# World Journal of Environmental Biosciences

All Rights Reserved WJES © 2014

Available Online at: www.environmentaljournals.org

Volume 9, Supplementary: 131-139



# Design of Archeological Garden Museum Regarding Creation of Culture and Tradition of Shiraz, Iran

# Mojtaba Nasirian 1\*, Nazanin Dehnad 2

- <sup>1</sup> M.A student in Architecture, Department of Art, Institute of Higher Education Andisheh Jahrom, Jahrom, Iran.
- <sup>2</sup> Ph.D. in Architecture, Department of Art, Institute of Higher Education Andisheh Jahrom, Jahrom, Iran.

## **ABSTRACT**

One of the significant cultural indicators of every society is how the works and achievements of other society members are presented and introduced. Communication and information levels are the critical indicators of the cultural development of societies. Galleries, cinema, and theater halls, permanent and temporary exhibitions, and museums are substantial elements used to present and notify the cultural works. In the current situation of Shiraz City, Iran, urban development has been concentrated on the west and central parts of this city regarding cultural and urban aspects. Therefore, the lack of sufficient amenities and easy access to cultural places in district one of Shiraz have made the cultural development of this area a sensitive case, which threatens the Iranian young generation. Furthermore, the mentioned case has led to problems in this city that welcomes many Iranian and foreign tourists who visit Shiraz for treatment. Shiraz and Fars province also have many tourism potentials regarding historical and natural resorts besides medical services. The purpose of this study was to find the evidence and antecedents remained by the human and human-based environment, to collect these antecedents, to preserve spiritual and cultural productivity, to make a relation between these cultural works and heritages, and to exhibit these works to benefit from their cultural and spiritual effects. All the mentioned measures are done to revive the culture and civilization of Shiraz. This study was conducted using a quantitative-qualitative method to analyze the design of an archeological garden museum regarding the recreation of the culture and tradition of Shiraz. Besides, the research background and case studies were examined theoretically and empirically. According to analytical results, variables affecting the recreation of culture and tradition of Shiraz were identified and ranked. Data analysis was done through SPSS software. Hypothesis accuracy was evaluated through correlation analysis using Friedman/Kendall's W correlation coefficient. According to the results obtained from the analyses and substantial situation of Shiraz, this city is environmentally and spatially suitable for the construction of such a museum regarding the cultural and historical return to history. Hence, Shiraz is the best option that can be used to introduce the culture and history of ancient Iranians. Therefore, an archeological museum should be built in Shiraz to recreate the culture and tradition of this city and to preserve the precious historical works and artifacts.

Keywords: Garden, Museum, Archeology, Culture, Tradition, Shiraz

Corresponding author: Mojtaba Nasirian e-mail Masirian.mojtaba @ gmail.com

Received: 16 October 2020 Accepted: 23 December 2020

# INTRODUCTION

One of the significant cultural indicators of every society is how the works and achievements of other society members are presented and introduced. There is such an increasing rate of scientific and civilization growth and development in today's communities so that no one can be experienced and skilled in all of the academic, cultural, and artistic contexts. The specialized scope of every major has led to a limited domain for people to acquire science and experience. Accordingly, it is necessary to make interconnected communications in this field to present the relevant consequence and works. By doing this, specialists become familiar with scientific and technological advances. Therefore, communication and notification rates are substantial indicators of cultural development in every society. Galleries, cinema and theater halls, permanent and temporary exhibitions, and museums are substantial elements used to present and notify the cultural works. In the current situation of Shiraz City, Iran, urban development has been concentrated on the west and central parts of this city regarding cultural and urban aspects. Therefore, the lack of sufficient amenities and easy access to cultural places in district one of Shiraz have made the cultural development of this area a sensitive case, which threatens the Iranian young generation. Furthermore, the mentioned case has led to problems in this city that welcomes many Iranian and foreign tourists who visit Shiraz for treatment. Shiraz and Fars province also have many tourism potentials regarding historical and natural resorts besides medical services.

The museum is a permanent institution without financial purpose, which is available for the public. This institution serves society and its progress. The objective of museums is searching through the works and artifacts that remained from humans and their surrounding environments. Museums also aim to preserve the artifacts, using them spiritually, and making a connection between them through exhibiting them for search and a spiritual application (Nafisi, 2001).

