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Field-Orientation, Analysis of Space Dimension and Its Relation with Constructing New Structures in the Historical Fabrics

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ABSTRACT

Field-orientation is one of the common views in the architecture and urbanization. This view tries to investigate the elements of a place from shell, historical, socio-cultural, semantics, linguistics and phenomenological dimensions over the years, which would be organized under the title of space dimension. In the current societies the Tourism Industry plays a main role in the development of cultural, economic level and also communications among nations. Iran is one of the most cultural and historical societies, and it has many historical and national antiquities, which would attract many tourists. Considering this issue we should pay more attention to developing appropriate infrastructures for attracting more tourists. Considering the local architecture and recognizing environment's capacities are main factors to organize man-made places, which lead to Creation of places in the urban fabrics especially historical fabrics. Investigation of this issue and its architecture would not be possible without recognition of space dimension and its expanded aspects. In this case, current study considers the field-oriented architecture and has investigated this subject from the view of space dimension and in the phenomenology field of Norberg-schulz; it also tries to explore place's capacities as appropriate approaches to create places, which are depended on identity, history and their field. Thus, this article would direct reader to understand and recognize effective factors in organizing relevant theories and basis for these places.
KEYWORDS: field-orientation, place, fabric, phenomenology, tourism.

1. INTRODUCTION

Developing new structures in the historical fabrics to provide qualitative development of this industry is an issue, which has attracted attention of programmers, and also has provided an appropriate situation to attract tourists and introducing them identity of historical places and antiquities. These places would be able to provide significant facilities for developing this industry, through taking some measures on cultural, historical, residential, entertainment, etc domains. In all civilized societies, there are some limitations on the developing new structures, having different performances, in the historical fabrics. These limitations are needed to be involved of several elements, in which organizing the technical and theoretical structures of antiquities would be possible.Identification and investigation of these elements would consider not only the shell aspect of historical antiquities, but also it would consider the concepts and elements, which would form these antiquities; this would cause deeper relationship between the new phenomena and background of the place.Thus, considering the historical, shell and conceptual aspects of antiquities and creating new structures fit to traditional architecture, would be possible only in the framework of space dimension.

"Our today's architecture also would form a part of cities history.Opposition with constructing new structures, would direct the urban life toward static situation. Every historical region has its own space and architecture style and urbanization style, which would provide some guidelines for sensitive designers about the manner of shell interferences. Also society has taken some measures in its authorities. Thus, current philosophic and theoretical discussions about new structures, would consider mainly the manner of this happen and the manner of adoptability of mid-increasing bui9ldings with the current structural condition of historical fabrics." Ghadiri said (Mar 2006). This statement would be considered as an attempt to describe concepts, related to field oriented architecture and space scales; its tendency would be studying the relationship between field-oriented theory and building new structures in the historical fabrics. Current study has been composed of two main sections with an inferential method.First, it would provide some basic definitions and concepts about field-oriented architecture. Also it would introduce the space dimension in the shell, historical, socio-cultural, semantics, linguistics and phenomenological domains; then in the part of conclusion, it would refer how to use of natural environment as effective guidelines for designing new structures in the historical fabrics considering targets of field-oriented view.

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Space dimension

Field-orientation would present a view, in which considering surrounding issues and environment would be two main targets. The equivalent for field term would be design, plan, Subject and text; also in the Arian pour dictionary it would be refer to field and fabric. Its British root would be the relationship between words, and its verb means combination and fabric. At the early 20th, the theory of field-orientation was introduced under the title of Contextualism in the post-modernism's school of thought. At the first, this view, having eclectic historicity, was described as a return to shell form and returning to history. A surface view on the field in the history's framework, had forced the architects to investigate other dimensions such as site, culture, society and other factors, which emphasize that the places and architecture should remain traditional. These factors would emphasize that structure and architecture should be in a close relationship in all dimensions; also they would consider creating places related to their field and history; although, the field-orientation view did not remain in the past opinions and much later, it improved the sustainable architecture thought and using natural energies in the construction process. Sustainable thought improved the in-place method under the titles of sustainable and adopted architecture. Paying attention to environment and natural factors, from the view of sustainability and reliance of species on the field, changed the creative thoughts of this view.

