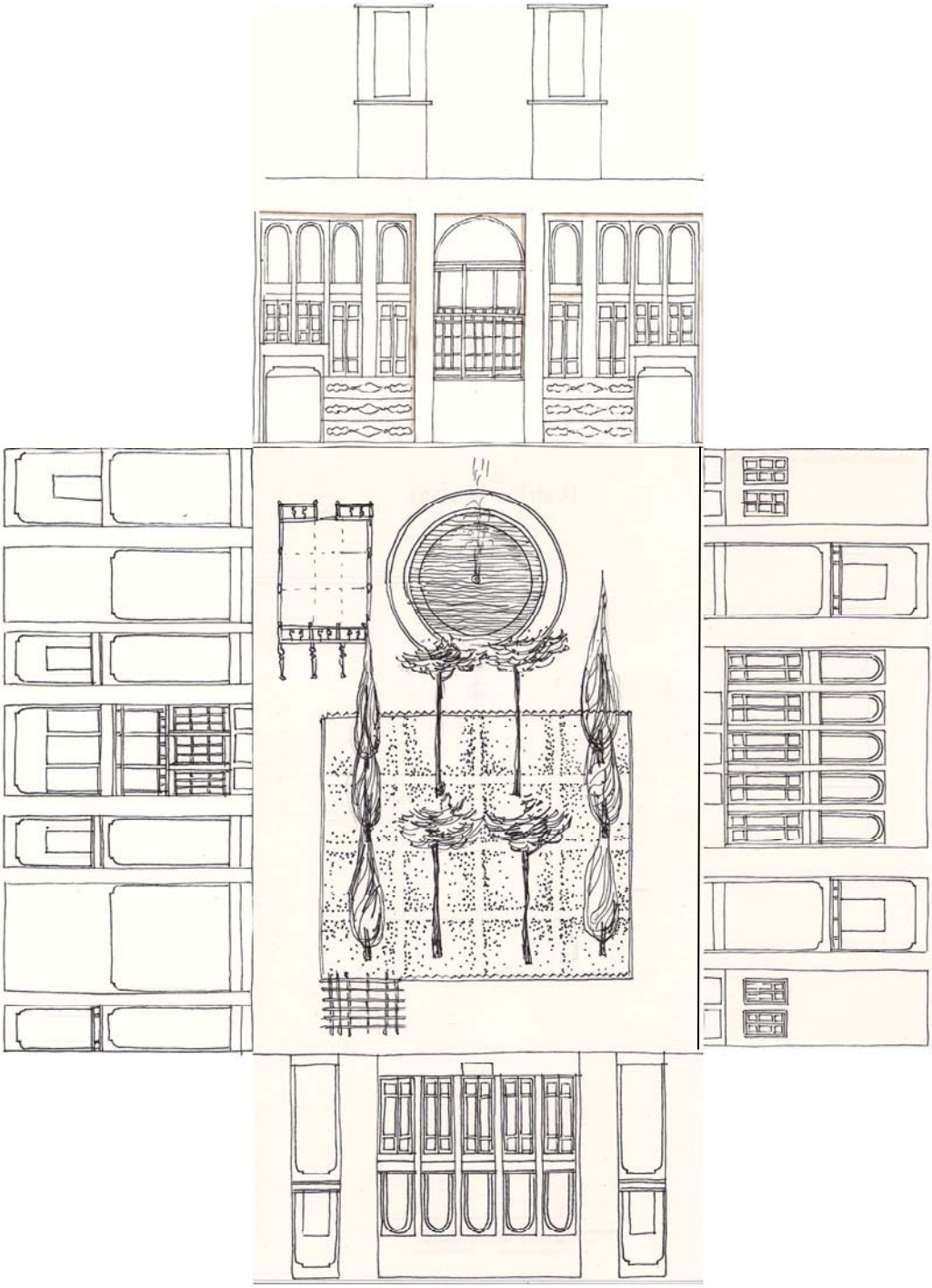


Figure 49. The Golshani Courtyard

The rectangular courtyard along the north-south axis is about thirty-four feet by fifty-five feet with a twenty-foot height. On the north side the alcove, decorated with colored glass windows, sits on the main axis of the courtyard. It is the most celebrated space in the house. An *ivan* adjacent to a three-door room sits on both sides of the *shahneshin,* creating a perfectly symmetrical façade and emphasizing its significance. The three-door rooms and *alcove* have access to the courtyard through these *ivans.* The *ivan* leads to two doors, one opening to the three-door room and the other giving access to the *shahneshin*. The doors of most of the rooms are double-swing wood panels, about three feet wide, with beautiful carvings. The door of the *shahneshin* opens to a five-foot square-shaped lobby. There are two wind-towers that rise from two corners of the *shahneshin*, and when the double swing door of the wind tower is open, a cool breeze rushes in and soothes the skin. The towers outside soar high in the background of the roofline and the crown above the *shahneshin* contribute even more to the majestic look of the north facade.

On the opposite symmetrical facade of the courtyard in the south, a central five-door room and flanking corridors, creates a dialogue with the alcove and its two *ivans*. This room is suitable for summer since it does not get sunshine. My grandma does not stay there. She just keeps all the summer fruits and some diaries there.

A five-door room sits in the middle of the east side of the garden adjacent to a three-door room on each side, creating a symmetrical arrangement. One of these rooms was converted to a kitchen since the old kitchen in the southwest corner did not have natural light and was far from activity. The old kitchen was used occasionally for cooking votive food or for big gatherings during the winter.

