Explanation of the Qualitative Values in a Space with a view on the Capabilities of Vernacular Architecture: Case Study: Context-Based Architectural Schools

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Abstract

The aim of the current study has been based on explaining the introduction of hidden and apparent factors in the context and ground of architecture, which can be influenced by it in the process of audience's educability from a new aspect; therefore, the "data-based theory", which is one of the newest qualitative research methods, was applied and in order to demonstrate its efficiency, Yazd faculty of Architecture was selected as the case study in order to explain the stages of conducting this research step by step. data analysis was carried out based on the three methods of open coding, axial coding, and selective coding. Then, according to the theories of Strauss and Corbin, the validation methods of qualitative research were applied. The findings of this research at the final stage indicated 28 open codes, 16 axial codes, and 6 selective codes and the paradigmatic pattern was organized as follows: 1. Causal variables, 2. Contextual variables, 3. Intervening variables, 4. Pivotal phenomenon, 5. Strategies, and 6. consequences and results. The results of this research indicate that by aligning the goals of academic education with executive principles, on the one hand, and recognizing the identity values in the evaluative view on place, on the other, we can accurately integrate the hidden and apparent capabilities of education in line with the audience's psychological training.

Keywords: Education; Sociability of Place; Environmental Psychology; Vernacular Architecture; Data-Based Theory.

1. Introduction

Feeling of belonging to a place is always the most important factor in the durability of space in terms of both physical and functional as well as semantic and memorial aspects; place is where the human life exists, events occur, and memories are made. According to Walter Benjamin as cited in Tajbakhsh (2004), when referring to memories, the role of places is always stronger than the role of people. It seems that as the happy memories of the previous generation are derived from their gatherings and together, the essential role and effect of the body of architecture in line with developing the sense of place and reminiscence of the space can be reflected on as well (Pakzad and Bozorg, 2014). Perhaps, recognition of components affecting the quality of the physical environment can lead to realizing the way a memory is formed in the architectural space.

The aim of the present study is to explain the contextual and environmental qualitative factors in collective spaces as a paradigmatic pattern. The hidden and apparent empowerment and potential in the form and body of architecture are the main concerns of this research; since this phenomenon is associated with the audience's sense of communication, on the one hand, and the surrounding context and ground, on the other. This research can be evaluated in educational schools, since during a complicated way, this process is strongly associated with mutual relationships with the existing ground and offering

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concepts hidden in it. In this regard, the following questions are raised:

1.2. Research questions

- What are the formal indices of context capability that can have a role in the quality improvement of educational spaces?
- How can physical (shaping) parameters in the context and ground of education be effective in making permanent and strong sensory relationships with their human audience?

2. Theoretical Foundations and Research Background

Human daily life is an area of relationships, social interactions, and activities in a form of built spaces. Spaces full of memories that have a constantly permanent and familiar place in the audience's mind; it is worth mentioning that déjà vu appears through experience and education (Samadi & Sattarzadeh, 2019). Environmental psychologists believe that investigating the relationship between the physical body of architectural spaces and memory building process in human mind can provide managers, programmers, designers, and architecture and municipal engineering students with criteria to create desirable qualities in practical and more conceptual design of today buildings; since the crucial role of the body of architectural buildings in forming a sense of belonging to a place is inevitable. In this regard, it is essential that by

creating or enhancing the sense of belonging, social coherence, and sense of place as psychological, social, and environmental functions, collective memory be highlighted (Ahari, 2011). It seems that important physical factors such as simplicity, visual proportions, and esotericism, is of greater importance in reminiscence and attachment to place and they can have a great effect on increasing the development of various activities and improving the image and appearance of the environment in the space users' mind (Habibi, 2000).

