Iranian Worldview and Axial Pattern in Persian Garden*

Abstract | Persian Garden, as one of the most significant achievements of Iranian civilization in the world, is a reflection of Iranian worldview. During various epochs of time, numerous Iranian and foreign scholars have sought to attain a pattern or archetype in Persian garden. For a long time, "Chahar-Bagh" has been globally recognized as the prevalent pattern in Persian garden; a geometric pattern, which tries to be adapted to Iranian worldview and the promised paradise introduced in Islam on the basis of the quadruple worldview. This geometric pattern aims at justifying the formation of the quadruple division in Persian garden and introducing it as the original archetype of Persian garden.

The development of studies on the spatial adaptation of this pattern and the various types of Persian garden, doubts that "Chahar-Bagh" pattern is the archetype of all Persian gardens. Recent studies of mostly Iranian researchers reveal that Persian garden is an axial garden rather than a quadruple divided garden, where the main axis plays a fundamental role in formation of its geometry.

The results of this paper recognize that the formation of Persian garden pattern is based on the formation of the main axis which defines and configures a direction from the entrance to the pavilion. The adaptation of this pattern to the Iranian worldview is based on the movement from darkness to light and its subsequent triple division.

Keywords | Persian Garden, Iranian worldview, Single Axial Pattern.

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Introduction | Ancient civilizations have influenced human life throughout history by various means. Persian civilization is among these influenced civilizations that has tried to organize nature and its components in the form of a paradise. In Iranian beliefs, garden is a space where different components of nature are organized on the basis of special and devised principles, and arranged according to a sacred repeated geometry. Repetition of this geometry and the special principles has attracted scholarly attention. Today, the descriptions of the garden appearance and components can be inferred from old paintings and writings. However, there are no references to the common roots that underlie the formation and continuation of the Persian garden pattern during history. Therefore, this study aims at defining the relation between the pavilion (as the ultimate goal) and the garden entrance, and the reason for existence of orderly garden axes, garden beds, and water streams in Persian garden. Continuity of Persian garden over time and recognition of the main identifying element of Persian landscape is dependent on the formation of garden, Iranian beliefs and worldview. The relation between the garden pattern and Iranian worldviews forms the Persian landscape in terms of organizing nature. This pattern roots in the Persian triple worldview, rejecting the pattern of Chāhār- Bāgh. Hence, The Iranian archetype and conception that forms Persian garden is studied in this paper. A garden which disregards the values of quadruple divisions in contrast to the expressed views about quadruple divisions, and focuses on the obvious single axial pattern. In the beginning of this research, the dominant pattern of Chāhār- Bāgh is put into deeper scrutiny. Thereafter the pros and cons of this claim are analyzed. Eventually, based on garden layouts, the single axial pattern is suggested as the main garden structure. Lastly, the Iranian worldview is discussed as the effective factor in formation of single axial pattern. In addition the adaptation of this pattern with the Iranian worldview are presented in the last stage.

Research Method
Having reviewed the scholars’ opinions and scrutinized 16 Persian garden layouts in terms of geometry, the single axial geometric pattern in Persian gardens was taken into deep consideration. Subsequently, the conception of Iranian thought in physical formation of Persian garden is interpreted and read according to hermeneutics. Meanwhile, the organizing geometry in Persian garden and its other aspects one the hand, and the Persian worldview as the initiator of the whole on the other hand are studied based on the hermeneutic circle from part to whole and vice versa. Having associated these terms and recognized the influence of Iranian worldview as a whole, the physical formation of Persian garden is investigated as a part of a whole.

In Search of Persian Garden Pattern
Persian garden pattern has been reappeared with an almost similar configuration during different periods. This pattern has been reproduced in the geographical territory from Iran to India as a single identity. Understanding the archetype of this common language requires a deep comprehension of garden elements on the one hand and Iranian worldviews on the other hand.

Chāhār- Bāgh Pattern in Persian Garden
Currently, there are various and sometimes controversial discussions about the deep implications behind the geometry of Persian gardens. The most important discussions in this area layout, architecture, presence of water and the forming archetype of Persian gardens by Iranologists who came to Iran during 19th and 20th century.

