

TO MEASURE EFFECT OF RASOULIAN HOUSE'S FACADES (FACULTY OF ART AND ARCHITECTURE OF YAZD) ON THE PROCESS OF FORMATION OF MEMORY IN THE ARCHITECTURE STUDENTS

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ABSTRACT

Human's everyday life and a range of communications, social interactions and activities have been developed with an emphasis on the spaces. The spaces replete with memory with a permanent position in addressees' mind grow in an infrastructure of experience and education. The present research aims to examine the relationship between facades of a residential house and formation of memory in human's mind so as to propose the criteria to create favorable qualities in design of façade of modern buildings to managers, planners, designers, and architecture and urbanization students, because façade is an important part of the body of architecture buildings which has undergone neglect that can have a key role in formation and creation of sense of belonging to a place. In the present research, descriptive correlation has been used as the research method, in which a theoretical exploration into concepts of memory and façade has been made and creation or improvement of sense of belonging, social cohesion and sense of place have been mentioned as the psychological, social and environmental functions of collective memory. In the present research, Rasoulia House (Faculty of Art and Architecture of Yazd) has been selected as the case study, in which the users' comments on factors affecting collective memory have been collected and analyzed via the questionnaire. Results of research indicate that the features such as simplicity, visual proportions and mystery are of more importance in collective memory and attachment to the place, whereby this can affect users' mind to increase the possibility for formation of diverse activities and improvement of façade of environment.

Keywords: *Sense of Place, Collective Memory, Façade, Spatial Utility*

INTRODUCTION

Belonging to a place has been regarded as the most important factor for durability of sustainability in a space even from physical, semantic and memorial perspectives, because a space which remains in human's mind forever is a space which builds identity or a relative and historical space which does not annihilate (Canter, 1977). In this regards, the house and spaces related to this space are found prevailed with sense of place, so that Kohlberg and Lawrence (1987) and Saegert (1985) have known the term "house" as a meaning which goes beyond a shelter. Concept of houses represents an emotional and meaningful linkage between people and their residence. With a similar approach, Dovey (1985) has known the house as a secure and predictable place in which the person orders to space and time; he has mentioned the house as a major linkage between person and rest of the world. Duncan (1985) has known the house as a place for all the people, the world and the position which gives order to the irregularities, an infrastructure in which the human life comes to realize, a place in which events occur, a place in which events cause development of human life, causing formation of memory eventually. Hence, it's not hyperbole if the mind is considered as the place for accumulation of collective and individual memories. Collective memory encompasses individual and group memories that separate the collective thought from individual memory. With regard to what mentioned above, it is unfair that if a house is considered as a place to explore the past especially the past of individuals, it will be summarized just in physical body, mentioned that the place which encompasses numerous knowledge from the childhood develops the formation of memory. According to Benjamin, quoted from Tajbakhsh (2004), role of places has been considered stronger than role of people with referral to memories. It seems that since the sweet memories

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of the past originate from gathering together by members of family, important role and effect of architecture body in line with enhancement of sense of place and formation of memory from the space can be taken into consideration. Hence, the present research seeks to examine effect of architecture body to make the architecture space memorable with an emphasis on facades of the building under study. The research hypothesis has been grounded on this fact that it can perceive that how memory forms in an architecture space including house regarding recognition of effective components in quality of physical environment. Hence, the present research seeks to specify what are the effective components in formation of memory? How elements and components in façade in the process of formation of memory affect addressee's mind? What factors have caused a space with major residential use acquires the capability for transformation to an educational place?

To give response to the questions above, points of view of architecture students at Rasoulilian House's facades (Faculty of Art and Architecture of Yazd) as an educational body were examined. In following, the main purpose of the present research is to create quality in the concept of educational architecture space, improve utility of life space and education for architecture students. The present research has been considered as a descriptive correlation conducted via descriptive survey. The researcher made questionnaire consisting of five questions has been used to collect data that utmost 6 key words have been predicted by the respondents in response to each question. Experts' and professors' points of view at architecture area were used to be confident with validity of questionnaires. Further, the statistical population consists of 20 respondents.