2.1. Theoretical explanation for the effect of collective place capabilities in educational spaces

Cohen (1970) analyses scientific communities as a group of knowledge brokers' relationships especially in local situations that a cultural space is formed in their context; in this cultural space, he emphasizes the importance of pattern or example that includes social norms, on the one hand, and cognitive norms, on the other. These norms exist as tacit knowledge and explicit knowledge (Qaneierad & Rashtiani, 2015); tacit knowledge includes generalizations, theoretical symbolic rules, and methodological regulation, while explicit knowledge is transferrable through inverse relationships. According to Berger and Luckman (2016), education requires a degree of person's emotional identification with the educator. Relationships have emotional outcomes; emotional energy similar to social motivations is produced in mutual action situations and prepares the necessary ground for the development of dynamic behaviors; therefore, this high emotional energy leads to creativity (Kalantari et al., 2016). According to Pascalela (1987), life experiences in university positively affect person's perception. From the viewpoint of Mannheim (2017), in the modern education, two orientations of rationalism and romanticism can be distinguished: the first orientation builds the minimum relationships between the professor and students by conceptualizing the education forms in order to homogenize the graduates for example through delivering lectures and one-way education methods, while the second orientation is planned based on internship and personal and two-way relationships between the professor and students (Mannheim, 2017). According to the studies by Transzinini and Wright (1987), in the first years of entering the university, scientific integration has more influential importance, while in the third year, this influence reduces and social integration becomes highlighted. In fact, it can be claimed that according to interactive learning literature, cooperation and interaction in educational and learning processes influence students' performance and success profoundly. Therefore, cooperative and interactive learning leads to better performance, greater success, and higher productivity (Kalantari et al., 2016). Qaneierad (2010) emphasizes the high effect of education social structure on students' satisfaction from the university, their personal development, and educational performance; thus this leads to more satisfaction, positive mutual attachment between individuals, as well as positive and constructive interaction expectations of the future (Qaneierad &

Rashtiani, 2015). Interactive learning not only increases a mutual sense of pride and group work satisfaction but also enhances students' self-efficacy by increasing self-confidence; therefore, students perceive themselves more sufficiently and develop their personal identity by creating the sense of place (Kasali & Dogan, 2010).

2.2. Explanation of the Qualitative Factors in Educational Spaces:

According to the model of David Canter (1977), place includes physical, functional, and semantic aspects (Canter, 1977). Since any place requires different characteristics depending on its type and requirements, it can be pregnant with different activities and finally different meanings in its users' mind. According to these interpretations, characteristics related to collective and communicative spaces can be evaluated and categorized into three groups:

- 1. Physical aspects: access to collective spaces is one of the important and effective factors in order to increase spatial desirability and develop strong social interactions and as a result, reminiscence (Peters et al., 2010). From the viewpoint of environmental psychology researchers, these factors are categorized as follows:
- 1.1. High accessibility of the place: the high physical potential and accessibility of the place increase the probability of social interactions in that place naturally (Kasali & Dogan , 2010).
- 1.2. Appropriate furniture: appropriate furniture in the place not only attracts people but also affects relationship building (Gohari et al., 2015).
- 1.3. Sufficient space to provide some orientation and attract people: in addition to the size and area of the space, considering its shape is also necessary in defining the type of interactions that may occur in the place. For example, way along with center are two main elements of any spatial organization; although this fact in a design indicates movement and is related to time and in another design indicates relief and relationship with others (Alitajer & Zareie, 2016). Relying on this matter, Lang (2004) writes that "a space inducing pause and sitting according to its proportions can attract more groups of people to itself (Gohari et al., 2015).
- 1.4. Location of the place in other users' path of activity: locating in the path of activities that people use them daily in various ways, spatial and functional propinquity, and high accessibility of the place are the most essential factors that change a space into an interactive place (Ibid, 2015).
- 1.5. Spatial attraction: attraction created through factors such as spatial variety (Bently et al., 2007), beauty (Bisadi & Hosseini, 2013), appropriate sound insulation and lighting (Lang, 2004), and flexibility (Alitajer & Zareie, 2016) prepares the place for welcoming the population and by increasing users' relief and comfort provides strong motivation in order to be present in the place more and longer, and finally as a structure-creating element, helps to its audience's

- 1.6. perception including spatial understanding, path selection and orientation, and social interaction.
- 1.7. Provision of privacy: according to the studies by Lansdale et al. (2011), contrary to popular opinion, using open and group-based uncategorized plan in comparison to individual booths not only has no effect on increasing users' interactions but also causes dissatisfaction due to factors such as privacy violation, distraction, and noise (Lansdale et al., 2011).
- 2. Functional aspects: Carmona (2009) believes that an interactive place includes not only external characteristics and functional factors but also individuals' social activities, cognition, and social.
- **3.** perception (Carmona, 2009). Participating in collective spaces, human experiences not only other

people (Bently et al., 2007) but also place vitality through activities such as looking, listening, and active and inactive participation in the place (Gehl, 1987); although users' active and inactive participation in a tendency to sit, stand, and talk in places where other people are present is strongly evident.

4. Semantic aspects: the social perceived context of the place is considered as a set of functional, motivational, and evaluative meanings which is transferred by the physical environment to the present and future users of the place (Peters et al., 2010); since the attributed meaning to a place creates a sense of belonging to the place and mutual identity through the reflection of its physical characteristics and social interactions (Yousefi et al., 2019) (Fig 1).



Fig .1. Effective characteristics in developing social interactions related to collective and communicative spaces derived from researchers' viewpoints.