"Field-orientation was considered only the shell dimensions at the first, although gradually it went toward humanity dimensions and improved its studies toward socio-cultural dimensions. Field-oriented people, believe that the shell components of the city would not be depended on its local energies and properties, but also they are depended on the surrounding environment. Thus, we should not only search for the dimensions and properties of phenomena, and we should not consider them without noting to their space and time dimensions. In this method we have considered the places due to environmental factors, and any interference in them would be depended on these factors." (Tavallaei, 2001, p:35)

In a general view, field would include all potential values of space and environment. These values include various dimensions such as nature, field, climate, fabric, material, form, space, proportions, physics and forms, history, tradition, style, society, religious, semantic, identity, language, structure, pattern and place. In this section, we have investigated the space dimension.

Shell aspect

Place and architecture have direct relationship with their configuration and physic; space dimension would refer to location. This location includes sky, ground and their elements. In the statement of Schulz this space is considered as natural space on one hand, and is considered as artificial or man-made space on the other hand. Shell dimension would consider the relationship of elements, which are concentrated in the floor and their goal is relating the elements to the field. The dimension has a deep relationship with space's concept; thus understanding the shell aspect would be impossible without considering the space dimension.

Space

Space dose not only refer to a location and place. Space would be considered as a level of space, which would be meaningful with its components. "Space is a part of a place, which would be identified through its components." (Grouter,2007,p:138).

In the viewpoint of Norberg Schulz, every place is an exhibition of world's environment. Place would be considered as the space stability of the world (Schulz, 2008, p:35).

Architecture would be considered as instrumental art or space's (Schulz, 2008, p:31). Human always have tendency to concentrate in a shelter, which have created it through understanding the indicator properties of the environment. Natural place is an environment, in which human has no interference; and the human-made place includes artifacts, which human would create them. Natural floor would provide the concentration of artifacts in-place, also hand-made places shows the understanding of human about environment and trying to understand life's concepts.

Historical aspect

The art of place is historical; history has a basic application in forming place's art and its role is to encourage the human toward stability and change (Schulz, 2008, p:241). "If a society separates itself from the past, so it has neglected the past human's efforts. In short, human has no nature and the nature belongs to the environment. The only difference between natural and human history is that, human's history never would be able to be created from the beginning. Cutting the progressive process of history would be considered as despising past life." (Tavallaei, 2001,p:38). Investigation of historical aspect of place would be considered as understanding the past heritage of human clearly, which has been transmitted from an age to another. The considerations of field-oriented architecture

include recognizing the place's history, the history of place's architecture; and also exploring the styles and concepts of the traditional architecture. Exact and conceptual understanding would have an effective role in creating ideas and concepts to form new structures related to their background and field. The beginning of architecture has been along with the beginning of human's resident and construction in the environment. Architect would recognize all aspects of historical properties of different ages; also the architect puts effort that in addition to physical view, explore the relationship of the styles, identity, theoretical basis, thought elements and semantic view of past human to this architecture, so that present it to today's human. Thus, the importance of returning to the history, related to concepts of field-orientation, would be divided to two part including recognition of place history and recognition of architecture history of place.

Recognition of place history

Achieving to human's view about architecture concepts and environment, is depended on recognition and investigation of various historical periods. Recognition of various historical periods in all aspects related to human, environment and architecture, enables the architecture to recover its lost identity. Generally, considering the history and exploring basis and concepts, which develop field-orientation and relationship of man-made and natural environment, would be the issue that today's architecture considers; this issue would improve the tourism industry in societies and lead to exact recognition of place's history and identity by tourists. The importance of this issue would be observable in historical fabrics, because these fabrics are considered as a reflection of human's identity.

Recognition of place Architecture history

Returning to the past, reviewing of architecture history and understanding the basis of creating architectural structures in the various historical periods, are considered as important tools for architects to create places, considering the importance of history. Architecture history and reviewing it is as an important heritage for human; understanding the common concepts and creating relationship with the background of place, are main points of field-orientation architecture.