As a metropolis, Shiraz is popular and known for its historical identity. Hence, this city has received considerable attention from researchers in the contexts of architecture and urban development. The current structure of Shiraz is the outcome of a historical and dynamic process in which the population has been grown based on the natural field of the city and their interactions. It means that the concept of city structure varies from one to another period considering the spatial, natural, economic, social, and political-cultural structures related to each specific period. There has been, however, a rapid change in the context and theme of the city. The area of Shiraz was just limited to the old boundaries and historical texture until the year 1300 AH (1922). Urban development began outside of the old boundary toward the west part of the city since the Pahlavi dynasty (Nasr, 2004).

It is essential to carry out studies on the original Iranian-Islamic architecture, archeological museum, and culture creation due to Iranian architecture unanimity that has led to many problems in recent years besides the Iranian architecture students' and contemporary architects' negligence and significance of architectural culture and development in society.

Shiraz is a historical, cultural, and tourism city that recalls tourists to visit numerous historical, cultural, and natural attractions. It is one of the first cities where the museum was constructed and now 11 museums exist in Iran. An archeological museum should be built in district one of Shiraz due to the existence of various museums in Shiraz but the absence of a museum in this area with specific tourism potentials such as hospitals and hotels. An archeological museum can preserve valuable historical artifacts to exhibit them in order to show the culture and tradition of Shiraz. The use of all museums in Shiraz, except for the Natural History and Technology Museum, has changed so that they do not have a museum-like structure. The reason is that exhibition and preservation of artifacts is difficult in these museums that do not have the required potential for exhibition or any activity associated with the environment and lightening circulation. Those buildings that have changed to the museum are antiquities and historical monuments; hence, there is no need to add any other artifact. So, it is problematic to exhibit ancient and historical works in buildings that are not designed in form of a museum. Therefore, new museums with novel structures and designs should be constructed to preserve such precious ancient and rare works.

This study aimed to pave the way for the preservation of ancient heritage to introduce the culture, historical identity, and tradition of Shiraz to people. In this context, people will be encouraged to visit cultural places and museums.

#### **Literature Review**

Qayyoomi Bidhendi and Shams (2012) expressed in their study entitled "An introduction to the history mentalities in Iranian architecture", "the architectural works that remained from the long history of Iran are indeed treasures of Iranian architecture. However, these works are not perfect manifestations of the architecture which had been realized in Iran for centuries. Most of what we have inherited from this architecture are monuments. Such majestic works can hardly lead us to a substantial part of Iranian architecture, which is popular architecture. Furthermore, architectural works are the final products of the architectural process, which is itself a subject of architecture historical study. Architectural ideas and images, the individual and collective taste of architecture,

design and construction processes, architectural education, the professions and guilds, patrons and patronage, architects and other agents and practitioners of architecture, all can be relevant subjects of architectural history. All of the mentioned factors should be studied to identify architecture (Qayyoomi Bidhendi and Shams, 2012).

Behrouz Shahbazi Chegeni, Kazem Dadkhah, Mehdi Moini (2014) wrote in the paper entitled "The study of identitymaking patterns in the identity of Iran' contemporary architecture", "Most of the time, critics are dissatisfied with the existing situation in addition to acknowledging lack of identity in the contemporary architecture of Iran. Some scholars believe that the reason for the problem is the alienation of architecture and people, and express concerns about the lack of mutual understanding on both sides. Others consider the similarity between different cities of the country as the symptom of a common illness. Nowadays, having a common identity-based architecture is a matter of national concern for the Iranian architecture society. However, almost no theory is available to provide an answer for questions such as what is identity, which elements and conditions are involved in its formation and what is the relationship between identity and architecture." (Shahbazi Chegeni et al., 2014).