3. Outline Summary

From the viewpoint of social science and environmental psychology researchers, the data of investigating the qualitative factors in functional analysis of educational spaces can be concentrated in the four following aspects:

2.1. Behavioral-social aspect

In traditional Iranian architecture, by means of some methods such as creating a hierarchy in different spatial areas, flexibility in collective and individual privacy control, use, behavioral, and emotional variety, physical proportions based on performance, rational contradiction between the body and passing of time, religious-social elements, introversion, and sociability excuse-makers as the most important one, collective memory can be stored in the audience's mind and as a result (Bisadi & Hosseini, 2013), its uniqueness can be achieved. Merleau-Ponty (1961), Heidegger (1998), Ricoeur (1999), and Pallasmaa (2014) have presented their theoretical foundations in respect with this relationship. Architecture is involved with fundamental existential questions regarding the representation and organization of action and power, social and cultural systems, interaction and separation, and identity and memory. Pallasmaa (2014) believes that human recognizes his identity through this space, this moment, and dimensions changing into elements creating his existence. Architecture is the art of compromise between the human and his surrounding world. This mediation occurs through sensory perceptions. From the viewpoint of Merleau-Ponty (1961), the experience of feeling gained suddenly through the physical body, along with what is opened to a world of mutual feelings, is impermanent in terms of natural perception and unfamiliar for the human (Piravi Vanak, 2010). What is lost in our today's habitation is the potential exchange between the body, imagination, and environment.

2.2. Actional-functional aspect

Considering the activity and performance of any place and its potential for new functional coverage are the important and notable characteristics in any educational space. As it was mentioned before, Peters (2010) connects related performances in schools with social correlation. Carmona (2009) concludes from users' active and inactive participation in a tendency to develop or improve new functional activities in such conditions.

2.3. Comforting-recreational aspect

One of the basic issues in this aspect is the safety and comfort of body and mind. Physical and mental safety has been provided under the following circumstances: eliminating undesirable look, the existence of snug and self-constructed space, indirect accessibilities to the field privacy, emphasis on boundary establishment of the field, and the adjustable enclosure of the space. This important physical parameters lead to personal freedom, personal independence, healthy social interactions, and finally adapting field privacy for the audience's special needs despite the collective use. This fact has been documented in viewpoints of Lynch (2016), Halbwachs (1980), and Nasar (1997) that plays a role in the mutual relationship of space immortality in the audience's mind, spatial safety, and identity-constructing parameters in relation to human audience and, as a result, the sense of belonging to the space. It is obvious that this spatial empowerment can easily provide its audience with relief.

2.4. Emotional-perceptional aspect

Mental imagery of the field, which has been implemented with the emphasis on memory-making elements, familiar mind factors, emanation of live factors, and the flexibility of the filed, have led to emotional fidelity, legibility, identification with the space, and finally durability of the field in the audience's mind (Bisadi & Hosseini, 2013). Lynch (2016) created the term "mental image" for the first time and incorporated it into architecture and municipal engineering; later, theorists such as Pallasmaa (2014), Halbwach (1980), and Hester (2007) expanded it.



Fig .2. The theoretical coordination model in evaluating the procedure and results of the research using the qualitative factors in educational spaces. Source: Authors

4. Methodology

Among different qualitative methodologies, "data-based theory" has been selected for the present research. Overally, 4 steps can be considered in order to conduct a research:

- 1. Subject selection: the first step in data-based theory is subject selection (Mehrabi et al., 2011). Subject selection in the first stage is according to the research aim and in later stages is according to broad contextual studies on the main issues of the research.
- 2. Data collection: in data-based theory, the research does not begin with a theory and then supporting it; rather, it begins with a research area and, then, the related cases appear gradually (Strauss & Corbin, 2015).
- 3. Data analysis: data analysis is a multistage process in which the data is summarized, categorized, and finally processed by means of collecting tools in the previous stage (Saldana, 2016). Charmaz (2008) considers coding as a sensitive association between data collection and the conveyance of meaning by it. The first step in any analysis is data categorization. Therefore, the aim of the first analysis phase conducted on data is to produce codes that are

directly related to the data (Charmaz, 2008). After extracting the concepts, codes which are applied to the coherent, orderly, and detailed formation of the theory are categorized into three groups: "open coding", "axial coding" and "selective coding" (Strauss & Corbin, 2015). In this stage, the "databased theorist" selects a category from open coding stage. At the first stage, he considers it as the "pivotal phenomenon" in investigation of research process center, and at the next stage, he connects it to other categories. These categories are as follows: "causal conditions", "contextual conditions", "intervening "strategies", and conditions", "consequences" (Creswell, 2005). The coding pattern consisting of diagram illustration reveals the relationships between these categories.