We could refer to architecture history in surface and deep view. Every structure is created by its own place and time (Memarian, 2007,p:88)

In the surface view, place and time of construction have not significance and history- oriented architecture would have tendency to explore the style and forms of architecture and their evolution during architecture history. Although in the deep view, history-oriented architecture tries to achieve thought basis of construction in the certain place and time, in addition to recognizing the relation and understanding the physical manner of structures.

Socio-cultural dimension

People would make their environment meaningful through culture, so that they could change the space to a useful place. (Tavallaei,2001, p:40). Socio- cultural dimension would consider the culture and its role in forming structures and the viewpoint of society to the natural and man-made environment. Culture of a society consists of a series of complete and complex customs, art, views and etc, which creates the life style, behaviors and people's thought and view to the society. Typically, culture of a society would be dependent on architecture and vice versa. Thus, understanding the culture of a society would affect culture- oriented architecture. Preserving historical fabrics and considering their stability besides organizing new structures is an important factor to improve culture and show cultural identity of the society to tourists. "The role of every structure as a member of architecture culture would be performing a thought, so this would be a factor for evaluation of the culture. Thus, every structure (building) would be considered as a cultural witness" (Memarian, 2007,p:373)

Semantics dimension

Sense would be determined by things which create its confines, so sense is a natural property of the world. (Schulz, 2003,p:102).

We could consider the structure as a link between the earth and the sky. Semantics would explore the relationship between material and sense. In the Islamic art, shape would be dependent on sense and all senses would be created based on a union truth, so the undertaker architect relates the sky and the earth through understanding the space. Also this would determine the thought and conscience of constructors. Semantics tries to go beyond the physical form of the structure and find the origin of them. In the viewpoint of semantics, physical and shell dimension of the structures would be revealed along with mysterious concepts of place, so that human could be aware of its surface and deep sense. In the viewpoint of semantics, field- orientation has tendency to recognize identity and accept suitable figures of environment and adopt them with the real sense of environment's elements. Semantics as a prologue for linguistics would be related to concepts of sense, identity and spirit of the place.

Semantics disagrees that human could explore phenomena and believes that human consider the sense and conceptual dimensions. Semantics believe that problems of architecture are structure- oriented and performance-oriented view these factors would ignore reality and direct architecture toward shell and surface structures.

Place sense

Place sense refers to the intellectual notion of people on the environment. This sense would change a space to a certain place for certain individuals. Place sense, not only makes a balance between human and architecture, but also is a factor for security, enjoyment and emotional sense of individuals, it also would determine individual's identity.

Place identity

Identity of a place would be meaningful, considering human and environment. Being in a friendship with environment is a meaningful factor and leads to relationship between the surface and sense. This would happen, when people find their identity in the place identity. "Identity of a place would be determined through its usual and daily style of architectures; it means that space, form and figure would provide a language by which one could determine certain roles of the structure" (Schulz, 2008,p:61)

Place spirit

The basis of place is the space where people live. This space would refer to the place spirit. Ancient Romans believed that every living thing had a guardsman angle. Place spirit would give sense to people's life. Understanding place spirit would be dependent on respecting to environment and to appreciate it.

Linguistics dimension

Language is a system with certain elements which its main goal is to develop communication among phenomena. Language is also a factor which its understanding would explore the relations between elements and structures of a phenomenon. Every language has its own signs and structures.

Heidegger said "Language is the house of existence. However, language would not only consider the communication, but also it reveals basic structures."(Schulz, 2010,p:44)

We should go beyond the surface instances to define architecture instruments. We should consider all arts as the description of a language. Language would talk to us and describe the relation of things. Its main application is to explore existence.(Nesbitt, 2008,p:171)

Based on this thought, architecture language is transmitting the concepts of architecture in the framework of the thought basis, elements, rules and artistic styles.

This language has general structures including: figure, concept, form and space. Considering these structures along with architecture grammar would lead to creation of structure and it would also describe the concept of architecture.

