APPLICATION OF CONTEXT-ORIENTED ARCHITECTURE IN THE REGENERATION OF BIO-CULTURE (DESIGNING OF KERMANSHAH BIO-CULTURE COMPLEX)

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ABSTRACT

Bio-complexes (city of cultures) as an environment for living and their relation to culture definitely is not only a simple causation, it is a renewal of bio-culture by a context-oriented approach, which is investigated as the basis for this paper. Following examining and analyzing how to regenerate the bio-culture of a society, the current article intends to provide necessary theoretical and study basis for designing a bio-culture complex in Kermanshah by a context-oriented approach. The type of research to achieve the required information in this article is survey-analytical procedure in terms of nature and methods, which by performing library-based research and after formulating a comprehensive guideline to consider the entire infrastructure required for designing a bio-culture complex, finally the designing process of the complex is investigated. As some of the study findings, it could be said that there is a significant relationship between context-oriented approach and analysis of space with the creation of new cultural and vernacular structures in a region with rich culture and tradition, which its impact on the promotion of bio-culture of the region is clearly visible.

Keywords: *Context-Orientation; Regeneration, Culture, Bio-Complex (City of Culture), Kermanshah*

INTRODUCTION

Environment is the context of life and one of the primary needs of humanity. The relationship between culture and the environment in many ways is important. The interaction between climate and land (environment) from one hand, and culture, on the other hand, in any way and with any quality is certainly not just a simple causation. The initial core of culture is the basic needs of human life to continue life, and whenever a homogeneous group in a common environment with the use of the environment facilities proceeds to address these needs, a specific bio-culture will come into existence in society spontaneously. So that what distinguishes this community from the surrounding communities is the same bio-culture. With an emphasis on the fact that the connect point of the past and present of a city is the bio-culture of

that city, its regeneration and development from the bio-cultural perspective has become today one of the most challenging issues in the scientific circles in the world. People in every community are the key to the solution of environmental problems and the promotion of bio-culture. Deep and internalized problems that threaten the health of a society can be resolved by the people of the community. So we can say that the most significant objective of promoting a bio-culture in a society is to create understanding about the importance of human interaction with the environment and the impact of his performance as a negative or positive impact on it.

SOME CONCEPTS IN THE AREA OF BIO-CULTURE AND CULTURAL INTERACTIONS

Environment and its relevant characteristics: environment literally means "a encompassing thing", "world" and "a line around the surrounding area". In general, environment is all the conditions, affairs and moments that may result in development of the living things and especially human personality. Man prepares environment for a better life or live better, in order to dominate another meaning of environment (i.e. the constant surrounding area) (Ainifar, 2003:49).

Ecology: in a short and comprehensive statement, ecology is that part of the science of ecology which encompasses the relationship between living organisms and their environment.

Culture: Culture in a very broad definition is a set of beliefs, customs and behavior patterns and knowledge, information and oral and written literature in a society, and it is different from civilization as a set of social accomplishments. Every society has its own culture that is the foundation of the architecture in that particular community, and this architecture is an objective reflection of the society. In fact, architecture has been the actual tool for measuring the culture in a nation. The culture of each society is responsible for how to form spaces (Jahānšāh Pakzad: 2004).

Culture-based urban regeneration: culture as a modern and comprehensive approach in the context, considers cultural activities and events as a facilitator and driving force of the urban regeneration. In this approach, "event-orientation" forms the foundation of regeneration and cultural events have attracted much public interest. During the culture-based regeneration, usually a set of buildings are designed or re-used for public and administrative applications. Urban spaces are used in a new way, and new events and activities that can in the future lead to popularity of the places are recommended.

CONTEXT ORIENTATION

Context literally means a set of circumstances or facts which encompass a situation or status. It also means situations in which when something happens and helps you to understand it. In Persian, context means the content of context, text and background, and the context theory sheds light on the fact that how environmental design and layout of new development must be related to its context. Context is defined usually in different scales and based on the expanse, size and extent of the coverage of architecture building to the people of a particular area. Context may include site topography, vegetation, urban context including the density of buildings, streets and walkways and their relevant relation, materials applied, the composition of materials, proximity of buildings to each other, area geography, amount of urban traffic, human population, etc.

Context orientation is a common view in the field of architecture and urbanism which regards context as a historical event. Context orientation can be a response to the process of industrialization and modernity in architecture. Modern architecture which in the wake of the industrial revolution cast its shadow on the world during the decades and became the prevailing architecture of the world was about to lead to an international style at its peak, and utilized some elements as its example including the use of modern technology, modern materials, pre-fabrication, functionalism and avoidance of luxurious styles. The result

of this process was the uniform buildings which were designed with no relation to their surroundings and had a poor relationship with their context (Karimi Moshaver et al., 2014).

