

International Journal of Applied Arts Studies

Volume 6, Issue 4

Nov – Dec 2021

Islamic Azad University, Yazd Branch, Iran

Editorial Team

Editor-in-Chief

Dr. Abolfazl Davodi Roknabadi - *Department of Arts and Architecture, Yazd Branch, Islamic Azad University, Yazd, Iran*

Managing Editor

Dr. Abolghasem Dadvar - *Department of Art Research, Alzahra University, Tehran, Iran*

Assistant Editor

Dr. Ali Boloor – *Department of Arts and Architecture, Yazd Branch, Islamic Azad University, Yazd, Iran*

Editorial Board

Dr. Masoud Latifi – *Faculty of Textile Engineering, Amirkabir University of Technology (Tehran Polytechnic), Islamic Azad University, Iran*

Dr. Mehrnaz Azadi Bouyaghchi - *Restoration Department, Art University of Isfahan, Iran*

Dr. Hamidreza Mohebi - *Department of Painting, Yazd University, Iran*

Dr. Mohammadreza Sharifzadeh - *Faculty of Art and Architecture, Islamic Azad University, Central Branch, Tehran, Iran*

Dr. Kenneth Frampton - *Graduate School of Architecture, Planning and Preservation, Columbia University, United States*

Dr. Phil Cleaver - *School of Art and Design, Middlesex University, United Kingdom*

Dr. Uday Athavankar - *Industrial Design Centre (IDC), IIT Bombay, India*

Dr. Sheila Levrant de Bretteville - *School of Art, Yale University, United States*

Dr. William Russell Pensyl - *Department of Art + Design, Northeastern University, United States*

Dr. Kathryn Myers - *Art & Art History Department, School of Fine Arts, The University of Connecticut, United States*

Dr. Gu Chaolin - *Department of Urban Planning, Tsinghua University, China*

Dr. Ardeshir Anjomani - *School of Architecture, Planning and Public Affairs, The University of Texas at Arlington, United States*

Dr. Reza Abouei - *School of Architectural Conservation and Restoration, Arts University of Isfahan, Iran*

Dr. Mohammadreza Noghsan Mohammadi – *Department of Urban Planning, Yazd University, Iran*

Dr. Ali Nazari - *Faculty of Arts and Architecture, Islamic Azad University, Yazd Branch, Iran*

Dr. Ali Akbar Sharifi Mehrjardi – *Department of Painting, Yazd University, Islamic Republic of Iran, Iran*

Dr. Seyed Mohammad Hossein Ayatollahi - *Department of Art and Architecture, Yazd University, Iran*

Dr. Javad Ali Mohammadi Ardakani - *Faculty of Art and Architecture, University of Science and Culture, Tehran, Iran*

Dr. Mohammad Mahdi Karimnejad - *Faculty of Arts and Architecture, Yazd Branch, Islamic Azad University, Yazd, Iran*

Dr. Mohammad Mirjalili - *Faculty of Textile Engineering, Yazd Branch, Islamic Azad University, Yazd, Iran*

Dr. Salar Zohoori - *Department of Design and Clothing, Imam Javad University College, Yazd, Iran*

Journal Technical and Executive Manager

Dr. Seyedakbar Mostafavi - *Department of Computer Engineering, Yazd University, Iran*

Proof-Reading

Dr. Amin Naeimi - *Department of English Language, Yazd Branch, Islamic Azad University, Yazd, Iran*

Journal Designer

Mr. Mehdi Sanobar - *Department of Graphic Design, Yazd Branch, Islamic Azad University, Yazd, Iran*

Acknowledgement

IJAPAS would like to thank the following people for their contributions in this volume.

Section Editor

Ali Boloor

Masoud Latifi

Reviewers

Loghman Karimi

Luis Diaz

Salar Zohoori

Terry Barrett

Ulku Ozten

Proof-Reading

Amin Naeimi

In the Name of God

Dear Readers,

I, on behalf of the editorial board, am proud to present this issue of the *International Journal of Applied Arts Studies (IJAPAS)* under the sponsorship of the Islamic Azad University, Yazd Branch. We were driven to found the *IJAPAS* by a noticeable lack of journals, in the Islamic Republic of Iran in particular, devoted to architecture, urban design, urban planning, architectural conservation and restoration, painting, art history, graphic, digital arts, fashion design, performing art, industrial design, aesthetics and semantics. Although the academic world is increasingly driven by cross-disciplinary visions and models, we seek multi-disciplinary views, an attempt to inform researchers, graduate students, and professionals about the trends, ideas and innovations being put forward in applied arts. To this end, in addition to standard articles, in every volume of the *IJAPAS* we hope to provide a special issue related to a respective field with innovation.

We are also sending out a call for papers related to *Applied Arts* to appear in the next issue of *IJAPAS* in Feb – Mar 2022.

Finally, I should mention that we are committed to a speedy refereeing process for every article submitted to us. We effort to reply to all papers submitted within five weeks' time with a response about acceptance or rejection. We also do not require formatting for submissions in our style until *after* the paper has been accepted by us for publication.

I would like to thank our Editorial Board for their work so far in helping to establish the *IJAPAS*. And, finally, I would like to extend my deepest gratitude to Dr. Ali Bolor, the assistant editor of the *IJAPAS*, for all of his hard work to ensure the timely completion of the issue.

I am delighted to invite you to visit us at www.ijapas.org.

Sincerely,



Dr. Abolfazl Davodi Roknabadi
Editor-in-Chief
International Journal of Applied Arts Studies (IJAPAS)
www.ijapas.org

INDEX

NO	TITLE	PAGES
1	Introduction	i-vi
2	Analyzing the Effective Environmental Factors in the Sense of Open Spaces of Residential Complexes in Tehran <i>Hamid Rahimi Mehraban, Mehrnoush Ghodsi, Mehnaz Mahmoodi</i>	7-30
3	Study and Analysis the Effect of Pond House in the Structural Formation of Houses in Hot and Dry Climate in Iran <i>Abazar Mehrali, Hossein Soltanzadeh, Kaveh Bazrafkan</i>	31-44
4	Investigation of the Hermeneutical Approach to Conservation and Restoration of Cultural Heritage <i>Soodabeh Yousefnejad</i>	45-60
5	The Comparative Consideration of the Bird's Role in Textile of "Iranian Al-Buwayh" and "Egyptian Fatimid" <i>Fatimeh Chadorkafoor</i>	61-70
6	Design of Portable Fabric Pots by Hydroponic Method <i>Behnoosh Soltani, Salar Zohoori, Abolfazl Davodi Roknabadi</i>	71-78
7	Theatre for Development (TfD) and its Significance in Rural Development <i>Leila Keshavarzidindarloo</i>	79-90
8	Discourse Between Body and Clothes as an Object <i>Parisa Yazdani, Salar Zohoori</i>	91-107

Analyzing the Effective Environmental Factors in the Sense of Open Spaces of Residential Complexes in Tehran

Hamid Rahimi Mehraban^a, Mehrnoush Ghodsi^{b*}, Mahnaz Mahmoodi^c

^aPh.D. Student of Architecture, Department of Architecture, Borujerd Branch, Islamic Azad University, Borujerd, Iran

^bAssistant Professor, Department of Architecture, Hashtgerd, Islamic Azad University, Alborz, Iran

^cAssociate Professor, Architecture Department, North Tehran Branch, Islamic Azad University, Tehran, Iran

Received 15 November 2021; revised 28 January 2022; accepted 14 February 2022

Research Article

Abstract

Open spaces in residential complexes have diameters that encourage people to attend these places to pass their times. This research by using a complex method, extracts effective environmental factors in the sense of place in open spaces of residential complexes to develop them by means of developing stimulus projects. In the first stage, the extraction and verifying them with a theoretical basis, a questionnaire is developed by interviewing the effective variables. This is available for space users and they are asked to answer the semi-open questions and for verifying them, they should refer to university experts. 52 residential complexes were studied in Tehran. 384 residents are randomly sampled. For the qualitative part, open and axial coding techniques are used in ATLASTI software. In quantitative section the inferential tests in SPSS were used. It can be concluded the dimensions of sense of place in residential complexes are intertwined and each of these dimensions includes the other, in a way that in the components or the first dimension of spatial-social components, they are merged and they have correlation. In the second factor physical-social and in the third factor socio-spatial and in the fourth factor spatial factors exist. Overall, when the selected components have two aspects of the environment, the correlation between them is much higher than the components to create more coverage to induct a sense of place in the residential complexes. It should be in a way that cover two or more dimensions to achieve more success than sense of place.

Keywords: Open Space; Residential Complex; Environmental Factors; Spatial-Social Components

* Corresponding author. Tel: +98-9126611969.

E-mail address: mehrnoush.ghodsi@kiaiu.ac.ir

1. Introduction

By developing communicating ways in the modern world, the social relationships are decreased. In the residential complexes, the relationship with environment and its perception by various senses has been shaken and it has created places without necessary performance, without application and identity. Development in modern cities has made man, city and architecture unfamiliar with meaning and feeling, and has created a myriad of unknown and meaningless spaces. Overall, losing the idea of living space can be one of the prevailing crises in the present age and change the perception of memories in the residential complexes in the modern world and turn them into a place without spirit and feeling, only a place for Life. In reality, these modern complexes seem to have insufficient sense of place. The effect of architecture on the human spirit in short and long time is undeniable, space can be a dry, spiritless and cold body to a body with sense and spirit of place, currently in the modern cities the place of spaces full of rich sense of place are empty. As an excellent space have positive effect on human's spirit, it can create the issue of identity crisis and unfamiliar signs in the super scale cities (Norberg-Schulz, 1989: 48). The interest in the sense of place has grown rapidly in recent years, and the concept of leisure has expanded to entertainment and a wide range of programs (Madanipoor, 2000: 68). The concept of sense of place is Interdisciplinary concepts that are studied in sciences such as psychology, sociology, architecture, and geography. However, considering place dependencies have historical records (Norberg-Schulz, 1989: 52). This research has answered this question by the purpose of extraction and categorizing environmental components in sense of place in Tehran residential complexes. What are the environmental components in sense of place in residential complexes in Tehran?

2. Research Background

Saeid Norouzian-Maleki and Neda Omidi in 2020 in an article entitled "Evaluation of the impact of physical-social factors on the sense of place in residential open public spaces" of residential complexes with Delphi technique showed that factors such as low density of units, height reduction in the side with better perspective, the view of the units to the green space, lighting and illumination at night is effective in promoting the sense of place in a residential complex (Nowruzian et al., 2020: 87).

Montazerolhodjah et al. in 2016 in an article entitled "Assessment of factors affecting the sense of place in urban neighborhood centers case study: sheikhdad neighborhood and shahrak daneshgah neighborhood, city of yazd" by the purpose of investigating the concept of sense of place in historical and contemporary centers, identified the factors affecting its creation and promotion in the environment. For this purpose, two samples from the center of Yazd neighborhoods, one in the historical context and the other in the new context of city were selected and studied. Correlation research method and Kolmogorov-Smirnov statistical test, multiple regression and Pearson correlation test were used to determine the relationship and intensity and direction of the relationship between independent and dependent variables. Based on this, ten hypotheses were developed and tested in study samples. According to the obtained results, the identity variables in the historical neighborhood and the spatial quality in the new neighborhood have the highest correlation with the sense of place in the center of neighborhoods (Montazerolhodjah and Namavar, 2015: 43). Shibani et al. in 2017 in an article entitled "The role of natural environment in creating sense of place in the urban resident" had aimed finding the lost connection between humans and the environment replacing traditional yards with a proper functional and behavioral option in contemporary housing. The theory of research based on the discuss between indoor and outdoor

spaces in the traditional yards, states that creating a good sense of place leads to residents' satisfaction and it is a qualitative factor in the future planning of housing (Shibani *et al.*, 2017: 41). Mohammad Sadegh Falahat and Samira Noohi, in 2012, in an article entitled “The nature of signs and their role in enhancement of sense of place in architectural spaces” assessed that since excessive attention to performance in the modern perspective have faded many perceptual aspects of architectural spaces in relation with audiences, the meaning gap becomes more apparent in today's societies more than before. Thus, modernity, which was emerged after the solving of this deficiency in the modern view, could not provide a comprehensive view in the place of architectural spaces due to the excessive attention to the physical aspect of meanings. The study of meaningful factors is an effective way to induce a sense of familiarity in the architectural space, and the use of semiotic principles is one of the best solutions in analyzing the method of giving meaning to space.

The principles of semiotics, with roots in many perceptual sciences, relying on the concept of signification, cause the audience to connect better with the architectural space as much as possible. Therefore, the study of semiotics factors that consider different functional, structural and semantic aspects simultaneously in forming the architectural space, can be a step towards giving meaning to the space and creating a sense of space in the audience. This study investigates the role of signs in the perception of meaning concepts and its role in promoting sense of place. From this point of view, the study of different features of signs with a structuralism perspective has surveyed the identity of signs as one of the most important criteria in sense of place in architecture and semiotic concepts. Since the semantic quality of architectural space is essential, the effect of symbolic meanings on the sense of place has been studied from a phenomenological perspective (Falahat *et al.*, 2012: 17). Costlow *et al.*, in 2020, in an article entitled “When Less is More Sense of Place and Welfare in the end of life, did quantity research to show that mastery of the environment, purpose in life, and self-acceptance are important than anything else. The results showed that older people with high spiritual stress cannot understand and communicate with crowded environments (Costlow, 2020: 21).

3. Theoretical Framework

3.1. Place

The place is the main element of the identity of its inhabitants. By knowing the place, man can achieve his knowledge. Man has different images in his mind from different places. His emotions can affect his perceptions of the environment and the formation of a mental image of the place. It is this mental image of human beings that gives place to identity. In addition to the physical structure of the place, people's memories are effective in identifying the place (Najafian Sharif, 2011: 1054). The crisis of place in the sense of the crisis of social meaning is one of the most obvious problems of contemporary urban planning. A crisis that has been manifested in the creation of urban spaces without identity, without history and communication. From a phenomenological point of view, the place is more than just an abstract place. (Mojtahedzadeh, 2016: 71). A place is a whole that is made of real objects and has materials, shapes, textures, and colors (Tuan, 2001: 421). The combination of these elements together defines the environmental character of the place, which is the context for the activities. (Shamai, 1992: 72). Place, in general, has an identity that includes various social factors and has a history that connects the past, present, and future. (Mahmoudinejad *et al.*, 2008: 48).

Ralph believes that (Relph, 1976; Tuan, 2001): "A place is a space beyond a space that has three physical properties, activity and meaning, and in the meantime, considers meaning as the main component of this group. Canter (1977) also presents the theory of "place face", classifies a place into four components: functional differences, spatial goals, scale to environmental size, and design parts, and refers to the physical elements and components in the place. He considers place from the approach of environmental psychology, a specialized term that includes activity, physical location, and other components (Canter, 1977: 121). Gustafson (2001) describes the interactive three-polar approach of the individual, others, and the environment as a theoretical framework model in the formation of meaning, based on a comparative analogy of Canter theory, and a clear model of meaning and its formation in constructed environments. According to this model, meaning is the result of the interaction of the three poles of the individual, others, and the environment (Gustafson, 2001: 157).

3.2. The Difference between the Concepts of Place and Space

The first distinction that emerges during the symmetry of space and space is the level of abstraction of the two concepts. Almost every human being perceives and experiences place more easily than space, and in comparison, with space, the necessity of place for individual and social life is simply felt. People even perceive space through place and consider a space separate from a place unimaginable (Cross, 2001:29). This difference in perception of place and space stems from the fact that space is more abstract than the place. In other respects, the more abstract the space than the place is debatable (Motalebi and Forouzandeh, 2011:18). Space is everywhere but the place is definite. Undoubtedly, imagining everywhere must be more difficult than imagining a certain place. The place has content, but space is a kind of vacuum. The place is much easier to delimit and threaten than space, while space is decentralized and tends to be finite (Bonaiuto et al., 2003: 43).

3.3. Sense of Place

The most important term used here in relation with place is the sense of place. The concept of sense of place has become very popular in the last 40 years and it has covered a wide range of research. Now, after defining the subject of place, we will study and define the sense of place and the formable sense of place. After the concept of place was introduced, the term sense of place was mentioned. "The sense of place has been defined and analyzed from the perspective of various experts." At first, the term seems to express human feelings about the environment; in the finding of the feeling that each of us has from a space can be different over time and for each person. Various experts have expressed their views in this regard. "The concept covers a wide range from human fun and enjoyment to more serious applications in human life."

This concept includes a vast range of connection between place and human, which includes the concept of place and dependence to place (Borer, 2016: 112). One of the effective factors in the semantic quality of architectural space is the sense of place. He considers the sense of place as a factor that connects human and place and brings unity. Sense of place is generally associated in the connection of people group who experience a place, or the feelings that people have about a particular place. Sense of place is an intellectual matter, and based on different culture and experience, changes. The sense of place means people's mental perception of the environment and their more or less conscious feelings of their environment, which puts the person in an internal relationship with the environment so that the individual's understanding and feelings are linked to the semantic context of the environment and becomes integrated. This sense is the factor that

changes a space into a place with special sensing and behavioral characteristics for special people. The sense of place, in addition to make people feel comfortable in an environment, supports the desired cultural concepts of people, the social and cultural relations of society in a particular place, and reminds the past experiences and achieves identity for individuals (Falihat, 2006: 56). Sense of place is a mixture of self-conscious and unconscious emotions, perceptions and understandings; It is a rich concept that includes how people perceive, experience, and individual express, and gives meaning to a place, and a person's sense of place influences his or her attitudes and behavior in that place. The environment in addition to physical elements includes messages, meanings, and codes that people understand and judge based on their roles, expectations, motivations, and other factors. This general feeling that arises from the perception and judgment of a particular environment in a person, is called the sense of place. The received sense of place is descriptive and symbolic of the concept of place. According to Lynch, the sense of place is a factor that connects human and place and creates unity. He believes that space must have a perceptible identity and be recognizable, memorable and visible in order to create a sense of place. This kind of sense of place can also bring a sense of belonging. Tuan has a different perception; He believes that "the sense of place is in fact a distance; an abstract distance between oneself and place that creates the possibility of understanding a place" (Tuan, 1980: 3-4). It seems that this term of distance that Tuan has used, implies the implicitly of the passage of time.

The sense of place has proved in many ways that it was strong enough to tolerate any political, social, or cultural change. For example, this is true for cities such as Rome, Istanbul, Paris, Prague and Moscow. For example, the metropolis has a special sense of place. This sense is a factor that turns a space into a place with special sensory and behavioral characteristics for special people (Mahmoudinejad, 2008: 59). Finally, about the sense of place we can assert: "The sense of place includes a point where the physical element, activity and meaning from people's experience of place are mixed. The sense of place, in addition to make people feel comfortable in an environment, supports the cultural concepts that people desire, the social and cultural relations of society in a particular place, and reminds people the past experiences and achieves identity (Falihat, 2006: 57). The sense of place can be changed by external changes, with the economy, social and political changes of modernity had a great impact on the loss of sense of place. "Weakness of the sense of place is facilitated through economic globalization and standard products." Integrative concepts in programming and development of urban spaces have sometimes led to the loss of local identity. As a result, currently urban development tends to decrease the dependency on place and depth of meaning, and weakens the diversity of place experience. "The sense of place is a dynamic bond that a person develops as a result of attachment to place, awareness of place, belonging to place, satisfaction of place, and commitment to place" (Shamai, 1991: 72).

The specific experience of individuals in a particular environment (sense of stimulation, stimulation, happiness, developmental and etc.) is relative and everyone has a specific experience, but at the same time collective, local and with personal meanings that connect the person to the world that changes the space into a place, the sense of place is created over time in the long-term use of space.

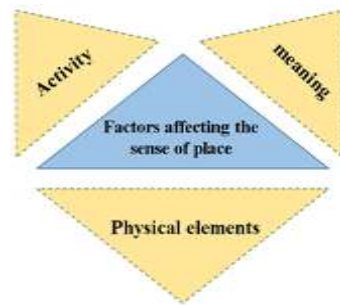


Fig 1 The effective dimensions in the sense of place (Carmona, 2013: 45)

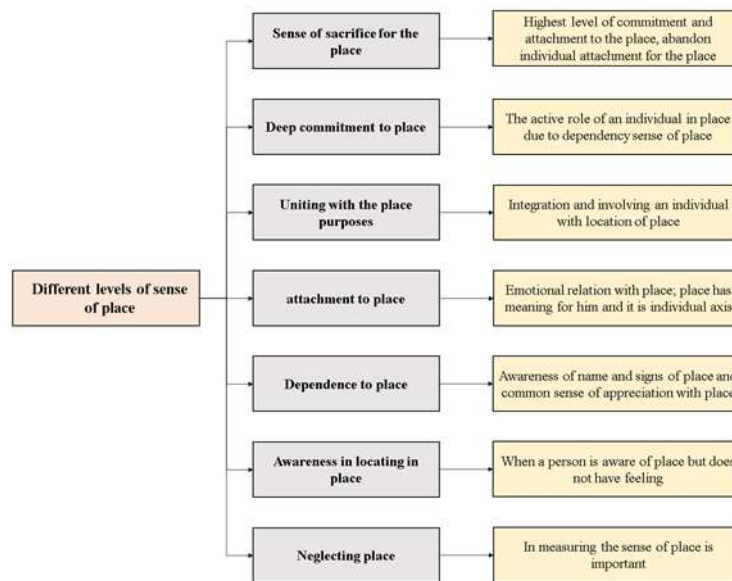


Fig 2 Different levels of sense of place (Carmona, 2013: 45).

