

Evaluation of Sense of Place in Nasir Al-Molk Mosque with Emphasis on Physical Factors

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Submit Date: 18 March 2023, Accepted Date: 12 June 2023 DOI: 10.30495/ccd.2023.1982609.1200

ABSTRACT

In recent decades, concepts such as a sense of place have devoted many studies to the literature of architecture. It describes a person-to-place bond in a particular location or environment. Nasir Al-Molk mosque is one of the most important traditional mosques in Shiraz that was built in the Qajar era and annually attracts many travelers to Iran. The mosque is famous for the beautiful patterns created by the reflection of the sun and its unique style and architectural details. This study aims to investigate the most effective physical factors of a sense of place in the Nasir Al-Molk Mosque. The research method used was analytical and field studies and the research method and tools were documentary and library. Using qualitative research methods to collect and review the background of the subject, then according to them the quantitative method, field survey, was applied. Based on the distribution of 303 questionnaires among the statistical population, SPSS software and Friedman analysis of variance test obtained significant results. Ultimately, the results indicate that exclusivity, identity, cultural symbols, texture, decoration, color, odor, voice, visual variety, and continuity have the greatest impact from the perspective of people responding to the questionnaire. In creating a sense of place, also, it was observed that Visual & Sensation Factors, Meaning, and Morphological Criteria are more important than others.

Keywords: Sense of Place, Nasir Al-Molk, Mosque, Physical Factor

1. Introduction

In recent decades the concept of a sense of place has been investigated in different fields such as architecture and urbanism. Sense of place is one of the most important factors in assessing and communicating with diverse environments. It can be found in places that have a distinctive character [1]. It can convert the space into a place and mainly refers to the spiritual characteristics of a place or its personality, which is close in meaning to 'the spirit of the place.' This means that the allure inherent in

some places arises an indescribable feeling in individuals, making them enthusiastic, vigorous, and willing to return to those places [2].

Places are composed of three broad interrelated components which are responsible for improving the qualities of the environment: the physical setting (the objective aspect), the individual's internal psychological and social processes (the subjective aspect), and the activities that are done at the place (the practical aspect) ([3]; [4]; [5]; [6]; [7]; [8], [32]). Thus, a sense of place is associated with physical factors, especially in religious places



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which are the physical settings correlated to religious or sacred events that could cultivate fundamental human values and enrich the human soul [7].

In Islamic culture, the mosque is considered as the most important sacred structure. Nasir al-Molk Mosque is one of the most beautiful mosques in Shiraz which is belonging to the Oajarie era and known as the "jewel of Iranian Mosques" due to its decorations. The attention paid to this mosque in recent years and beyond other historical mosques can be a source of comparison and curiosity about the distinctive architectural position of this mosque [9], some studies investigated the sense of place in religious environments. For instance, Peymaei and Shahbazi (2016), Daneshpour and Saffar Sabzevar (2018), Nekoee et al (2019), Sadeghi et al (2019), Ghouchani and Taji (2021) studied important factors of sense of place in different religious buildings and mosques but Nasir Al-Molk Mosque is less focused ([10]; [11]; [12]; [13]; [8]). Therefore, despite many visits to the Nasir Al-Molk Mosque and the positive comments and descriptions of the unique body and especially the intelligent use of color and light in it, the scientific investigation of all physical factors in creating a sense of belonging to the place of the audience has not been considered so far. Based on observations, the presence of nonnatives and tourists in this mosque is significant compared to natives, which indicates the lack of satisfaction of visitors in some factors of the sense of place. Based on this, identifying the effective factors in the sense of belonging to the place and improving it, can help to attract more local tourists.

In this study, we evaluated the physical factors of a sense of place. Thus, the main goal of this research is to study the effective parameters of the physical sense of place and Nasir al-Molk Mosque has been selected as a case study and evaluated accordingly. Therefore, the current study looks for the answers to the following question: what are the effective physical factors for promoting a sense of place in the architecture of mosques?

In the documentary part, necessary information has been collected through books, maps, and the internet base, and field studies, photographs, and videos have been performed in the field of the paper subject by the authors to develop a theoretical framework. In the following, using Excel and SPSS26 to analyze and study the data. The variables categorize in tables and data will be analyzed through inferential analysis. Accordingly, the research method is descriptive-analytical and field study.

