The Role of Opposites in the Isfahan School Architecture and Urban Planning in Iran

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ABSTRACT

Iranian architecture has been continuous, though often attacked by internal or external conflict, underwent temporary diversion, however, is achieved a style that is distinct from other styles. Architecture was always physical symbol of philosophical thought of man, and this valuable support only reaches its climax in Safavid era and especially in Isfahan school, and provided wide area for statesmen and artists to appear their ideas, religious, philosophical and mystic beliefs in Architecture and Urbanism. Architecture and urban planning in the said era was more than the mere aesthetic experience and indeed was the symbolic of greater truth that make human from diversity of the outside world to the unity of divine. Something that lives in minds manifests itself in eternity and exceptions, dual concepts that are placed against each other and illustrate themselves under the title of dualism or tolerance between opposite qualities of the structural specification in space in architecture and urban planning. Although urban planning and architecture of this period could be consulted from different aspects, but the present paper with the aim of studying and surveying the governing mystical thought and according to the existing samples, is trying to understand the specification and paradox spatial combination together for creation of spatial hierarchy and also knowing the principles of parity and balance taken from nature and the methods of using them in built environment.

KEYWORDS: Opposite (Paradox), Dualism, Iranian architecture, Safavid era urban planning, Isfahan school, Philosophical and mystical thought, Urban space.

1. INTRODUCTION

In this article characteristics of paradox in Iran past architecture have been investigated and political governmental events dominated on Safavid urban building have been reviewed in order to study paradox in this period urban planning.

Iran past architecture has been admired because of its magnificence. In 12 volumes valuable work of Arthur Apham Pop, different aspects of Iran art and architecture have been considered.

There are innumerable works in more than 6000 years architecture in wide scope from Syria until north of India, Caucasia and Ethiopia. Although, trend of Iran architecture has been declined temporary because of domestic conflicts and foreign attacks, but it has unique style like [11].

2. Dynamic and dominated culture

In Borhan - Gateh dictionary, culture means science, knowledge wisdom, politeness, greatness and deliberateness. Iran architecture dominated principles culture should play an important role in order to revolutionize contemporary ill architecture and return its identity [1]. Dynamic of some principles can animate noble and genuine spirit in diverse skeleton without little regression [12].

Timelessness and placeless are characteristics of origin. In order to survive traditional art, its principles should be understood. A principle could have countless and unique manifestation. Return to origin means genuineness and initiative, research and manifestation and it differs from imitation. As Molana said there is a difference between researcher and imitator [5]. Some designing concepts have been examined and proved. "Discipline and unity" are the main concepts that relate the other concept to each other. Physical characteristics are common in London, Paris, Amsterdam, Isfahan, Pecan and etc. These cities display general discipline with their planned and organic development [10].

Basically, Iran traditional architecture and art original from monotheism and accepting divine unity. The god created the world based on discipline. Iranian architecture was inspired by world discipline. The noble architecture tries to restore order in environment; the traditional architecture aims to place human being in God presence by discipline in space. These Islam Gnostic aspects establish Islamic art foundation [4]. Clearly, harmony, proportionate and continuity in spaces are pleasurable and chaos, disorder and visual disorganization are inconvenient [9].

In addition to considerable physical qualities, attractive cities have following characteristics:

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"Diversity and composition" of usage and activities. This specification means the ability to select in order to live, work, enjoy and rest in a unit region. This characteristic causes unique dynamism such as combination of public and private, every day life, day and night activities in most cities [10].

"Paradox or contradiction" is another main characteristic of Iran architecture and urban building; it is dualism or fluctuation between opposite qualities in aesthetic tendencies, space usage and structural specifications. This contradiction has been led to special aspect in Iran architecture. According to investigation and comparison of architecture woks, we find that Iranian architecture has been shaped in fluctuation between paradox concepts while renaissance architecture and urban buildings works indicate belief in unit space concept. There is contradiction in soft and hard zoning, narrow avenues, wide public spaces, crowded and quiet areas, ordinary and memorial monuments and etc [2].

