Analysis of the Contemporary Architectural Works based on the Mythical Criticism Approach
Adaptation of Yokohama Port Terminal Architectural Pattern to Persian Garden Archetype*

Setareh Yamini[1], Parisa Alimohammadi[2][**], Kaveh Bazrafkan[3]

1. Ph.D. Student, Department of Architecture, Central Tehran Branch, Islamic Azad University, Iran.
2. Assistant Professor, Department of Architecture, Central Tehran Branch, Islamic Azad University, Iran.
3. Assistant Professor, Department of Architecture, Central Tehran Branch, Islamic Azad University, Iran

Abstract

Problem statement: Designing and its methods are always the concerns of people who work in academic and professional fields in different areas. Architecture as one of the central disciplines in this field has always been challenging the genesis of its works during different periods and the thinkers' opinion from a different point of views; the results of studies showed controversial views about the methodology of designing. Meanwhile, some researchers in psychology and anthropology believe in the influence of some indirect factors in the emergence of artistic works that have led to the appearance of new horizons in the analysis of artworks and its referral to some unconscious agents.

Research objective: This study investigates some of the unknown factors and dimensions involved in the formation of architectural work that the designer does not sense it directly, which unconsciously influences the formation of his/her design.

Research method: In this research, we used the "mythical criticism" method which by an adaptive analytical approach and an induction method, analyses the elements and concepts that have contributed unconsciously to the creation of the work and interprets its mythical motifs. For this purpose, first, the emergence of archetypes in architecture was described, then an architectural archetype was selected and the work of a contemporary designer was compared with the selected archetype.

Conclusion: Using the mythical criticism method, it was found that the spatial system of the Yokohama port terminal, which an Iranian architect has been involved in its designing, was consistent with the spatial system of the Iranian garden archetype.

Keywords: *mythical criticism, unconsciousness, archetype, architectural patterns.*

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Introduction

In the modern era because of the individualism trend, the formulation of the design method was ignored. For, the inability of architects' community in the reproduction of pioneer architecture, demand in mass production of buildings and development of architecture education and research, the issue of design methods became important. This challenge that began in the 1950s resulted in in emergence of a specific discipline in architectural knowledge called "design process".The question of how architecture has evolved in the second half of the last century has led to the emergence of a particular field of knowledge in architecture, commonly referred to as the design process. In recent decades, the field has expanded to include a more comprehensive form known as design research and encompasses various areas such as design process, design philosophy, creativity, artificial intelligence, and so on. In general, design research is a term that covers all studies of how design works. Before the emergence of this field, theories about the design process were often influenced by intuitive and dispersed perspectives. However, after Descartes wrote the Discourse on the Method, one became familiar with the systematic methods that could be used to describe how he/she thought and formulated a proper way to do so. This led to what the former architect calls the 'mystery' to be changed to 'problem' and design recognized as a way of solving the problem (Ansari, 2007, 2).

But what makes it more difficult is, on the one hand, the inconsistency in the results of the of design methods analysis that neither of them can lead to common views and results, and on the other hand, changing attitudes and violation of previous beliefs are related to the experts themselves; insofar as design pioneers declare 1970 the year of the death of the design methods movement (Cross, 1993, 16). In this regard, Christopher Alexander proclaims that he has separated himself from this domain ... and that there is little to be found in the field of what is called 'design methods'. He tells how

buildings should be designed, and he never studies literature and history ... and explicitly abandons it. (Alexander, 1971, 3-7). John Christopher Jones says that he stood against design methods in the 1970s and did not like machine language, behaviorism, and this constant attempt to incorporate all life into logic (Jones, 1977, 48-62).

These changes were pretty harsh for the founding fathers to say about their offspring and were potentially devastating to those who were still nurturing the infant. It had to be acknowledged that there had been a lack of success in the application of 'scientific' methods to design (Cross, 1993,17).

The main problem is that the theories that have so far addressed each of the issues of architectural design and design methods have failed to investigate all aspects of these fields. Discussions and investigations on architectural design and architects' way of thinking is a new branch of architectural studies that spans about five decades. Over the past five decades, these theories have undergone profound changes and in their overall trends, and the findings of those descriptive-research studies have been scarce and incomplete due to the specific difficulties of the field. Many different angles of architects' way of thinking and their design methods remain unclear.

It is clear, however, that the process of creating a work is a very complex process that cannot be understood in all aspects. In the meantime, the complexity of the architectural work, that its intrusive elements are more than any other work of art, and which seeks to satisfy both the physical and mental needs of human beings, multiplies this complexity. This same problem challenges the design methods and factors influencing the formation of work, especially by the academic community and the architecture students. A look at the historical background of architectural design methods indicates the continuity and the evolution of patterns in the spatial ordering of buildings, and that the architect has sought to solve the problem by combining and adapting these patterns to the

design context. In the contemporary world with the emergence of modernism, which bore disregard to the past and past experiences, the individuality and role of the designer's mindset and worldview have become more pronounced in the work; and this individuality has reached the point where knowing a work without knowing the designer's views and beliefs are impossible. In other words, works of art are named after their designers. These same attitudes have led to a change in the variety of methods and challenged the scientific environment for the recognition of design methods. Also, as noted, it made theorists incapable and submissive; insofar they use dodging the question as to the problem-solving method. The reason for this inability lays in the inability to fully comprehend the human mind space and his faculty and imagination, where the artwork is first and foremost potentially formed, following complex and almost unknown processes influenced by external factors.