The sense of place is an experience created by the environment with what one brings. Two main branches of sense of place includes the sense of place as the dependent axis and place as an attachment axis. The first is related to a geographical place as an operational structure. Researchers do not consider this definition very comprehensive (Carmona, 2013: 45).

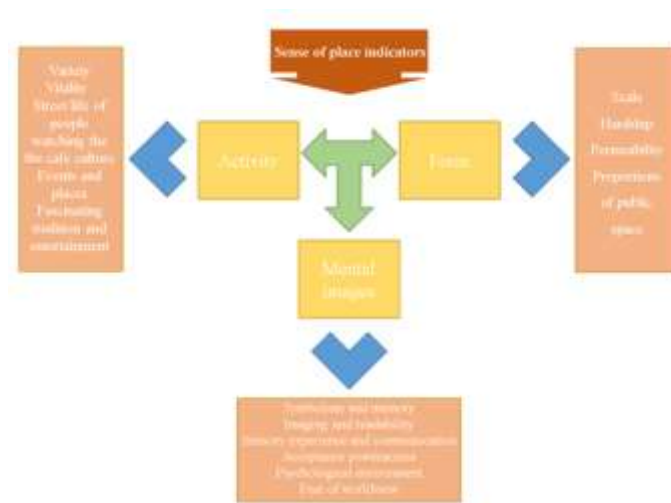


Fig 3 The index of sense of place in the environments from (Carmona, 2013: 45)

3.4. Cognitive Approaches to the Sense of Place

A Sense of Place from an Epistemological Approach

In the epistemological approach, numerous studies have been conducted on the knowledge of the sense of place and its relationship with various human aspects by different sciences, and different thinkers in various fields have explained and recognized this sense and its role in human life. In general, this group of thinkers can be divided into two categories: (Barker, 1968: 127-132).

- The first group: phenomenologists
- The second group: environmental psychologists.

Phenomenologists: According to the phenomenologists of human geography, the sense of place means a strong connection and an influential factor between people and place with its constituent parts (Tuan, 1974). From the point of view of this approach, experience is the main element of perceiving the concepts and meaning of a place, and therefore the meaning in a place is directly related to the way of human perception and related categories (Pretty et al., 2003: 284). Explaining the connection between perception and experience of place, Ralph believes that in the sense of place, human beings understand a concept beyond physical characteristics and physical elements in a place, and somehow feel a continuous connection with the spirit of the place (Varady and Carrozza, 2000: 798). By stating this, he points to the fundamental and inseparable connection of the concept of sense of place with human aspects and declares what elevates a space to a place (Tuan, 1974).

In addition to him, others such as Twigger-Ross and Uzzell emphasized and expanded Ralph's theory by emphasizing spatial distinction as one of the characteristics of spatial identity in the formation of individual identity. A concept that is mainly known as territory and is related to the physical dimensions and psychological logic of location knowledge (Carmona, 2006). Nuremberg Schultz is a well-known phenomenological architect who, based on the theories of the phenomenologists Husserl (1970) and Heidegger (1962), expresses several theories about architecture, and in particular place and space (Heidegger, 1962).

Based on the nature and structure of the place, he refers to the description and analysis of place and space as the space of existence and refers to the spirit of place, which means the essence of the relationship between place and man (Nurberg Schultz, 1980) In defining the "nature of place", he names it as a whole consisting of objects, physical elements, and what is the nature or spirit of

place, and considers the structure of place to include landscape, habitation, space, and personality (Motalebi and Forouzandeh, 2011: 19). In the physical environment, meaning is expressed as an identifying factor and the space of existence as a factor of individuals belonging to the environment. The characteristics of this place are announced in three factors: typology, topography, and morphology (Mahmoudinejad et al., 2008: 49).

Environmental Psychologists: Environmental psychologists have been studying human relationships with the environment and its various meanings for nearly forty years. These psychologists have developed theoretical foundations by the spaces and environment by studying the human living environment and examining everyday behaviors (Motalebi and Forouzandeh, 2011: 18).

The term behavior setting in this science is a description of a place of behavior that is a small social unit and is obtained by combining activity and a place in a way that in a regular process can meet the necessary functions of that behavioral environment. A place of behavior includes activity and territory, time, schedule, and controlling factors (Barker, 1968). Three important human factors are important in the realm of this knowledge: perception, cognition, and feeling. Numerous terms such as attachment to place, place dependence, place priority, place identity, etc. describe the sense of place. In general, the types of semantic attitudes of the human relationship with place in environmental psychology can be divided into several approaches: (Gifford et al., 2002: 132-134).

Cognitive approach

This approach emphasizes the role of human knowledge of the environment as they need to create a sense of belonging. Accordingly, environments with more awareness and cognition are less semantic for individuals than similar environments with less individual perception and cognition.

Social approach

From the perspective of this approach, the sense of place to the environment is the result of factors of social interactions that take place in the environment. According to this approach, the environment contains information and common social cues that humans interact with their environment by understanding and deciphering them.

Emotional approach

This approach refers to the emotional dimension of communication and place and declares interaction in this degree as a result of a deep connection between man and place and considers the formation of meaning in this approach about human emotions. Many environmental design theories refer to a sense of belonging in this approach as a sense of place and refer to a reflection of the combination of human perception, cognition, and feelings about the environment (Eusuf et al., 2014: 641-644).

Proshansky considers individual identity to arise from spatial identity and it originates from perception, cognition, and finally feelings about a place (Proshansky et al., 1983).

Taylor (2011) along with another group in his study of public spaces in neighborhood units, refers to physical elements, refers to it as physical interaction, which is equivalent to physical belonging to a place (Mebirouk, 2005: 61-66).

Altman considers the sense of belonging in the environment to be more than cognitive experience and believes that this sense includes the cultural beliefs that connect individuals with the environment. He describes the characteristics of this environment based on three factors: scale, specificity, and availability (Thwaites, 2001: 247-249).

Rappaport, emphasizing the role of socio-cultural components in the formation of the physical environment, by presenting the theory of non-verbal communication, divides the environment into a set of fixed, semi-fixed, and moving physical elements (Rappaport, 2005). According to Lefebvre,

the combination of mental and real space takes place in the social context. For Hegel, perception and experience are influenced by the social dimension (Babaei, 2014: 695). Theorists such as Edmund Bacon, Christopher Alexander, and Lynch point to the importance of open spaces as a place to strengthen people's social relationships (Thwaites, 2001: 247-249).

Emphasizing the dependence of environmental meaning on the cognitive process, Kevin Lynch uses cognitive maps to study the meanings desired by users of space (Lynch, 1998). Bentley and his colleagues, by studying and examining buildings and residential houses in England, point to a tendency to create the color of belonging and environmental differentiation in buildings and interpret it as environmental readability and classify it into two categories: consensual belonging and healing belonging. In his research on the sense of belonging, Robert Ryan points to the classification of active, semi-active, and passive environmental interactions and states the need for active environmental interaction as one of the important and influential factors in the formation of a sense of belonging and the use of natural elements. Introduces the environment as one of the factors creating a kind of interaction (Ryan, 1998).

A Sense of Place from an Ontological Approach

In examining the dimensions and nature of the sense of place from the ontology approach, it is necessary to pay attention to human needs. Today, various models of human needs have been proposed in the field of architecture-related sciences. Among these models, the model of the pyramid of human needs proposed by Maslow has been considered and important by several environmental designers in the development of theoretical foundations of design (Royuela, 2005).

While emphasizing human motivations and needs, Maslow has accompanied human beings from birth and believes that human beings seek to satisfy these needs at different levels by interacting with the environment and changing their capabilities (Babaei, 2014: 695). In describing this feeling, Lawson points to the existence of unwritten rules in human societies. Schultz's cosmic space, which is described in various dimensions of the orientation and topology of human space, is Lynch's well-considered urban form, which expresses the mental dimensions of the people who use the city (Nurberg Schultz, 1980).

3.5. Different Dimensions of Sense of Place

Some scholars, such as Altman and Lou, have emphasized the social role of place, referring to socio-cultural interactions and relationships in place, and have interpreted belonging in terms of social belonging (i.e., a kind of belonging for the sake of the people who use it) (Voordt and Wegen, 2005). However, other researchers have emphasized the role of physical elements as another important factor in the formation of a sense of belonging and consider it necessary to pay attention to the physical dimensions in the process of creating a sense of belonging (Muruani and Amite-Cohen, 2007).

Social Belonging: This type of belonging, which is mainly based on social interactions and actions in the environment, is based on the theory of social environment, and from this perspective, the environment has a type of belonging, a combination of social elements in which one seeks belonging (Muruani and Amite-Cohen, 2007).

Physical Belonging to a Place: This type of belonging is derived from the physical elements and components of place as part of the process of human cognition and identity (Muruani and Amite-Cohen, 2007).

Table 1 Classification of factors affecting the creation of a sense of place (Source: Author)

Theorist	Concept	Definitions
Merleau-Ponty 1962	Meaning and concept	Merleau-Ponty bases his phenomenological concepts on the explanation of the body (based on the body) and considers it a better approach to the nature of the mind, and the subject matter is important to him. According to this view, the intimacy of an architectural experience depends on the architectural ability to pay attention to the mind and body at the same time, and discovering the characteristics of a space based on sensory implications will enable one to have a more satisfying experience.
Arkitas 1969	Dependent on the person	Arkitas claims that every person occupies certain places and if those places do not exist, he or she will not exist. That is, the place where everything happens is the first thing to pay attention to.
Heidegger 1976	Communication with places	By questioning Kant's duality between man and the world, and defining man as Dasein, Heidegger defines human identity in relation to place and emphasizes place as the first manifestation of the realization of humanity and human being and life. Place puts man on a path that reveals the external relations and connections of his existence and at the same time the depth of his freedom and originality of existence. This is a profound and complex dimension of human experience in the universe.
Relph 1976	History and Geography	Sense of place A common sense of local history and geography that manifests itself in a combination of pride and commitment to improving the place.
Steele 1981	excitement	He considers the sense of place as experiences such as excitement and inference in a particular behavioral setting, and believes that it is the spirit or character of the space that evokes these particular emotions
Lynch 1998	Unforgettable place	The sense of place is related to identity and requires nodes that are distinct and unforgettable places.
Shamai 1991	Experience space	He considers the sense of place as the experience of space by man; In other words, place is a combination of man and a special design of his physical environment of life that is perceived and experienced through feeling. The desire to visit or not to visit, the continuity of the presence, the enjoyment of the place and participation in its activities stem from this feeling.
Panter 1991	Activity	and use, amount of pedestrian traffic, amount of vehicle traffic, behavioral patterns of artificial environment and readability
	semantic	Cultural relations, perceptual functions and qualitative evaluation
Zou, 1995	Unique place	A sense of place is a combination of features that make a place special and unique and protect the cultural heritage of the areas, promote cultural awareness and kinship relations.
Rudolph 1997	the memories	A person is born in the village that precedes him. Gradually, this village becomes his homeland with all its memories. Paths and places become memories and time and space become the history of his life.
Norberg-Schulz 1998	Path and meaning	How we get from one place to another is the main form of existence in the human world.
	Distinctive character	A sense of place is found in places that have a distinct personality. They have a place identity, and this distinctive character is made up of tangible things with materials, shapes, textures, and colors.
Montgomery 1998	liveliness	He believes that the sense of place is the distinguishing feature of the success of regions and makes them feel alive and happy and cheerful in creating a place

Cross 2001	Mental experience	The sense of place is a matter of the mind and varies according to different cultures and experiences.
Bonaiuto 2003	Background and location and equipment	Background and context, existence of services and facilities, location in the urban context, how the place relates to its surroundings
Kyle et al 2004	Emotional belonging	Emotional attachment to place can take place in relation to the physical environment as well as the social environment.
Salvesen 2004	Landscape-position	A sense of place arises from the interaction of the three elements of individual position, perspective, and entanglement. Physical personality, ownership, originality, residents, amenities, private and collective spaces are effective in creating a sense of place.
Carmona 2007	Time	The way places are controlled and managed over time affects the sense of place.
Devine Wright 2009	Variable based on outside	The sense of place can be changed by external changes, by the economy, by social and political changes.
Steadman 2016	Descriptive, symbolic	The sense of place received is descriptive, symbolic and symbolic of the concept of place.
Raymond 2016	Human	The concept covers a wide range from fun and enjoyment to more serious applications in human life. This concept encompasses a wide range of relationships between man and place.

3.6. Factors that Create a Sense of Place

Perceptual-Cognitive and Individual Factors (Meanings): A sense of belonging is a complex combination of meanings, symbols, and environmental qualities that a person or group consciously or unconsciously perceives from a particular place. This meaning, which is mainly based on the emotional connection of the person with the environment, manifests itself in the design in the form of physical manifestation (Lang, 2002). Knowing one's perception of a place is one of the basic conditions for creating a sense of belonging to a place. For this purpose, desirable environments have a better perception and knowledge by people (Mebirouk, 2005: 61-66).

Social Factors (Activities): The role of social variables such as culture, symbols, and social symbols is of great importance. All human beings have social needs and in the pyramid of human needs, they seek to belong to relatives and friends. At this stage of the sense of belonging, the environment is the context of social and cultural activities in which individuals discover, interpret and interpret physical elements based on their perception of their cognitive structural system (Lang, 2002). In this category of factors, physical elements such as forms, shapes, textures, and colors arising from the social layers of the environment play a communicative role with users, and each is based on cultural data obtained throughout the history of environmental architecture and contains its meaning (Amole, 2009).

Environmental-Physical Factors (Physical Elements): Based on the theory of place-behavior in environmental psychology, these factors categorize the two important factors of activity and body, define the activities in an environment based on social factors, actions, and general human interactions, and define the body along with form variables (Mebirouk, 2005: 61-66). And the organization of components is evaluated as the most important factor in the formation of a sense of belonging to the environment (Ewing et al., 2006: 223-224). Physical elements create a sense of belonging by creating environmental differentiation, internal and external communication in spaces. Shape, size, color, texture, and scale as characteristics of form each play an effective role in the formation of the right and the type of organization and arrangement of physical components is another effective factor (Pasaogullari and Doratli, 2004: 225-227). On the other hand, physical elements are effective in creating a sense of belonging through harmonization and the ability to

meet human needs in space. In design, each of the variables of color, shape, texture, scale, and type of organization based on human needs and providing the desired type of activity in the spaces are of special importance, which indicates the ability of the environment that flourishes the form of performance (Mebirouk, 2005: 61-66).

3.7. Space of Open Residential Areas

The open space is generally considered as public and semi-public spaces (Amole, 2009: 867). The open access is divided into three categories: public, private and semi-private. Public spaces with definitions and applications of criteria and components such as accessibility of spaces, profiting from spaces, designing method, facilities, physical structure of streets, aesthetic considerations are on the agenda (Cybriwsky, 1999: 231). There are other definitions of this space, but in this context, the aim is familiarity with one of the types of public spaces. Public space is divided into three categories: open space, semi-open space, closed space.

The “open space” term was first used in “London follow” committee (Muruaui and Amit-cohen, 2007: 5). The open space is generally described as a land without building and it is only a balcony and private yard in private open space (Pasaogullari and Doratli, 2004: 226). The main performance of open space is to meet peoples’ needs (Ewing et al., 2006, 224). Open space in residential complexes is the outermost space of houses and it is the joint with the urban space and is considered as an exterior in terms of application and it is a circle for the formation of more open and common activities (Wilkinson, 1983). Today, the open places in residential places are limited to the closed spaces, balconies and or small private courtyards on the ground floor, parking lots, or unplanned common areas, although experts emphasize that the spaces between residential blocks are not unused and redundant spaces that are spaces for meeting, events, and so on (Tzonis, 2006: 24). Various researches in the West show the effect of open spaces in increasing the desirability of space for residents; for example, Cooper Marcus and Sarmes Yander (1986) emphasize in their research that the success of medium- and high-density residential complexes has a direct relation with the degree of positive impact of open spaces between blocks (Beer, 1983: 11). It should be noted that a successful neighborhood design makes a proper balance between neighborhood collision opportunities and seclusion opportunities. For example, if private spaces with short walls have traditionally increased neighborhood encounters, but they can simultaneously induce a sense of insecurity and visibility in residents (Thwaites, 2001: 15). In different countries due to the role of open spaces, the residential complexes with planning and various strategies at different scales try to evoke a sense of belonging in the residents and in addition the benefits of outdoor capabilities for a common and ecological place in the city is achieved.

In neighborhoods and residential complexes, limiting buildings in open spaces are the same as the residential buildings (Mebirouk, 2005). Open space is the most important arena for the formation of social interactions. Open space in traditional Iranian architecture is described in two scales (Eusuf et al., 2014: 642). The first is the large open spaces, which meets the needs for large gatherings, religious and military ceremonies, etc., and the second is small open spaces in relation to everyday uses in small and often residential buildings. Residential open space refers to a single space or a collection of organized, decorated and orderly spaces that are located between the constructed surfaces and are a platform for human activities and behaviors. Open space is used as a balancing and generalizing space in urban space, which is a complement for green space. At the same time, open space is considered as a modulator of building and human density. The common denominator of open space as a connecting space between different activities, which appears as a special skeleton within the city, defines a part of the urban structure or a form.

Open space residential areas are a kind of the nature of social life, this means a place where citizens are present. Intrinsic human behavior has a close relationship with the environment, therefore, organizing human behavior and applying it in time and space is the most important factor in outdoor design. Human is the main component of this space that gives meaning to this space by his values and norms. Outdoor design is the art of arranging the external physical environment to support human behavior, and the outdoor designer applies activities in three-dimensional space in a desired time. A successful design is in harmony with the people who use it, and on the other hand, it shows a connection with the environment (Voordt and Wegen, 2005: 32). Paths, public communication spaces, sidewalks and passages, local squares and squares, neighborhood parks and green spaces, bridges and connecting spaces between sidewalks are a section of open space residential areas. Open residential spaces provide opportunities for the growth of creativity, socialization, social interaction and applications such as communication, tranquility, entertainment and they are a place to walk to reduce pollution and improve the living environment.

Open space residential area is a new concept that is a result of modern social life and communal living as an alternative of private yards. Although there are many differences in the nature and form between these two, but based on functionality it is expected that they have similar uses. However, these natural differences have overshadowed in its performance, and as a result, in many existing residential complexes it has been reduced to a passing area or stop area for cars. Today, the positive effect of outdoor quality on the physical and mental health of people is accepted, and it is expected that open spaces in residential complexes fill the gaps due to the lack of yards in the lives of residents, an absence which is sensed more than before with a per capita shortage of green space in cities and congestion of modern cities (Francis, 2003: 30-33).

3.8. Environmental Factors in Residential Complexes

For understanding the relation between building and environment, firstly we should consider the human view about environment or in general the nature (Grooter, 1996: 163). Earth and climate geographers, people and personality psychologists, sociologists of social organizations and processes, and architects of buildings and open spaces define the environment. Each of these classifications is related to the purposes that are expected from the environment. Some analysis between physical, social, psychological and behavioral environments have distinguished (Lang, 2002: 163). If we assume the environment as a living creature, it needs vitality to continue living. It is clear that the need for vitality of spaces is the presence of people. In architecture and urban design, considering the citizens' opinions is one of the most important factors for design, that means the space and the surrounding environment have features that attract people.

Most of the researchers concentrated on several physical dimensions of the environment but we cannot consider these dimensions as definite because there are different disagreements, but it can be summarized in three dimensions.

- a. Environmental situations: that simulates five senses (temperature, light, noise, music and perfume)
- b. Special design and ability: respond to the needs in the extent of shape and machine settings, facilities and furniture or ability.
- c. Signs and artifacts: the tools show the kind of service in the space (Royuela, 2005).

The physical environment includes terrestrial and geographical locations. The social environment includes the institutions of group members. The psychological environment includes the intellectual images of people. Behavioral environment is a set of factors to which a person reacts. What is important is that the physical environment must be fitted to the earth's environment.