Most of the services were on the west side of the garden since they only get morning sunlight. The maid's room was located next to the northwest entrance on one side, and the water reservoir on the other. My grandma used to stay in the five-door-room, which was on the axis of this façade. An area at the back of this room stored a lot of her hidden and mysterious things. The washroom and the pantry on the other side facilitated her access to other services.

The sunshine spreads gradually and everyone is up now. In summer most of us used to sleep on moveable wooden platforms that were placed next to the pond. Each section of platform was approximately three feet by six and a half feet wide and four feet high. They were attached to each other to form a three-by-four continuous elevated platform. There was a wooden stair placed on one side for climbing onto the platform. In summer, most of the family activities took place on this elevated platform, which unlike the ground baked under the summer sun, was cool and ventilated from below. This kind of platform was commonly used in Persian courtyards in hot and dry climates. There were two types of portable platforms. In addition to the one just mentioned, there was a lower platform about three feet wide and six and a half feet long and one and a half feet high. The small one is not as articulated as the larger. The wood-turned legs extended a foot at the top to form the structure of the wooden carved backrest on three sides. The family sat around and enjoyed the cool breeze blowing over the surface of the pond. Sometimes the high platform was placed over the pond next to the *ivan* to extend its surface as well as shade the pond and enhance air circulation. In some cases it is placed adjacent to the grapevine trellis and the basin in order to enjoy the shade and cool breeze at the same time.