4. Composing and presenting the theory: this stage, including the combination and coordination of conceptual connections between categories, is implemented through identifying the pivotal category, which can conceptually gather the primary and secondary categories and communicate with them (Groat & Wang, 2007). Table 1 describes the conceptual scheme of data-based theory in detail.

Table 1

The process of data-based theory formulation. Source: Maghsoud Ferasatkhah (2016)

Research stage	Research activity
Subject selection	Research design
Subject selection	Definition of the research issue
	Definition of previous constructs
	Theoretical sampling against random sampling
Data collection	Interception of data collection and analysis step
Data analysis	Sorting the data
	Sort events calendar
	Open coding, axial coding, selective coding
Writing and presenting the theory	Comparison of literature
writing and presenting the theory	Compare the theory of data from different frameworks

5. Purposeful Sampling and Data Collection

Since data is considered as the most important component in the research process based on "data-based theory", sampling was implemented using purposeful or nonprobability sampling method (Charmaz, 2008). Among the described purposeful sampling strategies according to the findings of "Gall" (2006) and "Teddlie" (2009), "snowball" strategy was selected for this research. The selected samples included a selection from the most active and eager architects who had graduated from Yazd Faculty of Architecture in educational and functional areas as well as a combination of involved groups in the process of creating new ideas in architecture training area. The research process began with five experts in the main issues of the research. During the process of interviewing the samples, this question was asked that what other people the interviewee considers eligible for being included in this research and obtaining impartial results. Consequently, other participants were selected. The interviewed sample number was determined according to

the principle of saturation in sample size (Strauss & Corbin, 2015). According to this principle, when the researcher concludes that further interviews do not provide him with further information and is only a repetition of previous one, he will stops data collection. The participants' opinions in interviews reached saturation point from the seventeenth interview onwards; however, the interview process finished with the twentieth person. The interviews were recorded electronically and after the completion of interview, it was transcribed and finally, in order to prepare the data for the specialized software Atlas.Ti, it was first conveyed into Microsoft Office Word and then Rft.

5.1. Data Analysis and Findings

In order to increase the accuracy and precision of analysis, the researcher implemented the data coding process through two separate yet parallel ways; manual coding and software coding and finally, he combined and explained their results in order to illustrate the diagram

Open coding stage: 28 open source (initial conceptual proposition) 1. First level coding: generating basic concepts 2. Second level coding: generating major categories 28 final codes 83 codes 259 codes 545 codes 1301 primary code Axial coding step: 16 axial code (category proposition) Logical and causal relationship between categories, extracting components and determining categories affecting phenomenon, process, interaction and outcome Identification values in terms of assessable location, semantic implications of the place, promotion of the process of teaching and learning in the physical context, the of the place in the memorizing of the	model of theory formulation in "data-based theory" (Fig 3).									
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Selective cound step: o theoretical elements (presentation of a paradigmatic pattern) Selecting and determining the core category (pivotal phenomenon) and displaying communications

Consequences	Strategies	Core category or phenomenon	Context variables	Intervening variables	Casual Variables

Fig .3. The stages of open, axial, and selective coding.

Having collected the interview data, observations, reference to written resources and previous theories on this field, and the process of data analysis and coding continued along with sampling. In this process, according to the principles of "data-based theory", comparison was selected as the basis of the work, so that three main stages of coding were designed and explained once more. Therefore, the specialized software Atlas.Ti was employed, which is currently one of the three popular global software in qualitative data analysis area.

5.2. Discussion and interpretation

The Examined subject in this paper: the explanation of reminiscence in evaluating context-based architecture training spaces is of complicated and multidimensional nature, which has been specified using the relationships between the codes in interviews. Therefore, categories and components, which are the major causes that the main phenomenon occurs, are not independent and some factors contribute to the emergence of other factors or in a mutual relationship, they intensify the effect of one another. These relationships have been illustrated in a case-by-case fashion for each interview and finally, by combining the diagrams, the final diagram was illustrated containing the causal network of identifying the effective parameters in reminiscence in architecture training spaces. In addition to direct causes of the occurrence of this phenomenon, some of the codes mentioned in interviews are indirect yet effective factors. These factors can be considered as mega-trends that are out of the architecture training system, while they affect the main causes (components) and determine the dimensions in order to affect the capabilities of the surrounding context and ground and finally, give rise to the process of reminiscence about the place. These factors not only persist in the ambiguous and complicated nature of the reminiscence process but also require the necessity of arranging and reflecting on a smart, flexible, and democratic approach in the area of designing architecture educational spaces and using vernacular architecture potentials.