The following concepts are considered [2]:

2.1 Pluralism and unity: Unity is resulted from Islam union sprit and it has strong relationship with everyday activities, religion in different usage such as mosque, school and etc. In one hand, this issue has been led to typological similarities in different monuments like mosques, schools, inns and etc in Islamic architecture and to different usages in urban complexes in other hand. In most cases, there is no morphological and harmonically relationship between elements of architectural complexes, although there is a meaning unity among (elements) symbols. Portico, minaret and dome as a semantic elements are announced mosque. So, there is a relationship among them, it can be said that inner meaning unity is the more important than external coordination in Islamic culture (see Figure 1).

The relationship between detail and totality is considered as an Iranian architecture branch related to unity and pluralism issue, so every element and form is comprehensive individually and combinatory. For example the market shops have finished and independent structure while they established new and typical combination called Rasteh- Bazaar.
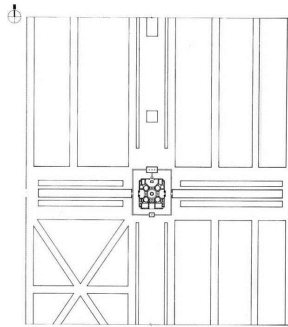

Figure 1. Pluralism and unity in Iranian
Garden, Isfahan, Iran, Source: Author

2.2 Inside and outside: Several authors pointed to lack of monument external facades (compared with European monuments) in Islamic cities. Gube says: "we can find hidden architecture in different regions of Islamic countries in every period, like a monument or a symbol that it is not observable from every point, we can experience it by penetration in it".

The relationship between inside and outside is exact in Iran architecture. There is no entrance façade in inns, mosques, bathrooms and caravansaries around Bazaar, so Bazaar and its surroundings are considered inside. Internalization of buildings means the main concern about establishing internal form. Apparently, Iranian architects begun construction from inner compared with European architects. Inattention to external form and internalization every elements even urban open spaces such as squares like a big yard, increase joyfulness, security and welfare (see Figure 2&3).

Figure 2. Inside Facade of Pirnea House,
Naiin, Iran, Source: Author

Figure 3. Outside Facade of Houses, Yazd,
Iran, Source: Author

2.3 Order and chaos: Order is synonym of geometry in Iran architecture. Mathematics and geometry played a deterministic role in visual arts and architecture besides organic and natural structures geometrical patterns. Symmetry is an extremist tendency in Iran architecture. Some pattern like quadrilateral, vestibule and etc were built symmetrical (see Figure 4).

Figure 4. Chehel Souton Garden, Isfahan,
Iran, Source: Author

There is a difference between Organic expansion and Euclidean geometry but it is similar to fractal geometry, while in static buildings an independent, individual and geometrical order is seen. In Bazaar – Isfahan plan the main part is a spiral form without classic geometry in total, but arcades, schools, inns and bathrooms are extended by concentrated, static and independent geometrical order in Bazaar like leaves on stems (see Figure 5).
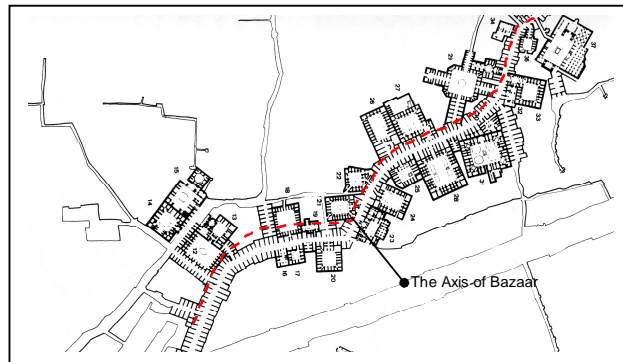

Figure 5. Order and Chaos in Bazaar, Isfahan, Iran,
Source: [4]

2.4 Diversity and uniformity: Generally, Iranian architecture is divers, but since there are limited devices in order to express this diversity, so an apparent uniformity is created. Buildings, mosques, schools, houses and inns are not fundamental different. Patterns of portico and even similar materials and decorations are employed; Iranian architect can combine numerous designs by these patterns (see Figure 6, 7, 8 & 9).