The physical environment is a set of adaptations that human creates with geographical and cultural environments. Environmental organization affects the interaction of people and the geographical environment. Banat and others consider environmental factors as communication with nature through natural materials or presence in nature (Bennet, 2012: 41). According to Winer and Carmalit environmental factors are climate, neighborhood, services and facilities and even technology. Attention in the opinion of some people is a functional distance in functional centrality and functional proximity (Shamsuddin, 2011). This has led people to gather and led social interaction between the residents of the residential complex. On the other hand, adaptability and flexibility cause human interaction with the environment and create meaningful experiences (Huisman and Deeg, 2010).

Some people consider the geographical space as housing and ownership type, space performance, and height code as the most important physical factors affecting the outdoor space in a residential complex. While for others, visual attractiveness and readability are the most important physical variables of the environment. On the other hand, effect of factors such as shape diversity, material and building diversity, active frontiers in residential complexes, natural and artificial bed, number of blocks, the level of occupation, facades and furniture, the quality of the building structure, the quality of the residential unit and finally the population density on the surrounding environment of the residential complex are undeniable. In this regard, other people have studied the transportation access network, outdoor and indoor access network, pedestrian access network, permeability, monitoring by residents in a residential complex, space for ceremonies and celebrations, as environmental variables (Montazer Al-Hajjah et al., 2015).

4. Research Method

This research is a combination of nest to nest that firstly the documentary studies are conducted in this field. The existing variables in the sense of place are extracted and in the next stage, environmental components are extracted. In order to investigate and make relationship between research variables (environmental components and sense of place) Delphi model is used, then for variables that have not existed in the theoretical literature or compared to previous case studies, semi-structured interviews with open and axial coding techniques are used. In the end, the aggregation of variables and their use in a Likert questionnaire determine their contribution. Each of the steps are described as follows.

4.1. Qualitative Part:

Delphi Futurology

- **Intellectual storm:** the research questions related to the subject are asserted in two stages that take place in a question, at first the qualitative question in relation to factors are considered as the main purpose of the Delphi question and for complete understanding it becomes simple by converting into three questions along with the main question. The results of identifying the factors were evaluated by experts and repetitive responses were eliminated and the names of each member in a team were defined and easily sent to them. This step involves extracting and validating the list of factors.
- **Limitation of factors:** At this stage, the understanding of ranking was the importance of factors based on different perspectives of different groups. Hence, the strategy was to have groups that think similarly about the importance of factors. Attempts to fit the factors

extracted by the researcher experts was done. This stage has a multiplication of adornments and includes a questionnaire of the most important factors.

- **Ranking of the relevant factors of the purpose in this stage:** the purpose is to reach an agreement in the ranking of relevant factors in each board. Research shows that reaching an agreement in Delphi groups is much more difficult than reaching an agreement in groups where there is direct interaction between members. This step includes ranking of the selected factors (Powell, 2003: 382).

Semi-Structured Interview

Based on studies in the field of sense of place and open space residential areas, the questions of semi-structured interview are written and became available for experts. The results of this stage were analyzed with ATLASTI software and with techniques as follow:

Open Coding: Open coding process is an analysis through which the concepts are identified and their properties and dimensions are achieved. In this stage the theory of data foundation forms the primary categories of information about the under-study phenomenon by segmenting the information. The researcher founded the categories based on collected data, such as interviews, observations, and events or his notes (Creswell, 2005: 397).

Axial Coding: This process is linking categories to subcategories, and linking categories at the level of features and dimensions. This coding is called axial because coding is done around an axis of a research category (Lee et al., 2004: 249). Strauss in the axial coding stage discusses several basic actions shown in the table below (Lee et al., 2004: 50).

Table 2 The stages of applying axial coding (Lee et al, 2004)

1	Expressing the properties of a research category and its dimensions is an action starts during open coding
2	Identifying various cases, various action or feedback and its outcomes related to a phenomenon
3	Relating a category to its sub-categories through options which indicates its relation
4	Search for clues in the data that indicate how the main categories may be related to each other.

This section includes two different sampling in quantitative and qualitative area.

4.2. Qualitative Sampling

Firstly, the qualitative sampling was asked from 20 experts who were fully acquainted with the sense of place and open spaces of residential complexes and they were selected in the form of snowballs, they were asked to give 1 to 10 score to the valuable residential complexes for examining in the field of sense of place. Complexes with an average score above 5 were selected and they were referred back to experts for approval. In the next step, for interviewing with experts in this study, 46 experts were interviewed and from the 37th interview repeat was seen. Based on Grand theory principals, after the first interview they started to collect and analyze the information.

Table 3 Dispersion of interviewed professors

Cumulative percentage	Abundance	Number	Interviewers
34.8	34.8	16	Architect professors
54.3	19.5	9	Professors of landscape architecture
80.5	26.2	12	urban designing professors
100	19.5	9	urban designing professors
-	100	46	Total

4.3. Quantitative Part

In the next step, according to the views of the experts and managers in residential complexes and the extracted variables, a questionnaire was developed as a closed questionnaire with five-degree Likert-scale answers. The structure of the questionnaire included questions related to the main research question; for the calculations, a score of 5 for "very impressive" and a score of 1 for "low impress" was considered by each expert and to minimize cost and time, a questionnaire was distributed among a random sample of 38,500 people (the desired residents in the complexes). The sample size was selected using Morgan table which includes 384 people and it was distributed randomly between residents of residential complexes. According to the population and the separation of men and women. The volume of distributions in the dispersion of age groups was based on age groups and was clustered. The reliability of the questionnaire was calculated based on Cronbach's alpha, with the value of 0.72 and the justification was calculated with the CVR formula, which is 0.78. In general, the diagram of the research method is as below:

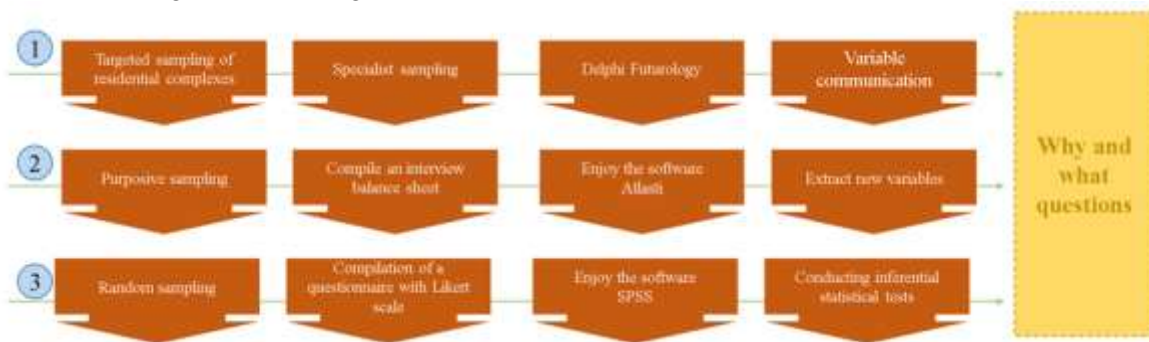


Fig 4 The research process diagram (Source: Authors, 2021)

5. Findings

5.1. Qualitative Findings

In the Delphi stage, the executive phases are as follow:

- First Phase, Brain Storm:

The first questionnaire was sent to Delphi commission via electronic post and they were asked to relate these variables with flash in the answer of this question “which of the sense of place variables can include some of the environmental variables?”.

Second Phase, Limitation:

In the next stage, the experts as a separate board were asked to rank the selected factors by each board. Each expert was asked to select 10 factors. For each board, the selected factors were accepted by 50% of the experts.

Third Phase, Ranking:

Experts are asked to rate the available factors in their revision lists; the average rank is calculated for each item. Each list is evaluated using Kendall W, and this action continues until an agreement is achieved and some of the first-round variables are removed. The extracted variable from the sense of place and the adapted environmental variables are displayed below.

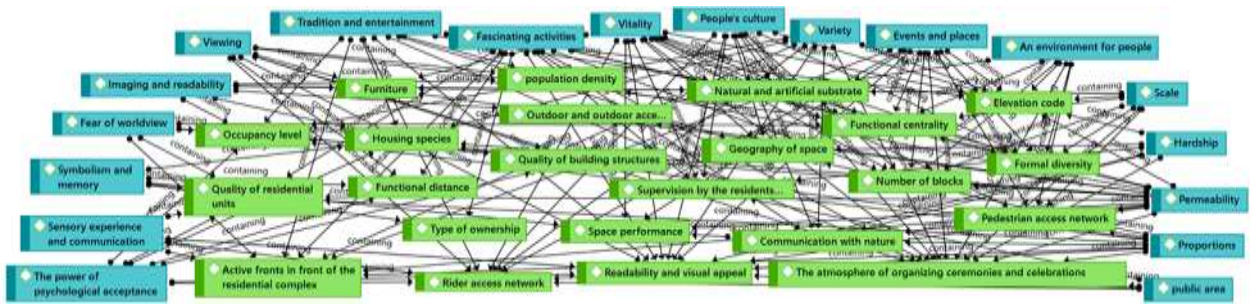


Fig 5 Results of connection between sense of place variables and the environmental variables

It was defined that nearly all of the environmental variables are representative of sense of place variables. Hence for analyzing sense of place in open space residential areas we can profit from environmental variables. It should be mentioned that the culture of the cafe, the power of psychological acceptance, fear of worldwide view and fear and panic have no variables and researchers have not considered any variables for them.

In the next stage, based on the existing definitions and spatial variables and environmental factors extracted in the Delphi stage, the questions are provided to experts and semi-open questions are asked to extract the maximum variables and the results are entered into ATLASTI software. 45 codes are extracted and based on these codes a questionnaire with Likert scale is designed;

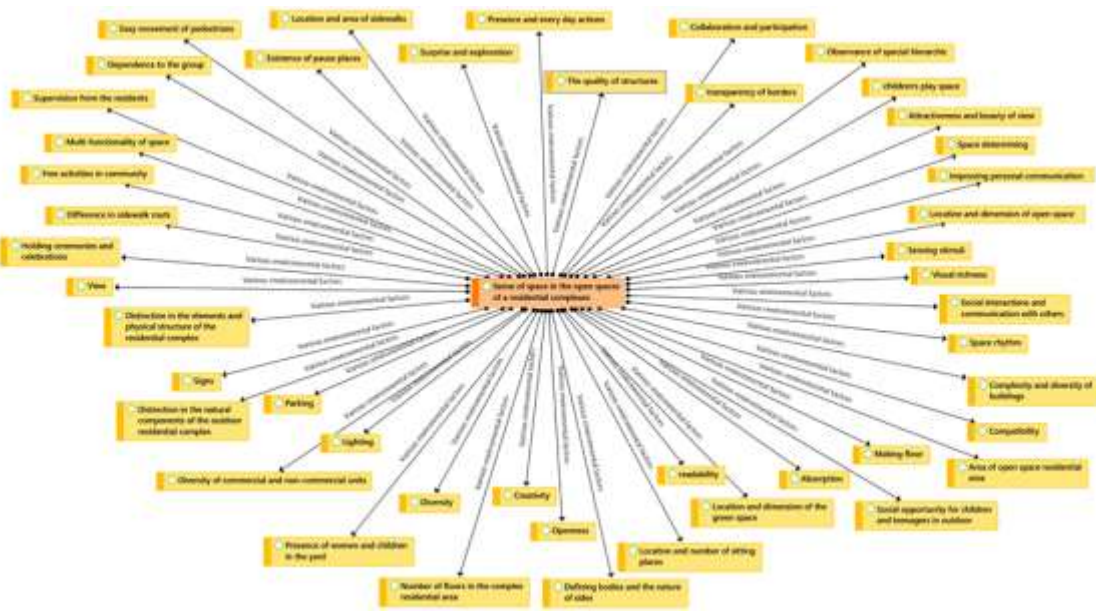


Fig 6 Results of open coding from researchers interview with live, descriptive and interpretive coding techniques.

5.2. Quantitative Findings

In order to perform factorial analysis, first the information matrix should be formed. Here its columns include indexes and its rows include complex residential areas. Due to select 9 residential

complexes for investigation and 45 environmental arguments, the M×N matrix is 45×9. In order to investigate the sufficiency of data and their suitability in determining the phenomenon, the KMO analysis and Bartlett were used. In order to confirm this and the component test, the trial-and-error method and indicator removal with values less than 0.4 were used. Hence, the coordination index with the local climate was removed and factor analysis was performed for the remaining components. Thus, KMO test and Bartlett is shown in the below table:

Table 4 The results of KMO and Bartlett

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.564
Bartlett's Test of Sphericity	Approx. Chi-Square	341.016
	df	73
	Sig.	0.000

As it is seen in the below table, there are common values. None of the components have not correlation below 0.4. In this stage, it is determined that how much of the number of selected factors can cover the project purpose. Hence, in the first stage the values more than 1 and include the 60% of the total and every one includes 10%, can cover the data.

Table 5 Common factors matrix

Component	Special amount	Component	Special amount
Holding ceremonies and celebrations	0.774	Parking	0.841
Social opportunity for children and teenagers in outdoor	0.754	Supervision from the residents	0.813
Social interactions and communication with others	0.699	Presence and every day actions	0.862
Free activities in community	0.833	Improving personal communication	0.751
Diversity of commercial and non-commercial units	0.892	Difference in sidewalk routs	0.924
Multi-functionality of space	0.871	Collaboration and participation	0.695
Distinction in the elements and physical structure of the residential complex	0.658	Dependence to the group	0.822
Number of floors in the complex residential area	0.617	Presence of women and children in the yard	0.906
View	0.906	Complexity and diversity of buildings	0.914
Attractiveness and beauty of view	0.965	Area of open space residential area	0.901
The quality of structures	0.632	Defining bodies and the nature of sides	0.736
Space determining	0.626	Surprise and exploration	0.779
Openness	0.721	transparency of borders	0.954
Existence of pause places	0.745	Space rhythm	0.913
Sensing stimuli	0.652	Diversity	0.947
Location and dimension of the green space	0.932	Location and dimension of open space	0.919
Location and number of sitting places	0.894	Location and area of sidewalks	0.952
Readability	0.830	Observance of special	0.921

		hierarchic	
Visual richness	0.832	Signs	0.954
Creativity	0.639	Compatibility	0.711
Lighting	0.854	Making floor	0.721
children's play space	0.741	Distinction in the natural components of the outdoor residential complex	0.768
Absorption	0.609	Easy movement of pedestrians	0.742

In order to determine that all these components can be classified into several factors, the percentage of variance of the special amounts of different factors is used. The result of the analysis showed that a total of four factors cover 76.41%, the first factor covers 26%, the second factor 20%, the third factor and the fourth factor 14% and 12% of the data. Therefore, by selecting 4 factors and performing Varimax rotation, the relationship between indicators and factors is achieved. In the table, the correlation between variables and factors for every factor that has more dependence are selected.

Table 6 Determining the number of factors

Variance percentage and the special number of various factors									
Variables	Primarily special amount			Explained variance of factors with special values greater than one.			Collection number of the extracted factors after rotation		
	Total	Variance percentage	Cumulative percentage	Total	Variance percentage	Cumulative percentage	Total	Variance percentage	Cumulative percentage
1	3.927	30.301	30.301	3.927	30.301	30.301	3.326	25.583	۲۵/۵۸۳
2	2.746	21.126	51.33	2.746	21.126	51.33	2.713	20.867	46.45
3	1.95	15.000	66.33	1.95	15.000	66.33	1.897	14.59	61.041
4	1.442	11.059	77.442	1.442	11.059	77.442	1.848	14.218	76.412
5	1.087	8.363	85.758						
6	6e5-6.513	-5e4/241	100.000						

Based on the below table, the relationship of components with factors are as below:

Factor 1: It is related to the components of supervision in footpaths, surprises and exploration, observance of spatial hierarchy, holding ceremonies and celebrations, free association activities, attraction and beauty of form, sensing stimuli, readability, children's play space.

Factor 2: It is related to parking components, presence of women and children in the yard, open area of the residential unit, location and dimensions of the open space, signs, ease of walking, opportunity for socialization for children and teenagers in outdoor, multifunctional space, quality of the structures, existence of pause spaces, location and dimensions of green space, creativity and permeability.

Factor 3: it is related to supervision from the residents in the complex, presence and daily activities of the place, improving personal communication, cooperation and participation, transparency of borders, location and area of sidewalks, social interactions and communication with others, diversity of commercial and non-commercial units, number of residential complex floors, spatial determination, openness, location and number of sitting spaces, visual richness, lighting.

Factor 4: It is related to the dependency to the group, Complexity and diversity of buildings, The rhythm of spaces, diversity, flooring, distinguishing in the natural elements of the open space in the residential complex, differentiation in the elements and the physical structure of the residential complex and façade.

Table 7 Correlation table between variables and factors

Rotated matrix of factors				
	Factors			
	1	2	3	4
Parking		0.873		
Supervision from the residents			0.684	
Presence and daily activity			0.730	
Improving individual connection			0.586	
Supervision in sidewalks	0.931			
Collaboration and participation			0.654	
Sense of dependence to the group				0.781
Presence of women and children in space		0.832		
Complexity and diversity in buildings				0.921
Open space area of residential areas		0.984		
Defining bodies and the nature of sides				
Surprise and exploration	0.862			
transparency of borders			0.773	
Space rhythm				0.752
Diversity				0.884
Location and dimension of space		0.901		
Location and area of sidewalks			0.302	
Observance the spatial hierarchy	0.581			
Signs		0.402		
Adaptability				
Flooring				0.365
Distinction in the natural elements of the outdoor residential complex				0.733
Easy walking		0.895		
Holding ceremonies and celebrations	0.947			
Opportunity for outdoors socializing for kids		0.349		
Social interactions and relationships with others			0.314	
Activity of free associations	0.695			
diversity of commercial and non-commercial units			0.504	
Multi-functional space		0.768		
Distinction in the elements and physical structure of the residential complex				0.562
Number of floors of residential complex			0.743	
View				0.702
Attractiveness and beauty of view	0.528			
The quality of materials		0.319		
Special determining			0.544	
Openness			0.893	
Existence of pause spaces		0.787		
Sensing stimuli	0.519			
Location and dimension of green spaces		0.625		
Location and number of sitting places			0.574	
Readability	0.684			
Visual richness			0.725	
Creativity		0.565		
Lighting			0.655	
children's play space	0.542			
Absorption		0.380		

Considering the obtained results from questionnaires we can conclude that the dimensions of sense of place in residential areas are complex and each of these dimensions (factors) include the other. Hence, in the first factor or dimension spatial-social factors are mixed with each other and they have correlation. In the second, physical-social factor and in the third, social-spatial factor and in the fourth, spatial factors exist. In general, when the selected factors have two aspects of environment, their correlation increases. In order to create more coverage for inducing sense of place in residential areas, it should include two or more dimensions to achieve higher success than sense of place.

6. Conclusion

Sense of place is an internal connection that is created between a person and his environment through the perception of the individual. This intellectual perception arises from various environmental components that have many multiplicities. These components are in different categories including spatial, social, and physical, most of which are spatial. It is important that the physical and social, social and spatial and spatial physical components are correlated with each other and in general each of the components affects the other aspects and when the components are single the other Components do not affect or follow one dimension. The amount of their contribution factor and their correlation coefficients are greatly reduced. The purpose of this study is to explore and analyze the components of sense of place in the open spaces in residential complexes, and the following solutions are proposed to improve the case and the situation in the sense of place in residential complexes:

- Designing cultural spaces by having the highest diversity, harmony, beauty and visual continuity of landscapes
- Designing safe spaces for different age and sex groups and individual and social activities
- Prioritizing to pedestrian movements in service centers for ensuring free movement of pedestrians
- Encourage residents and staff to use opportunities and outdoor training facilities.
- Ensuring that long-term maintenance and care of gardens and green spaces becomes an essential and permanent activity.
- Improving the personality and design of spaces to change the behavior of residents and increasing personal security.
- Encouraging residents to be more active and more present in open spaces by providing attractive and well-maintained open spaces
- Providing the maximum security for residents against climate change
- Creating proportion and coordination with land effects
- Sufficient size and extent in play spaces than population

References

- Amole, D. (2009). Residences. *Environment and Behavior*, 41(6), 866-879.
- Babaei, P. (2014). *Philosophical schools: from ancient times to the present day*. Tehran: Negah Publishing Institute.
- Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford University Press.
- Beer, A. R. (1983). *The Landscape Architect and Housing Areas*. University of Sheffield, Department of Landscape. Paper.