Literature Review

Memory

Terminology of Memory

In Oxford Dictionary, the term "memory" has been regarded as a form of creative nonfiction in which a person recounts experiences from his or her life. In Webster Merriam Dictionary, in addition to use of memory in computer, this term refers to the subjective concept as well as power or the process of memorizing what has been learnt. In Dehkhoda Dictionary, memory has meant the affairs which have occurred in the past of person remained with the outcomes in the person's mind.

Essence of Memory

According to point of view of new thinkers, memory discourse has been centered at human sciences discourses especially at the literature and art areas. Yet, discussion on memory is not just a scientific discussion but it can be examined as an aesthetic issue from different perspectives. The early comprehensive discussions concerning memory have lied on the theories of the thinkers such as Plato and Aristotle. Indeed, before the age of Plato and Aristotle, humans' imagination from the world of memory has been a mythical imagination, such that a mythical creature has been known as the caretaker of memories of the heroes in mind. From point of view of Plato, proper understanding refers to an understanding with an eternal aspect, yet Aristotle has secularized memory for the first time and brought it from heaven to earth. He has known memory associated to the past of a person experienced by individuals. Gradually, at current age, a new epistemology was proposed in which mind was assumed as a blank and empty tablet on which the human memories are engraved based on the experiences which develop gradually during life. This epistemology caused emergence of memory in psychological spaces, undergoing analysis of the world of individuals' memories from psychological and empirical perspectives by the individuals such as Freud and Lacan (Ahmadi, 2008). People's memories from their city or living area emerge in two ways, dividing into two groups: 1- the first group includes our individual memories from the joyful events and the disasters which we have faced them, including the childhood games to events in adolescence which made the alley in living area, school, neighborhood and so forth memorable for us; the second group consists of our collective memories from city (Ahari, 2011). The modernist outlook such as Bergson's outlook has known memory as an individual issue which is displayed through a string of perceptions (Boyer, 1994). According to Habibi, under the active attendance by people in urban events, the man lives in the present moment and keeps details in his mind, under which he makes every moment eternal in his mind. These details include all components of surrounding environment, including

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physical and spatial details. To give an explanation for the linkage between memory and space, Halbwach (1968) has mentioned the term 'memory' in two spatial and temporal scopes knowing it grounded on the experience from past, i.e. what has expanded from the past and dominated the person. By presence in space, this experience is reproduced and collective memory develops. The book 'place Psychology of Counter' has been regarded as one of the most effective research to determine the components contributing in the linkage between people and urban environments. By representation of the place model, Counter has introduced three components of characteristics of activity, meaning and body as the major dimensions of any research to improve quality of the linkage between space and approach to identity and collective memory in development plans (Soltani *et al.*, 2013). Further, Kevin (1979) has known identity of environment as the reason for having a clear subjective image from it through the other words, discussing on biological dimension of human with architecture.

Façade

Terminology of Façade

In Webster Merriam Dictionary, the term 'façade' has referred to front of a building and each front of a building with a special architecture behavior. In the second meaning, façade refers to fabricated display or decorative appearance of work. In Oxford Dictionary, façade refers to a deceptive appearance as well as main entrance of a building which extends to a street or open square. With regard to the texts, façade has been originated from the Latin word 'facia' which means timbre originated from the word 'face' in 14th century and from the French word 'façade' which means face in the 16th century. This word has meant apparent face of everything, what is subjected to vision and in front of you, what is seen from outside, exterior landscape of building, exterior part of building and pavement technology of building.