- Studies of Stronach (1990) and Pope (1997) which acknowledge the quadruple division as the fundamental pattern of the Persian garden.
- Studies of Persian garden pattern which led to rejection or completion of the quadruple division theory, which generally emphasizes on the geometry of garden done by researchers such as Mansouri and Heidarnattaj (2009, 2011), Heidarnattaj (2015), Alemi (2011), Pirnia and reports of his interview (1998, 2008)1.
- Studies of introducing a pattern which studies the Persian garden beyond geometry and considers the concept, landscape and garden components as the origins in formation Persian garden; Heidarnattaj and Rezazadeh (2015).
- Studies about the idea and concept of Persian Garden; Sheibani (2016), Etezadi (2013), Barati (2004), Beheshhti (2008), and Daneshdoost (1990).
- Studies about introduction and analysis of different elements that create the Persian garden by Mansouri (2005, 2016), about the garden walls; about the presence of water by Masoudi (2010); about the pavilion architecture in Persian garden in phenomenological or technical approach by Motedayen (2014).
- Meanwhile, study of single axial pattern in studies of Pirnia et al. (the report of 1998 interview) which suggests the presence of parallel axes, study of Mansouri (2005) which puts emphasis on the presence of main axis in Persian garden, and studies of Shahcheraghi (2014) that all focus on Chahr bagh pattern in Persian garden.

The reading and interpretation of Persian garden formation based on single axial pattern, which are more prevalent than the pattern of four intersected axes, has not been studied much enough recently. This study tries to read the conception for formation of single axial pattern in Persian garden based on the Iranian worldview derived from ancient Iranian writings (Gat). It also tries to investigate the reasons for the advent of Persian garden with similar pattern throughout the ages.
study the geometric basis of Persian garden. These discussion starts with the concept that the prevalent pattern of Persian garden is based on a quadruple division geometry called Chāhār- Bāgh. This discussion dates back to a long time ago and has many pros and cons. In studying Chāhār- Bāgh history, some main references are mentioned in which the theory of four seasons is highlighted. A pertinent study in this area mentions a goblet found in the Samarra region in Mesopotamia on which two lines similar to a creek intersect one another and at the end of each creek a tree and a bird is also seen (Sackville-West, 1948: 403). The second reference is the writings of ‘David Stronach’ who has described the Gardens of Pasargad with four symmetric parts (Stronach, 1990). Also in Pope’s book about Persian art, Chāhār- Bāgh pattern which was influenced by quadruple paradise is mentioned (Pope, 1997). Chāhār- Bāgh is also mentioned in Ershad Al Zera’a: “The plan is to offset the Chāhār- Bāgh about three foot from the garden wall and to build a one-foot-wide stream. Thereafter, the water is poured into a main stream and finally to the basin that leads to the mansion, with lily and daisy flowers by its side…” (Heravi, 1967). Another notable reference is the interview in 1994 with Professor Pirnia. Pirnia has mentioned Chāhār- Bāgh as the main pattern in Persian garden.

Regarding the ideology of Chāhār- Bāgh concept, some researchers believe that the quadrant pattern in Persian garden is stemmed from the Iranian thoughts about the shape of the earth (the first place of human beings) or the four streams of paradise. Since Iranians did not consider the earth to be divided in four sections, the formal effect of paradise on the form of Persian garden can be doubted (Mansouri & Heidarnattaj, 2011). Accordingly, this concept does not originate from Iranian thoughts and worldviews before and after Islam. In general, the concept and ideology of Chāhār- Bāgh pattern and the division of Persian garden are defined by the following four concepts:

- Four elements of the world (wind - earth - water - fire)
- Four streams of paradise
- Four main geographic directions of the world (North-South-East-West)
- Four seasons (spring - summer - autumn - winter)
- Four natural conditions (cold - warm - dry - wet)
- Four main elements (nonliving - plant - animal - human)
- Four main instruments of Persian music (Chāhargah - Shoor - Mahoor - Homayoun)

Critiques of Chāhār- Bāgh Theory
In contrast to those who believe in the divisibility of Persian gardens into four equal parts that are irrigated with four streams and consider Chāhār- Bāgh geometry as the eternal geometry in Persian garden, some reject the form and geometry of Chahar bagh to be considered as the basic geometry and pattern in Persian garden. Since dividing the world into four parts did not basically root in ancient Iranian beliefs, the influence of paradise on the form of Persian garden before and after Islam is not correct. The only reference that points to quadruple division of paradise is Torah which has been mentioned by orientalists. Looking at Pasargad Gardens and many other remaining Persian gardens of the Sassanid and Safavid periods, we find that Chāhār- Bāgh cannot be considered as the prevalent pattern in Persian garden; however, it can be considered a special pattern in Persian garden (Heidarnattaj, 2009). Stronach emphasizes on the quadruple geometry and Chahar Bagh concept in Pasargad Gardens (Stronach 1990), and he believes in existence of an extended central path (landscape) in Pasargad Gardens. Although the word Chāhār- Bāgh refers to a garden divided into four parts by streams, it does refer to a quadruple division and it is a metaphor of the universe according to the evidence (Alami, 2011). Chāhār- Bāgh pattern is not related to Iranian worldview before and after Islam. This pattern is not observed in gardens of the same type. The axial geometry is the dominant geometry is Persian garden, not the quadruple division. This theme is visible in Gardens such as Nazar Garden (Shiraz), Chehel Sotun Garden (Isfahan), Bagh-e No (Samarkand) and Khosrowabad Garden (Sanandaj); (Pic. 1).