Sense and figure

Figure refers to the physical form of the structure. In the aesthetic view, form or figure is clear appearance of a thing." Figure is not the same as form" Louis Kan said. Form is related to design, although figure would show inseparable concepts. We also could state that figure would direct the design (Grouter, 2007, p:275). In the Islamic architecture, sense and figure are supplementary of each other. This architecture is the theoretical basis has been defined as a complementary. Form contains physic and sense contains conscience. Everything is a combination of external figure and internal sense. (Nasr, 2010, p:103).

This rule also considers language, so that sense would affect the language or its figure. The more the effect of sense on figure increases, the more clear the external figure would be, so that it would reveal its internal sense more easily.

Figure/ style

Generally, the style has been considered as a tool as well as a view to the architecture's total concept.(in the 2D and 3D architecture)(Memarian, 2007,p:57). In Moein dictionary, figure refers to face. Main features of form are its figure. Understanding form's elements would be dependent on understanding its components in the visual literacy; form of surrounding lines of a surface has been defined by a density which would identify its nature. Considering form and style of a structure is a main step toward exploring architecture's grammar.

There is no limitation in the physical view of architecture; instead an important issue in this view would be a dimension which considers architecture as a physical process. Physical investigation of the structures and

classification the main principle of creation of styles and style patterns over the place history would relate the structure with the field, especially in the traditional and historical fabrics.

Space

Space would be the best tool for understanding creative concepts of architecture. Some people consider the space as a certain place that contains something. From the definition of space, it is clear that space has no certain form and it would be meaningful through interacting with natural and artificial elements and the environment. Space is a main factor in the architecture design and it is dynamic for the structure.

In the visual viewpoint, geometric elements such as dot, line, surface, and density would define space altogether. In the domain of design and architecture, geometric elements including floor, wall, and roof would determine the boundary and the space. In fact, recognizing the components of space in the viewpoint of linguistics would lead to exploration of the space nature and architect's thought. Also emotion is main factor for understanding architecture space. Entering to architecture field would cause that human feel tangible.

Generally, all visual and sense elements of space would determine architecture space; thus, space is main factor for understanding a structure. This is because that all tangible and intangible reasons of its creation would affect human life and feeling. We should consider three factors to recognize architectural language and linguistics dimension; these factors include Typology, Topology and morphology.

Typology

Typology is the knowledge of recognition and investigation of architecture phenomena in the considering figure, form and components. Climate as one of the main elements of environment, would affect architecture; architectural ideas would be organized base on place's climate. In the view of climate, type is an issue that includes common features of structures in same climates (Memarian, 2007, p:35). It should be mentioned that, climate has direct relationship with culture, habits and behavior of residents in addition to its influences in designing figure, space and various types of place architecture. For example, in the arid areas with hot and dry climate, considering the high degree of temperature and lack of humidity, architect tries to provide facilities for residents through designing a compact and internal style. This is protection of structure and human against environmental climate, and would affect human's behavior; therefore, human's behavior would be depended on architecture, so the architects should consider this issue.

Therefore, typology would be involved in residential designs. Meanings of the term typology have no basic differences, but also the term would provide a unit meaning to design structure (Schulz, 2010, p:44).

Morpholog

Morphology refers to the figure of hand-made structure and would be described as "formal details", in each architecture phenomenon (Schulz, 2010, p:40). In general, morphology considers the relationship between environmental elements and man-made places; this approach's aim is to recognize relationship between form and type of place architecture's and its relationship with environment.

Morphology, thus would investigate the structure of architectural elements such as floor, wall, roof, etc. Generally, analyzing the boundary between forms and densities of phenomena would be performed by its components.

Topology

Topology is related to space and is defined as "spatial arrangement". In some cases, structural elements have no certain geometric form, but also are determined in the manner of topology; thus have an unclear reception from environment. Generally, these elements would have an environmental arrangement, when are appeared as geometric forms (schulz, 2010, p:42). For example, manner of arrangement and expansion of a fabric is considered in the topology. Therefore, topology considers dimensions of vertical and horizontal construction, related to sky and earth. Hence, to construct a structure, we should consider the horizontal (Earth) and vertical (Sky) dimensions; this would relate the phenomena with field and also would give identity to the structure.