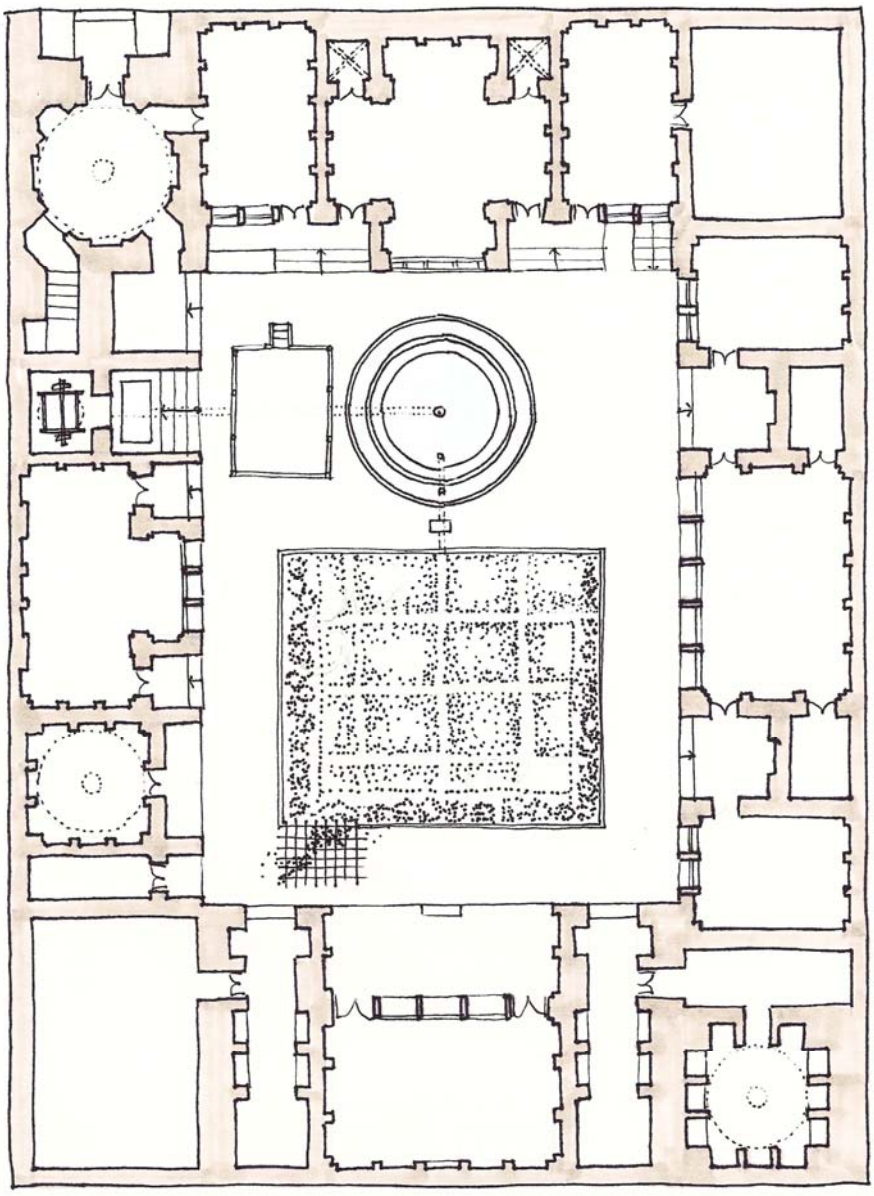


Figure 51. The Golshani House plan

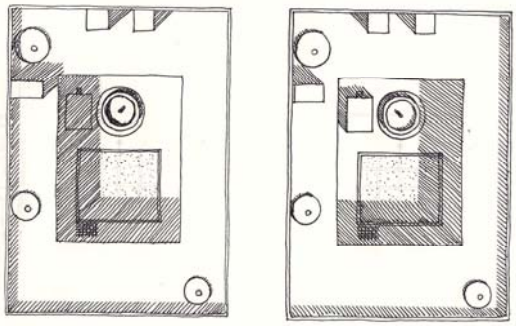
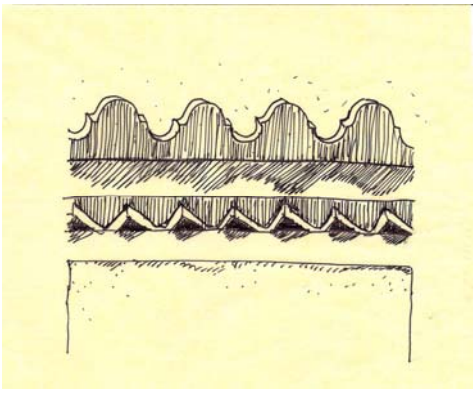


Figure 50.Shadow‘s diagram in the morning at left and in the afternoon at right

The pond was round, about sixteen feet in diameter, with an elaborately carved stone edge, three feet aboveground. A shallow stone gutter to catch the overflow encircled it. Water covered half of the width of the edge because of the fine recess in the stone and made the edge look narrower and the pond larger. The chamfered edge of the stone causes the water to trickle down into the gutter smoothly. A stone fountain was raised in the middle of the pond, a half-foot above the water level. It was connected to an underground cistern and well. Every two or three days the water of the pool was let to drain and quench the thirsty garden. Then freshwater was drawn up from the well to fill up the pond. This was a man's job as he turned a wooden wheel with his feet, almost like riding a heavy bicycle, to draw water in a thick black leather bucket from the bottom of the well. The water in the pond was always fresh as grandma was very fussy about washing with clean water and taking ablution with it. We used to wash the dishes in the pond since it was clean. Sometimes when they wanted to vacate the water we were allowed to swim as well. One of its most important roles was to irrigate the garden. However, the reflection of the sky, the surroundings, and the greenery bring a mysterious dimension to the garden that transcends its functional roles. They offer the sense of freshness, transparency and coolness to the courtyard.