Some researchers in the field of anthropology and psychology have come up with some studies and theories about the human mind that suggest there are some meanings and patterns which are common among all human beings, that appear in their artworks. It needs to be acknowledged that the studies are just one of the influencing factors in creating a work by a person. As they deal with the commonalities between the works of different people, they are among the most well-known and accepted theories in the interdisciplinary field of art and humanities, in which the most references are made to them in the analysis of works of art that look at the subject from the designer's perspective. The most important theory in this field is the 'archetype' theory, which has been introduced by psychologists such as Carl Gustav Jung, Sigmund Freud, and James George Frazar.The archetypes and their manifestation in contemporary works in the field of humanities and art are recognized as an important branch in the critique of works and is known as 'mythical criticism', 'archetypal criticism' or 'Jungian criticism'

The purpose of this study is to investigate some of the unknown factors and dimensions involved in the formation of an architectural work that the designer does not directly interfere in and unconsciously influenced his/her design.

In this research, we used the 'mythical criticism' method which by an adaptive analytical approach and an induction method, analyses the elements and concepts that have contributed unconsciously to the creation of the work and interprets its mythical motifs. 'Mythical Criticism' is an interdisciplinary approach to contemporary literary criticism. It analyses literary text from an anthropological perspective. In this method, the critic attempts to examine, with an analytical-comparative and inductive approach, all the cultural elements that have existed in the course of human civilization and have been unconsciously effective in creating literary work. Also, the literary work - or some of the themes in the text - can be interpreted as prototypes or archetypal deep structures (Ghaemi, 2011, 34).

Literature review

The word archetype derived from the word 'archetypes' which means a pattern from which something is made. The archetype has been used in several scientific fields and has a special meaning in each of them (Neyestani, Hatamian, MoussaviKoopar & Hatam, 2012,174). The Archetype was first introduced by the renowned Scottish anthropologist James George Frazar in the school of anthropology at the University of Cambridge known as the 'Golden Bough'. In his work, Frazar explores the practices of primitive rituals, myths, and magic, and by comparing and contrast finds many similarities that humans have the common basic needs in every place and time. (Shamisa, 1995, 79; Abrams, 2005, 178).

Carl Gustav Jung, the renowned Swiss psychologist, and philosopher (1875–1916) has also addressed the archetypes in his studies of psychology, particularly in discussions on the 'personal' and 'collective unconscious'. The archetype entered

literary criticism in 1934 by Maud Bodkin, in her work Archetypal Patterns in Poetry, which refers to images, characters, and designs that are repeated in various literary works (Abrams, 2005, 178).

Among so many studies conducted by the Persian researchers on the archetype and architecture, there is a study by Golabchi and Zeinali Farid (2012) in a book entitled Archetypal Architecture that identified and characterized the concepts of this type of architecture and how to utilize the concepts of archetypal architecture and fundamental sustainable patterns in past, present, and future architecture; and finally elaborated on the important features and elements of archetypal architecture.

Neyestani et al. (2012) in their study, 'Analysis of Continuity of Chahar-Taqi Architecture from Sassanid to Islamic Period in Iran with Archetypal Criticism', according to Jung's archetypal theory, examines the appearance of Chahar Taqi in architecture and its transition from Sassanid period to the Islamic era with evidence of the sacredness concept from the Islamic sources.

In parallel to this research, another study by Dehghan, Memarian, MohammadMoradi & AbdiArdakani (2011), investigating the semantic commonalities of the collective unconscious archetypes derived from the three sources of universal myths, symbols, and dreams, expresses its manifestations in the architecture framework and to search for a single pattern language in architecture attempts to enhance the human interactions with the architecture space.

In a study by Shirvani (2015), the concepts and the form of the archetype of Mandala, compared with the Chahar bagh carpets, have been recognized and the elements of the Persian gardens found in the Chahar bagh carpets are compared with the Mandala form.

Researchers working at recognition of "pattern" in architecture have always provided a precise definition of 'archetype. In this study, the concept has been investigated and finally, archetypal studies have ended in architectural patterns. In this regard,

due to the importance of the topic, the present study will review the studies on 'pattern' and 'architecture'. Hamzeh-nejad & Radmehr (2016) in their study, investigating the patterned and Persian architecture, examined the spatial existence of Persian architecture and after examining several patterned works, extracted indexes and evaluated a case sample based on them. In a study by Soltani, Mansouri & Farzin (2012), the concept of the pattern is compared to the related concepts and its distinctive role about the other relevant concepts in architecture has been identified. In another study by Shahbazi Chegeni, Dadkhah & Moini (2015), the role of paradigm, tradition, the role of architects and architecture in this process have been studied analytically.