- Bennet, S. A. (2012). Playground Accessibility and Neighborhood Social Interaction among Parents. *Social Indicators Research*, 108(2), 199-213.
- Bonaiuto, M., Aiello, A., Perugini, M., Bonnes, M., & Ercolani, A. P. (1999). Multidimensional perception of residential environment quality and neighbourhood attachment in the urban environment. *Journal of environmental psychology*, 19(4), 331-352.
- Borer, M., Hedges, L., Higgins, J., & Rothstein, H. (2016). *Introduction to Meta-Analysis*. UK: Wiley & Sons publication.
- Canter, D. (1977). The facets of place. In: Moore, G. T. & Marans, R. W. (Eds.), *Advances in environment, behavior, and design. Vol.4: Toward the integration of theory, methods, research and utilization*. New York: Plenum. pp. 109-147.
- Carmona, M. (2010). Contemporary Public Space: Critique and Classification, Part One: Critique. *Journal of Urban Design*, 15(1), 123-148.
- Costlow, K., Parmelee, P., Choi, S., & Roskos, B. (2020). When less is more: Downsizing, sense of place, and well-being in late life. *Journal of Environmental Psychology*, 71, 101478. 10.1016/j.jenvp.2020.101478.
- Cross, J. E. (2001). What is Sense of Place: Research on Place & Space. Website, 20 Feb.2003.
- Creswell, J. W. (2005). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Second Edition, Thousand Oaks, CA: Sage Publications.
- Cybriwsky, R. (1999). Changing patterns of urban public space: Observations and assessments from the Tokyo and New York metropolitan areas. *Journal of cities*, 16(4), 223-231.
- Eusuf, M. A., Mohit, M. A., Eusuf, S., & Ibrahim, M. (2014). Impact of outdoor environment to the Quality of life. *Procedia-Social and Behavioral Science*, 153, 639-654.
- Ewing, R., Handy, S., Brownson, R. C., Clemente, O., & Wiston, E. (2006). Identifying and measuring urban design qualities related to walkability. *Journal of Physical Activity and Health*, 3(1), 223–240.
- Falahat, M. S. (2006). The concept of sense of place and its constituent factors. *Fine arts*, 7(26), 6-57.
- Falahat, M. S., & Nuhi, S. (2012). The nature of signs and its role in improving the sense of architectural space. *Journal of Fine Arts, Architecture and Urban Planning*, (25), 17-25.
- Francis, M. (2003). *Urban open space: Designing for user needs*. Island Press, Washington D.C.
- Gifford, R., Hine, D. W., Muller-Clemm, W., & Shaw, K. T. (2002). Why architects and laypersons judge buildings differently: Cognitive properties and physical bases. *Journal of Architectural and Planning Research*, 131-148.
- Grooter, Y. (1996). *Aesthetics in architecture* (Pakzad, J. Trans.). Tehran: Shahid Beheshti University publications.
- Gustafson, P. (2001). Meanings of place: Everyday experience and theoretical conceptualizations. *Journal of environmental psychology*, 21(1), 5-16.
- Heidegger, M. (1962). Being and time. New York: Harper. (Original work published 1927).
- Huisman, M., & Deeg, D. J. (2010). A commentary on Marja Jylhä's "What is self-rated health and why does it predict mortality? Towards a unified conceptual model". *Social Science & Medicine*, 70(5), 652-654.
- Lang, J. (2002). *Creation of Architectural Theory: The Role of Behavioral Sciences in Environmental Design* (Einifar, A. Trans.). Tehran: Tehran Publications.
- Lee, C., & Moudon, A. V. (2004). Physical activity and environment research in the health field: Implications for urban and transportation planning practice and research. *Journal of Planning Literature*, 19(2), 147–181.
- Lynch, K. (1998). *Good City Form -Cambridge*. Massachusetts and London: The MIT Press.
- Madanipoor, E. (2000). *Urban space design, an attitude on social and spatial process* (Mortezaei, F. Trans.). Tehran: Processing Company and Urban Planning Publications.
- Mahmoodinejad, H. (2009). *Space and Place in Urban Design*. First Edition, Tehran: Hale and Tahan Publications.

- Mebirouk, H. (2005). Appropriation de l'espace public dans les ensembles de logements collectifs, forme d'adaptabilité ou contournement de normes?. Cas des ZHUN d'Annaba'. *Norois. Environnement, aménagement, société*, (195), 59-77.
- Mojtahedzadeh, R., & Namavar, Z. (2015). *In the search of Ahvaz urban identity*. Tehran: Publications of Road, Housing and Urban Development Research Center.
- Montazer Al-Hajjah, M., Sharif Nejad, M., & Dehghan, S. (2015). Evaluation the factors affecting the creation of a sense of place in urban neighborhood centers (Case study: Sheikhdad neighborhood centers and university town in Yazd). *Islamic Iranian city studies*, 7(26).
- Motalebi, Q., Forouzandeh, A. (2011). The concept of sense of dependence to a place and its components. *Journal of City Identity*, fifth year.
- Muruani, T., & Amite-Cohen, I. (2007). Open space planning models: a review of approaches and methods. *Landscape and urban planning*, 81, 1-13.
- Najafian Sharif, M. (2011). The Concept of Place and Sense of Place in Architectural studies. *International journal of Humanities and Social science*, 5(8), 1100-1106.
- Norberg-Schulz, C. (1989). *Architecture: concept and place* (Brazjani. Trans.). Tehran: Jan Jahan Publications.
- Nowruzian Maleki, S., & Omid, N. (2020). Evaluating the effect of physical-social components on the sense of place in the open spaces in the residential complex. *City Identity*, 14(1), 87-98.
- Powell, N. (2003). Single-minded, compelling, and unique: visual communications, landscape, and the calculated aesthetic of place branding. *Environmental Communication: A Journal of Nature and Culture*, 7(2), 231–254.
- Pasaogullari, N., & Doratli, N. (2004). Measuring accessibility and utilization of public spaces in Famagusta. *Journal of Cities*, 21(3), 225–232.
- Pretty, G. H., Chipuer, H. M., & Bramston, P. (2003). Sense of place amongst adolescents and adults in two rural Australian towns: The discriminating features of place attachment, sense of community and place dependence in relation to place identity. *Journal of Environmental Psychology*, 23(3), 273-287.
- Proshansky, H. M., Fabian, A. K., & Kaminoff, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3, 57-83.
- Relph, E. (1976). *Place and placelessness*. London: Pion.
- Royuela V. (2005). *Quality of life, urban size and urban growth. A case of study in Barcelona*, Grup d'Anàlisi Quantitativa Regional (Universitat de Barcelona) Facultat CC. Econòmiques, Av. Diagonal, 690, 08034 Barcelona (Spain).
- Ryan, R. (1998). *Attachment to urban natural areas: Effects of environmental experience*. Ph.D. dissertation. University of Michigan.
- Shamai, S. (1992). Sense of place: an empirical measurement. *Geoforum*, 22(3), 347–358.
- Shamsuddin, S. (2011). *Townscape Revisited: Unravelling the Character of the Historic Townscape in Malaysia*. Penerbit UTM Press.
- Shibani, M., & Poorsoleiman Amiri, Z. (2017). The role of natural environment in creating sense of place in urban housing. *Manzar*, 6(41), 46-59.
- Tuan, Y. F. (2001). *Space and Place: The Perspective of Experience*. University of Minnesota Press, Minneapolis.
- Tzonis, A. (2006). Rethinking Design Methodology for Sustainable Social Quality. In *Tropical Sustainable Architecture* (pp.35-46). Routledge.
- Thwaites, K. (2001). Experiential Landscape Place: An exploration of space and experience in neighborhood landscape architecture. *Landscape Research*, 26(3), 245-255.
- Wilkinson, P. F. (1983). *Urban open space planning*. Toronto: York University.
- Varady, D. P., & Carrozza, M. A. (2000). Toward a better way to measure customer satisfaction levels in public housing: A report from Cincinnati. *Housing Studies*, 15(6), 797-825.
- Voordt, D., & Wegen, H. (2005). *Architecture in Use: An introduction to the programming design and evaluation of buildings*. Architectural Press, London.

Study and Analysis the Effect of Pond House in the Structural Formation of Houses in Hot and Dry Climate in Iran

Abazar Mehrali^a, Hossein Soltanzadeh^{b*}, Kaveh Bazrafkan^c

^aPh.D. Student, Architecture Department, Emeritus Branch, Islamic Azad University, Dubai, UAE

^bProfessor, Faculty of Architecture, Architecture and Urban Design Department, Central Tehran Branch, Islamic Azad University, Tehran, Iran

^cAssistant Professor, Faculty of Architecture, Architecture and Urban Design Department, Central Tehran Branch, Islamic Azad University, Tehran, Iran

Received 06 January 2022; accepted 14 February 2022

Research Article

Abstract

Residential houses in the hot and dry climate of Iran are among the valuable and important buildings of this land. Recognition of the shape and physical structure of the hot and dry climates of Iran will not only preserve and restore this precious achievement in the past historical periods of Iran, it will also play an important and useful role in identifying the hidden features and potentials of this building.

The present study intends to identify the structural features of the pond in relation to other spaces of residential buildings, to study and analyze how and to what extent the pond is effective in forming the structure of residential houses in the hot and dry climate of Iran. In this regard, the researcher first extracts repetitive morphological features in the pool house space and its effect on the emergence of residential house plans from among ten samples of residential houses with basins that have been randomly selected from the samples of the existing statistical population. In this research, the research method is comparative, historical and interpretive, which have been interpreted inferentially. The tools used in this research include collecting research findings through library and field studies and interviews with experts and masters. The results show that although according to the climatic model, the physical structure of most residential buildings in the

* Corresponding author. Tel: +98-9122093203.

E-mail address: h72soltanzadeh@gmail.com

This article is taken from the doctoral dissertation of Abazar Mehrali entitled "The role of pond house in the spatial design of historic buildings in hot and dry climate of Iran" under the guidance of Dr. Hossein Soltanzadeh and advisor Dr. Kaveh Bazrafkan in the Faculty of Architecture and Urban Design, Islamic Azad University, Emeritus Branch.

hot and dry climate of Iran has a dominant north-south axis, but the location of the pool house is always along the dominant axis of the house; Even in cases where the main extension and the dominant axis of the house in this climate is defined as east-west.

Keywords: Pond House; Introverted Houses; Desert Housing; Climate and Housing

1. Introduction

The foundations of Iranian architecture are derived from nature and its power (light, water, wind and soil) and are strongly textual and contextual. The problem faced by the designers of new buildings is the relationship between the building and the natural environment. Therefore, a current of thought should be chosen that does not reject traditional technologies and new scientific methods in industry like traditionalists, does not criticize all concepts of traditional architecture as modernists, and does not favor moderate groups towards an eclectic architecture. Take a step. A stream of thought should be chosen in which something is not valued and important because it is modern or because it belongs to the past architecture, but it is the correctness and rigidity of design principles that are in the center of attention (Shahin and Takapumanesh Baqaei, 2006).

The structure of housing has always been evolving and evolving throughout history and has been influenced by thousands of environmental, social, economic, psychological and cultural phenomena and factors. Housing created in the direction of a complex set of purposes is not just a physical structure, but a comprehensive phenomenon and need that has found different meanings in different times, places and environments. Utilizing natural potentials to meet needs such as heat, cold and air conditioning to create human comfort in a residential space has been considered by architects for many years and the most important principles of residential architecture design are based on this. "Pool house" is one of the manifestations of peaceful coexistence of man with the dry nature of the desert in residential houses in Iran, which is based on climatic principles and rules. The research considers the role and position of this space in relation to other parts of residential houses in the hot and dry climate of Iran. The research question is based on the structural characteristics, ponds are divided into how many categories? 2) How does the pool house space affect the formation of the structure of residential houses in the hot and dry climate of Iran?

2. Research Background

The studies that have been done in this field are: A number of introverted residential houses have been typified (Memarian, 1993 and 2013; Ghasemi Sichani and Memarian, 2008; Pirnia, 1993 and 2013; Hairi Mazandarani, 2009); Some have also considered the extroverted residential houses (Memarian, 1997; Khakpour, Ansari and Tahernian, 2010); Some physical structures and components and the way spatial organization have been evaluated in residential houses in different regions of Iran (Ghezelbash and Abolzia, 1985; Pirnia, 1993 and 2013; Sultanzadeh, 1993; Sartipi, 2005; Eskandari, 2011); Some archaeological perspectives have studied Iranian residential houses (Malek Shahmirzadi, 1986) and some have made philosophical and spiritual evaluation of Iranian residential houses (Ardalan and Bakhtiar, 2001; Noghrekar 2008).

A study has also studied the role of the mansion pool house in the desert region of Yazd and convergence with the principles of sustainable architecture (Redai, 2014). Research has been done in the field of materials used in the formation of residential houses in Iran (Ghobadian, 2006;

Bozorgmehri, 1999). Also, research has been done on the developments taken place in traditional houses, especially in the Pahlavi and Qajar period (Qelichkhani, Etesam and Mokhtabadi, 2012).

Studies have also been done on the historical houses of Mashhad based on the components such as entrance, porch, corridor, courtyard and type of decorations in which the houses have been divided into three general categories (Farahbakhsh, Hanachi and Ghanaei, 2017). In Khakpour, Ansari and Tahernian (2010) research, traditional texture houses of Rasht have been identified. This article has been defined based on the orientation of the building and physical elements. Gorgan houses have also been evaluated in a study in terms of developments in the Qajar period. The results of this study indicate that architectural developments in the Qajar period in Gorgan have been formed based on extraversion and increasing interaction with the environment (Qelichkhani, Etesam and Mokhtabadi, 2012).

Based on the research, in this article, the author has made an attempt to study the effect of the pool house in the formation of the pool house by correctly recognizing the components of houses located in hot and dry climates of Iran and also identifying accurately the structure and body of the pool house space. Therefore, the research method in this article is different from the mentioned research methods and will be done comparatively, historically and interpretively. In this study, first, the plan of a number of houses with pool houses has been studied, then, based on the selected samples from the statistical population, the pool house space in relation to adjacent spaces will be evaluated. Finally, based on the comparison between the classification made in the houses with basins, the results of the research will be extracted.

3. Theoretical Foundations

3.1. Residential House

The house is one of the most important topics in architecture which is less addressed. Unfortunately, this topic has not been studied in architecture schools. The need for a house is very much felt at this time and this need must be met by recognizing the architecture of the past and adapting it to contemporary architecture. The word house, which is a term today, used to refer to a room in the past.

From the economic point of view, a house is a kind of "commodity", from an artistic point of view, a "symbol", from a sociological point of view, an "institution", from an engineering and architectural point of view, a "building", from an urban point of view, a "space" and from an anthropological point of view, is a "culture" which includes all the mentioned dimensions. Understanding the house and its place in the system of social relations between people and society is also possible by considering all the symbolic, institutional, material and aesthetic aspects of the house or the "culture house" (Fazeli, 2008).

House is a broad and complex concept with different dimensions and components that in different cultures and societies cannot provide a comprehensive and complete definition. Professor Pirnia believes that the house is a place where the residents do not feel uncomfortable, the inside of the house is a place where family member live and they should not feel tired.

In the search to find the definition of a house cannot be a comprehensive definition for it, in general we can say: "Of all the architectural functions, the house is the most immediate and important space related to man and is the first space in which concepts such as spatial quality and spatial belonging are experienced" (Farhadi, 2014).

Home is a place where one achieves complete peace and belonging. Peace is not simply a matter of physical comfort for the individual and family and a sense of security in the face of external

threats. In addition, it results from the inner peace that pervades family members and the relationships between them. The home is a place to rest, reflection, and processing the environmental experiences. Home is a place to be alone with yourself and find yourself. The quiet interior of the house should also be manifested in its appearance (Pakzad, 2007).

Crystalline state and regular geometric design of each traditional house space, pair and geometric construction of these crystal units around the yard based on environmental considerations and observance of very public to very private areas that make up the whole house. To classify these crystals, which are located in the layers of light and darkness while maintaining the hierarchy relative to the courtyard, we define each:

Courtyard: The central core is a space with a geometric order, introspective, independent, axial and central, open to the sky.

Room: It is a space with a geometric order and relies on the courtyard. Although the room is an independent space in itself, which is justified by a geometric foundation, but from one side it depends on light, water, air and plants in the courtyard. Thus, the room is defined as a dependent geometric space.

Hall and windcatcher: Congregational room and religious ceremonies, summer residence.

Three doors: study, bedroom, fasting, lunch and fall and winter living.

Five doors: family gathering, party, family dining room, spring and autumn and winter.

Arsi: party, dining room, congregation of elders, payer and winter residence.

Tanabi: Sleep, rest (room located between the windcatcher room), summer residence (Ghezlbash and Abolzia, 1985).

3.2. Hot and Dry Climate

Hot and dry climate is a major part of our country, the main features are:

- a) Hot and dry weather in summer and cold and dry in winter.
- b) Rainfall and very low humidity (less rainfall than annual evaporation).
- c) Very low vegetation and there is a shortage of wood in this area.
- d) The temperature difference between day and night temperatures is very high (Akhtarkavan, 2012).

Winds with dust, due to low humidity and distance from the sea, the difference in air temperature during the day and night is high. In these areas, temperature fluctuations in the region are very high and the amount of humidity is less than human comfort. Also, the sun and its heat in summer create a hot and scorching environment, and the dusty winds of the desert, which flows many days of the year, which are disturbing to comfort. Therefore, by creating a central courtyard in the middle of the building and installing a water pond and constructing a garden, increases the humidity in the living space of the building and brick walls that are built with relatively high thickness in terms of bearing the heavy load of arches and domes. Like a thermal condenser, they reduce temperature fluctuations during the day and night, and finally by placing all the openings in a relatively humid and temperate space of the courtyard and blocking the outer wall of the building (except at the entrance). The connection between indoor and outdoor space has been cut off as much as possible and a small and suitable climate for human comfort has been established in the hot and dry climate of the region (Ghobadian, 2006).

3.3. Pool House

The pool house is an indoor space in which the pool is located and around it there are rooms on four or three sides (Sultanzadeh, 2017). The pool house is an indoor space with a pool in the middle, which is usually high and receives light from the ceiling (Haji Ghasemi, 2004). The pool house is a small porch located at the end of the summer rooms of each mansion. A spatial link between the courtyard and the summer rooms. In the middle of this space, a small pond has been built, which is usually octagonal in shape, and the reason for naming it is due to the existence of this pond in the middle of this space. In some pool houses, by constructing a high windcatcher at the back of the building, cool air enters the interior of the pool house (Mahmoudi, 2009).

Innovation and construction of ponds in hot and dry areas due to the relief from the intensity of drought and heat in summer and the result of the initiative of local experts (Aminian, 1999). There is a space called the pool house; this space is a room, porch and basement in which there is a reservoir (Rafiei Sarshaki, Rafizadeh and Ranjbar Kermani, 2004). In the mansion of Iranian gardens, by establishing a pond under the dome, features such as: coolness, humidity and reflection of various images are created. This space is called "pond house" (Haeri Mazandarani, 2009).

4. Research Method

In this research, the research method is comparative, historical and interpretive. First, several residential houses were extracted from the statistical population (pond houses with hot and dry climate of Iran) and harvested using field studies. Then, considering the structural features and the arrangement of the spaces around the pool house, they were studied and analyzed. At the end, ten houses from the entire statistical population were selected as the study sample. The selection of samples was done using written documents and the researcher's efforts were focused on selecting samples that can be generalized to the entire statistical population. The limitations studied in this study were the impossibility of access to many residential spaces with pool houses, which were often privately owned and some people lived in them. Also, many of these spaces could not be evaluated and analyzed by the researcher due to being abandoned and destroyed over time. In some cases, with the permission of relevant organizations and centers, it was possible to collect information and collect the building.

5. Research Findings

5.1. Introducing the Studied Residential Houses

Although the passage of time makes a change in needs and concepts inevitable, but some human needs, which are related to his psychological and personal characteristics, have the basis of stability and over time may formally change (Architects, 2006). The pool house is an example of the indigenous architecture of hot and dry areas, which shows the customs, spirit and feelings, thoughts and ideas, tastes and art of the people. Functional and spatial diversity, spaces such as pool house, three doors, etc. were tailored to the needs of the family and the use of each space at different times (Einifar, 2005). According to studies conducted in hot and dry climates of Iran, in addition to creating a pleasant environment in summer, the pool house can play the role of dividing the space in the summer so that all summer spaces have access to it. Considering the needs of users with regard to the need for privacy and security, considering the human scale and dimensions and dimensions of human beings in the design and formation of spaces based on cultural characteristics, social and behavioral patterns of desert people flexibility in building design in order to increase its

life and reduce the need to create new spaces, paying attention to the semantic features of nature in design in order to make the environment meaningful, optimizing energy consumption and maximizing the use of various forms of renewable energy to adjust the temperature and increase the desirability of environmental conditions are among the cases in which desert architects have tried to meet the needs of residents by creating indigenous elements such as ponds. In the Table 1, the names of ten residential houses in the hot and dry climate of Iran, which have been selected as samples for conducting the research process, along with the plan and the photo related to it, are mentioned (Table 1).