The sound of a cuckoo sitting at the brick crenate edge of the roof wakes me up from a dream. I guess she says something. She nests in very strange and unreliable places. It is said that ruining her nest will bring bad fortune. She sits on the brick paving and moves calmly as if she feels very safe. Somehow, her peace of mind reminds me of the spirit of the courtyard.

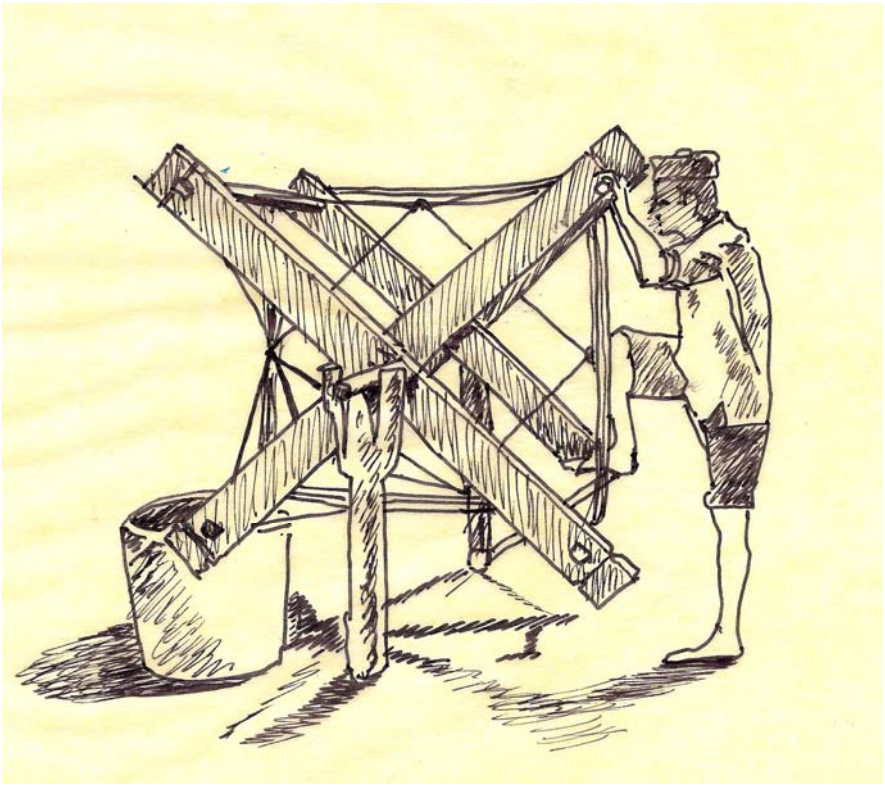


Figure 52. A man turns the wooden wheel with his feet

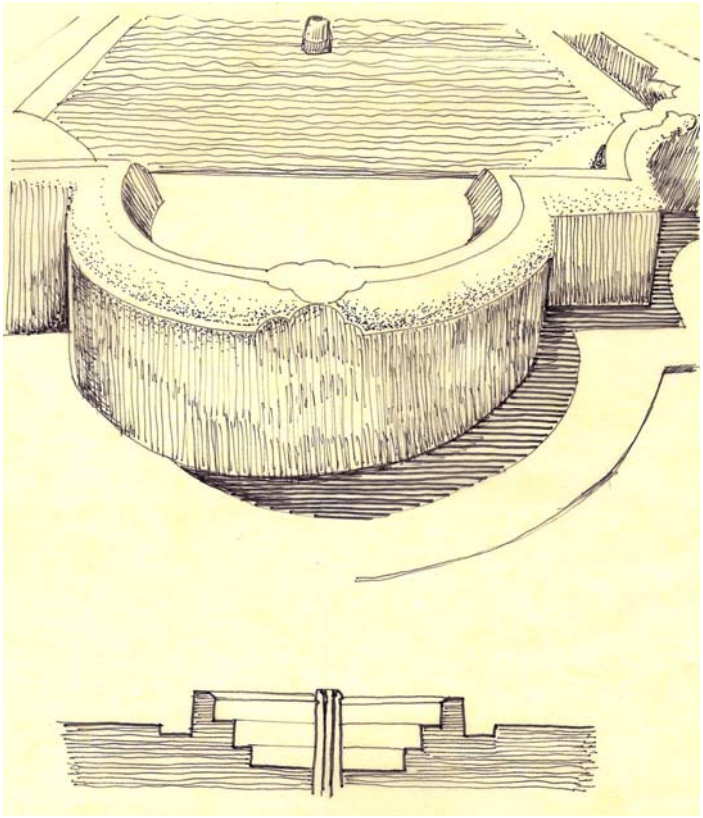


Figure 53. The stone edge's detail of the pond

The sun casts a yellow spot on the corner of the garden, which occupies almost half of the courtyard. It sits right next to the pond in the middle. A red brick crenate runs all the way around the flowerbeds to separate it from the five-foot-wide pathway of the diagonal brick paving. It creates a nice contrast with the green, both defining a bold border and protecting the flowers. The seasonal flowers planted in three-foot herbaceous borders on two sides of the garden bring color, excitement and fragrance to the garden's greenery. They take part in the four season melodies of the garden alongside the fruit trees and the pines. During the summer, the evergreen trees, which are planted in the corners, create a deep green background for the lush light green of the plants. The combination of the colors and fragrance changing from day to night and from season to season was remarkable. The perfume of colorful petunias was very strong and delightful. The redness of the pomegranate bloom is an impartible part of my memories of this house. The trellis supports the grapevines, which were planted in the south part of the garden. The rectangular trellis that has half-foot bough supports in the corners is about seven feet high. A network of five inches of bough creates the top part. Sometimes the posts are made of ten-by-ten-foot adobe to create a larger and more sustainable trellis. In some cases the trellis combines the pond and creates light and shadow effects over the water as well as a breeze.