Concept of Façade

Jahanshah (2004) has mentioned four expected functions from façade based on the concise investigations by Deilmann *et al.*, as protection, creation of linkage, introduction and a part of an urban space; these expectations are in conflict with each other, yet in practice they are the conclusions through which the designer must make attempt to build balance between them. In recent years, after proposing the significance of public spaces and value of urban life, façade has doubled in significance. Façade represents a cultural status of the builders of building, indicating the extent of order in plan of building, facilities, taste of decoration by designer and owner. A façade has been targeted in introducing status of residents of building among people. Indeed, façade represents appearance of building and the best state that the designer or owner expresses when standing in front of building. Interior facades of building have more likely a private aspect, yet the facades which are opened to the alley and fabric of city have public aspect. The main facades of buildings are of great importance because they indicate that the architects of the past have respected to which values in their building (Afshar, 2008). According to the investigations by Najm (1989), the Iranian residential houses have exploited from central yard(private space) to make relationship between interior and exterior space of building till the late 19th century, so that building as the blind which just focuses on exterior space has centered in interior space, such that any manifestation was limited to the walls of central yard and private space. Since the late 19th century, Iranian architects' approach to residential house was changed, such that extroverted building were emerged by taking a cue from Europe at the margin of newly established streets. This has been in conflict with introverted culture of residents, which residents kept hiding their private life behind thick curtains. To sum up, according to the traditional concept of façade, this word encompasses the characteristics such as being developed from meaningful components, a part of the urban façade, putting an emphasis on a certain direction. Hence, façade does not refer to a flat surface, but it refers to a transitional surface between interior and exterior space which connects to the interior space of building through terrace and opening. As a result, façade is symbolized through the thresholds which describe the trajectory from exterior space to interior space.

Determination of the Constructive Components of Façade in Formation of Memory

Vitality of human environments refers to a quality which derives from dynamism, movement and everyday life of addressees in relation to infrastructure of their activity, which this permanent relationship is in form of accumulation of human experiences, a part of the process of establishment of place and

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creation of sense of belonging to surrounding environments. It can assume vitality as a social and spatial phenomenon which develops in interaction between human and architecture. Hence, vitality as one of the earliest components for emergence of memory and sense of belonging to place is not a product to produce it with a sudden action but it is a process of continuous creation for which the implications of façade design as a major manifestation of building body and human addressee are required to conduct and control it, so that Kevin A. Lynch has announced improvement in quality of urban life dependant on the criteria below in publishing the theory of good form of city in 1981: 1-vitality, 2-sense, 3-adjustment, 4-availability, 5-control and supervision, 6-efficiency, 7-justice. Significance of the linkage between interior and exterior space of building which associates two different states has caused not just the entrance and windows but also façade play the role of joint in human's mind, making both interior and exterior spaces as a high-quality place. Jane (1961) in the book "Life and Death of America's great cities" has mentioned five criteria for the environment with high quality as follows; 1-taking the suitable activities into consideration before paying attention to visual order of environment, 2- using complex use in sake of diversity in use and presence of buildings with different histories at a region, 3-paying attention to element of street, 4-availability of fabric, 5-social mix and flexibility of spaces. To sum up, it can refer to seven criteria which have been mentioned by Ian Bentley et al in creation of responsive environments: 1- Permeability, 2-diversity, 3-legibility, 4-flexability, 5-visual proportions, 6- sensory richness, 7- Color of Belonging. To elaborate this relationship, collection and characterization of studies at the area of architecture body and emergence of memory has been mentioned as the first step. In this regards, to create a comprehensive framework, firstly effective components in creation of façade as the apparent part of architecture body concerning memory and its criteria should have been elaborated. At the second stage, these dimensions in Rasoulilian House's facades (Faculty of Art and Architecture of Yazd) were examined to clarify the relationship between addressee and façade through questionnaire and analysis instruments of responses. Result of study, and extracted components and criteria will be considered as the suggestions in future studies for planners and urban designers so as to increase sense of belonging to building and make the building memorable.