Research questions

1. To what extent the archetypes and the collective unconscious of the designer impact the emergence of contemporary architectural works?
2. In the design of Yokohama Port Terminal, which architectural archetype appeared unconsciously?

Research hypothesis

1. It seems that some archetypes originating from the collective unconscious appear in the architectural patterns in the works of contemporary architects.
2. The Persian garden archetype has unconsciously influenced the spatial system of the Yokohama Port Terminal.

Research method

In this study, we used the 'mythical criticism' method which by an adaptive analytical approach and an induction method, analyses the elements and concepts contributing unconsciously to the creation of the work and interprets its mythical motifs.

For this purpose, first, the emergence of archetypes in architecture was described, then an architectural archetype was selected and the work of a contemporary designer was compared with the selected archetype.

Case study selection criterion

Review of literature revision revealed that most of the researchers tend to find traces of the archetypes and Persian architectural patterns in the specific periods of contemporary architectural history. The works of those contemporary designers have done almost consciously, with the help of archetypes, and were under the influence of factors such as educational context, activity context, designer nationality, social attitudes, and the political conditions of that particular historical moment. Because of the centrality of the unconscious theories in this study, avoiding redundancy, and creating a new perspective in the field of architectural research by modifying the factors of education context, activity context, and changing temporal conditions, by choosing the designer who among the abovementioned factors has merely Iranian nationality. This study is to examine the manifest of Persian archetypes in one of the works of this contemporary Iranian designer (Table1).

Theoretical foundations of study
• Theoretical foundations of the unconsciousness

Some schools of psychology divide the human psyche into two layers: 'the conscious' and 'the unconscious'. All the mechanisms that consciously performed in one's self make one's conscious; and one's consciousness of the self and the world around

Table 1. Characteristics of some of the contemporary Iranian architects who have been inspired by past architectural patterns. Source: Authors.

Architect	Place of education	Place of activity	Nationality	Time of activity
Seyhoon	Iran	Iran	Iranian	Second Pahlavi
Amanat	Iran	Iran	Iranian	Second Pahlavi
Tabatabaie	Abroad	Iran	Iranian	Second Pahlavi
Ahmadi	Iran	Iran	Iranian	Post-revolution
Ardalan	Abroad	Iran	Iranian	Second Pahlavi
Darab	Abroad	Iran	Iranian	Post-revolution

provides the fundamental requirements of one's conscious. According to Karl Gustav Jung, being conscious means to understand and know the outside world, and equally to recognize and know oneself in the bonds that one has with the world around (Kazzazi, 1997,60). In contrast, all the mechanisms that the unconscious performs in one's self make one's unconscious. If we regard consciousness as the bright side of the human entity, the unconsciousness will be the dark side. All that is in our mind and we are ignorant of it makes our unconscious (ibid., 61). Even some former philosophers are said to have understood and believed in the unconscious; for example, Socrates had an unconscious teaching method. Another thinker who can be called the father of the unconscious is Leibniz, who believed that knowledge and consciousness in man cannot be investigated merely based on the test. In his view, there are essential and universal truths among humans. Scholars such as Kant, Friedrich Schelling, and Karl Gustav Carus have also suggested about the unconscious. Another German thinker, Eduard von Hartmann, in his book entitled Philosophy of the Unconscious, states that rational 'thinking' and irrational 'will' in an unconscious living that gives the world life are blended. Sigmund Freud, an Austrian psychologist, used the unconscious in its psychological application (ibid., 63). Jung was initially a student of Sigmund Freud's school of Psychoanalysis, but later criticized Freud and developed his theories. After years of research, he published a set of ideas known as 'Analytic Psychology'. Unlike Freud, who concentrated his research on the morbid behaviors, norms, and instincts of humans, Jung studied culture, mythology, and civilization. He achieved remarkable results by comparing the pre-historic ideas with the cultural remnants of civilized man.

Jung's most important theory was about the nature of the unconscious. He regarded the unconscious as Freud first described in the individual dimension, which consists of two parts. The first section is called the personal unconscious which, in his

view, has almost the same characteristics as the Freudian unconscious. According to Jung, this part of the dark half of the human psyche contains forgotten substances and all the qualities and characteristics that were once conscious, but for some reason retreated or neglected. These qualities are suppressed because of their incompatibility with conscious, but in the unconscious psyche, they are externalized (Jung, 2001 a, 79). He called the second part of the unconscious that constitutes the deepest psychological layers of the human mind, the collective unconscious. This section is general, collective, impersonal, and common to all people and reveals through personal consciousness, some of the same archetypal states, behaviors, and tendencies among all people. Jung considered this collective psyche to be a collection of very ancient historical experiences. Although these ancient experiences are not directly recognizable, they exhibit effects that make them recognizable and crystallized in 'archetypes' (Jung, Franz, Henderson, Jaffe & Jacobi, 1964, 157).