> My grandma used to serve breakfast on the wooden platform, after the bed sets were removed. She used to set the table for almost twenty people and prepare the tea in a red pot on a traditional brass samovar. The breakfast was delicious local butter, cheese, bread and fruit jams with tea and milk. After breakfast, since the sunlight was growing from

Figure 54. An example of the wooden platform in a Persian courtyard

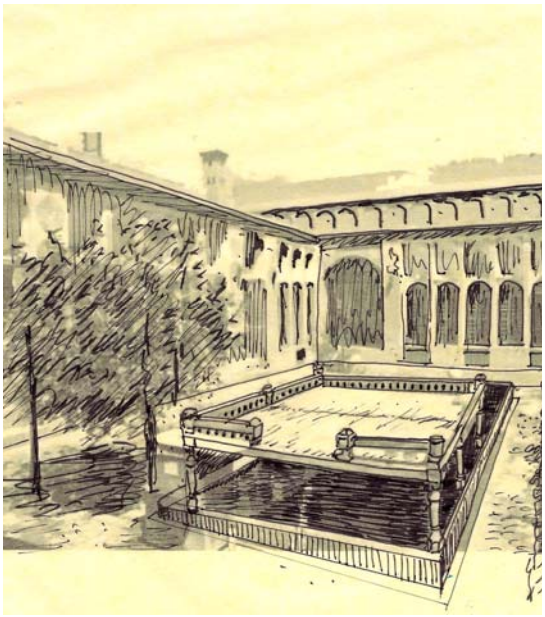


Figure 55 The wooden platform over the basin

the northwest of the courtyard, we had to wrap everything up and roll the carpet.

During the day the children used to play under the perforated shadows of the grapevine trellis. The southern part of the garden was shaded most of the day. This corner was one of our favorite spots. We were away from our parents and could play in peace.

I remember the smell of this part of the garden under the grapevine trellis because of the fruits, cheese and yogurt that they used to keep in this room. One of our favorite games in this room was to bet on watermelons if they are red or not. The room used to be full of summer fruits, watermelons, cantaloupes and fresh corns.

The adults were always preparing food. Most of the food preparation was performed in the eastern ivan or south part of the courtyard, which was in the shade in the mornings. Sometimes we had our lunch in the west *ivan* next to the kitchen.

I never forgot how pleasant it was to nap next to the wind-tower with its door open on a hot summer afternoon. Since grandma used to keep cookies and nuts in this little cool room underneath the wind-tower, children dreamt of reaching for them when grownups were taking their afternoon nap. Every day we had a story about being punished for such mischievousness.