2. Literature Review and Theoretical Foundation

2.1. Place

The word 'place' is 'dimensionless'; it can apply to any scale, from an individual home to any part of the globe [14]. Literature about the concept of place leads to two approaches: Phenomenological and environmental psychological ([15]; [16]). From the viewpoint of phenomenologists, the place is where the concrete manifestation of the life-world can be observed which forms spatial and temporal stability of the environment life [17]. The phenomenology of place is based on Husserl's (1983) viewpoints. From the view of environmental psychology, humans need special sensory, emotional, and spiritual experiences in the living environment. These needs can be fulfilled through intimate interaction and a kind of identification with the place in which the humans reside. This intimate interaction and identification are called the soul or sense of place [15]. Overall, "Place" may be a complex concept that embodies a set of tangible and nontangible qualities, and literature has long theorized an emotional association between individuals an The consideration of places. this association can be known as SOP (sense of place) research. (Table 1)

Table 1: Categories of approaches (Source: Authors)

Approach	Author/Theorists	Main idea					
Phenomenological	Heidegger, 1971	Dwelling expresses a meaningful relationship between man and the environment; a relationship that grows to increase identity, which then, leads to an emotional attachment to a place.					
	Schulz, 1984	Different types of dwelling refer to the concept of attachment to physic emotional, and social environments.					

Approach	Author/Theorists	Main idea			
	Canter, 1977	Place is a space associated with people's relationship with physical			
	Smaldone, 2005	environments, individual and group activities, and conceptions or meanings.			
	Altman & Low, 1992	Place attachment relates to the affective aspects of environmental meaning.			
Environmental	McAndrew, 1992	Physical environment has very real, immediate, or long-term impacts on human behavior and mental and physical health.			
Psychological Psychological	Steele, 1981	A place is not just an object. It is a larger whole that is being felt through the experience of meaningful events.			
	Shamai, 1991	Experience a place is a total sensual experience (hearing, sight, smell, touch & taste).			

2.2. Sense of Place¹

There is a variety of concepts that refer to people's feelings about the place. Sense of place, according to this study, is an umbrella concept that includes all the other concepts (attachment to place, national identity, and regional awareness). Sense of place is the complex bundle of meanings, symbols, and qualities that a person or group associates (consciously and unconsciously) with a particular locality or region [18]. Tuan used the term Topophilia instead of a sense of place and considered it as a lovely and effective relationship between people and place in the form of aesthetic, sensory, and emotional feelings [19]. Relph believed that the concept of sense of place is not very clear; he explained that we could describe our understanding of this concept, but we cannot give a precise definition for [4]. Canter argued that Individual and collective values influence a sense of place and also the sense of place affected individual behavior and social values and attitudes. People usually participate in social activities according to their sense of place [3]. Overall, a sense of place is the relationship between man, his image, and environmental characteristics. This concept on the one hand is rooted in the subjective experience of people (memories, traditions, history, culture, and society) and on the other hand, is affected by objective and external influences of the environment (landscape, smell, sound) that these lead to various association of a place. So the sense of place is a complex concept of emotion and attachment to the human environment which is created from people's adoption and use of places. This means that sense of place is not a predetermined phenomenon, but is created from interaction between people and places. Thus people give some preconceived images of places that live there [20].

2.3. Components of SOP

Different components of sense of place:

- -The physical characteristics;
- -The effect and meanings including memories and associations, as well as connotations and denotations;
- The activities afforded by the place;
- The social interactions associated with the place (considered by some authors as a subclass of activities)

2.4. Factors Influencing Physical SOP

According to the distinctive points of view on the sense of place, the concept of sense of place is both psychological and physical; in this study, the physical concept is emphasized. The traces of the sense of belonging and the physical factors related to it can be found among the theoretical texts left by the intellectuals of the urban planning and environmental sciences field. Scholars concerning the physical factors effective in creating and enhancing the sense of belonging to a place are shown in Table 2.