MATERIALS AND METHODS

Research Method

Data, Instruments and Methods

Any research uses the methods in accordance with type of research so as to achieve the aims and give response to the questions in researchers' mind. In this regards, the present research is an applied research in sake of aim and a field research in sake of degree of control over variables and also a descriptive correlation in sake of how to process information. Here, after examining concepts and backgrounds associated to the subject of research, field method, direct observation by the researchers, experience of presence in space, students' interview with each other to detect different elements and dimensions of façade, regulation of criteria, indirect observation and analysis of users' responses have been used to determine effective factors on formation of memory. It should be noted that Rasoulilian House's facades (Faculty of Art and Architecture of Yazd) is examined as the research scope in the present research. The statistical population consists of the architecture students who have passed their next education degrees (Msc and PhD) after being graduated from bachelor degree in another university except for this space with a different sense to it. The sample size consists of 20 questionnaires consisting of five questions that 6 keys words have been predicted by the addressee for each question. In this research, five questions have been designed at this area to examine function of architecture body especially facades on the status of formation and acceptance of human memories in addressee's mind. These questions have been designed targeting in extracting the major key words and items in addressee's mind which can pave the way for this mutual relationship. Through proposing the factors contributing in creation of sense of belonging and attachment in this educational space in user's mind, a comparative study on the traditional and modern educational architecture spaces was made. To sum up, through analyzing the questionnaires, observations, field studies and summarizing the viewpoints, an attempt was made to divide and examine

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the effective factors in facades of Rasoulia House (Faculty of Art and Architecture of Yazd) as the educational architecture space in process of formation of memory and emotional attachment to it.

The Case Study: Rasoulia House (Faculty of Art and Architecture of Yazd)

Rasoulia House was established in Yazd, Sahl ibn Ali neighborhood, by the deceased Haj Mirza Kazem Rasoulia's attempt and Master Mohammad Hassan Mohammad Rahim's action in 1904 coincident with the late years of Qajar government. In 1989, Yazd University was endowed with Rasoulia House (Faculty of Art and Architecture of Yazd) and the modern life and activity of art and architecture faculty was started after major reconstruction. Without doubt, yard of Rasoulia House (Faculty of Art and Architecture of Yazd) has been memorable for all the ones who have being educated in this faculty, yet this space might have been proposed neither as the educational sector of university nor as the classroom, atelier and so forth. Yet a majority of users have constantly remembered the yard of Rasoulia House (Faculty of Art and Architecture of Yazd) even after passage of years. Indeed, yard of Rasoulia House (Faculty of Art and Architecture of Yazd) has been regarded as a space for students' gathering, a place for formation of most of pre-determined meetings, a place for starting most of inter-personal relationships, common events among individuals and social interactions. After passage of years, this space has remained memorable in users' mind (Asgari, 2010). In Rasoulia House (Faculty of Art and Architecture of Yazd), image 2 represents the most fundamental sector that the yard of this house has been mentioned as the most lovely space (Mir, 2003). This space has been recognized as the infrastructure for most of social interactions. According to Kosheshgaran, this space does not represent the architect's work but represents the exploration into the talent of environment, so that the architect has invoked to creation of possibility instead of creation of functional place in this space. What has been called with exploration into talent of environment is respected due to alignment with nature of environment in a natural from by the environment (Kosheshgaran, 2011).



Picture 1: Location of Rasoulia House in Yazd



Picture 2: Rasoulia House Source: Author

RESULTS AND DISCUSSION

Findings of Research

General Characteristic of the Population under Study

The statistical population consists of architecture students who have been graduated from this faculty at a degree of their academic education and they have selected another space to continue their education. Without doubt, among huge number of individuals at different age groups with different genders and education degrees, the statistical population consisting of 20 individuals has been examined and analyzed for further accuracy and exploration. According to the data of questionnaires, 65% of the participants are at the age group 30-34 years old and 25% and 10% of participants are at the age group 26-30 and above 34 years old (diagram1). Further, the data in diagram2 indicate that 55% and 45% of participants are native and non-native people. According to diagram3, it can perceive that 60% and 40% of participants

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have master and PhD degrees, respectively. Finally, diagram4 indicates that 75% and 25% of the participants are female and male, respectively.