The courtyard was lively, dynamic and constantly full of activities. Eating, food preparation, resting, socializing, playing and the journey between rooms all happened in the courtyard. Ceremonials, including charity food preparation, weddings, funerals and religious events were a part of courtyard life.

I remember my grandma had a cook who used to prepare food ingredients such as tomato paste, verjuice and jam in the courtyard. Large pots on top of the kerosene stoves, the heavy smell of tomato and burning hazards kept us away from that area. But I guess adults liked it since it kept them busy and brought them together.

What makes the courtyard more dynamic is the sequence of sunlight and the play of light and shadow. From sunset to sunlight the spaces around the courtyard receive the sun at different times. This property makes different rooms appropriate at different times based on sunlight and temperature. The rooms in south are appropriate for summer while the rooms in the east and north were suitable for winter since that is when they receive afternoon sunlight.

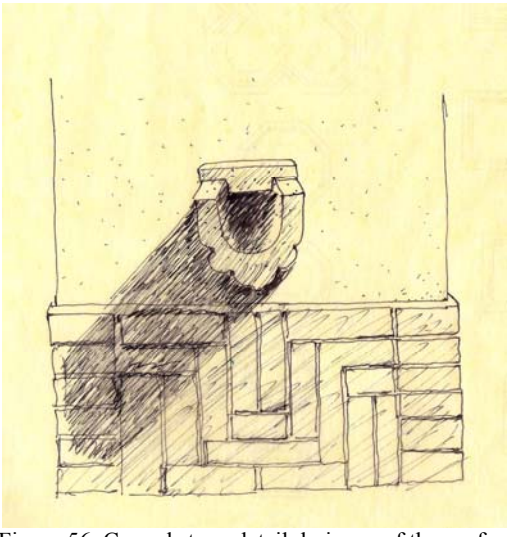


Figure 56. Carved stone detail drainage of the roof

When the sun leaves the courtyard the reflection of the late afternoon light from the surrounding white gypsum walls creates a deep blue light. As soon as the sun retreats, the wooden platform becomes alive again. The carpet is spread. Watermelon, which was laid in the cool water of the reservoir pond for awhile, is now ready to be served. The whole family comes together to have afternoon tea and summer fruits. Meanwhile someone irrigates the garden and opens the stone fountain in the middle of the pond to

create a nice wet breeze in the garden. Sometimes you feel a fine touch of water on your face when it gets windy. It is refreshing. The smell of the wet brick paving with the perfume of the white jasmine creates a pleasant fresh scent. Gradually the evening sky darkens and turns to black. Fervor and fanfare fade away in the courtyard and it becomes calm. After finishing dinner on the wooden platform, we spread the bed sets again and get ready for sleep. We were happy that we had these summer days to play together. It was joyful to sleep under the stars on the large wooden platform, chat and chirp before going to sleep, and wake up together in the morning. It was very pleasant to crawl under the blanket onto the surface of a really cold mattress. The reflection of the light above the water storage room in the pool was mixed with the moonlight. Before I close my eyes I see the stars in the dark blue sky. Every one is sleeping now and I just hear the sound of crickets before I fall asleep.