Table 2: Opinions of theorists regarding the physical factors of SOP (source: Au	uthors retrieved from	[11]:	[21]	: [22]: [3	331).
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Theorist	Year	physical factors			
	1960	Distinctiveness, simplicity of form, continuity, mastery, and dominance, Readability of			
Kevin Lynch		intersection points, the diversity that has a certain direction, field of vision, awareness of			
-		movement			
Norberg	1967-2000	Confinement, border and territory, centrality, diversity at the same time as unity, density,			
Schultz		continuity, human scale			

¹ SOP

Theorist	Year	physical factors			
Irwin Altman	1975-1992	Flexibility, scale, territoriality and exclusivity, accessibility			
Edward	1056	Border and territory, stimulating elements (sight, hearing, odor, movement, and sense of			
Relph	1976	touch)			
Rappoport	1977-1982	Physical social and cultural symbols, urban furniture			
		location, The size of the place, scale, components, texture, decoration, color, odor, noise,			
Fritz Steele	1981	temperature variation and visual variety, degree of enclosure, contrast, proportion,			
		human scale, distance, Identity, security, vitality			
Erika Spiegel	1984	Flexibility, unity in space, Border, and territory			
Cyril B.	1988	An organized structure, identity, variety and attractiveness, visual and functional			
Paumier		continuity, ease of use (convenience), comfort, and high quality.			
John Punter 1991		Urban landscape, permeability, building form, urban furniture			
Robert Rayan	1998	Natural elements			
Marino	2002	Facilities, suitability of place with function and context, sustainability, visual			
Bonaiuto	2002	characteristics			
Calman	2002	location, landscape, physical characteristics, ownership, originality, amenities, nature			
Salvesen	2002	(water, plants, sky, sun), private and public spaces			
Falahat	2006	size & Form, Texture, decorations, Relationships, and arrangements			
Maria	2008	Size, enclosure, diversity, scale, localism, use of a distinctive element (symbol)			
Lewicka 2008					
Daneshpour		Variety and Attractiveness, Unit physical character, Flexibility, urban landscape,			
& Saffar	2018	Accessibility & Permeability, Contextualism, Comfort & Convenience, Space structure			
sabzevar		& Shape of place			

According to Lynch, physical factors that lead to a sense of place are Distinctiveness, legibility, continuity, mastery and dominance, Readability of intersection points, the diversity that has a certain direction, field of vision, and awareness of movement are physical factors [21]. Schultz's studies show that confinement ,border and territory, centrality, and diversity at the same time as unity, density, continuity, and human scale can influence SOP [22]. Flexibility, territoriality and exclusivity, and accessibility are the factors that Altman mentioned [23]. Edward Relph and Rappoport are other theorists whose studies are about SOP. They emphasize Borders and territory, stimulating elements (sight, hearing, odor, movement, and sense of touch),

and Physical social, and cultural symbols and urban furniture [24]. According to Steele, a sense of place is the particular experience of a person in a particular setting. Components that lead to a sense of place in his opinion are location, The size of the place, scale, components, texture, decoration, color, odor, noise, temperature variation and visual variety, degree of enclosure, contrast, proportion, human scale, distance, Identity, security, vitality [25]. The opinions of theorists regarding the physical factors that are effective in creating and enhancing the sense of place are summarized and categorized in Table 3. As shown in this table, the physical components of the sense of belonging to the place are categorized into 7 criteria.

Table 3: Physical factors of sense of place (source: Authors retrieved from literature review).

Criteria	Factors	Theoreticians		
Morphological	Confinement/diversity at the same time as unity/density / human scale / The size of the place/proportion / physical characteristics / Distinctiveness/legibility	Kevin Lynch(1960) / Norberg Schultz(1967-2000) / Irwin Altman (1975-1992) / Fritz Steele(1981) / Fritz Steele(1981) / Falahat (2006) / Maria Lewicka (2008) / Daneshpour & Saffar sabzevar (2018)		
	border and territory / Flexibility/exclusivity/permeability / private	Kevin Lynch(1960) / Norberg Schultz (1967-2000) / Irwin Altman (1975-1992) / Edward Relph (1976) / Erika		
Spatial	and public spaces / Readability of intersection points	Spiegel (1984) / John Punter(1991) / Salvesen (2002) / Daneshpour & Saffar sabzevar (2018)		

