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Mahmoud Tavassoli

Form, Space and Design

From the Persian to the European Experience

 Springer

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...

Knowledge, language, virtue, earthly beauty.
Heavenly beauty descends from the unseen
world,

...

GOLŠAN-E RĀZ (The Rose Garden
of Mysteries) Mystic poet Shabistari,
14th century

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Introduction

In this book, the aim is to define qualitative criteria. The interpretation is artistic and sociocultural. Discussion is not concentrated on singular urban space but on interrelated spaces and elements across the city and complexes. Information is based on long local studies in hot arid environments including comparative analysis.

In *Urban Structure in Hot Arid Environments*, I discussed that how history, culture, and climate have had impact in shaping urban form in hot arid environments. And the argument was also concentrated on how the wealth and values of architectural forms are not confined to masterpieces, which have long been considered as Persian Architecture, and concentrated on ordinary buildings, on spaces where ordinary people live. Simple normal spaces could not be discarded.

Considering the comparative aspects of study, we notice that despite cultural differences, there is a common understanding in artistic creativity and sensibility in the presented examples.

Illustrations have an important purpose. The foremost is that it visually represents the space–form, and integrated with explanatory text gives a better understanding of the visual analysis. Concentration is on the study of specific urban fabrics or complexes in order to better understanding of spaces. Spaces which bring together people in contact. The aim is to refer the importance and utility of knowledge and experience of different cultures in the field, academics and practitioners alike in understanding the values of the past and solving the problems of the ever-changing present. The subject is explored through interconnected chapters, each address to some important aspect of form–space and design values, and our present problems.

Chapter 1 terrace the origin and continuous line of forms: portico (ivan), and vaulted space, discussed by scholars and archaeologists. Architectural design based on semi-open vault space: the ivan, was widespread during the Parthians. According to Godard they invented, or took over from their predecessors in the Iranian East. Furthermore, a different hypothesis has been proposed by scholars, concerning the origin of ivan. The ivan continued as the most important part not only in the mosques and madrassas, but in the courtyard houses before the advent of modernism.

The most distinctive form of ivan is in the Zoroastrian houses in Iranian hot arid towns and cities such as Yazd and Zaware, which is called Soffe. The author was first researcher who studied this type in Zaware in 1972,¹ and the two connected four-ivan/Soffe courtyard Zoroastrian house which have been presented here is based on our local studies. This spatial form is popular in the old Zoroastrian houses in Iran. Only through considering the origin of *ivan* we can understand the form value of Taq-i-Kisra at Ctesiphon, the Royal Sasanian monument, pre-Islamic architecture, probably built in the second half of the third century. A building as a symbol of power, its main element is a notable parabolic vault space, an ivan.

The message here is that our experience of form–space has a flowing characteristic over the ages. Return to origins of forms will help us rediscovery shaping principles and meaningful forms and spaces, with a sense of cultural/climatic identity. The mountainous feature of Persian land symbolizes an architecture manifesting constancy, eternity, firmness, and stillness. This is visible from temples built in the form of mountains, such as ziggurats, to powerful composition of Islamic mosques.

Chapter 1 also refers to Origin of European urban space: Agora the dynamic center of the Greek city, and Roman Forum as a place of assembly. The form value of great urban spaces of Medieval and Renaissance has origin in the knowledge of the past. For example, we can consider uniting the parts and harmony in the great works, such as Michelangelo's Campidoglio that I have referred in Chap. 3. Considering the written records, in comparison with survived Greek and Roman works on architectural concepts and theory, nothing has survived in Iran. This study benefits from remained works and archaeological findings, and researches by great

¹For this study see *Urban Structure in Hot Arid Environments*, Springer, 2016 p. 155, and for an in-depth spatial analysis of an aristocratic family's housing in Yazd, pp. 76–77.

scholars such as Herzfeld,² Godard,³ Pope,⁴ and Pirnia.⁵ Their works are instructive and educational. Considering Iran, attention is given to relationship between spatial structure of ancient ordinary buildings, from old Zoroastrian houses, to the oldest Muslim known house in Yazd, fourteenth century. Development of vaulting space shows the continuous process of space and forms. Vault space, ovoid arch, was first appeared in king's tombs. Semi-open vault space: the *ivan*, was widespread during the Parthians. I believe one of the basic reason of present undesirable design condition is that little importance is given to origin of forms and space in education and profession, the forgotten knowledge, which has both cultural and climatic basis.