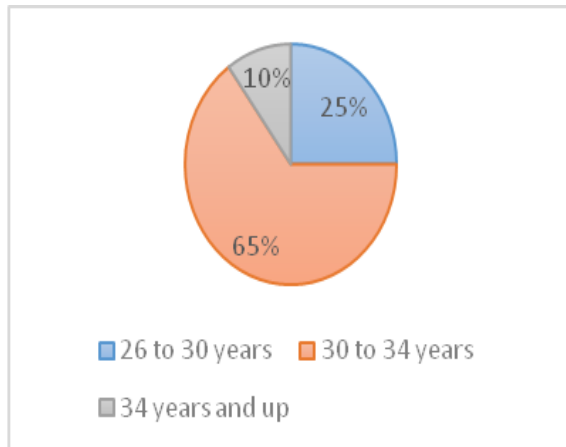


Diagram 1: Age Status Respondents

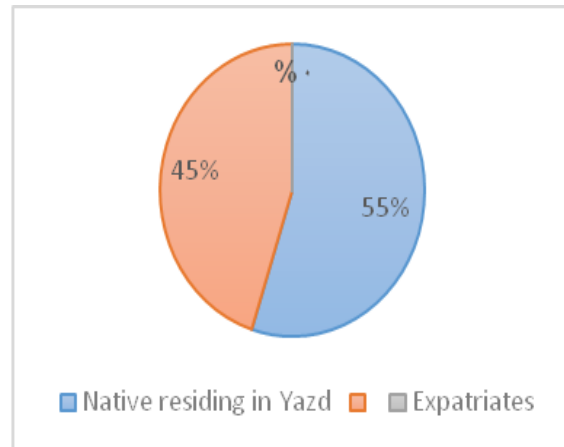


Diagram 2: Location Respondents

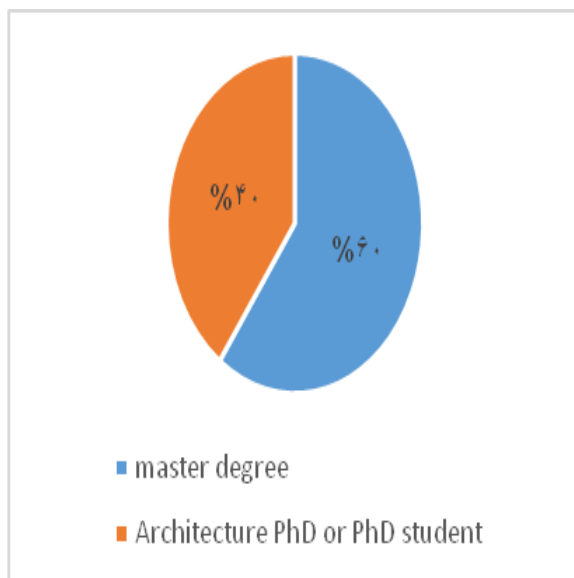


Diagram 3: Education Respondents

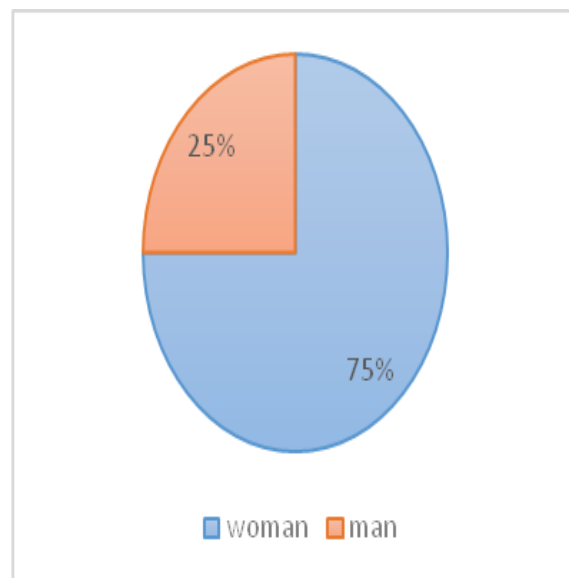


Diagram 4: Sexual Situation Respondents

Detection of Existing Factors in Making the Facades of Rasoulia House (Faculty of Art and Architecture of Yazd) Memorable from Point of View of Users

The early studies on the statistical population indicate that the place belonging to the Rasoulia House (Faculty of Art and Architecture of Yazd) and effect of this space on formation of relationships, emotions and memories seem inevitable from point of view addressees and users of this space including students at other fields of study with art tendency, professors and staffs of this faculty and also the tourists. According to evaluation and measurement based on diagram5, 60%, 35% and 5% of the participants have believed in mutual effect of facades of this faculty on formation of memory at very high, high and average level, respectively.

In this regards, they have believed in formation and creation of memory under constant presence of individuals in this space, that it can consider this case as the capabilities of architecture of this space for addressees' constant presence (table 1, diagram 6).