# Current Role and Position of Architectural Plan of Museum and Cultural Places

Many scholars believe that museums are symbols and indicators of contemporary architecture playing a vital role in drawing the public's attention to architecture art. Such a role was played by skyscrapers in the early years of the 20th century. However, such radical ideas and emotions for highrise building construction have been reduced. Nowadays, governments, intellectuals, and more importantly, the public pay more attention to cultural-artistic spaces compared to other constructions. In this context, the architectural design of such places is more used in the daily life of people; so, they attract their attention to art and architecture. Furthermore, the formal freedom of architects in the design of museums and the constant presence of famous and international architects in such projects considerably influence the significance of architecture of cultural places. Some top architects like Libeskind, Renzo Piano cleverly understood the changing origins of today's communities and used this opportunity to obtain credit and design novel designs in architecture. The outcome of these cases is the introduction of museums' architecture as the symbol of the third millennium. Now, museums are beyond a place just for keeping, preserving, or exhibiting the artifacts so that they serve as regional, national, or even religious and political symbols (Talebian and Atashi, 2010).

# Garden museum

Garden museums express the connection between humans, architecture, and nature. This link or connection has been one of the prominent characteristics of Iran's culture of architecture and urban development. Garden museums that serve as a place in which three agents of human, architecture, and nature are interacting are indeed recreational-cultural places including open, green, and joyful spaces. This place not only preserves and exhibits artifacts but also provides a calm and pleasant atmosphere for visitors. Garden museum aims to

present a different atmosphere that affects the inner of humans while meeting their extrovert needs. This space has been built based on a specific philosophy and vision in which any function pursues a certain goal (Fashandi, 2010).

Garden museum is an important place since it covers various scientific and cultural aspects as well as recreational and educational attractions. Biological and natural subjects are closely exhibited to the public in the garden museum. As an important feature, these museums are open to the public. In

general, a garden museum is defined as a place where artifacts are exhibited beside some trees such as old planes, pine, Cedrus, and other trees as well as fountains, waterways, and water ponds. All of the mentioned elements make peace of mind and calm for visitors. Such a pleasant feature plays a vital role in conveying the message and concept (Ibrahimi, 2008). Table 1 reports the characteristics required for designing an archeological garden museum regarding the recreation of the

culture and tradition of Shiraz based on previous studies.

	Table 1. Design	features	of the g	arden	museum	(reference: Auth	or)
--	-----------------	----------	----------	-------	--------	------------------	-----

Theoretical	foundations	Architecture characteristics	Manifestations in archeological garden museum	Manifestations in design	
		Variety	Installation of exhibitory spaces	Design of gallery and artifact reservoir	
Mus	seum	Research	Considering the research area	Museum variables-based design	
		Water	Motion, reflection, focus	Water pond, water circulation	
		Plants	Creating view axis, decoration, shading	Planting cedar, pine, and palm trees existing in Shiraz's gardens	
		Belvedere	Design of museum building	Locating at the end of the main axis	
	Elements of	Rectangular	Paying attention to geometric forms	Using rectangular forms in design and	
Iranian	Iranian	geometry	and geometrics	site	
Garden	garden	Symmetry	Balance	Using symmetrical lines in some parts of the complex	
		Centrality	Using rectangular and square-shape divisions	Plan, space for pause and sit, site's platforms	
		Breadth of vision Creating depth, Perspective intensification		I Breadth of vision I	View of museum building from the site
Cul	ture	Considering the culture of Shiraz	Designing cultural spaces	Design of library, store of cultural products in the site	
Trac	lition	Considering the tradition and customs of Shiraz	Designing some spaces inspired by traditions of Shiraz	Designing some ancient traditions in the site and plan	

# 2. METHOD

In this research, the archeological garden museum was studied theoretically and empirically regarding the recreation of the culture and tradition of Shiraz. This study was conducted by using the descriptive-analytical method.

The statistical population of the study comprised visitors of the Natural History Museum of Shiraz who were in the age range of 18-65 considering the field studies area. A target society was needed to fill out questionnaires and evaluate items. In the Natural History Museum, three public spaces that formed the central lobby and galleries as the most accessible places for interactions and communications were chosen based on the researcher's observations and experts' opinions.

According to the population number of each selected space, 150 subjects were selected from each space using simple random sampling. In total, 148 subjects were studied. Two incomplete questionnaires were removed and the rest of them were distributed among studied individuals who were asked to answer the questions based on the space they were in.