Criteria	Factors	Theoreticians		
Visual & Sensation Factors	Physical social and cultural symbols/texture, decoration, color, odor, voice / visual variety / visual attractiveness / visual continuity/contrast/landscape / Natural elements	Kevin Lynch(1960) / Edward Relph (1976) / Rappoport (1977-1982) / Fritz Steele(1981) / Cyril B. Paumier (1988) / Robert Rayan (1998) / Marino Bonaiuto (2002) / Salvesen (2002) / Salvesen (2002) / Falahat (2006) / Maria Lewicka (2008) / Daneshpour & Saffar sabzevar (2018)		
Meaning	Identity/ safety/vitality/ease of use (convenience) / comfort and quality of place	Fritz Steele(1981) / Cyril B. Paumier (1988) / Daneshpot & Saffar sabzevar (2018)		
Accessibility	location /Centrality/diversity that has a certain direction	Kevin Lynch(1960) / Norberg Schultz(1967-2000) / Irwin Altman (1975-1992) / Fritz Steele(1981) / Salvesen (2002) / Daneshpour & Saffar sabzevar (2018)		
Facilities	Amenities / Furniture	Rappoport (1977-1982) / John Punter(1991) / Marino Bonaiuto (2002) / Salvesen (2002) /		
Sustainability	Localism & Sustainability / Contextualism	Marino Bonaiuto (2002) / Maria Lewicka (2008) / Daneshpour & Saffar sabzevar (2018)		

3. Research Methodology

This paper is applied research that was accomplished using a descriptive-analytical methodology and case study, the data were collected by using mixed methods. First, the qualitative method, "documentary library", was applied to derive the components that affect the physical sense of place in Nasir Al-Molk Mosque. Second, the quantitative method, "field survey", was applied to collect data using Persian-Language questionnaires based on 5point Likert scale. After measuring the validity of the indicators, the final test was taken considering the amount of Cronbach's alpha (0.853) and the results showed that the indicators and the questionnaire were reliable (Table 4). The statistical population consists of the people who were visiting Nasir Al-Molk mosque. Finally, using the Cochran formula, 379 questionnaires were distributed and 303 of them were returned. After collecting data, using SPSS26 software, the effective factors of variable were analyzed and the criteria including Morphological, Spatial, Sensation Factors. Visual & Meaning. Accessibility, Facilities, and Sustainability were obtained.

Table 4: Reliability Statistics (Source: Authors).

Reliability Statistics					
Cronbach's Alpha N of Items					
.853	20				

Case study

Nasir Al-Molk Mosque is a unique masterpiece in Shiraz that is unlike anywhere else. The

colored windows of this mosque are manifested with the glare of the sun and create an astonishing and spectacular scene. This amazing beauty has made Nasir al-Molk one of the most spectacular mosques in the world [26]. The mosque was built during the Qajar dynasty. Construction began in 1876 by the order of Mirzā Hasan Ali (Nasir Al-Molk), a Qajar ruler. And was completed in 1888. Nasir Al-Mulk Mosque is one of the old mosques in Shiraz, which is located in the God Araban neighborhood, south of Lotfali Khan Zand Street, near Shah Cheragh Mosque. This mosque is one of the buildings of the Qajar period. Its construction period is about 12 years and has lasted from 1914 to 1926. This mosque was registered in the list of historical monuments of Iran on February 1, 1956 [27]. The area of the mosque is 2737 square meters ([28]; [31]; [34]). (Figure 1)

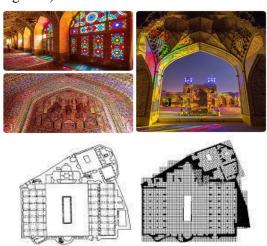


Figure 1: Plan and view of Nasir Al-Molk Mosque. (Source: Authors retrieved from [35])

4. Results and Discussion

4.1. Structure of Nasir Al-Molk mosque

This research aimed to survey the effectiveness of physical factors of SOP in Nasir Al-Molk mosque. Based on the research methodology, in the first step data has been collected through observation and field study. The whole building has two different parts: 1) the mosque and 2) the building of Imamzade Zanjiri. The first part is focused on this research. It has a large courtyard which is located in the northern part of the mosque and center, and a 16.5 m in 4.5 m shallow pool is built. At the entrance, it has the northern arch (Pearl Arch or Tag-e-Morvarid in Persian). The interior and exterior of this arch are covered with painted tiling that is similar to the tiling of other parts of the mosque. Southern Arch is shorter in size but it has the same details and tiling. The western harem is the main part of the mosque (13m in 28.5 m). The walls and arcs of the Harem have been decorated with beautiful tiling and the floor is covered with turquoise tiles and interior brick walls. Also, the ceiling is designed with floral and arabesque patterns and verses from Quran. The inner part consists of a series of arches and vaults as well as two rows of six columns which divide the interior of the western harem into smaller sections. The beam of sunlight and the passage of light through colored