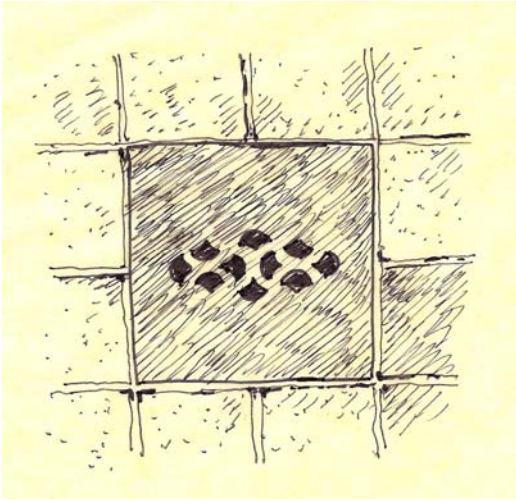


Figure 57. Carved stone detail drainage of the courtyard

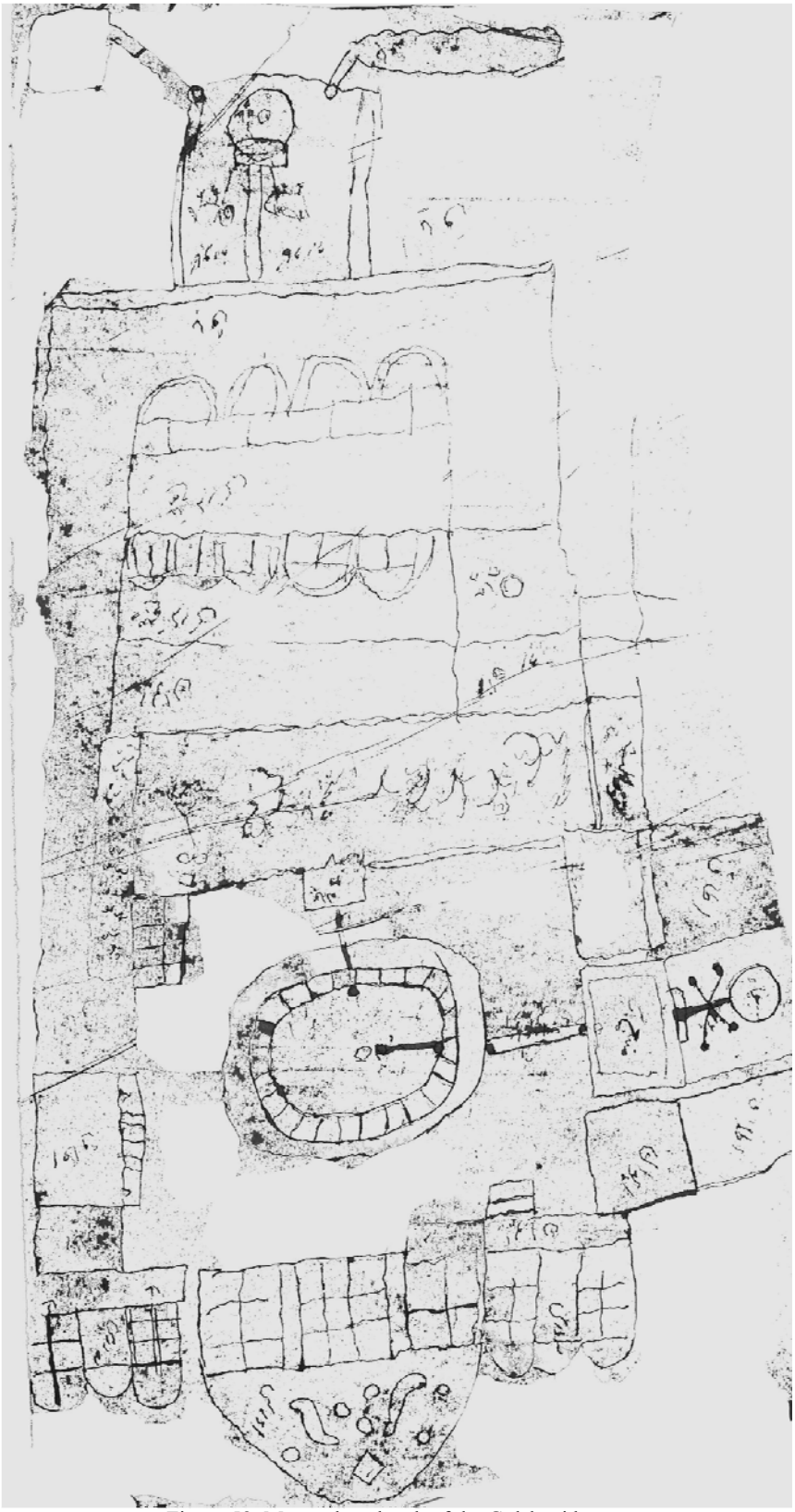


Figure 58. My mother sketch of the Golshani house

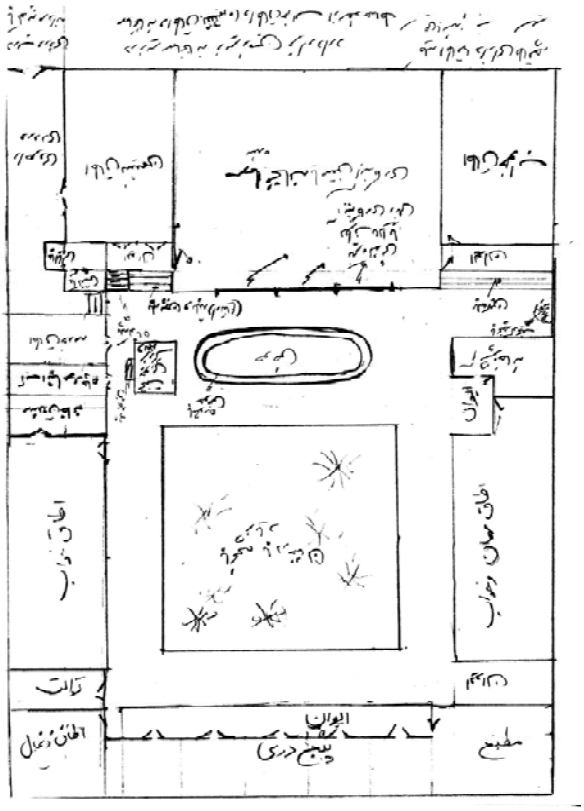


Figure 59 .My brother sketch of the Golshani house

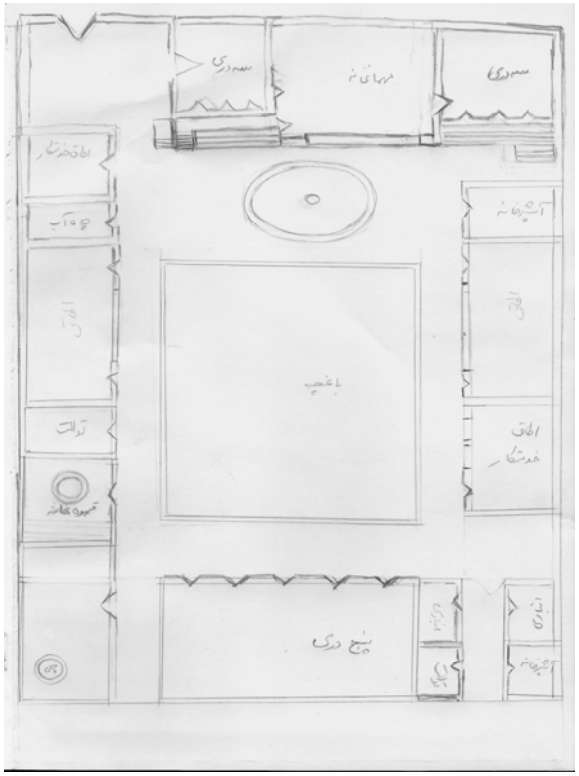


Figure 60.My sister sketch of the Golshani house

Conclusion

A study of the Persian garden with further emphasis on its connection with Paradise and its eternal quartered structure could provide a key to the discovery of the unknown mystical dimension of gardens. The exploration of the Mohamad Ali-Khan garden and the Golshani courtyard as case studies highlights the essential elements of the Persian garden and courtyard and how they shape social relationships and connect to the cultural landscape of Iran and its mythology.

The temporal platform is one of the essential features of the Persian garden and plays a significant role in several ways. It is rooted in Persian mythology, history and culture. It is a kind of intermediary space between inside and outside. It also enables social activities. This platform has evolved in the history of the Persian garden but never fades. The porticoes, porches, *ivans* in pavilions or light gazeboes or the temporal wooden platform in Persian gardens and courtyards are its manifestations. In Persian miniatures, poetries and proses several examples of the function of this feature can be found, in social communications, conversation between lovers, family discussion, and the reception of guests.

This wooden platform was one of the essential elements of my grandma's garden. This element perseveres because it is appealing to Iranian culture and the desire to sit and enjoy the garden. This kind of platform can be developed further to improve the quality of space in a contemporary outdoor setting and eventually would affect social interaction. This example demonstrates the unique potential of the Persian Garden, in its contribution to the development of the future built environment, not only

in Iran but also beyond its borders. In addition, it would provide insight into new approaches to today's landscape design. It can be the first step toward retrieving our forgotten common language that once held the key to building in harmony.

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