The study was begun after reviewing the research background through documentary and bibliography studies, field observations, theoretical foundations of the culture and tradition of Shiraz, and design characteristics of the archeological museum. The indicators affecting the museum space were extracted and evaluated by hypothesis testing and field observations through the questionnaire.

In this context, the evaluated indicators were included in questions (items). Accordingly, an 11-item researcher-made questionnaire was designed about garden museum indicators in three parts. The responses given to items were scored at a five-point scale from one to five, including strongly disagree, disagree, neither agree nor disagree, agree, and strongly agree.

- Water is one of the prominent elements of Iranian gardens.
- 2- Fountains are the main elements in Iranian gardens.
- 3- Water placement and fountain design in Iranian gardens are major elements of Iranian garden identity.
- 4- Tree cover is a factor affecting the revival of Iranian garden.
- 5- The form and geometry of the garden are some of the most significant aspects of the Iranian garden.
- 6- It is important to pay attention to the architecture of previous eras to keep alive the culture and tradition of Shiraz.
- 7- Traditional customs of Shiraz make the cultural identity of Shiraz; hence, they are highly important factors.
- 8- Traditional customs and ceremonies of Shiraz can be survived by celebrating them.
- 9- Traditions and customs of people living in Shiraz should be at the center of attention to recreate the culture and tradition of this city.

- 10- The more appropriate the structure design of the museum, the better the exhibition of historical works and artifacts.
- 11- If a context is designed for a logical connection between objects and museum architecture, artifacts will be exhibited better.

The questions were given to five experts in the considered field to confirm the validity of the questionnaire using the content validity method and finally, the questionnaire validity was confirmed based on the experts' opinions and corrections. Cronbach's alpha coefficient technique was used through SPSS software to confirm the reliability of the questionnaire. To this end, 30 questionnaires were distributed, and Cronbach's alpha coefficient was measured that was equal to 0.823, which is greater than 0.7; hence, the questionnaire had the required reliability level.

Ultimately, the collected data were analyzed using descriptive and inferential statistics, such as a one-sample t-test through SPSS software.

## 3. RESULTS

# **Descriptive Findings**

According to the obtained results from the studied sample size, 47 subjects (31.8%) were female, and 101 (68.2%) were male. The results showed that the highest frequency was related to the age range of 26-30, and 50 subjects (33.8%) were in this age range. The majority of subjects (n=56) had diploma degrees.

To review respondents' opinions given about the proposed items, frequency and percentage, as well as the results of a one-sample t-test were presented to compare the mean score of each item with the given mean value.

	Vei	ry low	I	.ow	Ave	erage	High		Very high	
	Frequency	Percentage								
Item 1	9	6.1%	23	15.5%	41	27.7%	60	40.5%	15	10.1%
Item 2	2	1.4%	12	8.1%	19	12.8%	68	45.9%	47	31.8%
Item 3	2	1.4%	11	7.4%	20	13.5%	75	50.7%	40	27.0%
Item 4	2	1.4%	7	4.7%	19	12.8%	70	47.3%	50	33.8%
Item 5	2	1.4%	9	6.1%	28	18.9%	57	38.5%	52	35.1%
Item 6	14	9.5%	52	35.1%	22	14.9%	60	40.5%		
Item 7	2	1.4%	6	4.1%	27	18.2%	74	50.0%	39	26.4%
Item 8	1	0.7%	5	3.4%	36	24.3%	66	44.6%	40	27.0%
Item 9	1	0.7%	8	5.4%	23	15.5%	72	48.6%	44	29.7%
Item 10	1	0.7%	4	2.7%	38	25.7%	61	41.2%	44	29.7%
Item 11	1	0.7%	1	0.7%	6	4.1%	65	43.9%	75	50.7%

According to Table 2, most of the responses have been given to agreement options; so, this option obtained a higher frequency and percentage.