glass by combining red, azure, yellow, orange, and green colors create an indescribable image of the interior of this place. The eastern wall has seven wooden gates with colored glasses and the art of Gereh Chini (Trelliswork). Eastern Harem is smaller than Western harem. Seven simple columns stand there and at the back of this simple harem (Shabestan), a door opens to the water supply chamber (Figure 2 and Table 5).

Figure 2. Isometric perspective of Nasir Al-Molk mosque. (Source: Authors retrieved from [35]).

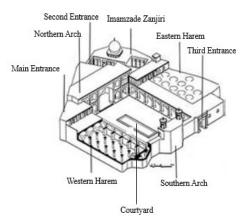


Table 5: Different parts of Nasir Al-Molk mosque (Source: Authors).

Space	Location in the totality of body/picture	space	Location in the totality of body/picture
Eastern Harem		Southern porch	
Northern porch		Western Harem	
Courtyard		Ci Cicia	

4.2. Characteristics of participants

The descriptive table of the statistical population according to the characteristics of gender, age, education, and job (Table 6) shows, the sample size was 303, of which 50.5% (n=153) were

women, and 49.5% (150) were men. The age of the majority of participants was 25-35 years (n=123, 40.5%) and most of them had bachelor's degree (n=153, 50.5%).

Table 6: Frequency Distribution Of The Sample People Based On Gender, Age, Education, And Job (Source: Authors).

Criteria	Factors	Frequency	Frequency percentage	Picture
	Female	153	50.5%	
Gender	Male	150	49.5%	Male Female 49 49.5 50 50.5 51
	<25	24	7.9%	
Age	25-35	123	40.5%	>55
	35-45	96	31.6%	35-45
1190	45-55	21	6.9%	<25
	>55	39	12.8%	0 10 20 30 40 50
	Under Diploma	12	4%	Ph.D.
	Diploma	78	25.7%	Bachelor
education	Bachelor	153	50.5%	Under Diploma
	Master Degree	39	12.9%	
	Ph.D.	21	6.9%	0 10 20 30
Job	Employee	240	79%	Unemployed
	Unemployed	63	21%	Employee 0 50 100

4.3. Result and discussion

Friedman's test was used to prioritize the components (Table 7). Figure 3 shows the percentage of the criteria under study; *visual & sensation Factors, meaning,* and *morphological*

have the highest value, and the criteria of *Facilities* and *sustainability*, and *accessibility* are the most valuable of low and very low.

Table 7: Ranks of components based on Freidman's test (source: Authors).

Ranks		Test Statistics		
	Mean Rank	N	202	
Morphological	4.37	N	303	
Accessibility	1.93	Chi-Square	270.137	
Meaning	4.58	Cili-Square	2/0.13/	
Visual & Sensation Factors	Visual & Sensation Factors 4.64 Facilities 2.20		5	
Facilities				
Spatial	3.28	Asymn Sig	.000	
Sustainability	1.28	Asymp. Sig.	.000	

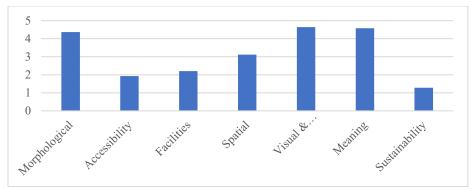


Figure 3: Ranks of components based on the questionnaire (Source: Authors).

According to the results of Tables 8 and 9, physical parameters have a significant effect on creating a sense of place and the variables of SOP including *exclusivity* in *morphological* factor (Mean: 4.00), *permeability* in *spatial* factor (Mean: 3.37), *location* & *centrality* in

accessibility (Mean: 2.50), amenities in facilities (Mean: 3.00), identity in meaning (Mean: 4.15), texture, decoration, color, odor, the voice in visual and sensation factor (Mean: 4.46) and contextualism in sustainability (Mean: 2.70) have the highest impacts on people.