Table 1 Introduction of the studied residential houses



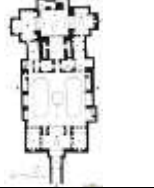

















House	Plan	Image	House name	Plan	Image
Sajjadi House			Dehdashti House		
Bakuchi House			Sharifian House		
Masurmaleki house			Bani Kazemi House		
Karimi House			Labaf House		
Charmi House			Sheikh Harandi House		

5.2. Location of the Pool House in the Studied Samples

By reviewing Table 1, it can be seen that all the samples are introverted houses located in the hot and dry climate of Iran, which is equipped with a pool house, but the way the pool house is located

in their plan is different from each other. The Table 2, shows the location of the basin space in relation to the whole structure of the relevant residential house plan (Table 2).

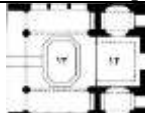

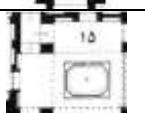

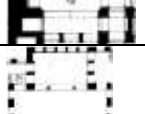
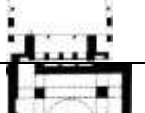


Table 2 Location of the pond house and introduction of the front of the pond house in the plan.

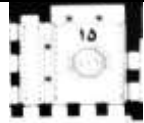

House	City	House plan	Pool house location	Pool house direction
Sajadi	Kashan			South
Bakuchi	Kashan			South
Masurmaleki	Isfahan			Southeast
Karimi	Isfahan			North West
Charmi	Isfahan			North East
Dehdashti	Isfahan			South West
Sharifian	Kashan			South
Bani Kazemi	Kashan			South
Labaf	Isfahan			North East
Sheikh Harandi	Isfahan			North East

5.3. Investigation of the Morphological Characteristics of the Pool House Space in the Studied Samples

With a reflection on the plans of the studied residential houses, it can be seen that in addition to the location of the pond space in the plan, the shape and structure of the pond space and even the pond shape in each plan may differ with other plans. These changes and their diversity can be considered separately. Formally, in a general category, pool houses can be divided into three general categories, which are: torn abdomen, crucifix and square. These shapes vary based on the dimensions of the land and the location of the pool house in the plan. In such a way that if the depth of the building is high from the cruciform pattern (Bakuchi, Karimi and Charm houses), if it is directly adjacent to the main courtyard of the building (Sajjadi, Musour Al-Molki, Bani Kazemi and Sharifian houses) it is torn from the belly pattern. And if they are located at a distance from the edge of the courtyard (Dehdashti, Labaf and Sheikh Harandi houses), they have followed the rectangular pattern (Table 3).

Table 3 Study of the diversity governing the plan of the pond house and the shape of the pond.

House	Pool house plan	Pool house shape	Pool shape
Sajjadi		Torn abdomen	Octagonal
Bakuchi		Crucifix	Square
Masurmaleki		Torn abdomen	Rectangular
Karimi		Crucifix	Octagonal
Charmi		Crucifix	Octagonal
Dehdashti		Square	Circular
Sharifian		Torn abdomen	Octagonal
Bani Kazemi		Torn abdomen	Octagonal


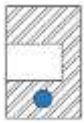


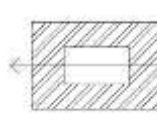

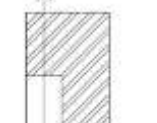

Labaf		Square	Octagonal
Sheikh Harandi		Square	Octagonal


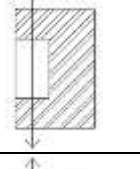
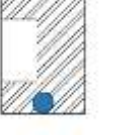
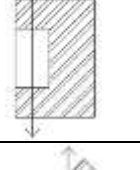
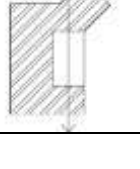

5.4. Checking the Position of the Pool House in Relation to the Main Axis of the Courtyard

If we consider the main axis of the courtyard as the dominant axis, i.e. the hypothetical line that passes through the middle of the courtyard and has a longer extension, then according to the Table 2 content, it can be seen that among the ten samples studied, (Sajjadi, Bakuchi and Musour Al-Maleki houses) the main axis of the courtyard is east-west and the rest of the examples (Karimi, Charmi, Dehdashti, Sharifian, Bani Kazemi, Labaf and Sheikh Harandi houses) the main axis of the courtyard is north-south.

However, the location of the pool house in front of the main axis of the courtyard in all samples will be according to Table 4. In other words, in houses where the main axis of the courtyard is located along the north-south (Karimi, Charmi, Dehdashti, Sharifian, Bani Kazemi, Labaf and Sheikh Harandi houses), the location of the pool house is located along the main axis of the courtyard. While in cases where the main axis of the courtyard is located in the east-west direction (Sajjadi, Bakuchi and Mosour Al-Maleki houses), the location of the pool house space is located along the axis opposite the main axis of the courtyard.

Table 4 Introducing the pool house position in front of the main axis of the courtyard.

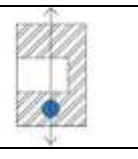

House	Courtyard main axis	Pool house location in relation to courtyard axis	Pool house located along the courtyard main axis
Sajjadi house			✗
Bakuchi			✗
Masurmaleki			✗
Karimi house			✓


Charmi house			✓
Dehdashti house			✓
Sharifian house			✓
Bani kazemi house			✓
Labaf house			✓
Sheikh Harandi house			✓

5.5. Position of the Pool House in Relation to the Dominant Axis of the Courtyard

As can be seen in Table 1, the predominant axis of hot and dry climate residential houses in Iran is based on climatic issues and to be more compatible with local conditions and climate, mainly in the north-south direction. However, the general construction pattern (schematic plan) of the studied samples can be a good proof of this claim, which is shown in Table 5 along with the location of the pond relative to the dominant axis of the house.

Table 5 Schematic plan with the location of the pond relative to the dominant axis of the house.

House	Dominant axis of the house	Pool house position in relation to house dominant axis	Schematic plan	Pool house located along the house main axis
Sajjadi house	North-south			✓

Bakuchi house	North-south			✓
Masurmaleki house	East-West			✓
Karimi house	North-south			✓
Charmi house	East-West			✓
Dehdashti house	North-south			✓
Sharifian house	North-south			✓
Bani kazemi house	North-south			✓
Labaf house	North-south			✓
Sheikh Harandi house	North-south			✓

6. Discussion on Research Results and Findings

According to the above-mentioned topics, the formal features and dominant axis of the courtyard and the general structure (schematic plan) of residential houses located in the hot and dry climate of Iran can be discussed in relation to the shape and location of the pool house. Although the shape of the pool house is one of the three modes of the cross, the torn abdomen and rectangle, but mainly on one of the southern fronts (Sajjadi, Bakuchi, Sharifian and Bani Kazemi houses). Or the northeastern front (Charmi, Labaf and Sheikh Harandi houses) and rarely on other fronts, for example, the southeastern front (the house of the illustrator) or the southwestern front (Dehdashti house) or the northwestern front (Karimi house). In these studies, the shape of the pond inside is mainly octagonal (Sajjadi, Karimi, Charmi, Sharifian, Bani-Kazemi, Labaf and Sheikh Harandi

houses) and less square (Bakuchi house), rectangular (Mosur-Molki house) and circular, (Dehdashti house) is remarkable. In the study of the pool house location in relation to the main axis of the courtyard, the studies show that except for Sajjadi, Bakuchi and Mosurolmaleki houses in which the main axis or axis of the courtyard is east-west and the location of the pool house in them is not along the main axis of the courtyard. In other studied houses (Karimi, Charmi, Dehdashti, Sharifian, Bani Kazemi, Labaf and Sheikh Harandi houses) where the main axis of the courtyard is defined in north-south direction, the location of the pool house space along the main axis is always defined.

Also, in the study of the condition of the pool house in relation to the dominant axis of residential houses in the hot and dry climate of Iran, among the studied samples, it was found that the location of the pool house has always been along the axis of most residential houses. The samples evaluated were different. In other words, both in the samples with the dominant east-west axis (Charmi house) or in the samples with the dominant north-south axis (Sajjadi, Bakuchi, Karimi, Dehdashti, Sharifian, Bani Kazemi, Labaf and Sheikh Harandi) are always located in the basin space in line with the dominant axis of the house.

7. Conclusion

In general, based on structural and formal characteristics, pool houses are classified into three general categories, which are:

- a) Cross
- b) Torn abdomen
- c) Rectangular

If the depth of the building is high at the location of the pool house space, it has followed the cross pattern and whenever the pool house space is directly adjacent to the courtyard, it has followed the torn abdomen pattern. On the other hand, if the space of the pool house was far from the edge of the courtyard and was not deep, it is always defined as a rectangle.

The extent and manner of influencing the pool house space in the formation of the structure of hot and dry climate houses in Iran is as follows:

Although according to the climatic model, most of the residential buildings located in the hot and dry climate of Iran have a dominant north-south axis, but what is very interesting and important in this study is that the recognizing the location of the pool house is always along the dominant axis of the house. In some cases, the main extension and the dominant axis of the residential house is defined as east-west.

Another noteworthy point is that except in rare cases in which the main axis of the courtyard is defined as east-west extension, in most cases, especially those in which the main axis of the courtyard has a north-south extension is always the location of the pool house located along the main axis of the courtyard.

References

- Akhtarkavan, M. (2012). *Adjusting the conditions for harmonization with the Iranian climate*. Kalhor Publications.
- Aminian, S. (1999). Kashan Ponds. In *Proceedings of the Second Congress of the History of Architecture and Urban Planning of Iran*, Tehran: Cultural Heritage Organization.
- Bozorgmehri, Z. (1999). *Geometry in architecture*. Tehran: Sobhan Noor.
- Eskandari, P. (2011). *Analysis of Traditional Iranian House of Kashan, Iran in terms of space organization and access Design* (Doctoral dissertation, Eastern Mediterranean University (EMU)).

- Einifar, A. (2005). *Area of residential complexes and physical continuity of the city, a case study of Tehran*. Mass Housing Builders Quarterly, National Land and Housing Organization, No. 15.
- Fatehi, M. A., & Fazl Elahi, A. (2006). *Water in desert architecture, national-regional conference on desert architecture*.
- Farahbakhsh, M., Hanachi, P., & Ghanaei, M. (2017). Typology of historical houses of the old texture of Mashhad, from the early Qajar to the late Pahlavi I. *Iranian Architectural Studies*, (12), 97-116.
- Farhadi, M. (2014). *Design of a contemporary residential complex with an approach of strengthening the interaction of residents*. Master Thesis, Islamic Azad University, Qazvin Branch.
- Ghobadian, V. (2006). *Climatic study of traditional Iranian buildings*. Tehran: University of Tehran Press.
- Ghezlbash, M. R., & Abolzia, F. (1985). *Physical alphabet of Yazd traditional house*. Tehran: Ministry of Program and Budget (Center for Socio-Economic Documents and Publications).
- Haeri Mazandarani, M. R. (2009). *House of Culture of Nature, study of the architecture of historical and contemporary houses in order to develop the process and criteria of house design*. Publications of the Urban Planning and Architecture Research Center, Tehran.
- Haji Ghasemi, K. (2004). *Ganjnameh (Yazd Houses)*. Tehran: Rozaneh Publications.
- Homayi, M., & Kaviani, A. (2012). *Water is a symbol of Iranian architecture*. National Conference on Iranian and Islamic architecture and urban planning.
- Khakpour, M., Ansari, M., & Tahernian, A. (2010). Typology of old texture houses in Rasht. *Fine Arts*, 2(41), 29-42.
- Mahmoudi, M. (2009). *Windcatcher, a symbol of Iranian architecture*. Tehran: Yazda.
- Memarian, Gh. H. (2006). *Familiarity with Iranian residential architecture, introverted typology*. Tehran: Soroush Danesh Publications.
- Malek Shahmirzadi, S. (1986). Slum Hill: An Overview of the Performance of Residential Homes. *Journal of Archeology and History*, 6(2-1), 2-12.
- Noghrekar, A. H. (2008). *An Introduction to Islamic Identity in Architecture and Urban Planning*. Tehran: Ministry of Housing and Urban Development, Payam Sima Publishing Company.
- Pakzad, J. (2007). *Articles on the concepts of architecture and urban design*. First edition, Tehran: Shahidi Publications.
- Pirnia, M. K. (1993). *Introduction to Iranian Islamic architecture*. Compiled by: Gholam Hossein Memarian. Tehran: Soroush Danesh Publishing.
- Qelichkhani, B., Etesam, I., & Mokhtabadi Amri, S. M. (2012). Analysis of physical changes in Gorgan houses during the Qajar period. *City Identity*, 7(16), 51-62.
- Rafiei Sarshaki, B., Rafizadeh, N., & Ranjbar Kermani, A. M. (2004). *Vocabulary of home spaces. Mehrazi culture of Iranian architecture*. Tehran: Building and Housing Research Center.
- Sartipi, M. (2005). Architectural indicators of rural housing in Iran. *Fine Arts*, (22), 43-52.
- Sultanzadeh, H. (2011). The role of geography in the formation of courtyards in traditional Iranian houses. *Journal of Human Geography Research*, No. 75.
- Sultanzadeh, H. (2017). *House in Iranian culture*. Tehran: Cultural Research Office.
- Shahin, A., & Takapomanesh Baqaei, Sh. (2006). Recognition of sustainable architectural patterns in residential buildings of the old texture. *Journal of Architecture and Construction*, No. 7.

Investigation of the Hermeneutical Approach to Conservation and Restoration of Cultural Heritage

Soodabeh Yousefnejad^{a*}

^a*Ph.D. Assistant Professor Urban & Restoration Department, Tehran Central Branch, Islamic Azad University, Tehran, Iran*

Received 20 November 2021; revision 03 January 2022; accepted 16 February 2022

Research Article

Abstract

In this article restoration is studied within a hermeneutic outlook. Hermeneutics, as a technique of interpretation, includes a general range of cases and text goes far beyond its classic sense and could include different issues such as art works. Thus, art work is considered as a text having an interpretational status and could be interpreted within different hermeneutical approaches. Hermeneutics in recognition stage functions by rendering the signs existing in the work and interpreting them by different scientific methods for identifying the material, technologies and the damages of it. Different hermeneutic approaches are originally determined on the considerable issue of authorial intent, so that the goal of restoring an art work is to restore it to its original form which conforms to the intent of its creator, or understands the work within the here and now paradigm and with an interpreter-oriented interpretation, i.e., the past is preserved as overlaid by the present. Thus, the restoration process carried on for assessing reliability level in interpretation could be analyzed, criticized and studied through a hermeneutic approach.

Keywords: Restoration; Conservation; Cultural Heritage; Hermeneutics

1. Introduction

Historical works generally undergo some damages through the ages, and in order to survive, they require some preservative interventions. According to Brandy, restoration is a methodological moment in the historical work alongside the overall understanding of it for transferring it to the future (Brandt, 2005:48). Restorers require special skills for intervening in the historical works without which preservation would not be properly done.

* Corresponding author. Tel: +98-9126966321.

E-mail address: syousefnezhad@yahoo.com

Restorers need to fully understand the work before he/she starts taking restoration procedures, and it is this understanding that leads to his/her path through restoration. Restorer's exposure to the historical work could be studied with different approaches, namely which attitude do they have towards the studied work, and what are his/her plans for recognizing the work and its restoration afterwards. Besides his/her sapience, restorer's knowledge and experiences as exposed to the work are rooted in the understanding of interpretation methodology in restoration and plays an important role in restoration of the work. It could be definitely said that recognition stage is considered to be the most basic step before any intervention in the historical works and hermeneutics is related to understanding and explaining. Hermeneutics is a cognitive activity which could be reduced into some theories. Hermeneutics is related to and deals with interpretation, description and explanation of issues in which the subject to interpretation and explanation is not necessarily verbal (Ahmadi, 2004: 7-9). Hermeneutics does not only deal with literary texts, and its primary condition is that something complicated and alien must be perceived and whatever that could be related to and concerned with perception and understanding could be subject to hermeneutics (Gronden, 2006).

This article aims to study the relationship between hermeneutics in interpreting historical-artistic work and its restoration and conservation impressions. Thus, firstly the concept of hermeneutics and its various approaches are described. Secondly, we discuss on its relationship with perception and interpretation of the historical work and then restoration impressions resulted from it are studied alongside a review on some historical works which have been restored and conserved with different methods.

Interpreting the historical work could be an effective approach for understanding the work and then laying a foundation for restoring preserving it. Thus, getting to know the different approaches of interpreting the work in hermeneutics could serve as a link between understanding and restoring an historical work. The method for interpreting historical work and applying in restoring relies on knowing hermeneutics theories and their use in understanding different aspects of the work and then the regarded restoring method by the restorer. But the important issue that forms the main questions of this paper is that what hermeneutics has to do with restoring historical works, and how it could function in analyzing the methodology of restoring the work, and what is the meaning of hermeneutical studies in restoration. In order to scrutinize on this issue, the paper firstly deals with the first stage, i.e., understanding of the work. This stage, regardless of how and according to which characteristic of the work it is planned, could be regarded as a hermeneutical activity based on the present condition of the work because it is in this stage of restoring that in fact an alien phenomenon, i.e. the unknown aspects of the work, is to be understood and interpreted by the attempts of the restorer, and thus the different aspects of understanding the work could be probed into and evaluated, and later based on the type of the interpretation of the work analyze and criticize the adopted restoring methods.

This study attempts to firstly use the issue of "text" in its general sense and its application on historical works and objects, and then by applying romantic, objective and philosophical hermeneutical theories, the different resulted approaches of which will be introduced and analyzed.

In reviewing the literature of the research, firstly the scholarly texts which emphasize on the general sense of interpretation and in which hermeneutics is regarded as the common language of our epoch and also as an interdisciplinary field of science are introduced, and then the research carried out on interpretation and its application on text in its widest sense are studied and introduced. Some articles on interpreting cultural heritage in historical sites and also an example for restoring them is provided which is to be reviewed afterwards. In all these studies, the interpreted historical work is actually regarded as a text and interpretation is used in understanding of and

introducing that work. The theoretical foundations of such studies lie in the linking points between humanities and other fields of science which were triggered in the ninetieth decade and has set up the great changes in human's outlook to the phenomena and has led to the new methodologies in both practical and theoretical research.

2. Literature Review

Hermeneutics is an interdisciplinary field, though it is considered much less than its real significant and importance. The world is filled with objective concepts and issues and hermeneutics helps us in understanding the hidden layers of meaning through intervening in the signs of the text (text in its general wide sense). It has been attempted, through the scholarly studies through the twentieth century, to review the most recent theory of the modern era that distinguishes between humanities and sciences, and it has always been tried, according to the scholars' ideas and also regarding to human's nature and his surrounding world, to reconsider the important connection between the two fields and establish their once lost connection (Reynhout, 2012).

Hermeneutics has grown to a global knowledge and far beyond a simple theory of understanding. Today, interpretation, as it is used in understanding the life and human relations, the natural phenomena and also in historical knowledge, provides us with means for understanding the text for understanding the world. In facing with the text (text in its general sense), human beings enter a complicated process and finally hermeneutics interpretation means demonstrate what is represented immediately and requires mediation and intervention in order to appear. Hermeneutical mediation not only manipulate the identity of the issue it interprets, but also, gaining help from interpretation, brings it to the present. Interpreting of the works and their creation process are actually considered as the two sides of a single circle which follow one another and are consistent (Figal 2011, 2004; Meredith 2006).

In some other articles based on scientific research the use of comprehensive interpretation of hidden artistic and historical values in the works which are located in historical sites and presenting and demonstrating it in a tangible way for the receivers are considered to be among the main principles of preserving the historical works. Interpretation of historical works and objects and determining their hidden values and the methods and techniques for their preservation are all procedures which are planned by the aim of information resulted from interpretation and help development of principles of sustainable preservation historical knowledge and stabilize survival of the work in the society. This outlook includes interpretation of the form and all the hidden signs which exist in the works of the past and their placement in the present context which provides us with the possibilities of getting acquainted with the work, understanding it and better experiencing its content with focus on scientific and proper interpretation, which is itself among the most essential stages in preserving the works (Icomoscharter, 2007).

In another study, restoration is considered as interpretation of the artwork from the viewpoint of a philosopher, that brings about considerable problems in both hermeneutics and restoration fields, including questions such as "in restoring an artwork, shall we search for gaining what the artist has meant to create, or shall we consider the artwork and its practical foregrounds in the present?" By taking a look at this research and considering the issue of artist's intention in restoring the artwork, one could find a delicate trace of hermeneutical approach which the author has implicitly noted in some momentary questions, and it could be considered as a starting point for drawing into attention the use of hermeneutical approaches in interpreting historical-cultural works and their restoration (Carier, 1999).