Casual Variables:

Permanent communication, perception of environment and reflexivity of behavior, aesthetic values, immortality, difference and distinction, attachment, identity, location diversity, special and unique place, sense of ownership, hangout, labeling, manifestation of living forces , Subjective-functional alignment

Intervening Variables:

The weakening factors in the evolutionary process of the new architecture, the normative-ethical process, the passage of time, the desirability of space, the quality overcoming the quantity in space, the intellectual-visual disturbances of the new generation architecture, superficial architectural styles, the general public's popularity, fear and anxiety and insecurity, the lack of an appropriate and responsive example in current architecture

Core category or phenomenon:

Identifying the parameters affecting the qualitative part of the place

Memory, the ability to place in memories, the amount of presence and participation in the place

Strategies:

Organizing environmental factors in a memorable process of functional location,

Organizing the underlying factors of the fitting of identifier values in terms of evaluative to place, Organizing environmental factors in the development of semantic claims of place,

Organizing environmental factors in facilitating functional communication,

Organizing spatial factors in the continuity and development of a sense of place,

Organizing effective and all-out factors in the promotion of applied architecture,

Identification of effective factors in the process of architecture education in close proximity to the objectives of academic education to actual and executive architecture,

Proper and Principle Identification of the Challenges and Possibilities of Platform and Peripheral Background in the Process of Architectural Education,

Identification of the visual representation of the field of view in order to achieve the desired whole

Context variables:

Intra-group communication, System and continuity pattern, Possibility of place in the process of acquisition of skills, Subjective background, Personality traits, Acquired features, Overcoming of concepts to executive techniques in place, Factors of the Faculty, Effect of background and context in determining Professional style, mental imagery, environmental delight

Consequences:

Organizing the underlying factors in determining the distinctive features of the place in the process of creating new behavioral opportunities,

Organizing productive factors for space and space capabilities in creating hidden architecture,

Recognition of the cognitive identity parameters derived from the latent capabilities of the location,

Organizing Context Facts in Promoting the Process of Learning and Learning the Architectural Context in the Physical Substrate,

Skill-related consequences - a function of the perceptual capability of the place in the memorable process,

Quantitative outcomes - the qualities resulting from the establishment of interconnections between the architect and the educational environment of architecture,

Integration and use of the hidden and discoveries of the educational system in the training of the architect of the lond

Fig. 4. The formulation and presentation of diagram "identification of parameters affecting reminiscence in collective educational spaces" using "data-based theory".

5.3. Presentation of the Findings as the Method of "Data-Based Theory"

The experience of approximately one-century studies and formulating the theoretical foundations of the term 'memory' and its role in the environmental sense of belonging, on the one hand, and providing as well as launching research schemes to investigate its relationship with the surrounding context and ground capabilities, which is a young science in our country, on the other, reveal the inefficiency and inconsistency of many newfangled suggestions and viewpoints on behavioral sciences and environmental psychology; in fact, different factors may cause this failure. Although previous studies have referred to different factors regarding factors affecting this phenomenon and different categorizations have been presented according to researchers' professional and scientific experiences so far, identifying effective causes in this research has not been based on any predetermined frameworks, and the data obtained from interviews as well as the collected data in addition to discovering their similarities and differences based on "data-based theory" have been of significant use. Based on the results of data analysis, researcher's observations, notes, and the process of comparison, they can be categorized into six dimensions of "causal conditions" "contextual conditions", "intervening conditions" "pivotal phenomenon or category", "strategic conditions", and "consequential conditions". Fig 4 indicates the pivotal phenomenon in relation with the five mentioned dimensions.

6. Answering the Research Questions

Based on the results of the coding process (Fig 3) and the route shown in Fig 4 in response to the main questions of this study, it can be claimed that the form attributes derived from the context and context architecture are divided into four general categories; "Constructors of Behavioral Diversity", "Patterns of Semiotic Coding", "Functional Patterns of Collective Memory" and "Familiar Mind Factors in Place. In describing this division, one can refer to categories of bodies known as "Principles of Iranian Architecture" such as the "geometry", "proportions", "symmetry", "proper body orientation", "articulation" Space, "decorating" and most importantly "flexible architecture" by influencing the process of forming environmental memories. They are also considered to be the source of creating widespread human interactions. It should be emphasized, however, that the temporal pattern of peripheral space, which is also directly and permanently associated with the set's functional model, is very effective in constructing location-derived quality gains, on one hand, and in defining physical patterns for emerging functions on the other. However, with a deeper reflection on the research, it is clear that these factors are identified with values such as "identity", "sense of ownership", "aesthetic principles" and "manifestation of vivid forces in place" and are capable of affecting strong, permanent relationships with the target audience (Fig 5).