Jung discovered a very close relationship between dreams, myths, and art; all of them are tools through which archetypes fall further into the unconscious (L.Guerin, G.Leber, Willingham & Morgan, 1960, 193-194). The symbolic transmission of these archetypes is the origin of artistic inspiration and innovation. Thus, Cassirer regards man as a 'symbolizer creature' and Jung speaks of 'the imaginative power of human psyche' (Moreno, 1997, 47). Accordingly, Jung regards art creation as two types: the first type is called the psychological creation and the second type is the inspirational creation (Bloom, 1988, 26). Psychological creation in the path of artistic creation is one of the well-known frameworks of the human psyche that constitutes his conscious and nourishes his real-life experiences, perceptions, intellects, emotions, and his rational nature. But the inspirational creation, different from ordinary experience, is derived from the immense depths of the human psyche that draws its contents from the amazing depths of the

unconscious (Jung, 2001 b, 162). Jung attributes authenticity to this inspirational creativity. In his view, the great artist is who has a primordial vision and special sensitivity to archetypes, and a talent for expressing through primordial imagery so that convey the experiences of the inner world hidden in his collective unconscious, through different forms of art to the outside world (ibid., 162-167).

• **Genealogical unconscious**

Kazzazi introduces another layer of the psyche called 'genealogical unconscious': a mediator between the personal unconscious and collective unconscious. This type of mediates and links the other two types. In the genealogical unconscious, some images and symbols have not yet deepened and extended to become universal and equal amongst all people of all cultures. On the other hand, these images and symbols are not entirely personal that fit only to one person's tests. Genealogical unconscious, therefore, has a broader scope than personal unconscious and narrower than collective unconscious. What a group of people who have lived in a land and have created a culture of their own and tested it throughout their lives; what every person of a lineage has attracted from their ancestors and accumulated them in the depths of their being, can create their genealogical unconscious. What goes on in the genealogical unconscious only makes sense in the context of this lineage; it builds the long-standing roots of the genealogical character and mentality. The genealogical unconscious can also have its dynamism, images, and symbols. (Kazzazi, 1997, 76)

In this research, the archetype is analyzed based on Karl Gustav Jung's theories and their impact on the collective unconscious as well as the genealogical unconscious theory.

• **Common patterns between architecture and myth**

The purpose of the explanation of 'myth', 'archetypes of collective unconscious', and 'symbol' in psychology, anthropology, theology, and arts is to find common elements and patterns in the creation of the work, and in this research is to

look for a common source for architectural works and patterns. To achieve such common sources and resulting patterns we should accept architecture as a 'language' type structure and identify it as structured and principled as language, and benefited from the factors influencing 'expression' so that we can apply the methods of measuring content and meaning in language in architecture. Therefore, this study seeks to adapt the content and structure of myth and architecture because the myth structure is based on the repetition and reference to the primordial common source. Claude Levi-Strauss states, 'The repetitive nature of myths reveals the structure of myth' (Levi-Strauss, 1963, 229). He considers the study of patterns as a first step in recognizing the unknown and says: 'If we want to find meaning in myths, we cannot search for the discrete elements involved in the composition of the myth but only in how the elements must be combined. So if we accept that architecture is at least somewhat mysterious and contains meaning, especially the architecture of ancient cultures, then such a cognitive pattern is necessary' (ibid., 210). Different interpretations of such patterns have been made by various researchers. By referring to the work of traditionalist thinkers, some have believed and adapted the common patterns and sources to 'sustainable principles'. Sustainable principles refer to a single truth that can have different forms of influence between actions or overactions'. They are central to the conversion of the subjectivities and perceptions into the objectivities and occur in the place of the emergence of truth, not in the place of the presence of truth. These principles are not necessarily objective but are problems that lead to objectivity in architecture' (Mahvash, 2006, 49-50). Others have explored the concept of 'pattern' in architecture individually and have attempted to investigate its differences and similarities to synonymous terms in the field of architecture. The pattern is meant to be a subjective and general (not objective, typical, and individual) concept that creates order and connection between the

components and elements of the architectural space to meet the needs of a human being. Architectural patterns are the result of human experiences and are a means of producing architectural form and space. In a holistic view, a work of architecture is a system that is the pattern of order and relationship between the elements of the system' (Soltani et al., 2012, 4). These researchers recognize the implication of human experiences and emphasis on the processes that study past and existing works to produce forthcoming works as the common point between the pattern and the synonymous concepts. These include examining the semantic similarity of pattern to archetype and sustainable principles. 'At the same time, the archetype can be identified as a system of readiness that responds to environmental cues, a dynamic core of concentrated psyche ready to emerge as a self-concept, and an element of self-contained structure out of the realm of the perception of 'self' (Ibid, 5). Although the proponents of the theory look for the reasons of archetype appearance in biological processes and genetic, there are conceptual similarities between the archetype and the belief of monotheists in human nature. However, the semantic similarity of the word archetype to architectural patterns is not the only reason for translating it into the 'archetype'. Rather, this concept, like sustainable principles, refers to the existence of institutionalized traits and concepts in the human mind that emerge in human lifestyles in the form of repetitive behavioral and ritual systems, leading to the appearance of patterns (ibid., 6).