There are limited building elements and spatial units for Iranian architecture while European architecture encounters with diversity. In Iran, structural elements of cupola, arch and vault are diverse and decoration is limited. Material limitation is one of the identified and uniformity characteristics in Iran.
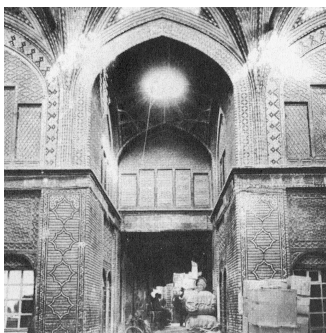

Figure 6. Numerous Designs by Arch Pattern
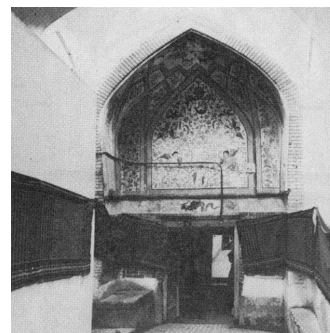in Malek Inn, Isfahan, Iran, Source: [4]

Figure 7. Numerous Designs by Arch Pattern in
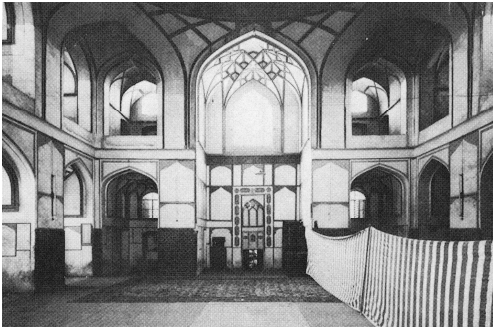Shah Abbas Bathroom, Isfahan, Iran, Source: [4]

Figure 8. Numerous Designs by Arch Pattern in
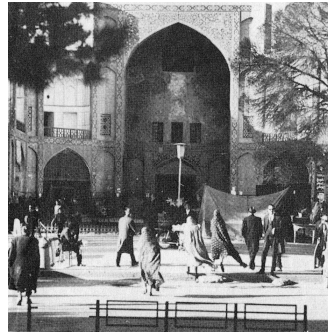Ali Mosque, Isfahan, Iran, Source: [4]

Figure 9. Numerous Designs by Arch Pattern in
Entrance of Bazaar, Isfahan, Iran, Source: [4]

2.5 Complexity and simplicity: simplicity and (bring up down sentences, cleanness of urban..) clearness of urban space provide rapid comprehension place. These characteristics lead to familiarity with urban space and creating fantastic image [8]. In architecture of Iran, the complex forms have been originated from simple geometrical combination like square and circle that the observer wonders about complex forms based on simple drawing (see Figure 10 & 11).

Aside from complexity and wonderfulness, organic tendencies are main factors in this case. Fouzaro believes that "In urban passages there is more complexity in details". So similarity between structure and decoration is considerable and it leads to complexity
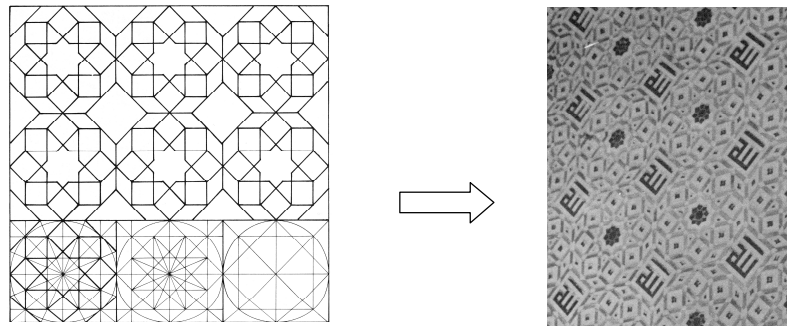