The single axial pattern in Persian garden
A scrutiny in Persian garden layouts including Delgosha Garden (Shiraz), Rahimabad (Birjand), Dolatabad (Yazd), Affabad (Shiraz), Mosalla (Nayin), El-Goli (Tabriz), Eram (Shiraz), Golshan (Tabas), Shazdeh (Mahan), Fin (Kashan), Ghadamgah (Neyshabur), Babur (Kabul) ... reveals the presence of a main axis in the garden where the main elements like pavilion, the water basin and the water path are located (Pic.2).

In different research about Persian garden by Iranian researchers, the significance of a single axis with a vast and infinite perspective is mentioned; (Shahcheraghi, 2010); (Medghalchi, Ansarian and Bemanian, 2014); (Heidarnattaj, 2009); (Mansouri, 2005); (Abolghasemi, 1995); (Pirnia, 2008), and (Shahcheraghi, 2014).

In Search for Reading the Concept that Configures the Single Axial Garden
By accepting the fact that the single axial pattern is the prevalent pattern in Persian gardens, this paper aims at reading the worldview and the concept that configures this pattern. In this regard, the Iranian worldview, moving from darkness to light, and dividing the world into three stages by Iranian wise men and ancient writings are discussed in the following.

Iranian Worldview about Moving from Darkness to Light
The life, culture and art of Iranians originate from their worldview. Persian garden is one of the most important achievements inspired by the Iranian attitude towards being.
Moving from darkness to light is one of the most important foundations in Iranian worldview that is continued from ancient Iran to Islam, especially during Safavid period.

Suhrawardi/ Zoroaster
The Iranian-Islamic archetype culture is based on the triple division. This pattern arises from the beliefs of the Iranians in two elements of "light and darkness" that forms the top, bottom and middle themes.

According to Zoroastrian beliefs and the previous religions in Iran and the adjacent territories, the world was divided into three parts: upper, middle and lower. The upper world was composed of light, purity and salvation. The lower world was equal to darkness and weakness, and the middle world was considered as a meeting point between these two or the "empty" world. These beliefs are observed in "Varjamkard" mythical tale in Avesta. It seems that the ancient Persians believed in a spatial form and pattern comprised of three distinct parts in which in the "lower" part symbolizes ignorance, impermanence, darkness, and the "above" part symbolizes consciousness, maturity, Bliss, light and so on. This form of spatial division was also accepted by the community after Islam and was especially used in shaping micro and macro spaces (Barati, 2012).

Suhrawardi’s wisdom of illumination is derived from the word "Ishraq" meaning Enlightenment and "Mashreq", meaning the place where the sun rises. The wisdom of illumination is the dawn of a spiritual light. The Ishraqi wise man used the word "sharq" to refer to the place where sun rises and the light spreads. According to Suhrawardi, the "Sharq Asghar" or the "minor east" is equal to the world of the people and "Sharq Akbar" or the "major east" is equal to the world of intellectuals. "Maghrīb" is in contrary to these world, which is equal to the material world or the world of darkness which refers to in misdirection in ancient Iranian wisdom (Razavi, 2003).

By choosing Quran as the basis, he developed his own philosophy and based his philosophy on the two concepts of "light and darkness" derived from Quran and the Sunnah; for instance: "God is the light of skies and earth...", " Now, people, proof has come to you from your Lord, and we have sent down light to you", and several other verses that bear the word "light". This word is also mentioned in other religious texts and prayers including: "In the name of God of the light, in the name of God of the light of light, in the name of God, light on light, in the name of God who created the light of light ... " (ibid).