Although context orientation initially focused on purely physical aspects, it gradually turned to the human dimensions including culture, etc. and extended its study areas to socio-cultural aspects of society. The context orientation theorists believe that the urban structural components are not under the coverage of their internal forces and characteristics; rather they are dependent upon the environment and its surroundings.

Hence, it is not possible only to seek properties and dimensions of phenomena, and considered the essence of phenomena without regard to time and their relevant context. The unit of analysis in this approach is the study of buildings or places associated with environmental factors, and any alteration and modification to these factors depends on these factors as well.

Examples in the area of context-orientation in architecture: Perhaps the most significant challenge in the discussions of context-oriented architecture is the extent of use of local and vernacular architecture in contrast to globalization. Generally, emphasis on context-oriented architecture is due to the fact that urban buildings or contexts or region in general are not in adaptation or coexistence with other buildings. In this section, the examples of the centers with context-oriented architecture are presented.

City of Culture of Galicia: the idea of Eisenman in City of Culture of Santiago was to place Descartes network on organic and medieval network and change shape of them with topological networks that are thrown to the outside. This creates lines of force that had never been part of the geometry.

Frankfurt Rabeshtak Project: Eisenman implemented idea of Fold in combination with context and body in Rabeshtak project. He explains his approach to context as "Fold application in Rabeshtak reveals other states that have always been inherent in the urban context of Frankfurt".

RESEARCH HYPOTHESES

In accordance with the rules and regulations of the project and construction of bio-cultural complex with a context-oriented approach in Kermanshah, a major step is taken for the bio-cultural development of the region.

There is a relationship between context-orientation and analysis of space with new structures of bio-culture.

RESEARCH METHODOLOGY

As the current study is a project-based one, first a review of the relevant theoretical foundations and references are provided that leads to the writing of the theoretical structure of the research.

RESEARCH OBJECTIVES

- Knowledge of natural and cultural contexts with identity within the context of community and reflection and transfer of social sub-cultures.
- Understanding the design process to create bio-culture sites with a context-oriented approach
- Identify capacities and capabilities of the site under study in the design of a bio-culture complex in Kermanshah

Culture and practice-oriented approach in the field of bio-cultural regeneration, and the presence of culture as a factor that is rooted in history, human wishes and beliefs and constitutes a unique feature for each community has an eternal dimension (Mumford, 2006: 25-28). Culture and cultural representations are always regarded as a part of a city, and the city [and land] is known by the relevant culture and

cultural manifestations.

However, where the re-introduction of culture is suggested as a contributor to development, the contemporary urban conditions must be taken into account, conditions in where culture is regarded as an equivalent to a development-based economy. Based on previous research, since 1970s, many European cities encountered an unwanted restructuration due to some reasons including the relocation of industries and consequently employment, migration of urban middle class to suburbs, changing employment patterns, the development of shopping centers outside the cities and an increase in private car ownership and dependence. The consequences of such a process was the incidence of poverty, crime and unemployment in urban centers, and these changes were the main motivations for the formation of urban regenerations with the approach to the application of the culture and the use of "creative industries".

Understanding that at this point existed on urban development was still rooted in the approaches based on the types of "redevelopment" and changing the face of cities through replacing the remains of the previous periods of urban life with new and popular manifestations.

This approach is evident very extensively in "renovations and developments" of the last decade in the heart of inner context of cities. Vickery defines urban regeneration as "Alterations through redesign, restructuring and reorganization of land".

Relationship between understanding climatic factors for the design of life complex is important. Kermanshah city is located in an area with cold winters and temperate and dry summers. Due to the specific situation of topography, weather conditions in different areas of the city have relatively similar and desirable conditions. Climate situations in Kermanshah include the following factors:

Climate: Kermanshah city situated in the east of Kermanshah Province spreads over an area of 25,000 km² (9,560 square miles, roughly the size of Vermont), or 1.5 percent of the total area of the country. It lies between lat 45.5° and 48° E, long 33.7° and 35.3° N (parallels that cut across the Mediterranean Sea and southern United States).

Rainfall status: According to the closest climatology station in the city of Kermanshah, average annual rainfall in the city is 438 millimeters; the highest rainfall in winter and summer is almost dry. The average number of frost days in the station is 92 days that often happens in the three months of winter season.

The radiation: The average annual sunshine hours based on 25-year statistics in synoptic station in Kermanshah (1951-1975) is 2906.07 hours. According to this statistics, the average number of snow days is 12.7 and freezing days is 104 days during the year.