Figure 10. Complex Forms Originated from
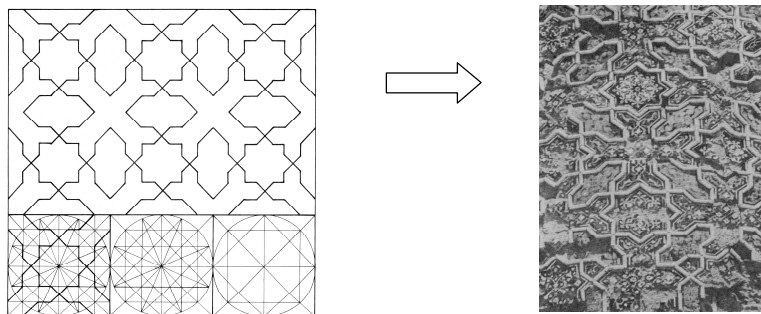Simple Geometrical Shapes, Iran, Source: [6]

Figure 11. Complex Forms Originated from
Simple Geometrical Shapes, Iran, Source: [6]

2.6 Structure and decoration: In Islamic period the trend is changed from structural towards decorative architecture. In Safavid period the real structural characteristics are hidden by decorations. Pop says that

decoration plays an independent role in Iran architecture. In European architecture these decorations were used for emphasize on monument structure but in Safavid architecture they were employed for it's deny.

2.7 Concentration and lake of concentration: Concentration of urban space distinguishes it from spaces by validation, so every space obtains special definition and identity.

Dispersion of urban space causes to employ unit expression in different places. Symmetrical city spaces distribution is the main reason for uniqueness of city concept and its different spaces [8].

3. INVASTIGATION OF CONTRADICTIONS IN SEMANTIC RULES AND PRINCIPLES OF ISFAHAN SCHOOL

Collapse of concentrated government and lack of structure in near three centuries means collapse of dominated ideology and belief organization. These affairs led to announcing independent identity of different religions and Islamic groups after attack of moguls. Shiite and related Gnostic groups were established in Iran. Safavid government succeeded in developing wide social bases by alliance on Gnostic concepts and emphasizing on religious comments from Shiite viewpoint. Safavid dynasty established foundational facilities based on old traditions and organization. Numerous complexes are built identified as main urban building and traditional urbanization.

In order to establish Safavid government in the first Shah Abbas period, changing capital from Gazvin to Isfahan was necessary. Designing and implementation if new plan of Isfahan is an explicit expression of space symbolism and organization that certainly provides a new pattern in urban building, so it is called "Isfahan School" [7].

Isfahan school is manifestation of Safavid government utopia since it was originated from these period socio-economical and cultural changes. This school is a complete sum of historical achievement, this generalization does not mean reproduction of old concept but it is renovation of these concepts. This school implements its utopian pattern and combines organic and rational designing methods and proposes a new concept of spatial designing.

"Chahar Bag" route offers combination of natural, artificial, organic and rational, order and chaos as a line between old and new spatial organization by passing of "Zayandeh Rood" river (see Figure 12). "Naghshe Jahan" square as a new city center and symbol of powerful Safavid government indicates internal and external elements by unique accuracy of spatial and geometrical combination (see Figure 13). Establishing new civic complexes besides old cities is employed as a direction and places Isfahan school sign on present cities.

Figure 12. Combination of Natural and
Artificial, Isfahan, Iran, Source: Author

Exact and elegant indication and powerful establishment of "Masjid – Emam" mosque entrance doubles this spatial domination by combination of filled and void volumes and provides an urban space with continuity and connection of square and parishes beyond mosque (see Figure 14). This spatial - structural combination is a powerful syntax and technical language for memorial complexes with surrounding spaces. Spatial hierarchical is used from the largest until the smallest structural scale and every scale tries to reflect universe union basic. Small surrounding as in city, parish and square and also passage are reflection of large space. There is an inner discipline in spite of apparent chaos. Human being as a minor world gravity focus tries to obtain ideal perfection. Combination of light and shadow, soft and hard, water and stone, earth and sky, contraction and extension, humid and dryness and etc are employed in order to connect human and world and reflect major and minor worlds [7].