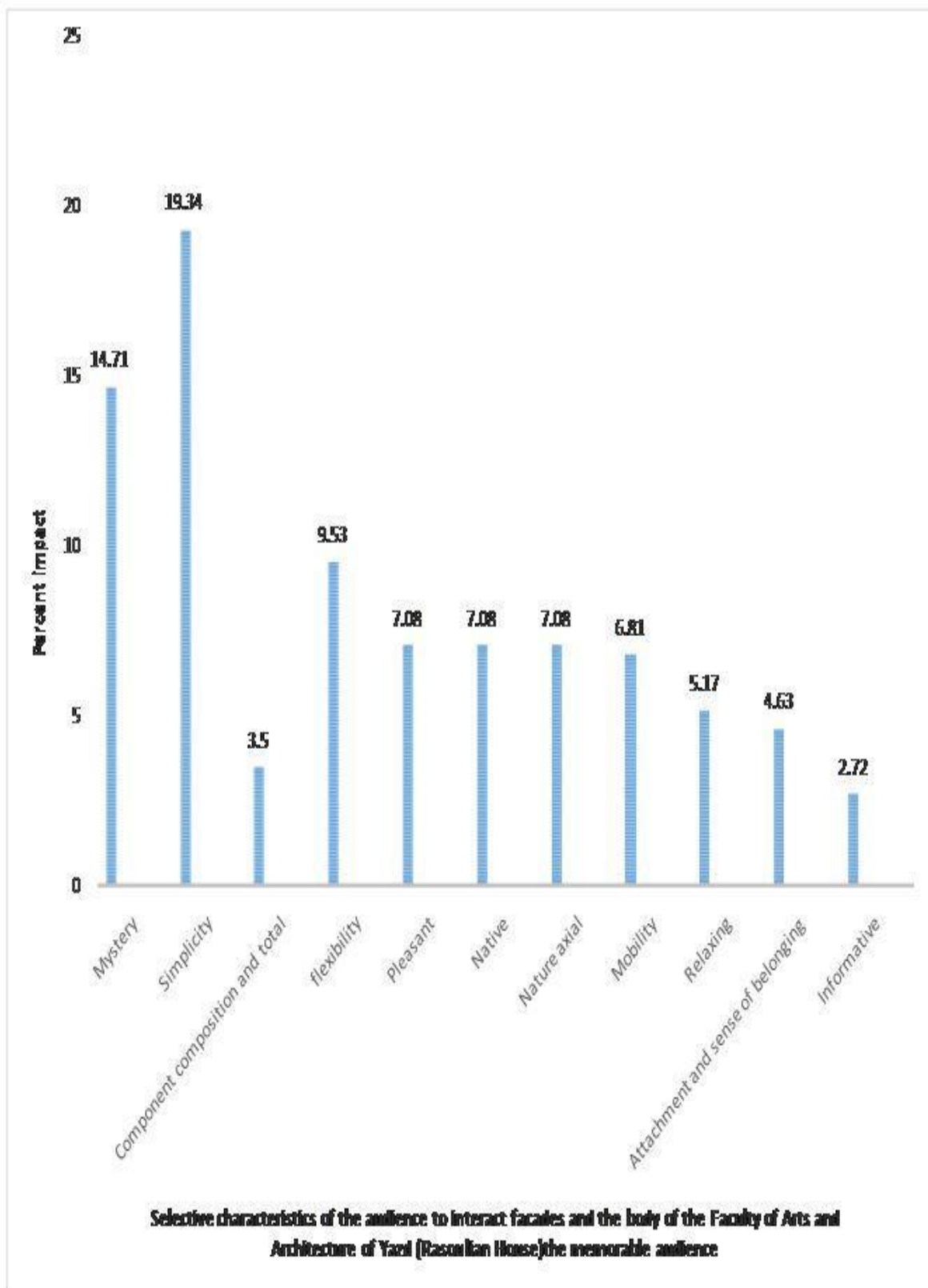


Diagram 5: Search keyword main interactions of the audience saw the formation of memory in the Faculty of Arts and Architecture of Yazd (Rasoulilian House)

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Table 1: Main Key words and Subsidiary Keyword

Main Keyword	Subsidiary Keyword	Weights	Wt	Average	Main Keyword	Subsidiary Keyword	Weights	Wt	Average
Simplicity	Simplicity	21	29.57	3.38	Nature axial	Nature axial	17	62.38	1.52
	Intimacy	9	12.67	7.88		Light	8	30.76	3.25
	Readability	18	25.33	3.94		Color	1	3.84	26
	Feeling at home	23	32.39	3.08		Sum	26		
	Sum	71							
Mystery	Mystery	2	3.70	27	Native	Native	26	100	1
	Diverse	38	70.37	1.42		Sum	26		
	Elaborate	14	25.92	15.75		Pleasant	13	50	2
	Sum	54				Penetrating	13	50	15.36
Multiple visual sequences	Multiple visual sequences	3	33	3	Relaxing	Sum	26		
	Rhythmic visual composition	2	22	4.5		Relaxing	11	57.89	1.72
	Tunable	4	44	2.25					
	Sum	9				Holy	1	5.26	19
	flexibility	22	62.85	1.59		Identity	7	36.84	2.71
flexibility	Potential environment	9	25.71	3.88	Attachment	Sum	19		
	multilayer	4	11.44	8.75		Attachment	2	11.76	8.5
	Sum	35				Ownership	9	52.94	1.88
	Component composition and total	14	28.57	3.5					
The right combination of part and whole	Introversion	9	18.36	5.44	Mobility	memorable	6	35.29	2.83
	Heir people	15	30.61	3.26		Sum	17		
	Security	2	4.08	24.5		Mobility	7	28	3.57
	Welcome proportions	3	6.12	16.33					
	Caller	1	2.04	49		live	12	48	2.08
	Symmetry	3	6.12	16.33		Fluid	6	24	4.16
	Balance	2	4.08	24.5		Sum	25		
	Sum	49				Informative	10	100	1
						Sum	10		