 $\textbf{Table 3.} \ \textbf{Results of one-sample t-test considering the responses given to items}$ 

Row	Items	Mean	Std. deviation	t	df	Prob.
1	Item 1	3.33	1.052	3.828	147	0.000
2	Item 2	3.99	0.948	12.666	147	0.000
3	Item 3	3.95	0.909	12.655	147	0.000
4	Item 4	4.07	0.881	14.829	147	0.000
5	Item 5	4.00	0.955	14.742	147	0.000
6	Item 6	2.86	1.060	-1.550	147	0.123
7	Item 7	3.96	0.856	13.633	147	0.000
8	Item 8	3.94	0.843	13.554	147	0.000
9	Item 9	4.01	0.857	14.387	147	0.000
10	Item 10	3.97	0.852	13.788	147	0.000
11	Item 11	4.43	0.672	25.943	147	0.000

According to findings in Table 3, the mean values of all items were significantly different with criterion mean since t-values

of all items were greater than 1.96 indicating that most of the subjects agreed with the items.

#### **Hypothesis Testing**

 It is assumed that spatial characteristics, such as water and its displacement, trees, and geometrical form considered in garden design will revive the Iranian garden.

**Table 4.** Results of one-sample t-test of hypothesis 1 (criterion mean value=3)

	ence level 95% Upper	Mean difference	Sig.	df	t- value
0.9801	0.7551	0.86757	0.000	147	15.238

According to the results, the t-value was equal to 15.238, and the significance level of 0.000, which is smaller than 0.05; therefore, there was a significant difference between the mean value of the studied indicator and the criterion mean value. Hence, respondents believe that spatial or physical characteristics, such as water and its displacement, trees, and geometrical form in garden design will revive the Iranian garden (Table 4).

It is assumed that spatial characteristics, such as architectures related to previous eras in Shiraz, traditions, and customs of people living in this city will recreate the culture and tradition of Shiraz.

**Table 4.** Results of one-sample t-test of hypothesis 2 (criterion mean value=3)

Confidence level of 95%		Mean difference	Sig.	df	t- value	
Lower	Upper	unicicnee			varue	
0.7856	0.6029	0.69426	0.000	147	15.021	

According to the results, the t-value was 15.021 and the significance level was 0.000, which is smaller than 0.05; therefore, there was a significant difference between the mean value of the studied indicator and the criterion mean value. Hence, respondents believe that spatial or physical characteristics, such as architectures related to previous eras in Shiraz, traditions, and customs of people living in this city will recreate the culture and tradition of Shiraz (Table 5).

It is assumed that spatial characteristics, such as the appropriate structure of the museum contribute to a better exhibition of precious historical artifacts in the garden museum.

**Table 5.** Results of one-sample t-test of hypothesis 3 (criterion mean value=3)

Confidence level of 95%		Mean difference	Sig.	df	t- value	
Lower	Upper	umerence			value	
1.2995	1.0992	1.19932	0.000	147	23.667	

According to the results, the t-value was 23.667, and the significance level was 0.000, which is smaller than 0.05; therefore, there was a significant difference between the mean value of the studied indicator and the criterion mean value. Hence, respondents believe that spatial or physical characteristics, such as the appropriate structure of the museum contribute to a better exhibition of precious historical artifacts in the garden museum (Table 5).

# Project Area

# Shiraz

Shiraz is the capital of Fars Province with a length of  $40 \, \mathrm{km}$  and a different width between 15 and 30 km, with an area of  $1268 \, \mathrm{km^2}$  in a rectangular shape. This city is located in the southwest of Iran and the central part of Fars. Shiraz is surrounded by a relatively high mountain range, which is important in terms of strategic preservation of the city. This city is limited to Mount. Derak from the west and to Bamou, Sabpooshan, Chehel Magham, and Baba Kuhi mountains (from Zagros ranges) from the north. The geographical coordinate of Shiraz is  $29^{\circ} \, 36' \, 36'' \, N, 52^{\circ} \, 32' \, 33'' \, E$  with height above sea level varying from  $1480 \, \text{to} \, 1670 \, \text{m}$  in different areas of the city. A seasonal river, Khosk River (The Dry River), flows through the City toward the eastnorthern part of the city and on into its basin, Maharloo Lake (Zaree, 2018).