Table 8: Frequency of Criteria (Source: Authors)

			Table	. Prequency of C	criteria (Boure	c. Municisj.		
		Morphological	spatial	Accessibility	Facilities	Meaning	Visual and sensation factors	Sustainability
N	Valid	303	303	303	303	303	303	303
	Missing	0	0	0	0	0	0	0
	Mean	4.08	3.48	2.62	2.84	4.16	4.18	1.28
	Median	4.00	4.00	3.00	3.00	4.00	4.00	2.00
	Mode	4	4	2	3	4	4	2
St	td. Deviation	.744	.844	1.018	.880	.674	.573	.54
	Variance	.554	.712	1.037	.775	.455	.328	.715
	Minimum	3	1	1	1	2	3	1
	Maximum	5	5	5	5	5	5	5

Table 9: Frequency of Factors (Source: Authors) Private-public Visual variety Contextualism Human scale permeability Localism & sustainability Identity Texture decoration ccessibility Centrality Ease of use exclusivity proportion Location continuity Flexibility inside to Furniture **Amenities** symbols Visually Cultural Natural diversity vitality elements safety 294 Valid 294 303 303 303 300 300 300 303 303 300 297 303 303 300 303 303 303 303 3 0 1 0 0 2 0 0 0 3 Missing 0 0 1 1 1 0 0 6 3.56 4.00 3.70 3.96 2.83 3.37 3.32 | 2.50 2.32 2.50 2.80 3.64 3.81 3.49 4.15 4.46 4.05 4.02 3.66 2.86 2.50 2.83 Mean Median 4.00 4.00 4.00 4.00 3.00 3.00 3.00 | 2.00 2.00 2.00 3.00 4.00 4.00 4.00 5.00 4.00 4.00 4.00 3.00 2.00 3.00 2 3a 2 4 2 2 5 2 Mode Std. .953 .837 1.005 .882 1.146 1.031 .898 1.074 1.095 1.030 .857 .890 .913 1.105 .780 .671 .779 .748 .993 1.233 1.030 1.146 Deviation 909 .700 1.011 .778 1.314 1.064 .806 1.152 1.199 1.061 .734 .792 .834 1.222 .608 .450 .608 .560 .986 1.521 1.061 1.314 Variance 2 2 2 2 2 2 Minimum 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 Maximum

Table 10: Percentage of factors (source: Authors).

Criteria		Results										
	Factors	Very Good	Good	Bad	Very Bad							
Morphological	human scale	18.4 %	33.7%	33.7%	14.3%	0%						
	exclusivity	29.7%	44.6%	22.8%	2%	1%						
	Size & proportion	23.8%	36.6%	27.7%	9.9%	2%						
	diversity	31.7%	37.6%	25.7%	5%	0%						
	legibility	9%	32%	43%	14%	2%						
Spatial	Flexibility	7%	25%	24%	32%	12%						
	border & territory	23.7%	50.6%	20.8%	4%	1%						
	permeability	12%	37%	32%	14%	5%						
	cultural symbols	26.7%	50.5%	20.8%	21%	0						
Visual & Sensation Factors	visual variety & continuity	30.7%	45.5%	21.8%	2%	0%						
	Texture, decoration, color, odor, voice	54.5%	37.6%	7%	1%	0%						
	Natural elements	18.8%	43.6%	26.7%	6.9%	4%						
	Identity	35.6%	46.5%	14.9%	3%	0%						
Massins	safety	17.8%	37.6%	36.6%	6.9%	1%						
Meaning	vitality	24.8%	38.6%	31.7%	3%	2%						
	ease of use	22%	29%	27%	20%	2%						
Accessibility	Location & Centrality	4%	14.9%	26.7%	36.6%	17.8%						
Facilities	Amenities & Furniture	1%	19%	27%	35%	18%						
Sustainability	Localism & sustainability	28.7%	47.5%	16.8%	5%	2%						
	Contextualism	34.6%	47.5%	15.9%	2%	0%						

Based on visitors' observation this mosque is hard to reach, but it's near Vakil Bazar, around 20 minutes by walk. For female visitors, a "chador" (a piece of cloth to cover from head to ankle) will be given at the entrance, and many are not comfortable wearing it.