Fig 5. Response to the main questions of this research based on the results of the coding process and the path taken in the research

7. Conclusion

Studies on qualitative issues in the architecture area and their analysis have indicated that these issues and especially issues of behavioral sciences and environmental psychology, which have developed from upper and detailed schemes, have been conducted or are being conducted based on a positivist approach. The results of evaluating these schemes in different studies unsuccessful planning indicate applicable and incoordination between the user and human activities in such schemes. For example, in this research, it is concentrated on the approach "reminiscence" as one of the important qualitative issues in the architecture area and its interaction with "architecture training schools" as

audience's important functional areas, which have a great effect on the behavior, activity, professional style, and interactions directly and indirectly.

Comparing the research findings with the findings of other researches, the first important difference is detected in a lack of defining a predetermined and categorized structure of qualitative factors affecting the process of reminiscence in architecture training schools based on "data-based theory". In this research, "data-based theory", which emphasizes the necessity of entering real life with the aim of achieving and discovering what is really going on, concludes that phenomena and human activities are complicated and variable, so that humans can have an active role in reacting to hidden and apparent challenging situations in the surrounding context and ground

according to the type of use. This theory not only highlights the evolving and opening nature of events in the place but also discovers and gathers information about the mutual and interactive relationships between the conditions of the context, current processes and activities in the place, and above all, the outcomes and results of this interaction. Since "reminiscence" is a complicated and multidimensional phenomenon and consists of people, the environment and ground of architecture and events, by applying the achievements of "data-based theory", more profound, complete, and different results in comparison with the previous studies will be achieved in this area. Another important difference of this research is related to the method of data analysis and the nature of organizing and manner of concluding. The most important advantage of data analysis in this research is the definition of categories or main causes of the research based on raw data collected from the audience, on the one hand, and using the method of "comparison" between the data with the aim of categorizing it on the other. Therefore, researcher's personal opinion has not been applied to the research and the final theory is derived from the data.

Furthermore, the relationships between major categories, contextual conditions, and causal conditions have been identified for the first time in this research. Therefore, this research provides an appropriate and confident guide for determining the share of each of these factors in order to prioritize modifying solutions; some of which are as organizing the predisposing follows: factors in determining the distinct aspects of the place in the process of creating new behavioral opportunities, appropriate integration and use of the apparent and hidden capabilities of educational body in line with training vernacular architects, and organizing factors that construct the capabilities of spatial context and ground to create hidden architecture. Although the previous studies have praised this type of architecture ground, in this research, the necessity of re-investigating the bilateral effects of this type of architecture ground is emphasized and factors such as fully identifying functional confusions, necessity of considering the slippage of symbolic architecture, the prevalence of superficial architecture styles among people, neglecting the ideals of architecture fitting with the present era, and the inability of today's architecture to present an appropriate and responsive functional sample are considered as the outcomes of bondage of this architecture style, superficial and emotional look at the surrounding environment, and neglecting up-to-date technology and achievements of architecture.

Another issue emphasized in this research is the application of vernacular architecture symbols and signs according to the user's performance, behavior, and expectations. In fact, this pleasant reality has accurately been merged with the identification of any land and its people. Using symbols and signs, which are evident in the pure culture of Iran's architecture from a long time ago, has gradually been forgotten with the emergence of modern architecture and the prevalence of uniformity in the new architecture style. However, unfortunately, the architecture of the present era witnesses the destruction of

this style and above all, the oblivion of semiotic code pattern; therefore, the architecture of the present era is unfamiliar with social, perceptional, semantic, and logical symbols. Undoubtedly, this spatial ground, which is at the most decorated with similar, anonymous, and borrowed elements, is not able to record mental image, endure in human's nature, and achieve the skills of reminiscence.

By investigating the relationships between major categories, contextual conditions, and causal conditions, it becomes clear that in order to respond thoroughly and systematically to the functional achievements of memory such as emotional function, ordering function, artistic or aesthetic function, and referential function, the necessity of social, functional, behavioral, and emotional interactions is strongly felt.

Finally, by applying the method of "analogy" between the research data, writing notes and the process of perceiving "identity" are identified as one of the valuable results of this research. Identity, which is derived from factors such as "meaning", "perception", and "spatial belonging and attachment", is considered as a key and essential category in this case study and in the process of architect training from the context and ground of architecture direct or indirectly.