Accordingly, and by comparing the structure of myth and architecture, several important points can be reached:

Archetypes originate from a primordial source and are replicated as 'patterns'. Therefore, architecture, to find mythical themes, must search for repeated elements and concepts, regardless of temporal and spatial dimensions.

These archetypes in their structure have an orderly relationship between their components that lead to the formation of patterns. In the field of architecture,

these patterns, in the form of 'architectural patterns' that are not self-evident, can be followed as rules and grammar in the formative systems of the architecture, and are referred to as 'fundamental principles'.

Archetypes originate from a common psychic source on a universal scale and in some cases national scales, and it is this commonality that gives meaning and content a kind of stability and unity. It is said that one can still look for common symbols in architecture. These content symbols or phenomenon that are accessible through the proximity to the common perceptual space between the 'perceiver' and the 'establisher' to the 'perceived' can be read as principles of sustainability that - though through expressive means, external factors, actions, and overactions are different - the architects or 'co-believers' have used them to deal with the reality of what they intended to express (Mahvash, 2006, 47).

Discussion

• Works of contemporary architects and mythical criticism approach

The study of the literary works that have been analyzed by the method of mythical criticism shows that their scope does not include a specific temporal and spatial limit. The mythical criticism requires 'interpretation'. Also, the science of interpretation is not dependent on time and place, and that the search for 'primordial thinking' aspects of a work that transcends time and place in the opposite direction of history, and in a return journey can find similar and different patterns and link them to that 'primordial pattern'. At the same time, mythical criticism is a contemporary approach that does not extend to one hundred years. Essentially, the word 'criticism' itself is born in contemporary times. It should be noted that every contemporary work cannot be read by the mythical criticism approach except those works containing mythical or symbolic values, which derive from the creative worldview of the work. in the Contemporary period, there are complexities and multiplicities in the worldview

of people of different parts of the world, and this is where the terms 'West' and 'East' stand against each other. Modernism is a phenomenon, born out of the revolutions arising from the scientific and technical upheaval whose origin is the West and its outcome the transformation of the epistemic pattern that prescribes a break from the past. Thus, the 'contemporary western architecture', which is the product of a new transformed worldview and created in the age of knowledge, can no less contain mythological values. In contrast, the 'eastern' man is someone who, as Darius Shayegan says, has never had such an accident and his consciousness is different from western consciousness, which abides by the necessity of a new perspective. His conscious is still in the age of magic. He is constantly and irresistibly attracted to new things, but their lineage remains unknown to him. New ideas come to him, affect his mind indelibly, but he can never radically change the content of his memory, which is rooted in his lineage. (Hashemi, 2017, 260). Therefore, the works of contemporary architecture whose designers are of Eastern origin can benefit more from the mythological themes.

In this research, a sample of contemporary work, designed by a Persian architect, is selected and its spatial order adapted to the archetype of the Persian garden based on authentic sources.

• The archetype of Persian garden and its derived systems

There are various views on the archetype of the Persian garden and its psychological and cultural foundations. Shayegan writes: 'From the beginning of our culture to at least the last period of its re-creation, there is a primordial form in all our intellectual and artistic manifestations. From Sassanid, Seljuk, Timurid, Safavid architecture to the carpet, miniature, Persian poetry imagery, and the sadness that lurks in traditional music, there manifested an 'archetype' of Paradise. This is what the 'Pairi daeza' called in Avestan Farsi and we see its manifestation in Solomon's Throne and find it in the examples of the Sassanid plates and in the

Persian Garden' (Shayegan, 2012, 135). In another study, the Persian Garden, as one of the most important achievements of Persian civilization, is identified as a reflection of the Persian worldview (Barati, Alehashemi & MinatourSajjadi, 2016). Other studies conducted on the meaning and concept of the Persian garden, include Sheybani and Hashemi Zadegan (2015), Etezdadi (2013), Barati (2004), Beheshti (2008) and Daneshdoost (1990).

But what is important in this study is, apart from recognizing the Persian garden as an archetype that has been repeated with a relatively similar pattern in different eras, first to introduce a detailed pattern of the Persian garden based on the authentic sources and second to trace this pattern in contemporary works. An examination of the research on the pattern of the Persian garden reveals extensive and sometimes contradictory discussions about the deep implications behind the geometry of the Persian garden.

'Chahar Bagh' was dominant Persian garden pattern, which seeks to conform the pattern of Persians' worldview and the promised paradise. It justifies the formative thinking of the quadruple pattern: a genuine archetype for the Persian garden. The most prominent studies that identify the quadruple as the root of the Persian garden pattern include Stronach (1990) and Pope & Ackerman (1967) (Barati et al., 2016).