All elements are used as a combination of art and speech for expression of this basic. Harmony, repetition, continuity, separation, sameness, returning to clarification, introduction, conclusion, background and etc are indicated in skilled spatial combination and structural expression [3]. In Isfahan school, a human space is considered; scales, sizes, volumes, openness and closeness show this space. Human being passes these spaces without fear about scales and in every point, the centrality is established and a new view is opened. Geometrical centrality is truncated against ideal centrality. In Isfahan school socio- cultural, political and belief aspects are central. This school follows special semantics shaped based on four material disciplines: water, soil, plant, weather and content (universal) discipline, since every earth discipline is indication of holy universal discipline so, city and monument, urban planning and architecture are manifestation of these four disciplines for memorial of universal discipline [8].

Using these material disciplines show combination of place and surrounding, natural and artificial, made and unmade, order and chaos in semantics of urban designing in Isfahan school. The basics of designing in material meaning of this school are: hierarchical, pluralism, unity, concentration, lack of concentration, combination, contrast, connection, balance, harmony, continuity, scope, simplicity, complexity, establishment, time and conciseness [8].

Proposed concepts and definitions point to this fact that paradox or contradictions play an important role in shaping and continuity of Iran previous architecture and urban building, this trend was culminated in Safavid period. Isfahan school targets city architecture and urban space so it tries to manifest balance, space and structural harmony. Because of socio-political conditions, this eminent goal was deviated and now we must follow this trend by inspiration of the past architecture and using deep concept in order to survive Iran architecture and urban building.
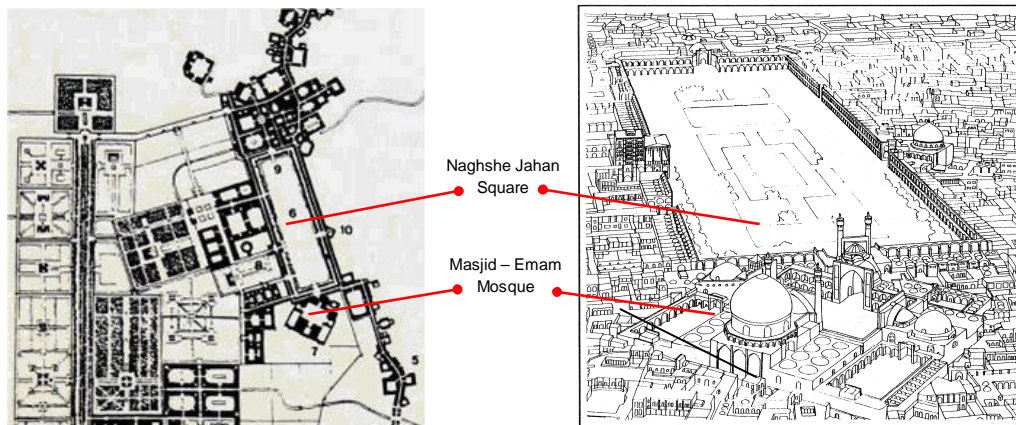

Figure 13 & 14. Geometrical Combination of Internal and External Elements in
Naghshe Jahan Square, Isfahan, Iran, Source: Author

4. CONCLUSION

It can be learned lessons from present city textures. The reason for the better establishment of traditional cities and monuments is employing necessary and defined qualities like identifiable patterns, complexity and humanistic qualities should be considered more than material benefits. Investigation and accurate teaching of the past architecture can correct contemporary incorrect trend and establish the proper method. Architecture organizes environment. The aim is comprehension of the past space and learning its basic (space), time is not identified, and gradual urban space lacks this nature. So our heritage is a part of our culture that offers objective works useful for guiding future generation. As Tibbalds points : we accepted that traditional cities and monuments were built better than new works. But it does not mean that modern works should imitate old patterns, it means that the function and its reasons should be examined then builds new city forms with traditional qualities by modern view. New buildings should be creative and high qualitative by historical root belong to their period.

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