8. Research Limitations

Since the present study is derived from the researcher's dissertation under the title of "Explaining the concept of reminiscence with the emphasis on context capability in the educational spaces of architecture", it is required to consider three major groups of limitations: temporal limitations, spatial limitations, and executive limitations. Therefore, the researcher has been automatically deprived of conducting longitudinal research in this subject area. Since this research has been conducted over a 29-month period from January 2015 to June 2018, all activities done or considered after this time by researchers in the studied subject area in the disciplines of behavioral sciences, environmental psychology, and architecture can be out of findings and conducted analyses in this research.

Concerning the spatial limitations, this fact should be mentioned that this research has been conducted in Yazd and particularly in Yazd Faculty of Art and Architecture (Rasoulian House) as the researched sample and cannot include all activities occurring out of this spatial ground at the level of reminiscence process in relation to architecture training spaces.

Concerning the executive limitations, the novelty of the selective research method (data-based theory) in the theoretical foundation area of architecture can be mentioned. Although "Glaser" and "Strauss" (2015) have emphasized impartiality and the avoidance of judgment when the data is collected; they believe that implementing this method is along with some basic problems.

Recommendations

According to the fact that strategic hypotheses can be formulated based on ordering statements or propositions

extracted from "data-based theory" in a qualitative research, for future researches it is recommended to design quantitative studies with the aim of examining these hypotheses. In this regard, a combined approach will be presented that "data-based theory" will support the qualitative section of the research and in order to conduct its second phase, quantitative methods are recommended. Therefore, in this process, conducting a survey based on findings from the first part of the research (data-based theory) will be on the agenda. Then, the questionnaire will be distributed among the studied members of the research and after collecting it, analysis will be conducted using statistical tools. In fact, applying statistical tools at the first phase and analyzing the information at the second one will lead the researcher to the main aim. Finally, the results of this analysis-based process can indicate the acceptance or rejection of concepts and findings from the qualitative section and will somehow refer to their testing. Furthermore, since the present study attempts to explain the concept of reminiscence in architecture training spaces with special regard for the context and ground architecture, it can be used as a basis for future research on theory developing in order to present applicable and executive patterns in architecture training spaces and the foresight to develop a new policy and basic thinking in line with using possessions, potentials, and vernacular architecture capabilities in all architectural areas.

Refrences

- Ahari, Z. (2011). 'City, celebration, memory; reflection on the proportion of urban spaces and festivals during the Safavids and Qajars'. Fine Arts Journal:Architecture and Urbanism, 47: 5-16. (In Persian).
- 2) Alitajer, S. and Zarei Haji Abadi, F. (2016). 'The role of the environment built in student interactions in the informal spaces of architectural schools (Case study: faculty of Art and architecture, university of Bu'ali and faculty of fine arts of Tehran university) ', Fine Arts Journal: Architecture and Urbanism, 21(1): 79-90. (In Persian).
- Bently, I. and Alcock, A. and Murrain, P. and Mcglynn,S. and Smith, G. (2007). Responsive Environments. Translation by Mostafa Behzadfar. Tehran: University of Science and Industry Publications, 3nd Edition. (In Persian).
- Berger, P. and Luckman, Th. (2016). Social Creation of Reality (Annotation in Sociology of Cognition). Translation by Fariborz Majidi. Tehran: Scientific and Cultural Publications. (In Persian).
- Bisadi, M. and Mozafar, F. and Hosseini, S. B. (2013). 'Spatial characteristics affecting creator creativity in architectural and urban research centers', Training Technology Journal, 7(3): 239-249. (In Persian).
- 6) Canter, D. (1977). 'The facets of place: Advances in environment behavior and design,

toward the integration of theory, methods, research and utilization' .New York: Plenum. 4: 109-147.