With the expansion of studies and the spatial adaptation between this pattern and the various pattern of the Persian gardens, the Chahar bagh pattern was doubted as the archetype for all Persian gardens. Recent studies by Persian researchers have generally shown that beyond the quadruple, the Persian garden is an axial garden in which one axis plays a fundamental role in shaping the geometry of the Persian garden (ibid.). Among these studies are Mansouri and Heydarnattaj (2011), Heydarnattaj & Mansouri (2009), Alemi (2011), Heydar Nattaj (2015) and Pirnia, and reports related to interviews with him (1994, 2008) that either rejected or accepted the theory of Chahar bagh. Meanwhile, the uniaxial pattern in the studies of several researchers,

including Pirnia (2008), points to the existence of parallel axes. Also, Mansouri (2005) emphasizes the existence of the main axis in the Persian garden.

Introducing and analyzing various formative components of the Persian garden in studies such as Mansouri (2005& 2015) about the Garden Wall, Masoodi (2010) on the presence of water, and Motadayyen & Motadayyen (2013) on the architecture of kiosk in the Persian Garden has been taken into account phenomenologically or technically.

In a study by Joodaki Azizi, Moussavi Haji and Mehr Afarin (2015), a type of 'Chahar Soffe' pattern has been mentioned in the architecture of kiosk.

The results of the above studies on the common pattern of the Persian garden, which apply to most of them, can be categorized as follows:

1. An axis plays an important role in forming the geometry of the Persian garden.

2. This axis is the axis of symmetry and the main parts of the garden are arranged accordingly.

3. The building components, including the transom and the kiosk, which are also symmetrical, are located on the axis; the buildings and gardens are symmetrical as well

4. Fountains along the water and pond paths are symmetrically positioned on this axis.

5. The green spaces are on either side of the axis of symmetry and trees are planted at its edges to create shade.

6. Moving in a straight and bottom-up direction (from the vestibule to the kiosk), which some consider it as going from darkness to light.

8. If you do not enter the kiosk, the path in front of the kiosk is divided into two plots and continues symmetrically around the mansion and reconnects on the other side.

9. Kiosk usually follows a nine-part pattern. Some refer to it as a kind of Chahar soffe pattern.

10. According to the above pattern, there is a four side view of the kiosk, complete openness to the garden and the connection with the courtyard is made through the porch, hall, or soffe.

• Spatial Order of Yokohama Port Terminal and its Adaptation to Iranian Garden Pattern

The Yokohama Port International Terminal architecture project is a joint work by Farshid Moussavi and her ex-husband Alejandro Zaera-Polo, completed in 2002. Farshid Moussavi is a British-Iranian architect, founder of Farshid Moussavi's Architecture (FMA), and a professor at Harvard University Graduate School of Design. She was one of the founders and directors of the Foreign Office Architects (FOA), which was dissolved in 2011.

She was in Iran (Shiraz) until the age of thirteen and then went to England to continue her education. She is a graduate of King's College of London, Dundee University, and Bartlett School of Architecture. The competition program included an international port terminal that supports harboring of four liners, a section for inbound and outbound trips, immigration and quarantine section, a spectator deck, a seafarer deck, an international garden, cargo transfer and delivery, offices, retail stores, and restaurants (jonespartners. com/yokohama/).

The design of an international garden was also considered as part of the competition, but among the comments of designers-their own analysis- on the official websites there is not anything about the garden. Most of all, designers concentrated on designing different access routes in different layers of the complex. According to FMA, Instead of defining the distinct paths commonly found at terminals, they lead travelers to find precise routes and to eliminate or to give up other options. Also, as Greg Lynn and Alejandro Zaera-Polo suggested: FOA's proposal organized circulation into multiple looping paths, allowing all visitors access to the full length of the pier and providing flexibility in handling passengers over time (Lynn & Zaera-Polo, 2018).

Regardless of the designers' view, according to the approach of the present research, the overall structure of the design has some features that are important from the theoretical point of view of the present study that the designers seem to have been completely unaware of. The following is evident in the design of the terminal, which makes it possible to adapt it to the archetype of the Persian garden:

• The axial symmetry of the design, which despite the structural complexity, the flexible plates between the layers of the floors, and the very slight differences on the sides, is evident in the overall structure of the design and is consistent with the uniaxial pattern of the Persian garden (Fig. 1).

• On the axis of symmetry, there are two important spaces in the shape of two buildings, which have a similar shape and arched roof; the first building is the entrance lobby and control and service spaces, and the second is the Osanbashi hall, which corresponds to one of the patterns of the kiosk position in the Iranian garden (Figs. 2 & 3).

• The final element located on the main axis (the hall building), like the kiosks of the Iranian garden, provides a four-direction view. There are, of course, two-direction view in the middle level and two in the final level of the roof (Fig. 4).

• In the middle level between the lobby and the hall, which connects to the plaza roof through four symmetrical ramps, CIQ Facilities follow the nine-part pattern or similar Chahar soffe pattern without a central courtyard. This is of course due to the change in the length and width (Figs. 5 and 6).

• The direction of Movement

1. In the lower level, directly and correspondingly on the axis of symmetry which is parallel to the direction of movement in the Iranian garden.

2. Between levels, in the shape of arched ramps which is not parallel to the straight directions of movement in the Iranian garden. (Fig. 7).