Chapter 2 refers to the concept of flowing form–space in the works of art and spatial structure of two European historic cities, Bologna and Bruges, in comparison with the historic city of Yazd in Iran. In Bruges, the special characteristic of form–space of the medieval street patterns with harmonious changes of facades leading toward main squares. And in Yazd, elemental parts: *City Center and Neighborhood Centers, connected through Main Passageways/Streets*. Porticos in Bologna as a system of connected active sociocultural form–space elements move around the historic city. Under different climatic conditions, they also as a public space functions properly. We see how, the fundamental characteristic of these

²HERZFELD, ERNST EMIL (1879–1948), “Archeologist, philologist, and polyhistor, one of the towering figures in ancient Near Eastern and Iranian studies during the first half of the 20th century. To him we owe many decisive contributions to Islamic, Sasanian, and Prehistoric archeology and history of Iran, Iraq, and Syria.” (See Encyclopedia Iranica). Two prominent works include: *Iran in the Ancient East*, 1941, and *Zoroaster and His World* in 2 volumes 1947. Chapter 1 of the book: *Iran in the Ancient East*, presents artistic values of prehistoric Iran's artwork. In the search of *flowing forms*, Chap. 2 of the present book has benefited from his in-depth studies. See also the article by Jennifer Jenkins, including details on Herzfeld's life and works, *Excavating Zarathustra: Ernst Herzfeld's Archaeological History of Iran* in *Iranian Studies*, 2011.

³GODARD, ANDRÉ (1881–1965), French architect, archeologist, art historian, and director of the Archeological Services of Iran. Two prominent works include: *The Art of Iran* originally in French, and *Athar-e Iran* (a collection of articles in French by scholars published in six volumes. “He was also instrumental in designing the campus of the University of Tehran in collaboration with Maxime Siroux, Mohsen Foruḡi, and Roland Dubrul, and in establishing the Faculty of Fine Arts, which included the first professional school of architecture in the country. Godard became its first dean, ... and influenced the education of the first generation of Persian architects professionally trained in Persia.” (See Encyclopedia Iranica).

⁴POPE, ARTHUR UPHAM (1881–1969), Author of Persian art and architecture. Two prominent works include: *Persian Architecture* as author, and *A Survey of Persian Art* (a collection of articles by scholars published in six volumes). Pope's *Persian Architecture* is a superb book in the field, emphasizing the artistic and spiritual factors in shaping the great masterpieces. “Pope was the driving force behind five international congresses held between 1926 and 1968.” (See Encyclopedia Iranica).

⁵PIRNIA, MOHAMMAD KARIM (1920–1997), Iranologist and architectural historian. His prominent works include his articles, mainly in *Bastan Chenasi va Honare-e Iran*, where in no. 5 of this journal he published his theory about Friday mosque at Fahraj, early decades after Islam, a structure which has remained intact even after centuries, reminder of elemental forms of Sasanids, especially the arches were elliptical. Chapter 1 discusses this mosque.

cities, each reflecting special feature of local culture, secular or religious space, and different aesthetic manifestation. In Bologna, it appears in the connection of porticoes, in Bruges a powerful relation of street and square facades, and in Yazd integrated neighborhood centers through main passageways.

To have a better understanding of flowing forms, I have referred to other fields of art. Considering the concept of flowing form–space in the work of art, refer is to strong flow of integrated line shape in remarkable composition of prehistoric artworks presented by Herzfeld, and ceiling and roof pattern of two mausoleums in Yazd. Painted potteries of prehistoric Iran can be considered as the source and origin of flowing forms. The example of Moorish arabesque is from the great physicist and thinker of the twentieth century, David Bohm, referring to his argument on ordered structure. This jump from urban form–space to works of art may sound desultory, but it is not losing the thread, the essence of flowing forms.

This chapter emphasizes that without understanding design knowledge of the past generations we are unable to response to our present problems. “New systems emerge from debates on older systems; there is no such thing as an entirely new system, and a system claims to be such, it is either stupid or dangerous.”⁶

In Chap. 3, a comparative study is made. In order to penetrate into the essence of harmony and uniting the parts, Examples of European experience including Michelangelo’s remodeling of Capitol in Rome, Piazza San Marco in Venice, and Piazza del Campo in Siena, and development of a new urban block in Berlin have been discussed. Socio-historically there is a distinctive difference between the public/urban space in the European and the Persian culture. This difference can be seen in the two elements: street and square. It seems that, in addition to climatic factors in the hot arid environments, other factors such as sociopolitical obstacles inherent to the geopolitical condition of the region, and special world view to inner life rather than outer life, have also contributed to the poor growth of public space in comparison with Europe. Aesthetic qualities of European urban space have evolved with the history of life in outdoor space, while in Persian experience in the past with inner space, the enclosed courtyards. Today although this structure has been collapsed, the dominant western urban block type has not been able to response to sociocultural and climatic needs. Especially in historic cities we see how connected neighborhoods and communication spaces flow across the city, moving from one place to another. This aspect has been discussed in Chap. 5. Considering aesthetic, a discussion is held about perception of deep unity, unbroken totality, that today we have faced because of fragmented aspects of human endeavor. The idea and action of separation of urban and architectural elements has brought about crises in the sociocultural relations of urban structure.