# Reason for choosing this site

This site is located in district one of Shiraz, which is one of the tourism regions in Shiraz located between Chamran Grand Hotel, Chamran Hospital, and Ordibehsesht Hospital. Hence, those tourists and passengers who travel to Shiraz from different parts of the world and Iran and stay in Chamran Grand Hotel (located on the right side of Ordibehesht Hospital) will be encouraged to visit the garden museum that is a tourism attraction in Shiraz. (Figure 1)

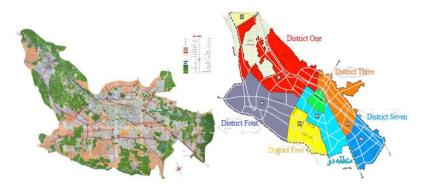


Figure 1. Shiraz Map. Reference: www.google.com

Geometry and dimensions: trapezoidal-shaped land, south entrance side with 127m in length, northern side of the site with 56m in length, street western side with 355m in length, and the side adjacent to the park is 370m in length. The total area of site land is equal to  $895.3245m^2$ .

Accessibilities: access to the site is only possible through the southern side.

Landscape and view: there are no negative views of the site. There is a park with a diverse and extensive cover located on the northern side of the site, which creates a beautiful landscape beside the site.

Texture: the land slope: there is not any steep slope in the site that is almost a flat area.

Noise Pollution: West side of the site and Chamran Street includes grade-one noise pollution and the southern entrance of the site experiences grade-two noise pollution. The mentioned sides are noisy parts of the site. On contrary, the eastern and northern sides connected to the site are somewhat silent and calm areas. (Figure 2)

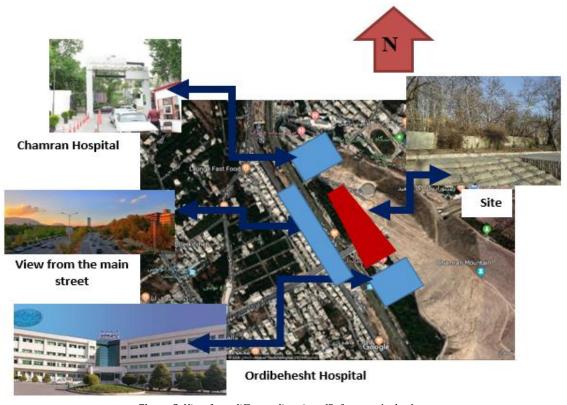


Figure 2. View from different directions (Reference: Author)

# Design Process Locating Uses

In general, plan uses are divided into the following parts to locate them in the site:

1-Entrance space, 2- exhibition space, 3- recreational and service space, 4- educational and research space, 5- office space, 6- technical and support space, 7- the area space.

Various factors, including the climate (sunlight, dominant wind, etc.), design field (landscape, land dimensions and form, topography, etc.), and considered goals of design obtained from studies affect the design of the site and uses locating.

Site uses are usually locating within two situations, including dense and scattered locating.

Both mentioned approaches have been used herein to achieve the design goals. Spaces have been formed densely around the main space and the rest of the spaces are formed in the design of the Iranian garden area using some factors, such as cultural spaces, living rooms, pathways, parking areas, green space, and various elements, which bring pleasure and optimal productivity and calmness for visitors.

Directions are based on the climate situation meanwhile they are matched with the site form and design area. The building order as a united volume and external elements of roads, sidewalks, and parking lots are formed based on the physical conditions and nature of the site. These elements are correlated to the design goals.

The determined uses and applications in the complex have been designed at four levels within a single volume. Supportive spaces and installations, amphitheater, and service spaces are located at the lowest level. On the second level, exhibition spaces are located. The third level also includes the exhibitory spaces. The office space has been located on the highest and fourth level.

## Volumetric composition and form

Some indicators have been used as the main pillars of projection in locating uses in the site and complex. These indicators include 1) design based on the traditional aspects, 2) design based on the cultural aspects.

#### **Traditional Aspects-based Design**

This complex has been designed considering the climate of Shiraz and the studied region. Shiraz's climate is dry and semiarid, which can be seen in summer. However, Shiraz experiences cool weather during spring and fall due to numerous trees and gardens located in this city. Many of these gardens exist in district one of Shiraz where the selected site for the garden museum exists. A custom called "Koluk Andazoon" is celebrated by people living in Shiraz and Fars Province; they go to nature, promenade, and gardens. This project has been planned to design a garden regarding such a conventional goal.