3. Hermeneutics

Hermeneutics is literally derived from the Greek verb “hermeneuein” and the noun “hermenia” meaning interpreter and interpretation, both of which are also derived from the root “hermes”, a messenger god in ancient Greece that interpreted the words of the God for people. Hermes was not only a messenger that repeated God’s words, but was also an interpreter for clarifying the accurate understanding and what should not be interpreted (McManus Holroyd, 2007).

Hermeneutics, according to the scholars of this field, has a general aspect that encompasses so wide a range of issues. From Dilthey who aimed at proving it as a general methodology in humanities, to Heidegger and later Gadamer who was the innovator of philosophical hermeneutics that regarded hermeneutics as a general phenomenon and insisted that the generality of philosophical hermeneutics in the twentieth century includes the whole human knowledge. Regarding the fact that post-positivist philosophy has gradually acknowledged the role of hermeneutical understanding in natural sciences, and there is a fair account for bringing Gadamer’s claim for the generality of hermeneutics into a serious consideration (Weinsheimer, 1991). Paul Ricoeur also, by his expanding the concept of text and considering all issues containing signs as text, develops hermeneutics’ territory to a great extent and this extension entangles hermeneutics for its generality with various issues and sciences, a widespread interaction which enrich and raise its significance and importance (Ricoeur, 1974). In this sense, hermeneutics, as the shared language of this epoch, has been firstly and in its classic definitions used to signify as interpreting the texts by means of a set of rules and principles. Later on, and according to scholars such as Dilthey, a methodological foundation was attributed to the whole body of humanities which could better voice the whole story of the history of human’s perception, and later it took a step further and went beyond an issue just dealing with interpretation of the texts and gradually by resolving into a general philosophy of perception, trespassed the borders of mediation on humanities and claimed itself as a total issue (Gronden, 2006).

According to Gadamer Hermeneutics reflects itself in different advances fields of sciences and especially natural science (Linge, 1997: 38). Later this theory has been was also adopted and analyzed by theories of scholars in the field of natural science and it was concluded that both humanities and natural sciences share the same outlook in gaining the perception of truth and method (Madelin, 1997: 165). So that now hermeneutics scope of practice, i.e., theory and practice of interpretation, lasts until significance and the necessity of its perception is at work and could include a wide general range of issues (Weinsheimer, 1991).

According to the mentioned approaches, scholars and thinkers believed in the generality and the applicability of Hermeneutics in different fields of knowledge. Thus, hermeneutics could be thematically both considered from humanities and art view point, and also as an act done on the material of an art work, and thus it could be included in natural science field and due to the interpretable position of historical-artistic works both materially and thematically, it could be seen as a hermeneutic activity which starts with understanding.

Today and in restoration field, what is included in the subset of the important issue of understanding is often brought about under two titles: technological and pathological studies. In technological studies it is attempted to identify the material and technology engaged in making of the work, and in pathological studies the damages made to the work which mostly make changes in the physical appearance of the work are considered. In both levels, both when it is aimed to recognize the content and artistic values of the work, and also in identifying the material of the work and various types of observing and scientifically analyzing laboratory and device methods such as SEM-EDS, XRD, XRF, FT-IR, ICP and etc. are at work for identifying the material of the

work and the results of which are interpreted and then comes the determining of the technologies of making of the work and also their damages, a hermeneutical activity in interpreting the material is at work. In the stage of understanding the work, in fact the conservator with interpreting the signs which could be done with the help of some laboratory tools or even observation, interacts with making attempt to understand the work, and it must be mentioned that identifying the material of the work and interpreting the signs of damages it has undergone aims the conservator for understanding the work and its context, and this interaction exist in hermeneutics territory, and the conservator is firstly seen as the interpreter of the work which is to be restored and conserved, and thus the way he interprets and approaches the work influences his conservation procedures. Numerous examples could be considered in technology and pathology of various historical woks in this regard, such as the exhaustion of historical ceramics and the different corrosion types of metal works and other damages in historical works with mineral or organic material or a combination of the two, that in all cases the study of physical signs with the aim of different laboratory methods demonstrate a sign of an internal cause to the conservator and helps him/her in interpreting the existing signs and thus makes clear the way for determining preserving and restoring the work. For example, figure 1 shows the corroded layer of the glaze in a sample of a historical glazed brick from Achaemenid site of Tall-e-Ajori in Parseh. The corroded and faded layer of glaze is a sign which shows the development of the interactions of corrosion of the glaze such as Ion exchange interactions during the ages. Interpreting scientific-laboratory studies with different device tests and observations done with Scanning Electron Microscopy (SEM) with Energy Dispersive X-Ray Analysis (EDS) is a sign for the corrosion of the glaze and its flaking in the burial environment in this sample through the ages (Yousefnejad et al. 2014).

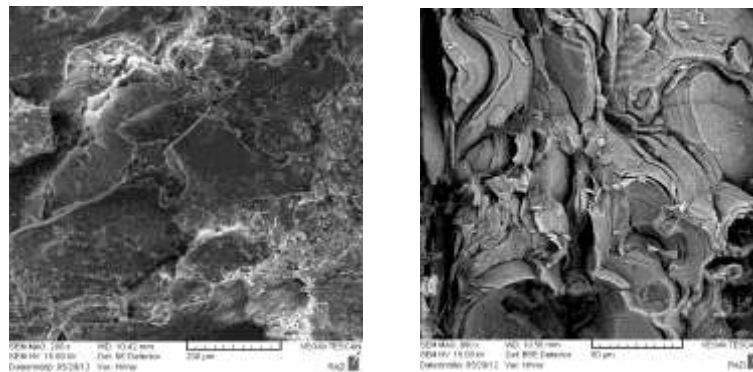


Fig 1 Deteriorated glaze layer pictures by SEM

In different cases in which the clear signs of damages appear in the surface of the work, the conservator could, in the stage of understanding of the work, firstly by observing those signs in the physical appearance of the work to some extent identify the damage and then decides for taking the proper conservatory procedure. In Figure 2 there is a sample of a historical bronze and the corrosion signs on it with light green color that shows the disease of the bronze sample (Scott, 2002: 186).



Fig 2 Corrosion products of bronze (Scott 2002: 186)

Based on what has been previously discussed on the generality and inclusive character of hermeneutics and the inclusion of restoration in this domain, different conservatory procedures could be considered as conforming to hermeneutical theories, in the sense that in restoring of the work, the restorer aims to restore the work to its original form and primary conditions which conforms to the intention of its creator with taking some proper conservatory procedures, or will preserve the work in its current conditions with all its layers and historical sediments. Besides depending on the latest knowledge, the insight and proficiency of the restorer is adoptable to and could be analyzed based on particular hermeneutics theories. Hermeneutical theories in this study could be studied in three approaches, namely the Romantic, Objective and Philosophical approaches are to be introduced and studied, and their results in restoring of the works are to be analyzed.

4. Romantic Hermeneutics and Restoration

Romantic hermeneutics is firstly considered in Schleiermacher's approach. According to him, perception, as a technique, includes reconstructing and re-experiencing the subjective intentions of the author, because perception is started from the settled statement and will turn back to the subjective existence from which it has raised (Palmer, 1969: 86). Schleiermacher never considered the text as apart from its author and has introduced understanding of the author's thought as the true perception of the text. This is gained through an intuitive approach to the text. The interpreter, in encountering to the text, attempts to grasp the intention of the author, in other words, he intuitively undergoes the subjective steps of the author which resulted in the text and thus fully grasps the purpose of the text. Schleiermacher's hermeneutics is a text-oriented approach though it is not restricted to a particular type of text. Dilthey confirms his insight which asserts that all perceivable phenomena are essentially considered as text, and expands it so that it includes the whole historical phenomena Dilthey asserts the issue of objective perception in humanities (ibid:105-106). According to Schleiermacher and Dilthey, perception and interpretation only take place via reconstruction of the author, and the time distance between the author and the interpreter should not block perception, because perception of the text is author-oriented and text-oriented and must be immune from the subjective prejudices of the interpreter. The author-oriented and objective perception of the text would prevent the subjective personal interpretation and sees the perception and interpretation of the text as a unit and settled activity. In art works, the intention of the author/creator is considered as the fundamental pivot in their aesthetic experiment and the distinction between the work and other objects. Works of art maintain a unique purpose and intention which are raised from the reflection of their creator (Panofsky 1996, 17). Regarding the issue of the author's intention and that text has a general meaning of its own and the restorer can

function as an interpreter, it could be concluded that the interpreter in this case and in encountering to the historical-artistic work should bridge the time gap between himself and the work with the help of his historical and experimental knowledge, and studies the work in its own historical and geographical aspects. Here, perception of the subjectivity/mentality of the creator of the work once he has created it, as well as its cultural and historical context would help in the objective perception of the work. Thus the time distance between the making of the work and its coming to the restorer's hands which often shows itself in different changes in the surface of the work including different sediments and exhaustion or corrosion on the work, from the viewpoint which considers the purpose and intention of the creator as the main principle in interpretation, are as much removed from the work as possible so that the work is restored as conformed to the purpose and intentions and its primary and original form. In figure 3 some examples are provided from historical objects that having undergone exhaustion process during the ages some sediments has covered their surface and in restoring of them and regarding the remained sediment layers are removed so that the work is restored to its original form. In figure 4, too, represents some samples from Sassanid glassware with superficial layers of exhaustion which show the exhaustion process during the ages and are mostly removed from the surface of the work in restoring process to come up to the original surface of the work.

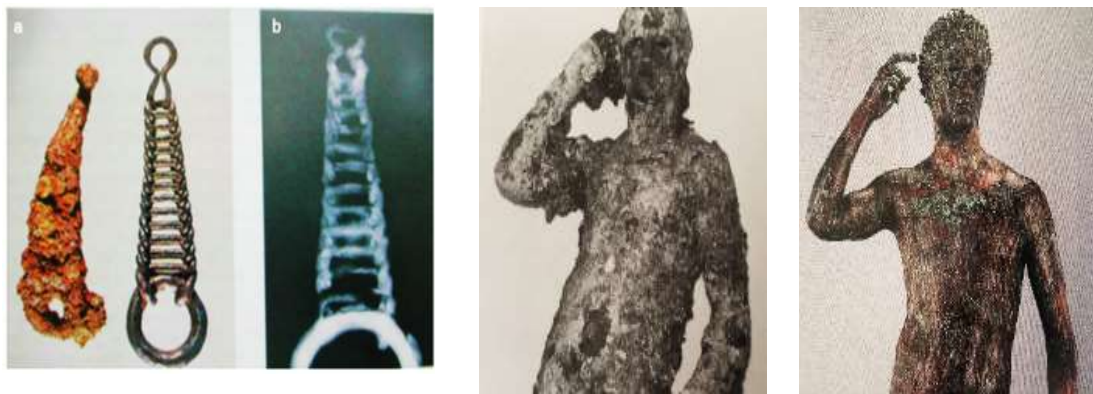


Fig 3 Samples of historic objects with surface sediments and removing them after restoration (Scott, 2002: 176-218)



Fig 4 Restored Sassanid jars (<http://www.metmuseum.org/collection/the-collection-online/search/324830?rpp=30&pg=1&ft=sasanian+owl+glass&pos=2-30/1/2016>-http://www.britishmuseum.org/research/collection_online/collection_object_details/collection_image_gallery.aspx?partid=1&assetid=1077025001&objectid=367274-30/1/2016
http://www.miho.or.jp/english/member/shangrila/vol31/eshan31_3.htm, 2/2/2016)

The author-oriented character of romantic hermeneutics is reminiscent for style restorations of Eugène-Emmanuel Viollet-le-Duc in 19th century, a self-trained architect who gained experiment and worked in architect studios in Italy and central Europe. He has restored many of European historical architectural works that were mostly destroyed. He believed that works of art must be restored based on their original form and what they have used to be. According to critics, his influence, whether positive or negative, has left in many of restored European architect works such as Notre Dame church, laMadelein Church, Carcassonne castle, Pierrefonds castle and many other restored buildings (Jokilehto, 1986: 213-279). Warsaw, capital of Poland, too has been restored to its original form after the destructions of the world war (Figure 5). In fact, it could be said that Romantic hermeneutic as well as its following objective hermeneutics theories suggest a type of restoration which conforms mostly to the original form of the work.



Fig 5 Right: restored historic center of Warsaw after world war (Jokilehto, 1986: 409) Left: Notredam de Paris in 19th century <http://www.notredamedeparis.fr>. 2/1/2016

5. Objective Hermeneutics in Restoration

Emilio Betti and Eric Hirsh also like their progenitors call a return to hermeneutics historic tradition by posing an objective approach, an approach which relies on some principles and basics as its assumption and emphasizes on the distinction between the subject and the object he is to perceive. Betti sees the hermeneutical process of interpretation as traveling through the path of creation of the work, but this time the creation path is taken from end to start. In creating the work, subjectivity and purposes of the creator are considered as starting point, but are considered as the ending point in interpretation process. In this process a transition to another subjective territory is taken place in the time epoch of the interpreter. He interprets the subjectivity of the creator as objectified in the form of the work. The methodology he has provided in based on principles which emphasize on the objectivity of perception. The work must be interpreted based on its relation to the subjectivity in which it has been crystalized, and it is only in this case that a valid interpretation is done. The necessity of perceiving the details of the text with regarding the whole text and perceiving the wholeness of the text based on its details, and that the interpreter should adapt his interpretation at the utmost conformity to the original work form the basic principles of objective hermeneutics just as romantic hermeneutics.

Eric Hirsch, too, like Betty, advocates to objective approach in perceiving the text. According to him, text maintains a determined meaning that relies on the intention of its creator. He launches the issues of the literal meaning and its ascertainment, its interpretation, and the critic of judgment and analysis of validity in interpretation. In Eric Hirsch's hermeneutical theory, the author's intention plays the main role and ties it to the possibility of achieving an objective perception of the work. The literal meaning of the text is not a result of the words setting next to each other, but relies on

the consciousness and intention of the author. Thus, it is a settled and unchangeable issue which forms the grounds of the issue of validity in interpretation that is not manipulated by historical perception. Meaning is firstly gained through speculation and then methodological assessment of the text. Perception is formed through signs and actively, and reproducing and recognizing the author's intention could always be considered which is a unit and settled issue. The author's intent is the main key to the perception of the text, but it is not enough by itself and the interpreter should also consider some aspects beyond the text itself, because the interpretation which is formed with regard to all the aspects of genesis of subjectivity and consciousness of the author has the utmost conformity with the text, or in other words, the conformity of interpretation relies also on contextual perception of the work (Hirsch, 1967: 5-8-47-63).

According to the objective hermeneutics theory, the restorer takes a methodological procedure in encountering with the work. Firstly, he must grasp the literal meaning of the work as the interpreter and in recognition level, a unit and determined meaning which the creator has left in the work. In historical works, this could include the material of the work which the creator has chosen on the one hand, and also the techniques and manners related to the author's intention which are found deep in the heart of the work which their perception could determine and limit the goal and approach of the restoration as well as the level of restorer's manipulation with the work. Achieving the author's intention and determining the appropriate method, in addition to the study of the work leads the restorer into the understanding of the context in which the work has been created. The final restoration could be criticized in this theory and factors such as the use of proper laboratory and scientific methods in understanding the material aspect of the work and thus the proper recognition of the technology and damages appeared in the work and the inclusive study of the context of the work form the critic and judgment criteria. Providing a proper and compatible restoration to the work, a compatibility which only requires reconstruction of the subjectivity of its creator, determines the validity of restoration. Thus, in this theory, restorer bridges the time gap between himself and the work with the aim of the perception of the author's consciousness and the context of the work, and reproduces the work based on the author's intention afterwards (figures 6). According to this theory the restorer, in his encountering to the work, requires two issues before his manipulating with the work. Firstly, the meaning of the text, and then its context. In the perception level, recognizing the distinction between the internal and external layers of meaning is of great importance, i.e. the material and then the meaning left in the work that is to reconstructed as the creator's intention in this stage, and in attempt to understand the context of the work, the meaning of the work is studied in relation to its historical, social, cultural, economic and political contexts contemporary to the work itself and also from the current viewpoint and the present context.



Fig 6 Right: Achaemenes glazed brick from susa, louvre museum Left: Ishtar gate with glazed bricks from Babel, Berlin Museum (<http://www.berlin.de/orte/museum/pergamonmuseum/index.en.php> 2/1/2016 <http://www.louvre.fr/en/oeuvre-notices/panel-sphinxes> 2/1/2016)

6. Philosophical Hermeneutics and Restoration

According to philosophical hermeneutics principles, the aim of perception is not to understand the meaning of a work as occurred to the receiver or the author, but it seeks to understand what the work means to us and in the present time. But this does not mean that we could do anything to the work, and the perception is an action based on perceiving ones' self and its alliance to the past, in philosophical hermeneutics interpretation is considered as an open process which no individual outlook would terminate it (Ricoeur, 1975). Philosophical hermeneutics was firstly innovated by Heidegger and later Gadamer who claims this hermeneutical approach seeks to clarify the fundamental conditions which form the foundations of perception phenomenon in its all types. Philosophical hermeneutics is thus considered to be interpreter-oriented and text-oriented and overlooks the subjectivity and intention of the author and makes it impossible to achieve an objective perception of the past works due to the fact that human cannot free himself from the bounds and limits of historical evolution, and thus he is always bound within the history and could not see himself at a dominant position for perceiving the past (Couzens hoy, 1982: 41-42). This outlook is the most fundamental critic in objective approach to hermeneutics. According to philosophical hermeneutics approach the interpreter and the object of interpretation are tightened to each other in tradition's context and thus the interpreter is equipped with some specific assumptions once it comes to interpretation and he could not interpret any phenomena with a clear mind, and hence perception is not reproducing an established issue. Gadamer actually attributes an ontological foundation to his philosophical hermeneutics and his regarded ontology is the ontology of perception and according to him perception is resulted from compatibility of the interpreter's horizon of meaning with the one of the text, a compatibility which could result in endless possible meanings and in other words there is an endless meaning interplay between the interpreter and the text. Gadamer sees the existence of the art work not as an object to which perceiving subject encounters, but as a play that its experience and perception are the keys to enter the game. The player never sees the play as an object. He is subjugated, and the play goes on according to its regulations and demands, and the gained result is an interplay between the play and player (Palmer, 1969: 187). Thinking of this play as a severe act requires belonging to it, and this attachment itself prevents the player from thinking of it as an object. Besides, as the play runs and thus prevents from its objectifying, the players lose their statues as perceiving subjects and perform what is not an object from the position of those who are not subjects, and thus they interpret the play from within.

In this kind of interpretation, the perception process is started by launching the dialogue between the interpreter and the text. Firstly, the interpreter provides the text with a pre-perception and the text has the opportunity to assayer this pre-perception. Therefore, the interpreter approaches the text and in this reciprocal path between the subjectivity of interpreter and the horizon of meaning of the text happens the perception and the composition of the interpreter's horizon of meaning and that of the text. According to Gadamer, the author himself is one of the interpreters of the text whose interpretation and perception of the text is by no means prior to other interpretations and the interpreters are not required to obey his interpretation anymore, thus the author's purpose and intention could not function as a determinant factor in perception. Interpreting the text does not necessarily maintain reproducing the author's subjectivity, but it is a productive activity. In this production, the subjectivity and prejudices of the interpreter-in fact the influential history of the text which forms these prejudices- and the text itself contribute to the production of meaning which steps beyond the author's intention. Due to the fact that Gadamer describes the transition from the familiar world of the interpreter to the text as projection of prejudices, it is clear that interpretive prejudices could cover and overshadow the text, and they do the same thing in every case and thus

this raises the doubt that Gadamer's hermeneutics only determine the fact that how the present can absorb the past and dominates it, and not the way it makes clear what has happened in the past (Weinsheimer, 1991).

According to philosophical hermeneutics, the restorer in his encountering to the historical work, calls it from the past into the present and studies, restores and preserves the work from now and here and in the present context. According to this theory, perception is a historical/chronic phenomenon, i.e. interpreter's perception does not equal that of the primary receiver of the work, since his perception is determined by the historical status of the receiver and the meaning of a work goes always beyond the author's intention. The mission of each interpreter who is located in a time distance from the work is to perceive the meaning and time distance itself aims the perception process and thus it must not be abridged in order to perceive the work. A work belonging to the past could not be perceived merely by itself, but the time distance, i.e., the changes this work has undergone during the time, are considered as foundations that maintain the events that work has undergone and its current status is based on them.