3. In the upper level or the roof level, there is a straight direction from the roof of the lobby building to the entrance of the hall. It also corresponds to the axis of symmetry and is divided into two symmetrical plots in front of the building and by changing the level leads to the roof of the hall in the shape of the sitting platforms. (Fig. 8).

• Among the other elements of the garden, including vegetation, trees, and fountain, there is nothing other than simple grass cover on the roof of the two primary and final buildings (see Fig. 8).
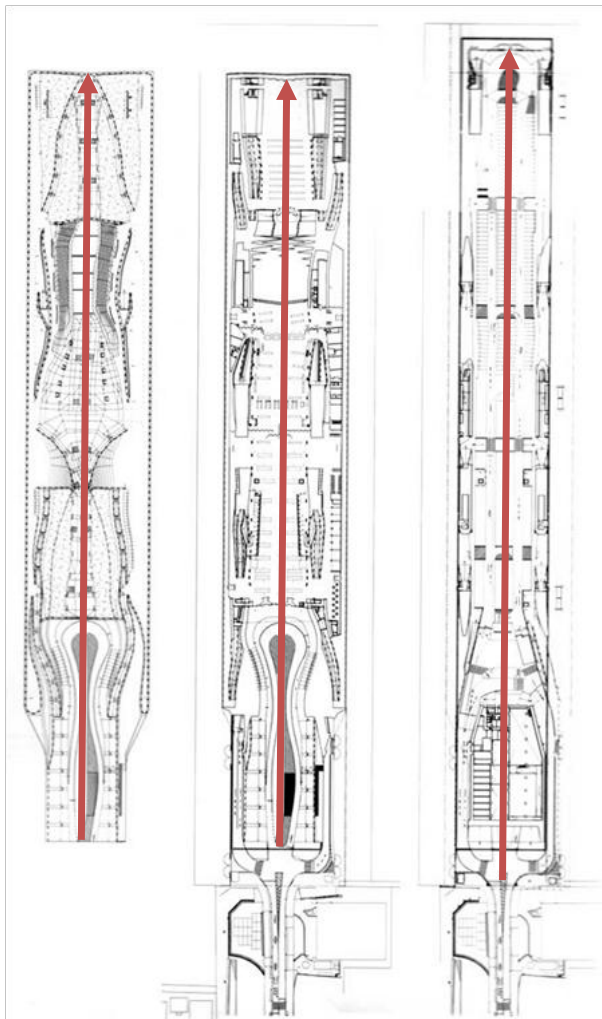
Fig.1. Floors plan and the axis of symmetry. Source:https://www. farshidmoussavi.com/node/15#yokohama_international_port_terminal_ yokohama_japan_15_54
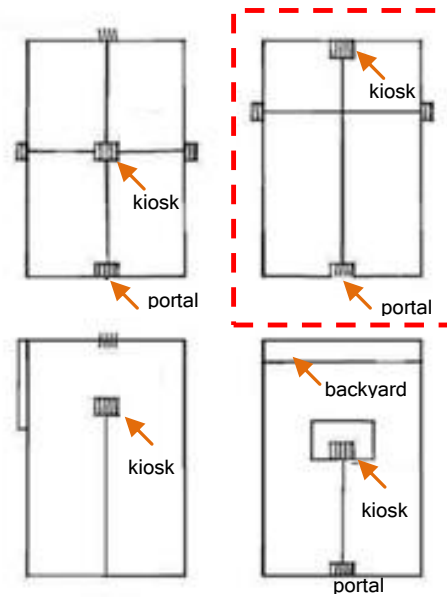

Fig. 2. Position of the entrance and hall buildings on the axis of symmetry. Source:https://www.farshidmoussavi.com/node/15#yokohama_ international_port_terminal_yokohama_japan_15_54

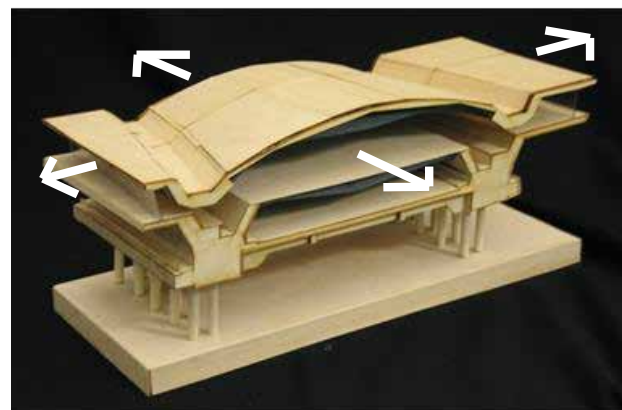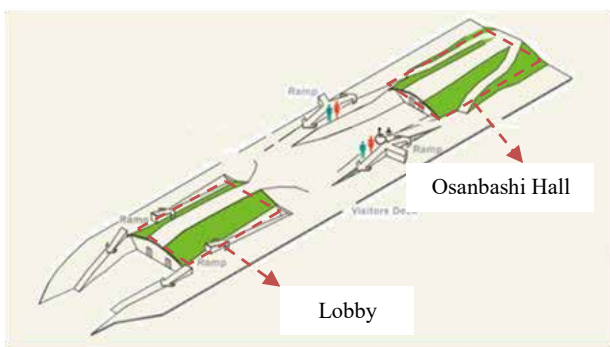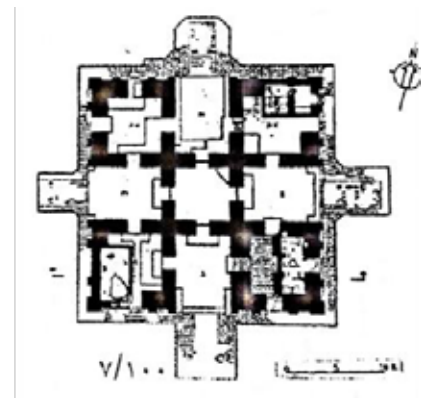Fig. 3. Position of the entrance and hall buildings on the axis of symmetry. Source: Pirnia, 1994, 4.