Chapter 4 expands the concept of space through some cases from Iran. It discusses some less visible and hidden aspects of a few important architectural examples such as Shaykh Lutf Allah and Royal mosques in Isfahan. It discusses that in addition to visible appearance, richly embellished, intricate ornaments;

⁶See Hanno-Walter Kruft, *A History of Architectural Theory*, Princeton Architectural Press, 1994, p. 16.

space, this amazing element is considerably important in understanding Persian architecture. After discussing the viewpoints of some researchers such as Jane Dieulafoy, Arthur Upham Pope, Andre Godard, Nader Ardalan, and Laleh Bakhtiar, the discussion is concentrated on the importance of space. Space takes on a mysterious aspect, assuming, independent from stylistic rules. In Shaykh Lutf Allah mosque in Isfahan, the spaces created in the building have been discussed. Considering the context, it is in relation with the space of Royal Square that the spaces of this mosque appear so dramatic. Otherwise, were it located amidst, for example, the slipshod builder developments, this same mosque would have lacked its present values. In this chapter also Spatial characteristics of the Friday mosque of Yazd have been discussed. Here we see how the mosque's courtyard can be considered as an urban space, connected to the three portal entrances of the Friday mosque. The sequence of spaces of these portal entrances, contrasting spaces leading to the courtyard in connection with the surrounding streets, is considerably exceptional.

Chapter 5 discusses the design of urban block as the basic element of urban fabric. It describes and analyzes the production of urban block in Persian experience. The study discusses morphologically four types of urban blocks in Iran from distant past to the present. It also discusses the influence of historical and climatic factors in shaping traditional urban structure.

Considering the influence of the West, after modernism, it puts forward some design policy for the future. It clarifies how a fragmented soulless mode of living is leading to the creation of soulless urban form. We see how car producers and slipshod builders have a basic role in urban form. In such a state we are wandering in a fragmented environment, including ourselves.

This chapter also discusses the noticeable experiences of Berlin renewing urban block and the integration of three existing buildings and the independence of the new buildings, and example of Careful Urban Renewal of Kreuzberg in Berlin. The chapter refers to the abundance of critical material and design solutions which have tried to tackle the problem of total disconnection with the past experience. Therefore, avoiding mistakes, I believe we can build the future on the foundation of collaborative research at global level, and understanding the local experience, and circumstances.

Chapter 6 reviews the essence of origin and aesthetic knowledge and experience discussed in the previous chapters. Through the value of original researches and lifetime works of Iranian and foreign scholars and archaeologists, we understand the relationship between pre-Islamic and Islamic form and space, the forgotten knowledge of building constituting elements responsive to culture and climate. We understand the origin of European urban space, Agora and Forum, as a dynamic process, center of the cities, meeting and assembly places over the ages. We need a deep, basic change of views, contributing to understand environmental knowledge. A revival in politics and education is needed, understanding artistic creation of the past, giving a fresh and vigorous personality to our decision-making and design thinking. Before renewing urban spatial structure, it is necessary renewing thought, view/attitude of decision makers, those in power.

Considering aesthetic knowledge and experience, through the ages, designers and ordinary people, who are users of living and working spaces, have sought correct solutions to many of their environmental problems. Here the gradual perfection of forms has resulted in beautiful forms and spaces. Here the beauty is part of the designer's skill, knowledge, and world-outlook. The remains of urban fabrics show the past generation had strong imagination in process of aesthetic experience.

It argues that the development problem of today is partly stems from the forgotten knowledge, climatic, and cultural. The global problem to house people in apartment blocks neglecting influential climatic and cultural factors in design has resulted in deplorable conditions. To tackle this problem, an academic endeavor in our urban design courses, teaching, and design as a dynamic process that can affect our environment is important.

Considering development problems, in the first instance, two types need to pay attention: poor quality high-rise housing, and renewing traditional urban fabrics. Three factors are responsible: academic education, ignorant decision makers who don't understand what to do when confronted with problems, and profit-making developers.

Accordingly as the first step, it studies the principles of urban spatial organization of the historic cities which can be considered as design guidance. Considering the principle of contrasting spaces, a comparison has been made between Campo in Siena and Friday mosque of Isfahan in Iran, and also the historic street of Nuremberg, and York showing high degree of contrasting spaces.

It recognizes the necessity for a better arrangement of public space, considering the precedents. Spatial arrangements of public spaces have to encourage outward life. It discusses the aesthetic aspects of governing principle: *the old city has been structured into a collection of homogenous neighborhoods, each with a center, connected to each other and to the city center through main passageways, a principle that is the outcome of socio-economic, cultural, and climatic conditions.*

The all-pervading issue that distinguishes the first part of my previous book is this principle, but here the focus is on aesthetic knowledge and aesthetic experience of this structure.

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