In this theory, perception is not considered as reproduction, but it is by itself a production, a production which occurs in the composition of the past with the present and according to Gadamer's main model of perception, i.e. the fusion of horizons of meaning, perception is the result of the fusion of horizon of the text and the horizon of interpreter. In this case and in encountering to the text, the interpreter's horizon that maintains his own intentionality is fused with the horizon of the text that is the embodiment of the intentionality and data of the author, and it is through this event that perception is resulted. In this event, the interpreter and the text are both influenced by and change each other. It is obvious that according to the horizons of different interpreters, different infusions take place and as a result, there occurs the possibility of various interpretations all of which maintain validity and value. Perception process here is considered as a kind of production and is thus not limited to the reproduction of the author's subjectivity. Hence, according to this approach the restorer as an interpreter, encounters to the work in the present and does not seek to reproduce the past, in other words, the time distance between he himself and the work, which represents itself in various exhausted layers formed and different changes taken place on the surface of the work in the present status of the work, aims the interpreter in the perception process and thus must be preserved (Figure 7). There is no method for confirming the best type of restoration, and different types of restoration of the historical work could be carried out depending on the type of perception and interpretation of the interpreter (restorer), each of which has a certain and unique value, and no single one is considered to be necessarily as the best one. This approach actually maintains the methodological transformation of the past into the present and overshadowing the past by a cover of the present in which the traces of the present in the past demonstrates itself in different methods of conservation and restoration through the attempts that the restorer has made (Figures 8, 9 and 10). The use of different various modern materials † and techniques in preservation and restoration of historical-artistic works which is increasingly developed could also be included under this approach to interpretation.

† The use of nano-material and other modern material in restoration



Fig 7 Restored historic jars without removing the sediment layers

(http://www.britishmuseum.org/research/collection_online/collection_object_details.aspx?objectId=1347558&partId=1&searchText=sasanian+glass+bowl&page=1)

The twentieth century is celebrated with different philosophical hermeneutical theories with different and various approaches among which the relativism that is rooted in subjectivism, is the dominant one. Scholars and thinkers of this field make a link between the perception and the interpreter's horizon of meaning and his hermeneutical statues, do believe in the temporal aspect of perception and think of non-temporal and independent perception of interpreter as impossible, and thus perception is always considered as subordinate to the author's subjectivity and horizon of meaning that is issued in his current present time.



Fig 8 Japanese historic bowl 17th century, restored with gold (<http://bento.si.edu/from-the-collections/-japanese-art/friday-fave-tea-bowl/attachment-tea-bowl>)



Fig 9 Combination of the historic museum building in Sydney with a modern structure, the purpose is conservation and rehabilitation of the historic building for application (<http://sydneylivingmuseums.com.au/stories/rattling>)



Fig 10 Conservation a historic building in London in a cover of modern structure
 (<http://www.hok.com/design/service/renovation-restoration/cabinet-office-22-26-whitehall>)

7. Conclusion

This article has studied the relationship between hermeneutics and restoration. The main linking point between the two is to consider the text in its general sense including many different issues such as historical and architectural works and objects on the one hand, and the issue of generality of hermeneutics on the other. Thus, considering everything as a text, and interpreting the signs and symbols of the work for perceiving its meaning, form the fundamental grounding of this study. Hermeneutics, as a technique for interpreting the work is a cognitive activity in which the different sciences as far as they are concerned with attempt to perceive the meaning are included, and this study has sought to scrutinize over its relationship with the restoration of historical works. Restoration, firstly makes its way into the work and the methods for its preservation by making attempts to understand it. Understanding the work from restoration outlook means determining the material and techniques used and applied in making the work and also studying the signs of damages the work has undergone through the ages and interpreting them with the help of various methods including observation, scientific-laboratory as well as devise analysis and tests, and reveals its relevance as a cognitive activity in hermeneutics territory. In the level of understanding the work we have provided different examples of historical works and the existence of damage signs in them in both main fields of technology and pathology, as well as the use of different methods for determining and analyzing the material and interpreting the damage signs, based on which the issue of interpretation of the physical signs of the work to which the restore is faced to were defined. In fact, the use of device observation and analysis methods such as SEM-EDX, XRF, XRD, ICP and many other methods in conservation studies of the historical-artistic works, each provide use with particular tools for identifying and scientific interpretation of the work that helps the restorer in continuing the proper path in the cognitive activity through the restoration.

Thus, the historical work as a text, text in its general sense, requires interpretation and the restorer is firstly seen in the position of an interpreter of the historical work. Thus, in discussing on the hermeneutical aspect of restoration, we have firstly discussed on theories of classic Romantic, Objective and philosophical hermeneutics approaches with the main question of whether the restorer, in his facing to the historical-artistic work, scrutinizes it in its own historical and geographical context, or sees it from the viewpoint of here and now. For the first case, the romantic

and objective approaches to hermeneutics were discussed in which according to the theories of Schleiermacher and Dilthey and some of their recent followers such as Emilio Betty and Eric Hirsch, interpretation is deeply rooted in the author's intention and it wholly maintains reproducing the subjectivity of the creator. According to this theory, restore must consider the work as located in its own historical and geographical context and restore it in a way that the work would finally restore to its original form, i.e., what its creator has once created. In this paradigm, a valid restoration maintains the utmost accordance to the author's intention, and thus restoration is considered to be reproduction and reconstruction of the work as aimed by its creator. Objectivism in interpretation is accompanied with perceiving the meaning and context of the work and thus returning to the author's intention, and the aim of interpretation is to achieve the author's intention that is itself a criterion for assessing the validity. In this paradigm, priority and validity mostly goes to a restoration in which the final result would almost completely conforms to the original form of the work by perceiving the meaning of the work and its context and it is done through the path of understanding the author's intention, and it is this kind of restoration could be criticized and assessed. In philosophical hermeneutics which is based on theories of Heidegger and Gadamer, perceiving the work is considered as an interpreter-oriented activity and this approach overlooks the author's intention and thinks of achieving the objective perception of the past as impossible, since it believes that human being and his creations are always bound to their historical context and perception is itself regarded as a historical phenomenon and thus human cannot free himself from the limits of temporality and gain control of the past. Thus, perception is restricted to the present and is resulted from the fusion of horizon of the interpreter with that of the text, a fusion which would make the text open to numerous possible interpretations. The interpreter is defeated in the meaning play and perception goes further than the methodologies he applies in approaching the text. According to this theory it could be said that restoration is imposed to the work from the outlook of her and now and different methods of restoration could be used for restoring the work among which no single one is prior to the others, and each one is resulted from the confusion of the horizons of the restorer and the work and has got its own value. This kind of restoration is actually an artistic application of the present into the past, or in other words saving the past in a cover of the present. Today all of these methods are used in restoration of art works, and what is important and crucial is the restorer's having an update knowledge and a proper sapience, insight and experience, so that regarding the spirit and conditions of the work, he could choose a method which would be most beneficial to restoration and conservation of the artwork and help to its transition to the future.

References

- Ahmadi, B. (2004). *Creation and freedom*. Markaz publication.
- Brandi, C. (2005). *Theory of restoration*. instituto centrale per il restauro.
- Carrier, D. (1994). Restoration as Interpretation: A Philosopher's Viewpoint. In: M. Wendy Watson, *Altered States: Conservation, Analysis and Interpretation of Works of Art*. Seattle: University of Washington Press.
- Couzens hoy, D. (1982). *The critical circle*. University of California press.
- Figal, G. (2011). Phenomenology and hermeneutics. *Research in phenomenology*, (41), 109-154.
- Figal, G. (2004). Life as understanding. *Research in phenomenology*, (34), 20-30.
- Gadamer, H. G. (2006). *Truth and method, continuum impacts*.
- Grondin, J. (2006). *l'hermeneutics*, presses universitaire de france, collection "Que sais je?"
- Hirsch, E. (1967). *Validity in interpretation*. New Haven and London Yale university press.
- ICOMOS. (2007). *Charter for the interpretation and presentation of cultural heritage sites*. 1-14.

- Jokilehto, J. (1986). *A history of architectural conservation*, University of York (Doctoral dissertation, unpublished PHD thesis).
- Linge, D. E. (1977). *Philosophical Hermeneutics: Hans-Georg Gadamer*. University of California press.
- McManus, H. (2007). Interpretive Hermeneutic Phenomenology: Clarifying Understanding. *Indo-Pacific Journal of Phenomenology*, 7(2), 1-12.
- Meredith, R. (2006). *From material to meaning: A multidisciplinary Exploration of Creative Practice and Hermeneutic Theories* (Doctoral dissertation, University of New Mexico).
- Palmer, R. E. (1969). *Hermeneutics: Interpretation Theory in Schleiermacher, Dilthey, Heidegger, and Gadamer*. Northwestern University Press.
- Panofski, E. (1996). *Historical and philosophical issues in the conservation of cultural heritage* (Vol. 1). Getty Publications.
- Ricoeur, P. (1974). Existence and hermeneutics. In *The conflict of interpretations*. North western University Press.
- Reynhout, K. (2012). *Interdisciplinary Interpretation: Paul Ricoeur and the Hermeneutics of Theology and Science*. Princeton Theological Seminary.
- Ricoeur, P. (1975). Phenomenology and hermeneutic. *NOUS*, 9(1), 85-102.
- Scott, D. (2002). *Copper and Bronze in Art: Corrosion, Colorants, Conservation*. Getty Publications.
- Weinsheimer, J. (1991). *Philosophical hermeneutics and literary theory*. Open university press.
- Yousefnejad, S. (2014). *Analytical study of Achaemenid Glazed Bricks of Persepolis by multiple instrumental analysis methods*. International symposium on archaeometry, the Getty center and university of California Los Angeles.

The Comparative Consideration of the Bird's Role in Textiles of “Iranian Al-Buwayh” and “Egyptian Fatimid”

Fahimeh Chadorkafoor^{a*}

^aDepartment of Art, Technical and Vocational University (TVU), Yazd, Iran

Received 14 January 2022; accepted 03 February 2022

Research Article

Abstract

This research goal is a comparative analysis of bird's role in the Al-Buwayh in the Iran and the Fatimids in the Egyptian era. The main question of this research is compilation through library method, what is the difference and similarity of bird's role pattern in cloths of both historical periods? Research concludes with a descriptive and analytical method. These patterns can be seen more on textiles and silk pieces, draw birds similar to those eras. With the differences of the Iran's art (Al-Buwayh and Seljukian) have much more capability in drawing patterns, combination patterns with background and patterns drawing instructor adjustment below the eyes. Drawing bird pattern from the front view angle in the Ancient Egypt (Fatimids) art is done much more, but more attention has been given in the Iranian perspective and side view.

Keywords: Bird's Role; Egyptian Fatimids Textile; Al-Buwayh Textiles

1. Introduction

The development of science, technology and technology in the world today is obvious to everyone, and art as the existential essence of human life has expanded along with this progress. The art of weaving and textiles has become an industry today and different countries are competing closely in the field of textile and textile exports. What is seen every day in the textile and textile market of Islamic countries, especially in the Middle East, is the presence of fabrics from Turkey, China and other countries, whose great variety of colors and designs has attracted the attention of customers more than ever. To the extent that the names of foreign brands, even in our country, have

* Corresponding author. Tel: +98-9134502604.

E-mail address: fahm.ch@gmail.com

a greater share in the market. In a country like Iran, which has a rich cultural and artistic background and its textile industry and art has always had a special place, the use of original Iranian-Islamic patterns in its fabrics and textiles can help revive this culture, and in addition to its adaptation. Preserve the Iranian-Islamic identity with the taste of the audience and consumers.

The Al-Buwayh period, as one of the golden ages of the art of weaving and textiles, has always been of special interest and the origins of many designs and motifs should be sought in this period. One of the most widely used motifs in the art of weaving Al-Buwayh has been the role of a bird. The diversity of bird shapes in this art and what each one means and concept is one of the issues that this research examines. On the other hand, the role of the bird in the textiles of the Fatimids of Egypt is also very evident. Therefore, the present study, in addition to examining the role of the bird in the textiles of the mentioned courses, seeks to investigate the commonalities and differentiation of this role in these courses.

Therefore, this article can be widely used in modern textile designs with Iranian and Islamic identities by tracing the origins of these patterns and their application and analyzing the role of the bird, shows the artistic exchanges of the two ancient civilizations of Iran and Egypt in the art of weaving, the two are indebted to each other and what are the similarities and differences in the specific role of the bird in the textiles of the mentioned periods.

The support of the rulers of Al-Buwayh for the art of weaving, made this art an industry and a commodity in the hands of merchants. Fabric was also considered a luxury item in terms of customs, because the clothes of rulers and courtiers and the decorations of luxurious palaces were made with weaves. On the other hand, the export of these fabrics spread to other Islamic lands and many aristocrats of other lands bought expensive Iranian weavings. The areas ruled by the Buwayhid kings were important centers of weaving where all kinds of fabrics were woven and the most famous production centers of that time, including the cities of Merv, Shush, Shushtar, Fars, Rey, Yazd and Neishabour, were the major centers of weaving in this era. And silk fabrics were one of the most prominent arts of this period. These fabrics were widely used in ceremonies and customs, as gifts, for burials and to decorate palaces. In factories, brown, black, and blue dyes are used on whitish-cream backgrounds. In these paintings, sometimes the background color and the role of the place were changed and some light colors were used in the dark backgrounds. Among the various designs, we come to the design of the hunting scene and also the simplified design of animals and birds with angled and broken lines. It should be noted that Iranian silk textiles were woven in the Sassanid style in the early Islamic period, and textiles with writing are not different from other textiles in terms of style (Price, 1988: 268).

Fatimid textiles have a strong design and texture, and some of them still show the principles of earlier periods. During this time, weavers advanced in design to the point where they could weave the finest patterns with skill and finesse. One of the special features of Fatimid weavings is that the weavers imitated the scenes of natural landscapes from their contemporary paintings and depicted them on fabrics (Connell, 1998: 42).

Decorative themes of some of the textiles of this period include animals such as eagles and mythical animals in which the method of symmetry and contrast has been observed. According to research, the art of weaving developed greatly during this period and a variety of fabrics were produced. These textiles are known for their symmetrical and contrasting patterning, which was probably an imitation of the ancient Egyptian style, in which motifs can be seen. (Al-Awsani, 1987).

In many albino textiles, such as taffeta or mutqal and lampas (embossed silk), the more sophisticated design of motifs of eagles, peacocks, mountain goats, lions, elephants, and human

figures on the hunt increased the richness of the fabric's ornaments. Animal motifs on Al-Buwayh fabrics are limited to circles. The interest in the monopoly of patterns in geometric shapes, which was evident in the Sassanid period, was also present in the Al-Buwayh period, and the master of textile design, in addition to drawing these patterns, also used delicate Vogel designs and spiral bushes (Pope, 2010: 28).

In the Fatimid period, in most cases, the depiction of fabric designs was such that the harmony and proportion between the pattern and the text was observed. One of the most famous fabrics of this period is the wool and silk fabric with the role of a double eagle, in which the eagles, despite their small size, are huge due to their abstract design. The branch on the head of the royal bird and its design shows the durability of the visual allusions of the past and the role of the winged king on the bird has the meaning of salvation (Sergeant, 1997: 69).

The design of the Fatimid fabrics was a combination of the Sassanid style and the decorative elements of Syria and the methods derived from China. These methods were so intertwined that no eclectic aspect can be seen in it (Friehe, 1995).

2. Results and Discussion

2.1. Structure Analysis of the Bird's Role in Al-Buwayh Textiles

Many of the fabrics and textiles of the Al-Buwayh period are based on symmetrical composition. In such a way that the image of the bird is repeated on both sides of the axis of diagonal symmetry or four sides of the central symmetry. This is understandable given the structure of the early Islamic motifs and the symmetrical composition.

Also, the use of medallions, especially circular or square medallions, is widely used in this period, which is a continuation of the Sassanid tradition. Also, most of the designs are embossed in large dimensions, which with smaller decorative designs, its negative space is used and the empty space around the design is not seen as much as its previous periods. Also, in many of these designs, the role of the bird is coordinated with the medallions and the mold around it. The use of profile view is also seen in many roles, in many of which, the image of the bird has been changed to match the structure of the role, which does not correspond to the role of the real bird.

These frames and changes made in the role of the bird, have made these designs do not have much freedom and their image is not seen as lively and exciting. This is also evident in the Sassanid tradition and other arts in the early Islamic periods. The use of the line in the existing samples is very limited and in only a few cases, it shows itself more and plays the main role, the same birds and their medallions (Figures 1-2).

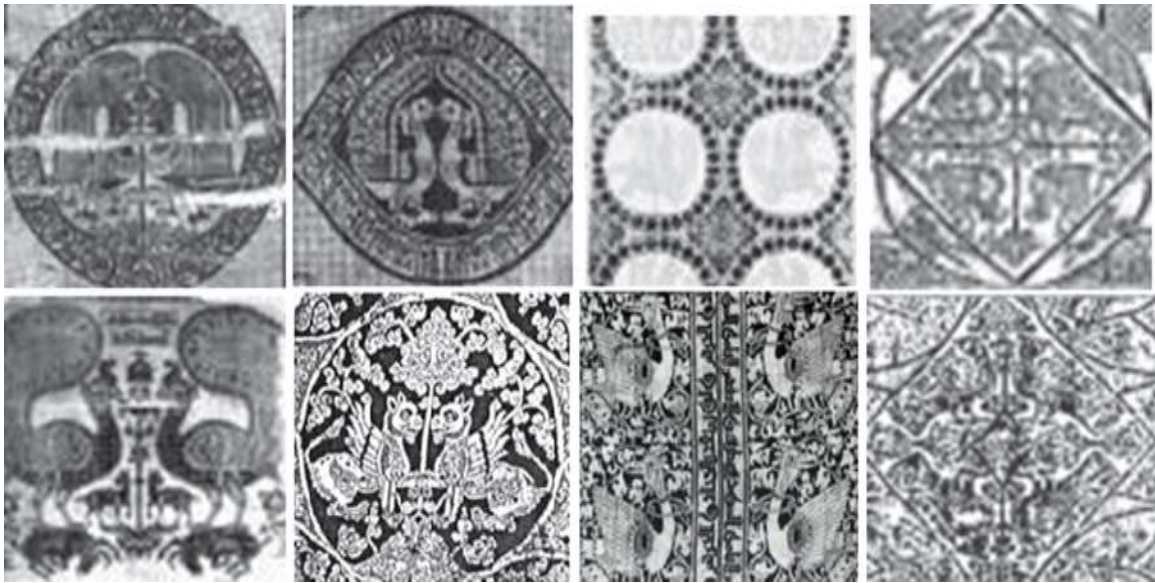


Fig 1 Bird motifs in Al Buwayh textiles, based on symmetrical composition

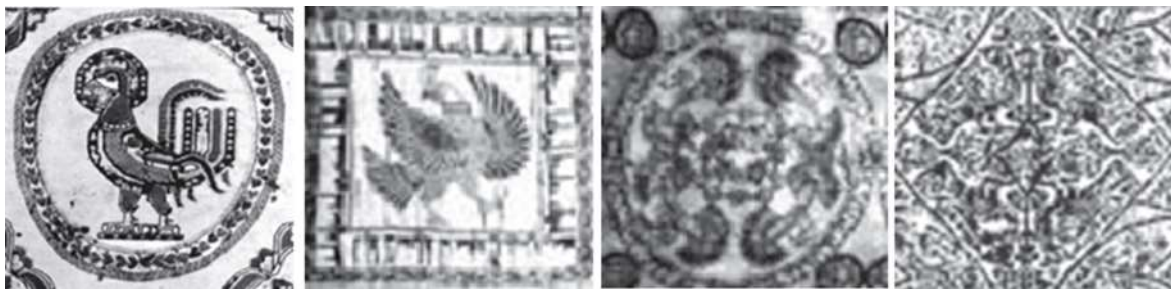


Fig 2 Bird motifs in Al Buwayh textiles, based on medallions

2.2. Structure Analysis of the Bird's Role in Fatimid Textiles

A small number of patterns of fabrics and textiles of the Fatimid period are based on symmetrical composition. Although these compositions are based on the axis of central or diagonal symmetry, many of them do not follow this method and are seen as a single role.

Also, the role of birds in this period, in addition to the structure of the profile and being in the medallion, have also benefited from the three-faced structure, and the absence of most of them in the medallion and geometric structure, has made them look more dynamic and mobile. As if following the Sassanid tradition and the use of medallions and geometric structure and symmetrical composition are still seen in them (Figures 3-4).



Fig 3 Bird motifs in Fatimid textiles based on free and dynamic composition



Fig 4 Bird motifs in Fatimid textiles based on symmetrical composition and placement in medallions

2.3. Analysis based on the Form and Appearance of the Bird's in Al-Buwayh and Fatimid

The placement of patterns in circular frames is one of the characteristics of early Islamic fabrics, which is a continuation of the tradition of combining Sassanid textiles. The motifs of the alphabet fabrics are rooted in the oldest myths of Iran (Ruhfar, 2008: 42). Animal motifs from the Albuquerque period are enclosed in circles. In addition, they have also used delicate designs of flowers and spiral bushes (Pope, 2008: 28).