This study aimed to design a garden inspired by Iranian gardens by changing the main pillar of the garden creating a fracture in it and placing the museum building at the end of the garden like other Iranian gardens in which the main belvedere is located at the end side of the garden. In Iranian gardens, trees are located in a row with a specific order while trees are not located in such a specific order in this project.

# **Vegetation Status**

The vegetation of this site has been designed based on the ancient tradition and culture of gardens in Shiraz. In this project, cedar, pine, palm, and other trees planted in Shiraz's gardens, such as Eram Garden, have been designed beside the water axis.

#### Geometry

Like the geometrical shape of Shiraz's gardens, the garden of Shiraz is rectangular-shaped in this site. Rectangular forms have been used to construct platforms and the main building. Also, the main waterway reaches from the middle point of the garden to the end side of the site and the main building, which has been designed like belvederes in Iranian gardens in Shiraz. (Figure 3)



Figure 3. Vegetation and Iranian gardens-inspired design

#### The color and Texture of Materials

This complex has been designed based on the culture and tradition of Shiraz. This design is inspired by the customs and traditions related to the Achaemenid era when Iran as a developed country used stones and woods in buildings. The stairs of the site have been designed with a low height like what was used to be built during the Achaemenid era. Regarding the culture of that era, stairs were designed in this way to protect the Hijab and honor of Iranian Women when walking on the stairs.

- Using diverse and colorful materials, including wood, glass, concrete, stone, and metal.
- Using a layer of concrete on two sides of the building showing that if the layer has raised from the land inside of the soil and crossed the building.
- Using various materials and colors with details in space generality meanwhile avoiding overdiversity.
- Using light and hot colors without using dark and col colors.
- Placing the main axis in the middle of the garden museum similar to the design of other gardens in Shiraz. In the new design, however, this axis has been changed by creating a fracture in it. This line directs the audience toward the museum building through stairs to reach the height lower than the ground surface where the building of the museum is located. (Figure 4)



Figure 4. Water axis (or waterway) in the middle of the garden museum

# Cultural aspects-based Design Form and Shape

This complex has been inspired by the architecture and culture of the Achaemenid. The design of this site includes six platforms and six elements, which are symbols of Achaemenid architecture. This indicates the historical background of this place. Six platforms and six elements have been inspired by six

stairs of the Tomb of Cyrus, and the museum building has been also designed with six stairs. There is a split in the middle of the building showing it as a precious historical monument that has been cracked and divided into two parts. This fracture has been decorated with glass for protection from the sun. (Figure 5)



**Figure 5.** Volume design based on the six stairs of Tomb of Cyrus

The context, its title, and symbols of the context in the building façade should be considered in volumetric composition and museum form. Since the designed museum herein is an archeological museum, this point should be taken into account when designing the form and general volume of the museum. The concept of the initial form has been taken from Achaemenid works. The idea of the main volume of the museum is inspired by the six stairs of the Tomb of Cyrus.

## • Using squares, cubes, and sharp corners

- Using the membrane in the building and form composition through the historical and modern method
- Using elements on the six platforms in the landscape inspired by Achaemenid monuments and Persepolis (figure 6)



Figure 6. Elements on the platforms of area

# Locating cultural spaces in the area to be used by visitors

This study was conducted to recreate and consider the culture of Shiraz, some buildings such as libraries and cultural products store have been designed on the site.

## · Readability and Visibility

- Perfect and sufficient field of view within space totality
- Having a view of surrounding spaces from inside of a specific space

# Lighting

Museum spaces and galleries receive the natural indirect light through side windows located in the way between two buildings. The rest of the required light has been received through interior lighting. The quality and quantity of the light might not be sufficient for the museum considering its applications and the amount of natural sunlight shined through the building. Also, translucent stones have been used in the façade in some parts of the building that need more light.

The light-sensitive highly affects the artifacts. Light quality in the museum not only depends on the lamp type but also its radiation and reflection. Lightening directly influences the thought and views of visitors. Light design is a complicated issue so that radiation, color, direction, and movement of the light all contribute to a better view of objects. The standard amount of light in Europe is used to measure LUX illuminance. First Group: objects that are highly sensitive to the light, such as fabrics, old clothes, watercolor paintings, printed works,

painted leathers, and feather membrane that their standard equals 50LUX maximally (five 32-cm candles).