Believing in light and darkness in the Suhrawardi’s
The realization of such concept requires movement in entities and beings to develop the existence and the experience of being in all physical and spiritual aspects; the experience of being that makes meaning such as life, vitality, knowledge, etc. out of being. (Nasr, 2014: 186-181). Living a life on the basis of evolution leads to sequential opening of the universe scopes. An event that is rebirthed continuously, and enters the world of wonder and knowledge, filled with pleasure, joy and tranquility. Mulla Sadra believes that this event in the existential journey relies on the consistency of the degree of being with the degree of presence. The higher the degree of presence, the more the other worlds can be observed (Corbin, 2014:505-506).

According to Heidegger, “existence” and development are of particular importance. He believes that the most important kind of being is Dasein. Dasein explains the human life. It addresses a person who always has an understanding of his being in situations and positions. In his opinion, human reflect the universe. He is going to be. Hence, universe is progressive, transcending, and extruding from itself. He considers this process to be dependent on movement. It is based on this movement that things transform their essence and achieve perfection. He says that movement is based on the essence of the universe and this gem, in its entirety, relates and transforms all beings to each other (Ahmadi, 2013:245-246).

opinion is very close to the two forces of "Sepantamino" and "Angaremino" in the Zoroastrian religion. Zoroaster attributes the good and evil manifestations to these two forces. In Zoroastrian religion, there are three stages and when a person reaches the third stage, he reaches the glorious position of "Ahuramazda" and the throne of the almighty. In Zoroastrianism, Ahuramazda and the devil are complementary concepts which represent the light and the darkness and parity in all things. (Moving from ugliness to beauty, darkness toward light); (Orshidary, 1990). Accordingly, the entire Iranian worldview is shaped from moving from darkness to light. This is a pattern that Suhrawardi mentions from the adaptation of Iranian worldviews before and after Islam. Tracking this worldview with and the advent of Persian garden describes the influence of the triple pattern of the upper, middle and lower parts on formation of Persian garden.

Mulla Sadra
Moving along the existential structure is accompanied by an evolution. Mulla Sadra believes that 'being' in terms of transformation is meaningful when it is evolutionary. He describes this concept in a metaphorical phrase; wearing a new coat on previous clothes. (Sharif, Pourjavadi, 2011:489). The realization of such concept requires movement in entities and beings to develop the existence and the experience of being in all physical and spiritual aspects; the experience of being that makes meaning such as life, vitality, knowledge, etc. out of being. (Nasr, 2014: 186-181). Living a life on the basis of evolution leads to sequential opening of the universe scopes. An event that is rebirthed continuously, and enters the world of wonder and knowledge, filled with pleasure, joy and tranquility. Mulla Sadra believes that this event in the existential journey relies on the consistency of the degree of being with the degree of presence. The higher the degree of presence, the more the other worlds can be observed (Corbin, 2014:505-506). According to Heidegger, “existence” and development are of particular importance. He believes that the most important kind of being is Dasein. Dasein explains the human life. It addresses a person who always has an understanding of his being in situations and positions. In his opinion, human reflect the universe. He is going to be. Hence, universe is progressive, transcending, and extruding from itself. He considers this process to be dependent on movement. It is based on this movement that things transform their essence and achieve perfection. He says that movement is based on the essence of the universe and this gem, in its entirety, relates and transforms all beings to each other (Ahmadi, 2013:245-246).
Mulla Sadra, by plotting the natural, vegetative, animal and human levels, considers the movement and development of the soul in harmony with the movement of entity in matter, which initiates and extends beyond the material, and therefore resurrection for the soul is realized.

Moving from darkness to light (darkness to perfection) reflects the physical motion of the soul from the immense wisdom to the active intellect.

The fourth stage of spiritual life of the soul is the level of connection with the active intellect, or the Holy Spirit. The Holy Spirit, allows the spiritual attraction and adaptation of light and knowledge, and this is the meaning of life that is derived from motion to light.

Quran
Allameh Tabatabai refers to the movement of darkness toward light in the Quran in this way: the meaning of darkness is misguidedness and the meaning of light is guidance. If we assume that guidance is light and misguidedness is darkness; light is singular and darkness is plural. That is to point that guidance is one of the examples of the truth and the truth is one and it is in contrast with misguidedness that has many examples because misguidedness is due to the pursuit of passions, which are different and are not the same. Believers, who have found themselves another life by their faith and enlightenment, have the light of the eternal world and can cross the Sirat bridge which is mentioned in Tharim and Harir Surahs. But not only does the believer’s light appear in the eternal world, but also the lord's light will light up the earth as mentioned verse 69 Zomar Surah: “The earth shone with the light of its Lord”

Imams (PBUH) have mentioned these two meaning in different ways. A verse can be an example: “God is the light of the heavens and the earth, like a lamp he guides anyone who wishes with his light”. Imam Ali says: “God is the light of the skies and the earth. It means that he revealed the truth among the heaven and the earth and universe was lightened up with that light” (Allahverdi, 2016).