Fig. 4. Cross-section of the final building with a four- direction view. Source:https://www.farshidmoussavi.com/node/15#yokohama_ international_port_terminal_yokohama_japan_15_54

Fig. 5. Sample plan of the nine-part kiosks and the Chahar Soffe pattern. Source: Hillenbrand, 2008, 579.
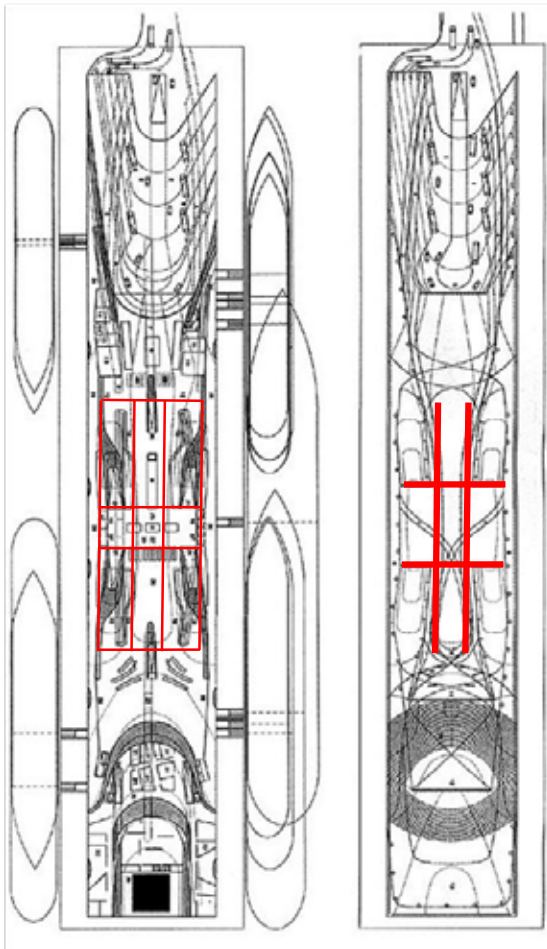
Fig. 8. A view of the complex roof and the directions of movement.
Source:https://www.farshidmoussavi.com/node/15#yokohama_
international_port_terminal_yokohama_japan_15_54

Fig. 6. First and middle-level plans and its partial pattern adaptation to nine-part kiosks and chahar soffe pattern.
Source:https://www.farshidmoussavi.com/node/15#yokohama_
international_port_terminal_yokohama_japan_15_54

Conclusion

By examining the theoretical foundations of the unconscious and archetype and by reviewing the literature, the study yielded some results on how archetypes emerged in architecture, indicating the appearance and continuity of some architectural patterns regardless of temporal and spatial dimensions. Also, these patterns were not objective and could be followed as grammar in the formative systems of the architecture, and finally, archetypes originate from a common psychic source on a universal scale and in some cases national scales. In the next step, by choosing the national scale based on the genealogical unconscious theory, and using the analytical-comparative method of mythical criticism, the archetype of the Iranian Garden was selected and the systems derived from it were explained scientifically. Besides, the spatial systems of the Iranian garden adapted to the spatial structure of a case study of a building complex outside of Iran by an Iranian born architect which her education and design outside of Iran played a key role in the design of port. As a final point, it was found that despite the similarity of Yokohama Port terminal to the layered and folded structure, and designers' reluctance to acknowledge the application of any type of architectural pattern, the spatial system of it is in consistency with Persian garden archetype

Fig. 7. A view of arched ramps. Source: FMA.com

in : uniaxial pattern, position of buildings on axis of symmetry, four-direction view of the building consistent with the kiosk, middle space adherence to the nine-part kiosk pattern, a Chahar soffe pattern, directions of movement in lower and final levels(roof). Some of the directions of movement didn't follow this system and their connection was possible by changing level. Obviously, these could influence the overall structure of the building complex and might not be directly understood by the audience due to the use of curved lines in the design.

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