Second Group: objects that are less sensitive to the light, such as oil paintings, natural leathers, horns, bones, and ivory with maximum light of 200Lux.

Third group: objects that are not sensitive to light, such as metals, stones and ceramics, gold, and glass with maximum light of 300Lux.

# • Active Employment

In general, some spaces are allocated to the following activities:

- Considering some spaces for eating, speaking, and rarely for watching others;
- Opportunity to listen and talk to friends and others in the space;
- Predicting a place for walking with friends in some parts of the space;
- Considering some parts of the space to stand and watch.

## • Attraction and Visual Beauty

The complex has been organized in a general close and regular geometric form but free and open. The first feature of such space is its soft sensation, which its communicational and directional indicators are changing.

# 4. DISCUSSION

Every architectural artifact should be influenced by values, attitudes, beliefs, and the general cultural context of the society

where the monument is built. Otherwise, there will not be a relationship between humans and the monument. It is anticipated that if the building is inspired by its cultural, social, and spatial context, then it is matched with the identity of the audience and user giving them a self-esteem and sense of belonging. This study was conducted to analyze the subject antecedents and case studies by designing an archeological garden museum to recreate the culture and tradition of Shiraz. Also, this research aimed at examining the subject regarding empirical and theoretical aspects to identify the possibility and different scopes of this approach. Results obtained from examined case studies show that such buildings should be designed based on the history, culture, tradition, identity, etc. According to conducted studies, it is concluded that museums in Iran can be designed by employing traditional Iranian architecture and local materials due to the enriched historical background of the country. Besides, the cultural and social characteristics of Iranian people that are adopted from Islamic Iranian Culture can be used appropriately in the architectural design of museums.

Sustainability of cultural-social life and social-intellectual interactions can be improved considering the hierarchical needs of human beings, including self-actualization, sense of belonging, security need, need for beauty as well as understanding and choosing the design principles affecting the garden and natural environments. It should be noted that community presence in natural environments and museums is not just limited to the exhibition of the ancient cultures and traditions but the new cultural and artistic contexts, and upcoming concepts and crises must also appear.

# 5. CONCLUSION

Following recommendations are proposed regarding the research approach to the recreation of culture and tradition of Shiraz:

- Using indigenous and traditional restructure elements existing in the area combining it with the modern architecture.
- Integrating geometrical and natural surfaces and volumes.
- 3. Using spatial fluidity, rhythm, and hierarchy.

- Respecting the ancient tradition and culture of Shiraz and revival of its thought to make a connection with the spatial environment of an architecture design.
- 5. Proper natural and artificial lighting and natural ventilation.
- Making interaction between humans and the environment creating vitality and security in the space.
- Interactional Design and creating some spaces to improve social and cultural interactions.
- 8. Space resilience to meet the needs of all walks of society.
- 9. Creating a sense of place by making an identity for space.
- Considering the old garden designs and constructions as well as its hierarchies in Shiraz then combining with the contemporary architecture.

#### REFERENCES

- Fashandi, R. (2010). Garden museum of culture and art, MA Thesis in Architecture, Faculty of Civil Engineering and Architecture, Qazvin Azad University.
- Ibrahimi, M. (2008). Museums: the illustrated history of cultures, Andishmand Publications, Tehran.
- 3. Nafisi, N. (2001). *Museum Management*, Samat Publications, Tehran, p. 3.
- Nasr, T. (S.) (2004). Architecture and urban planning of Shiraz in the Pahlavi Era (1921-1978), Tehran, Rozaneh Kar.
- Qayyoomi Bidhendi, M., & Shams, A. (2012). An introduction to the history mentalities in Iranian Architecture.
- Shahbazi Chegeni, B., Dadkhah, K., & Moini, M. (2014). The study of identity-making patterns in the identity of Iran's contemporary architecture.
- Talebian, N., & Atashi, M. (2009). In the collection of books on architectural functions, book six: Museum, Tehran: Profession: Artist, "First", 12.
- Zaree, M. (2018). Designing a residential complex in Shiraz with emphasis on the components of the environmental response, MA Thesis, University of Guilan, Instructor: Dr. Mehrdad Javaherian, 110-128.