Light is used singular form and darkness in plural form in Quran. Light means brightness, which is the diminution of darkness. Its simplest meaning of is the light that is a part of the hierarchy of the material universe. Highest stages of light is the light of faith, science, guidance, imam, prophet of wisdom, God’s nature and… In all of these examples, the leaving darkness and misdirection and creating clarity and light and determining the way and purpose are ways to reach the light. Therefore, people in the world who are struggling with all sorts of darkness, must take hold of the light to get to higher stages.

**Summary: Adaptation of the Single Axial Pattern in Persian Garden to Iranian Worldview**

1. As aforementioned, in addition to Chāhār- Bāgh pattern which was considered as the main pattern in Persian garden over a period, the single axial geometric pattern has been mentioned in various texts. Accordingly, with the adaptation of this pattern to the examples of Persian garden, it was observed that single axial geometric pattern, contrary to the prevailing beliefs, is a more common pattern in Persian gardens.

2. Reading the Iranian understanding of the world and interpreting their reflections in Persian garden with single axial pattern reveals that movement in Persian garden is directed from entrance to the pavilion according to the worldview of moving from darkness to light and the division of the world into three parts of origin (darkness), destination, and path to the destination (light). In this pattern, the route from the entrance to the destination with dense planting and the presence of water in the middle is apart from other parts of the garden and is a metaphorical expression of the Iranian worldview. Also, relying on this worldview, the spirit of Persian gardens is interpreted in motion rather than in rest; moving from darkness to light on a straight path. This worldview is fundamentally contradictory to the pattern of Chāhār- Bāgh pointed out by various scholars.

3. Moving from darkness to light, in different aspects, is visualized in the axial pattern of Persian garden. It is envisaged in moving from the entrance with its dark vestibule, toward the light in the straight path and from the bottom to the top. In the Persian garden, the entrance is generally lower than the pavilion, and the unconscious move is against the flow of water and from the bottom (darkness) toward the light (above, where the garden pavilion is located).

**Conclusion |** According to the studies related to the geometric pattern of Persian garden, it can be concluded that the presence of the main axis in Persian garden – the axis between the main entrance and the pavilion (which is located in the middle or at the end of the garden) - is the predominant geometric pattern of Persian garden. Also, the studies of this paper showed the Iranian worldview is consistent with the single axial geometric pattern in Persian garden; in contrast to the previous documents referring to the quadruple worldview. Interpreting the garden as a content and interpreting the Iranian worldview as the Iranian feeling of life have led to creation of Persian garden. Persian garden is resulted from the Iranian worldview that is formed on the basis of moving from darkness to light and dividing the world into three parts.

The beginning (darkness) in Persian garden is represented by the entrance located in the lower part; the light is represented by the pavilion in the upper part of the garden; and the main axis connecting the entrance and the pavilion represents the movement from darkness to light. This axis justifies the division of Persian garden into two symmetrical sections.
unbiasedly.
These three sections are in agreement with the wisdom and philosophy of Iranians before Islam and the philosophy, thoughts and culture of Iranians after Islam. Interestingly, in this interpretation, Persian Garden is a symbol of heaven and a heavenly world and a wonderful space that promises a life filled of peace and tranquility, comfort, moderation, virtue and away from evil, oppression and darkness.

Endnotes

1. Pirnia refers to two types of Persian garden; the first is the garden with intersected axes, which conveys the concept of Chahar-Bagh, and the second garden with parallel axes, which refers to axial garden. "Gardens that have two parallel axes and are cut by intersecting paths in different places, D’elgosha, Affifabad an d Dolatabad gardens (that have one main axis). Pirnia considers the presence of water (Dolatabad, Delgosha) and the main court (Affifabad) a long the main axis, disengaged from the main axis into two parallel axes. This view is consistent with the single axial concept " (Pirnia, 2008).

2. Also, Pirnia in the Persian Garden article (1995) refers to the elongation of landscape in Persian garden: "Another important principle in Persian garden is the main view in form of a rectangle. In these gardens, there was a long and open space in front of the building that directly faced the main view."

Reference List