- 7) Carmona, M. (2009). Public Places, Urban Spaces, Architectural Press. Elsevier. Oxford.
- Charmaz, K. (2008). Grounded Theory as an Emergent Method. The Guilford Press: New York & London: 155-170.
- Creswell, J.W. (2005). Research Design: Qualitative, Quantitative and Mixed Methods Approach, 2nded. Thousand oaks, CA: Sage Publications.
- 10) Ferasatkhah, M. (2016). The Method of Research in the Social Sciences, with Emphasis on the Theory of the Foundation (Grounded Theory GTM).Tehran: Nashr Agah Publications. (In Persian).
- 11) Gehl, J. (1987). 'Soft Edges in Residential Streets', Scandinavian Housing and Planning Journal, 3: 89 –102.
- 12)Gohari, A. and Behbahani, H. and Salehi, I. (2015). 'Urban-historical landscape analysis on the basis of mental perceptions.(Case study: Tajrish neighborhood) '. Space Ontology International Journal (SOIJ). 4(3): 39-48. (In Persian).
- 13) Groat, L. and Wang, D. (2007). Architectural Research Methods. Translation by Ali Reza Eynifar.
- 14) Tehran: University of Tehran Publications, 7nd Edition. (In Persian).
- 15) Habibi, M. (2000). 'Urban space, event yard and collective memories'. Journal of Scientific Research of Sofeh. 28: 16-21. (In Persian).
- 16) Kalantari,E. and Mohajeri, A. and Qaneierad, M A.(2015). 'Measuring social acceptance of human simulation technology in academic community'. Journal of Science and Technology Policy, 6 (4): 35-48. (In Persian).
- 17) Kasali, A. and Dogan, F. (2010). 'Fifth, sixth, and seventh- grade students' use of nonclassroom spaces duringrecess: The case of three private schools in Izmir'. Turkey: Journal of Environmental Psychology. 30:518-532.
- 18) Lang, J. (2004). Creation of Architectural Theory: Role of Behavioral Sciences in Environmental Design. Translation by Ali Reza Eynifar. Tehran: Tehran University Publications, 2nd Edition. (In Persian).
- 19) Lansdale, M. and Parkin, J. and Austin, S and Baguley, T (2011). 'Designing for interaction in research environments: A case study'. Journal of Environmental Psychology. 31:407- 420.
- 20) Lynch, K. (2016). Shape of the City Theory. Translation by Hosein Bahreini. Tehran: University of Tehran Publications, 7nd Edition. (In Persian).
- 21) Mahooti, G and Tabibian, M. (2019). 'Identification and investigation of effective factors on the development of the tourism

industry in Bandar-eAnzali by Delphi method' Space Ontology International Journal (SOIJ). 8(4): 1-14. (In Persian).

- 22) Mannheim, K. (2017). Ideology and Utopia: An Introduction to the Sociology of Cognition. Translation by Fariborz Majidi. Tehran: Samt Publications. (In Persian).
- 23) Mehrabi, A H. and Khanifar ,H and Amiri , A N. and Zareei Matin ,H. and Jandaghi ,Gh R . (2011). 'The introduction of the methodology of the grounded theory of the foundation for Islamic research (providing an example) '. Journal of Organizational Culture Management, 23: 5-30. (In Persian).
- 24) Norberg Schultz, Ch. (2012). Architecture: Presence, Language, and Location. Translation by Ali Reza Seyed Ahmadiyan. Tehran: Nilufar Publications, 3nd Edition. (In Persian).
- 25) Pakzad, J and Bozorg, H. (2014). An Introduction to Environmental Psychology for Designers, Tehran: Armanshahr Publications, 2nd Edition. (In Persian)
- 26) Pallasmaa, J. (2014). The Eyes of the Skin: Architecture and the Senses. Translation by Ramin Ghods. Tehran: Parham Naghsh Publications. 2nd Edition (In Persian).
- 27) Peters, K. Elands, B. and Buijs, A. (2010), 'Social interactions in urban ,parks: Stimulating social cohesion', Urban Forestry & Urban Greening. 9: 93-100.
- 28) Piravi Vanak, M. (2010). Phenomenology to Merleauponty.Abadan: Question Publications. (In Persian).
- 29) Qaneierad, M. A. and Rashtiani, A. (2015). 'Scientific socialization and body management in the university (Case study: Graduate students of Tehran University) '. Journal of Sports and Youth Strategic Studies, 14 (28): 1-25. (In Persian).
- 30) Saldana, J. (2016). The Coding Manual for Qualitative Researchers. Translation by Abdollah Givian. Tehran: Scientific and Cultural Publications. (In Persian).
- 31) Samadi Ahari, A. and Sattarzadeh, D. (2019). 'Evaluating quality of life in different social setting (Case study: Magsudiyeh district, Molla Zeynal district, and Roshdiyeh district in Tabriz, Iran).' Space Ontology International Journal (SOIJ) 8(3): 45-60. (In Persian).
- 32) Strauss, A. and Corbin, J. (2015). Basics of Qualitative Research: Techniques and Procedures for Grounded Theory. Translation by Ebrahim Afshar, Tehran:Nashre Ney Publications,4nd Edition. (In Persian).
- 33) Tajbakhsh,G. (2004). 'Walter Benjamin: A transformation of experience and memory in modern times and modern metropolis'. Fine Arts Journal, 30: 5-16. (In Persian).
- 34) Yousefi, M. and Simon A. and Raeisi, I and Soheili, J.and Rahbarimanesh, K. (2019).

'Investigation of the ability to redefine the components of popular architecture facades in contemporary architecture from semiotics point of view (Case study: Poonak zone of Qazvin)'. Space Ontology International Journal (SOIJ). 8(3): 75-90. (In Persian).