Phenomenology field

In the viewpoint of phenomenology, place refers to ecology. Thus, phenomenology is the knowledge of existence. Phenomenology would consider existence of a thing as a part of total quality of design (Nesbitt, 2008, p:170). Phenomenology view is an emotional view and phenomenologist would consider everything in this world as a phenomenon and would try to explore the origin of things. First emblem of phenomenologist was "towards things". Environmental phenomenology refers to studying spatial dimension of existence and its subject is the nature

and structure, related to life (Schulz, 2003, p:104). Schulz believes that, the aim of phenomenology is to show the nature of natural things and we would not be able to describe it using scientific concepts, thus, descriptions should be objective not theoretical and supposition. In his opinion, this manner of description refers to phenomenology.

Physical results: receiving valuable environmental concepts and reflecting them on elements creating architecture and space (the choice of effective concepts and ideas), the emergence of a proper form and rhythm in accordance with the background in order to give eternity and constancy to typology in the space, accepting natural and artificial environmental orders to decrease visual pollution, achieving goals of sustainable development, reaching a good living condition in the new building in terms of application and ecological condition, creating architectural phenomena based on field oriented approach.

Historical results: receiving valuable historical concepts and reflecting them on elements creating architecture and space (the choice of effective concepts and ideas), achieving eternity in space, review of human experiences in the past centuries in relation with time, space, and architecture and the emergence of these experiences based on unity of concepts available in the new works , creating architectural phenomena based on field oriented approach.

Socio-cultural results: receiving valuable cultural concepts and reflecting them on elements creating architecture and space (the choice of effective concepts and ideas), creating cultural balance, return to the lost identity, creating architectural phenomena based on field oriented approach.

Semantic results: receiving valuable semantic concepts and reflecting them on elements creating architecture and space(the choice of effective concepts and ideas), reinforcing the spirit of semantics in different dimensions of society, human's tendency to spirituality, emphasis on the role of religion and mysticism in society, moving toward spirituality and unity in the society, creating architectural phenomena based on field oriented approach.

Linguistic results: receiving valuable linguistic concepts and reflecting them on elements creating architecture and space (the choice of effective concepts and ideas), a more facilitated relation between human and architecture, creating architectural phenomena based on field oriented approach.

Phenomenological results: receiving valuable phenomenological concepts and reflecting them on elements creating architecture and space (the choice of effective concepts and ideas), return to true meaning of life, return to allegorical architecture, creating architectural phenomena based on field oriented approach.

Conclusion

Due to mentioned issues, architects and designers, who take constructional measures in the historical fabrics, could not ignore the historical features and conditions. Presenting appropriate design fit to mentioned features, depends on considering some elements, which best element is field-orientation approach. Architectural structures are inseparable components of cities, which are related to daily life of people, who are the main addressees for architecture.

Designing new structures, adopted to place dimensions and considering visual and conceptual elements, would provide a situation, which would facilitate the life in cities; also it would be a response to today's human, who are sank in the consumerism, and are going away from the identity of things. The reflection of environmental capacities on the architecture phenomena, would give importance to value and identity of a place. Thus, tourism industry is not an exception, and constructing new structures in the historical fabrics is depended on this issue.

As we mentioned, investment in the tourism industry cause socio-economical benefit of societies. In Iran we have not observed any significant progress in this field, although we have provided some landscapes and plans. Maybe wrong performance of these plans would be the reason for this weakness; thus, one of the important issues, which could solve this problem, would be developing infrastructures and places, which provides tourism facilities to attract more internal and foreign tourists. Since most ancient phenomena are concentrated in the certain location of cities, developing tourism facilities in these fabrics would be useful for the country's economic and industry. These structures could be developed through performances in the residential and entertaining places and constructing multi-purpose tourism centers, which provide more facilities for tourists.

Renewing and retrofitting to preserve historical phenomena on one hand, and building new structures in the tourism places on the other hand, would provide appropriate situation to integrate a part of historical fabric and new structure as an idea to organize the design of hand-made place. A complete consideration on the space and field-oriented architecture dimensions, would provide an appropriate situation to present designing elements in the historical fabrics.

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