On the other hand, visitors say that Nasir-Al-Molk is not the most famous mosque in Shiraz, but one of the most beautiful. It has stained glass windows and the light makes it seem like a perfect blend of both mosque and cathedral. It is a beautiful and peaceful place and the feeling of calm was rippling in it.

Based on the authors' observation, participants' reaction to different parts of the mosque was different and it has been categorized in three scales from black to white. The full black circle shows the highest attention and the full white circle shows the lowest attention of viewers in that space. Black-white circle has a moderate impact (Table 11).

According to the table, *safety* is very good in all parts of the mosque, but *amenities* and *furniture*, and also *flexibility* is very weak in the whole mosque. Because the placement of different parts of the mosque is against the usual rules and the Southern porch is only a wall, the location of different parts is not legible. Regarding sustainability criteria, *Contextualism* has a moderate impact. Diversity in Courtyard, Southern porch, and Western Harem is very good; and in the Northern porch is moderate.

Generally, the Western harem is the main part of the mosque and people are more present in this part of the mosque. In the western harem size & proportion, diversity, legibility, cultural symbols, visual variety & continuity, safety & vitality have been evaluated very well, while in the courtyard exclusivity, diversity, border & territory, permeability & safety are satisfied by the visitors.

In general, based on quantitative statistics and the results of observation and interview, *safety*,

diversity, permeability, visual variety & continuity, cultural symbol, legibility, exclusively, identity, texture, and contextualism have been evaluated as appropriate in this mosque. This shows that to increase the sense of

belonging to the place and as a result of the presence of more native people in this mosque, factors such as *accessibility*, *facilities*, and *flexibility* should be improved and *natural elements* should be increased.

Table 11: Physical factors of sense of place in different parts of the mosque (Source: Authors)

	Table 11.	Criteria																		
Space	Location in the totality of the body	Morphological				Spatial		Visual & Sensation Factors			Meaning				Accessibility	Facilities	Sustainability			
		human scale	exclusivity	Size & proportion	diversity	legibility	Flexibility	border &	permeability	cultural symbols	visual variety &continuity	Natural elements	Identity	safety	vitality	ease of use	Location	Amenities &	Localism & sustainability	Contextualism
Courtyard		•	•	•	•	0	0	•	•	•	•	•	0	•	0	0	•	0	0	0
Southern porch		0	0	0	•	•	0	0	•	•	•	0	•	•	0	•	0	0	0	•
Northern porch		•	0	•	•	•	0	0	•	0	•	0	•	•	0	•	0	0	0	•
Western Harem		•	•	•	•	•	0	•	0	•	•	•	•	•	•	•	0	0	0	•
Eastern Harem		•	•	•	0	•	0	•	•	•	0	0	0	•	0	•	0	0	•	•

5. Conclusion

In summary, the purpose of this study is to survey the effectiveness of physical factors of SOP in Nasir Al-Molk mosque, which belongs to the Qajar era. According to the authors' reviews, the investigation of physical factors of SOP in this mosque has not been investigated so far.

Participants were visitors to the mosque (n=303). The literature review identified

significant Physical factors influencing SOP in the mosque, which can be classified into six main parameters including *morphological, spatial, meaning, accessibility, facilities, sustainability, and visual and sensation* factors. Results of the research showed that the parameters of SOP certainly existed in Nasir Al-Molk mosque of Shiraz and they can create a sense of place in this place. The effectiveness of the factors was

different and reported different percentages for each of them. The most influential factor is "texture, decoration, color, odor and voice" which has the greatest impact from the perspective of participants responding to the questionnaire. The second and third important factors were identity and visual variety & continuity, respectively. In contrast, ease of accessibility has the lowest impact on creating a sense of place from the perspective of visitors to the mosque.

Results from this study are consistent with previous research. Peymaei & Shahbazi (2016) & Nekoee et al (2019) used the same research methodology to investigate people's sense of place, respectively in the Jame Mosque of Zanjan and Isfahan. Also, the results of current research and Nekoee et al (2019) ranked Symbolism as one of the important factors in SOP in religious-Historical Buildings. Daneshpour & Saffar Sabzevar (2018) mentioned "variety and attractiveness" and "unit physical character" has the most correlation with place attachment in old centers and old historical contexts of cities. Based on the analysis and statistical results of this research "visual verity and continuity" and "exclusivity" are two of the important factors in SOP which are consistent with previous research.

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