Wind direction and dominant wind: According to 25-year statistics (1951-1975) in Synoptic station in Kermanshah, wind direction in the second half of the fall and winter is to the southeast, and almost all the rest of the year is toward the West.

Temperature, maximum and minimum temperature and average temperature: According to Sararood stations, the average annual temperature is 13.4 ° C, which January and February have the lowest average monthly temperatures and are the coldest months of the year. July and August have also the highest monthly average temperature. Also, the maximum average annual temperature is 21.5 ° C and the highest temperature station (42.5 ° C) occurred in August and the lowest temperature (24.4 ° C) was in the month of January.

Climate impact on navigation and the establishment of units on the site: the Kermanshah weather indicates that the region's coldness and sunlight limitations require the maximum use of the sun's heat. In terms of temperature, four months of the year (June to September), environment need to be cool off during the day. However, seven months of the year (October to mid-May), environment must be warmed. Directions to the North West and South West are relatively good directions of Kermanshah.

The spaces of bio-culture complex according to the needs of the city and the coordination between the relevant organizations are as follows:

- Educational spaces include education of handicrafts, photography, music, painting, etc.
- Service spaces including cultural and audiovisual products and computer site.
- Supplementary training spaces including artistic presentations, cinema, theater, library and research sectors, exhibitions, galleries for displaying artistic and historical work of the area, etc
- Recreational spaces including restaurants, cafes, service, etc.
- Logistic spaces including maintenance and repair, roadway traffic facilities, warehouses, safety and protection, etc.
- Installations spaces: water supply system, electrification, telecommunications, gas, sewerage and so on.
- Office spaces including management, employees administrative offices conference, services for client waiting, etc.
- Lobby and its subsidiaries including the waiting room, spaces for celebrating ritual-local customs, elements of public service including search and internet, and public t access elements such as stair lifts, etc.

The areas forming the relevant cultural center can be divided into the following:

- ✓ Education area 20%
- ✓ Research area 25%
- ✓ Information area 25%
- ✓ Performance area 20%
- ✓ Associations 5%
- ✓ Administrations 10%
- ✓ Service area 5%
- ✓ Commerce 12%
- ✓ Logistics 5%

ANALYSIS OF KERMANSHAH BIO-CULTURE CENTER PROJECT

Spatial organization in accordance with the principles of context-orientation architecture and create a space for making people more informed of this important issue, design spaces that in addition to increasing public awareness, help to strengthen the collective life is of the utmost significance in designing based on ecology with the approach of creating a cultural space. So in this paper, designing a space entitled bio-culture complex to create interactions between the culture of ethnic minorities in Kermanshah and the recreation of Kermanshah culture which its primary goal is to strengthen the sense of belonging to a place, identity making and social participation in order to achieve a sustainable society is suggested.

Figure 1-1 The functional concept of context-oriented design principles in the Kermanshah Bio-Culture Center

Answer to the assumptions in the present study and objectives of the research study

•In general, there is a significant relationship between context-orientation approach and analysis of space with the creation of local and cultural structures in a region with a rich culture and traditions that its impact on the promotion of bio-culture in the region is clearly visible.

- In accordance with the rules and regulations of the project and construction of bio-cultural complex with a context-oriented approach in Kermanshah, a major step is taken for the bio-cultural development of the region.

- Human achievements in the form of technology in recent years have had a significant impact on the development of bio-culture in the societies, which by explaining a context-orientated approach generated by the idea of the creative architect the current study regenerates this idea. Thus, a strategy is proposed to develop such projects in regions and cities across the country.

CONCLUSION

Create a fertile ground for designing a bio-culture complex in Kermanshah by a context-oriented approach (the main objective of the present research), provide proper space for social interactions and the holding of local communities and create intimacy and union and also exchange ideas and opinions and culture among the residents of this area of the city of Kermanshah in the form of cultural recreation areas can help achieve social goals.

Here, the role of context-orientation becomes more critical, and this approach paves the way for the accomplishment of such ideal with its deep link with history, culture and society. In the meantime, the following findings can be summarized:

✓ Adaptability of movement paths with topographic lines, and coordination of vegetation

- ✓ Adaptation, assimilation and hierarchy in building, structure, space, form, scenery curtains and perspectives, record an image in the mind of the viewer at any given moment
- ✓ The multiplicity of the applications that reflect cultural activities of indigenous people in the region
- ✓ Maintain pillars and traditionalism of the prominent shapes of historical periods, or form of buildings, decorative shapes, etc.
- ✓ Maintain applications which have continued survival in their relevant area during different periods and between successive generations play critical roles in the persistence of building identity and figure
- ✓ The identification of mental image of users and citizens of the region is of the utmost significance in achieving the goals and perseverance of the cultural identity of the region

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