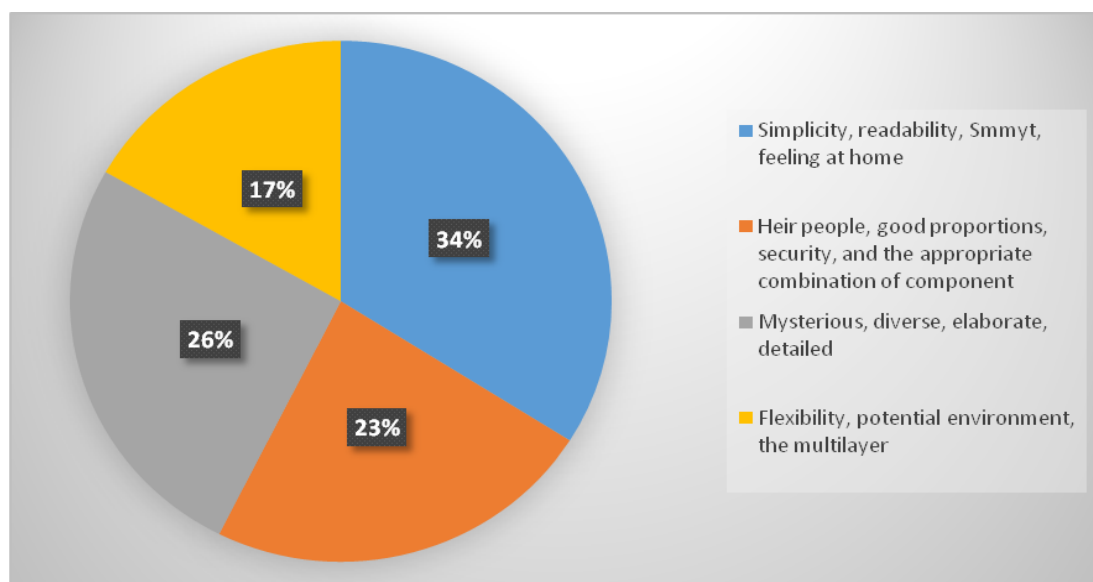


Diagram 6: The main factors considered in artificial breeding memories

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The Reason for Significance of Existing Elements in Making Facades of Rasoulia House (Faculty of Art and Architecture of Yazd) Memorable

According to the investigation and analysis of the responses by the addressees regarding table 5, the obtained results indicate that the factors in range of different words but range of similar meanings affect sense of belonging to this space, attachment and formation of memory, so that the highest frequency has been given to the simplicity and the factors included of simplicity and the least frequency has been given to the multiple visual sequences of space from point of view of addressees. On the other hand, physical factors in façade, hierarchy, shadow and full and empty facades and so forth which pave the way for manifestation of façade for the addressee intensify the sense of belonging to environment. According to table 6, as a result of this discussion, it can pay a particular attention to the term "consistent composition between a part and entire space in the façade of architecture of this faculty" with the highest range of word which has put an emphasis on significance of such factors to create memory.

Conclusion

In addition to mental and spiritual conditions, making the space memorable is under influence of the factors contributed in architecture body that will result in deeper and more beautiful memories in addressee, if they are recognized properly.

The present research made an attempt to put a more emphasis on one of the important spatial events, that is, place belonging and making the space memorable in a successful architecture case study through examining these components. In addition to change of function and use of space, this space has the ability to meet users' needs. In this regards, firstly effective factors in formation of memory from place were extracted from points of view of authors and then the relationship between each of important factors of architecture body, that is, façade, making the space memorable and creating sense of belonging to space was considered using science of statistics. Results of test indicated that the factors contributed in façade such as simplicity, mystery, multiple visual sequences of space, flexibility, and suitable composition of a part and entire of space, nature orientation, desirability of space, attachment, dynamism and tranquility play a key role in formation of memory from space. Further, the secondary parameters such as legibility, dynamism, vitality, diversity and flexibility develop sense of belonging to space. Indeed, the man can connect to an environment which is a part of him, attaching to it. Therefore, such space can cause the man to have memory from it. Flexible, native, proportional and intimate facades have high potential to compromise with their addressee, under which the person knows himself belonging to the environment and reminds his memories.

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