As mentioned, the placement of patterns in circular frames is a characteristic of early Islamic fabrics, which is a continuation of the tradition of composing Sassanid textiles. Al-Buwayh textiles have more decorative patterns and details than the Sassanid period, and less negative space can be seen on the surface of the fabric compared to the Sassanid period. In some examples of this period, separate single patterns are seen that are spread inside the frame or alone on the surface of the fabric. In terms of design complexity, the motifs of this period should be considered as the boundary between Sassanid and Seljuk motifs (Figure 5).



Fig 5 Bird motifs based on circular shape

Another important point in this period is the design between the circular frames, which can be considered as a complementary design, which usually consists of four pairs or single birds or animals around a central point. Arranged and palm leaf decorations separate them and fill the space. This tendency to fill complementary spaces can be seen in many Al-Buwayh fabrics. Of course, sometimes the idea of a quadruped appears in the form of a main role and is enclosed in a circle or homogeneous with the main role. If the elders died, his body was placed in silk, gold, and labeled cloth, most of which had their tissue written on the edges. Inscriptions in the fabrics of this period, either on a simple background or in the form of narrow margins next to abstract shapes or animal or bird motifs and placed inside the thorns (Baker, 2006: 62-63)

In the textiles of this period, the space of the fabrics was covered with quadrangular patterns and palm leaves, and these motifs appeared as the main role in circular and rhombic frames or next to the main role. The fabric design is not limited to combining with circular frames, but there is also a rhombus frame or rarely a square. Polygonal frames should be considered as one of the innovations of this period. The predominant composition of this period is the central symmetry of Sassanid textiles. Combining central symmetry and composite frames, increasing the value of margins and negative space between the main frames are some of the design innovations of Al-Buwayh textiles. It is a confirmation that the use of the role of the bird in the textiles of this period, not only from an aesthetic point of view, but also from a symbolic point of view has had a special place. The recommendation of Nizam al-Mulk, the famous Seljuk minister, to display luxurious court furniture and furniture should be seen as a sign of government power and success (Baker, 2006: 54-53).

The Fatimid textiles are similar in style to the Iranian textiles of the Buyid era (Connell, 1998: 93). Also, common Islamic styles in Mesopotamia and Mosul were used instead of Sassanid ornaments (Zaki, 1998: 231).

Of course, in the early Fatimid period, there were influences of Sassanid style in Seljuk designs, but over time, this style gave way to designs of Islamic motifs with scroll lines and palm leaf shapes. Seljuk artists used live motifs of birds and animals on silk and fine fabrics (Price, 1998: 65).

In the silk weaving industry of the Fatimids, more than the patterns of Angha and Shir on both sides of a prominent tree enclosed in a circle carrying the inscription have been used. (Connell, 1998: 87) They know. The role of a legendary eagle and bird with a female head and neck is one of the motifs used in this period. (McDowell, 1995) Fabrics left from this era, the peak of the Sassanid style in the composition of large framed circles carrying plant designs or small animals play a role. The fabrics have dense ornaments and are full of small patterns that in the middle of each circle, the

role of one or two animals is used and the plant shapes act as an axis in the central circuit. During this period, the Kufic script became decorative (Ruhfar, 2008: 46).

The use of scattered leafy text and background to decorate the entire surface of the fabric, along with other pictorial elements such as mythical animals and statues inside decorative frames and rhombuses, are characteristics of Fatimid textiles (Kayyan and Grabar, 1995: 65) in the period. Early Islamic, animal and plant designs appeared to be widely used. From Al-Buwayh to the Seljuk period, motifs of eagles and small hawks with leaf-like and horn-like crests or birds such as peacocks on cloths were common (Friehe, 1995: 72). Side decorations were used with a density of small elements and delicately inspired by the currency of geometric and Islamic motifs and Chinese flowers (Kayyan and Grabar, 1995: 68).

The continuation of the tradition of central symmetry within the medallions is one of the most important compositions in this period. But over time, we see free composition and no staff. Attempts to adapt the bird and the carrier frame during this period are made by adding components that adapt the shape of the bird and the frame, gradually changing the appearance of the bird to match the frame. Central symmetry in this direction is one of the innovations of this period. In this period, drawing a bird with vertical direction and unstable balance is one of the innovations of this period, which due to the shape of the shoulder, the wings increase and eventually this part becomes a decorative frame of the duct. The combination between the shape of the bird and the frame peaks, and the shape of the bird adapts to the dimensions of the frame, even though it is distorted. The view of the three faces has increased in this period and we are witnessing an effort towards realism. The shape of the body parts gradually loses the steady state of the Al-Buwayh era and the designs are drawn more freely. In this period, we see the dominance of using the shape of a bird instead of the image of mythical animals. The composition with the unstable state, the bird in the view of three faces or facing, is also one of the innovations of this period. During the alphabet, silk weaves have designs that not only continue the same Sassanid motifs, especially in the image of animals, but also some elaborate shapes have been added to them. In silk fabrics of the Al-Buwayh period, these designs are very diverse among designs and repeat the common designs of the Mazda period (Pope, 2008: 241). In the first centuries of the Islamic period, especially in the Samanid and Al-Buwayh eras, Sassanid traditions were followed in weaving workshops, and although artists tried to create distinctive fabrics with designs consisting of more elements, it was only in the time of the Mongols that designs the general Sassanid fabrics lost their popularity and dominance and were replaced by a sequence of parallel decorative ribbons. These tapes gradually became wavy and in the Safavid period the image of ordinary people was added to it. From the 11th century onwards, the design of many fabrics and jewels was twisted rows of floral plants.

The interest in enclosing motifs in geometric shapes was evident in the late Sassanid period, and this desire was very necessary in the early Islamic periods when tiling was used to decorate buildings, and it is from this source that a master of textile design in this period of basic motifs Adapted for delicate designs and silk flowers and spiral bushes. Perhaps the fabric material required such an adaptation, because this silk shone like tile enamel, and in this imitation, not only the shape of the tile (octagonal and quadrangular star) was used, but also the same colors as white and pale blue, even pea color. The role of the running rabbit is also derived from the designs of Kashan glazed pottery, but the strange deer whose foot resembles the foot of a lion is unfamiliar in this unprecedented design. Although all the patterns and colors of this fabric are adapted from tiles, the colors, shades and delicate spiral stems and beautiful animals are very suitable for design on thin fabric. The bird motifs of this period are usually enclosed in geometric shapes. In Iran and the Al-Buwayh period, most of the motifs were influenced by Sassanid styles. The influences of the

Sassanid style on weaving included the use of ornaments and hunting scenes, the role of real and mythical animals. In the fabrics of the album, more attention was paid to the design of the hunting scene and the simplified motifs of the animals. Patterns of peacock, eagle and hawk have enriched the ornaments of fabrics in this era. In Egypt and in the Fatimid period, the role of the eagle (Horus), Benno and other mythical birds of their civilization have been used on the shrouds (Shayestehfar, 2009: 95).

3. Conclusion

Despite the many similarities between the textile weaving and the textiles of Al-Buwayh and Fatimids, in terms of role and meaning, method and style, there are also differences in these cases. In terms of role and composition, considering that both mentioned periods were in the early Islamic centuries, they followed the characteristics of their time. For example, the use of symmetrical combination and symbolic meaning of motifs, which has a special place in Islamic culture. Also, both have continued the tradition of Sassanid weaving and traces of art of this period can be seen in both periods. In terms of meaning and concept, in the art of the alphabet, fabrics and textiles were mostly used for decoration and were used as gifts. For this reason, bird motifs that have brought the meanings of happiness and bliss have been used more. Birds such as roosters, pigeons, eagles, etc. But in the Fatimid art, according to the ancient Egyptian religion, most of the motifs are reminiscent of gods and life after death, and motifs of birds such as Horus, Benno, hawk, double eagle, etc., can be seen and the function of these fabrics in accordance with the same rituals, was mostly used for shrouds and burial rituals. In terms of composition and structure, both mentioned periods, following the Sassanid art, have used medallion motifs. In the Al-Buwayh period, circular and square geometric patterns mostly enclosed the role of birds, and freedom and mobility took the role of the bird and gave it a static state. Decorative and delicate motifs also fill around the bird's role, which, as far as possible, cover the negative space around the role and draw attention to it. Also, the grazing role is mostly drawn in profile mode and in accordance with the geometric frame around it. In Fatimid art, on the other hand, the role of the bird, despite the specimens in the medallions, is often free, and with the profile views of the three faces and faces, it has given more mobility and dynamism to the said role. This creativity is also evident in other Egyptian arts, which can follow the principle of contrast, in the culture and art of ancient Egypt. Both periods studied also used the element of calligraphy and writing in the decoration of fabrics, but this issue is more evident in the weaving of textiles and textiles of the Fatimids than the alphabet.

References

- Al-Awsani, N. (1987). *In the Mustazarfa industry, in the Islamic communities* (Al-Fani, N. Trans.). Egypt, Al-Azhar.
- Baker, P. (2006). *Islamic Textiles* (Shayestehfar, M. Trans.). 3rd, Tehran: Cultural Studies Institute Publications.
- Connell, E. (1998). *Islamic Art* (Azhand, Y. Trans.). Tehran: Molly Publications.
- Frieh, R.W. (1995). *About Iranian arts* (Marzban, P. Trans.). Tehran: Forouzan Publications.
- Kayyan, J. & Grabar, A. (1995). *Mythos & symbol's in Islamic culture, and others*, Il Tesoro di San Marco, Venice.
- McDowell, H. (1995). *Egyptian and Mesopotamian motifs* (Mokhber, A. Trans.). Tehran: Markaz Publishing.
- Pope, A. (2008). *History of Iran*. first edition, Tehran: Cheshmeh.

- Pope, A. (2010). *Masterpieces of Iranian Art* (Khanlari, P. Trans.). Tehran: Scientific and Cultural Publications.
- Price, Ch. (1988). *History of Islamic Art* (Rajabnia, M. Trans.). Tehran: Book Translation and Publishing Company.
- Ruhfar, Z. (2008). The role of the eagle on the shrouds of Al-Buwayh. *Archeology and History*, Second Year.
- Shayestehfar, M. (2009). *Islamic Textiles*. First Edition, Tehran: Lotus Publications.
- Grube, E. J. (1962). Studies in the Survival and Continuity of Pre-Muslim Traditions in Egyptian Islamic Art. *Journal of the American Research Center in Egypt*, 1, 75-97.
- Zaki, M. H. (1998). *Iranian Art in Islamic Times* (Eghlidi, M. E. Trans.). Tehran: Contemporary Voice.

Design of Portable Fabric Pots by Hydroponic Method

Behnoosh Soltani^a, Salar Zohoori^{b*}, Abolfazl Davodi Roknabadi^c

^a*Design & Clothing Department, Imam Javad University College, Yazd, Iran*

^b*Design & Clothing Department, Imam Javad University College, Yazd, Iran*

^c*Design & Clothing Department, Faculty of Art and Architecture, Yazd Branch, Islamic Azad University, Yazd, Iran*

Received 01 May 2021; revised 15 July 2021; accepted 08 August 2021

Research Article

Abstract

This article, which has been done by descriptive experimental method, has investigated the possibility of designing cloth pots and the growth and development of plants on the fabric bed. In this paper, the hydroponic method is used and the fabric is first supplemented with ammonium nitrate and two substrate samples are prepared for growing wheat seeds (soil, fabric) with the same conditions and parameters. Then seed growth on each substrate was examined for ten consecutive days. The altitude measured in these ten days showed that the plants had a gradual growth and did not show much deviation compared to the soil bed. Then, they designed fabric vases and in the fabric design of these vases, forms with vertical and horizontal lines, diagonal lines and accordion volumes were used. Also, in the color design section, dark spectrum colors have been used to prevent root rot that does not allow light to pass through, and finally, eight fabric pots have been designed and implemented.

Keywords: Fabric Vase; Portable Fabric Pots; Hydroponics

1. Introduction

The history of textile weaving in Iran dates back to millennia BC. Many ancient specimens have also been found in excavations. The spinning top is the first weaving machine that turns fibers into yarn. The evolution of this device has played an important role in the development of textile technology and has been the introduction of the emergence of spinning wheels. Archaeological

* Corresponding author. Tel: +98-9173067942.

E-mail address: s_textile@yahoo.com

findings indicate the use of the spindle from the Neolithic period. Numerous spindles have been found in many ancient sites of the Neolithic period in Iran. The seal obtained from the Choghamish area of Khuzestan, which belongs to 3300 Qom, shows a woman not spinning. The weaving machine is the next tool that dates back to the beginning of the fourth millennium BC. On the seal obtained from Susa, two people are engraved next to the knitting machine, which indicates the existence of this profession at the beginning of the urban era. This system is one of the achievements of the history of civilization in which the civilizations of Iran, China, Syria and Egypt have contributed a lot. The job of the knitting machine is to weave the thread with the weft. The knitting machine keeps the threads stretched to weave the wefts into it. The first weave found from Yahya Hill in Kerman, belongs to the fifth millennium BC and is made of threads made from animal fibers.1.2 (Ismaili, 2016) (Rohfar, 2012)

2. Geotextile

Geotextiles are the largest member of the family of geosynthetics. These products are actually fabrics that use synthetic fibers instead of yarn, wool and silk in their texture. Therefore, biodegradation is no longer a problem, or in other words, if we use these materials in the soil, We are no longer worried about the quality and decomposition of their texture. An important feature of these products is their porosity so that water can move through the cavities and inside the geotextile plate, albeit to different degrees. As mentioned, geotextiles are produced by conventional textile machinery. Based on the type of production process, current geotextiles can be classified into the following types:

Woven geotextile: Geotextiles that are produced by weaving two or more bundles of yarn (spun yarn composed of one or more fibers) at right angles to each other or other elements using conventional weaving processes by textile machines.

Nonwoven geotextile: A geotextile that is produced randomly by placing fibers in different directions. The connection between fibers or fibers can be in the form of partial thermal fusion, needle connection (needle punch) or chemical connection (glue, rubber or cellulose, latex, cellulose derivatives, etc.).

Round textured geotextiles: A geotextile produced by the loop weaving of one or more yarns (spun yarn) or other elements by a loom weaving machine, not a weaving machine.

Patched geotextile: A geotextile in which fibers or yarns, or both, are locked together by patching or stitching together.3.4.5.6 (setayesh, 2011) (Einabadi, 2018) (Nateghi and Haddad, 2017, p. 365) (Hosseini Khani, 2008, pages 25,27).

3. Hydroponic Cultivation

Growing plants in soilless or hydroponic greenhouse method is one of the important ways to achieve maximum yield in the shortest time and with excellent quality. The term hydroponics was first coined by Greek, who in California managed to show plant production on a commercial scale without the use of soil, from early growth to fruiting. The term is a combination of a Greek word for hydro, meaning water, and the Latin word ponro, meaning to place, which in short means to put something in water. More precisely, hydroponics refers to the cultivation of plants in a soilless environment. In this method, materials are usually used to maintain the root system and the plant is fed through a nutrient solution that is added to the environment. The material used as a growth medium may be an organic matter (peat moss, bark or other organic matter) or an inorganic

substance such as perlite, vermiculite and rock wool. 7.8.9(Arzani, 2007) (Aberandabadi et al., 2015) (Dinpanah and Noori, 2013)

4. Ammonium Nitrate in Agriculture

Ammonium nitrate is a very important agricultural fertilizer with NPK equal to 0-3-34 (34% nitrogen), which of course has a lower purity than urea fertilizer. The advantage of ammonium nitrate fertilizer over urea is that it is more stable and does not lose nitrogen in the atmosphere.

Ammonium nitrate with urea is a good cover for spring use. At the beginning of their growth, do not hesitate to use plants in higher doses of nitrogen, and along with sulfur, this element is absorbed especially well and quickly. This feature is in the agrochemical composition. Because sulfur itself is not a nutrient found in plants. Physiologically, ammonium nitrate is an acidic fertilizer that does not acidify the soil at the same time with a natural pH reaction. But if you use ammonium nitrate on acidic soils, in parallel you need to use calcium carbonate at about 0.75 grams per 1 gram of nitrate. Because ammonium nitrate is needed for active saturation of plants with nitrogen. This is his main task which helps in addition to including the composition of macro and micro electron compounds.

This fertilizer is almost always produced using additives of different elements. The availability of such a wide range of broad geographies of ammonium nitrate utilization and efforts to adapt to agricultural needs in different climatic regions are described.10.11(rao,2014)(James,2017)

5. Plant Growth Cycle

Step 1: Seed

The growth and life cycle of a plant begins with the seed. We are all familiar with seeds and occasionally even feed on them. The seed has a coating called a shell. The bark contains substances that are in fact the basic ingredients of plant life.

Second stage: Germination and Growth

We need four things to grow a plant: oxygen, moisture, sunlight and the right temperature. If the conditions are right for the plant to grow, it is time for the buds to sprout. The roots protrude from the seed and enter the soil. This process is called germination.

Third stage: Seedling Growth

The young, delicate plant is called a seedling that grows out of the ground and begins to grow in the sun. During this time the plant must be well nourished by the soil in order to emerge from the soil. Seedlings from the sun should also be well nourished. The leaves of the plant are green pigments called chlorophyll. This pigment uses sunlight, water and carbon dioxide to produce the energy needed for the plant to grow.

Step 4: Mature Plant

Photosynthesis helps seedlings grow to become mature plants. The adult plant blooms, indicating that the life cycle continues. In fact, it shows that he is alive. The adult plant has leaves, roots and stems. The roots feed on the soil and water inside. These substances reach other parts of the plant through the stem. Leaves also produce energy through photosynthesis. A cycle that is constantly repeated. The flower is a part of the plant that reproduces many times. Flowers are made of different components. The petals are usually shiny and colorful to attract insects and aid in the pollination process. The other part of the flower, called the flag, produces pollen.

Pollen is a powdery substance that is often yellow and contains half of the genetic material for new plant production. The other part is called the stigma flower, which attracts pollen. Eggs form seeds when they are fertilized by pollen.

Step 5: Pollination

The process of absorbing pollen through the plant flag into another plant stigma is called pollination. Pollen can be transferred to another plant by wind, but insects are usually responsible for the transfer. Moths sometimes interact with other insects in the process. Bees, butterflies and other insects are attracted to the plant through the color of the petals. Insects drink nectar, the sweet liquid of the plant. When the insects are spinning around the plant, they drink nectar and the plant absorbs the pollen into the body or the foot of the insect. When an insect flies to another plant to drink its nectar, the pollen is transferred to the new plant.

Note that pollen contains half of the genetic material needed to produce a new plant. The egg, which is in the stigma, contains the other half of the genetic material. When the pollens reach the egg, they fertilize and form the seeds. The plant then fertilizes the seeds and disperses them with wind, water, or other animals, repeating the entire cycle described. 12 (Khosrojerdi, 2018)

6. Materials

In this article, a polyester / cotton fabric with the specifications listed in Table 1 and ammonium nitrate prepared by Sigma Aldrich Company with the specifications listed in Table 2 have been used.

Table 1 Characteristics of the fabrics used

Type of texture	Producer	Fabric	Scale (g/m ²)	Tar density (1/cm)	Fabric density (1/cm)
Wreathy	Yazd Baf	Polyester/cotton	100	24	15

Table 2 Specifications of materials used

Device name	Manufacturer	Description
Oven	Iran	Grade 300
Ultrasonic device	-	-

7. Fabric Preparation

To prepare the fabric, the material was added to the Laboratory container and distilled water was poured on it until the Laboratory container volume reached 100 ml. Then place the Laboratory container in an ultrasonic bath for 30 minutes (temperature 60). At this stage, the fabric was added to the Laboratory container and the Laboratory container was placed in an ultrasonic bath at a temperature of 50 for several hours. The fabric was then washed with distilled water and dried at 80° C for 20 minutes.

8. Investigating the Effect of Fabric on Plant Growth

Plant measurements were continued for ten days and data were collected every ten days. After these ten days, it was observed that the growth of wheat germ in all crops was gradual.

The gradual increase in the height of wheat grains in different substrates is shown in Table 4 and it has been observed that the growth of plants in two textile cultivation substrates as well as in soil environment has been successful.

It has been observed that fabric-based substrates are actually responsible for supporting the growing roots of the plant. To better understand the growth of plants in different substrates, the

height measured in these ten days is shown in the diagram shown in Figure 1 and it was observed that the plants had a gradual growth and did not show much deviation compared to the soil substrate.

Table 4 Plant growth rate on two beds

Day	1	2	3	4	5	6	7	8	9	10
Growth rate on the fabric substrate (mm)	21	51	86	118	156	162	178	184	201	235
Growth rate on soil substrate (mm)	22	54	84	113	149	156	174	181	204	237

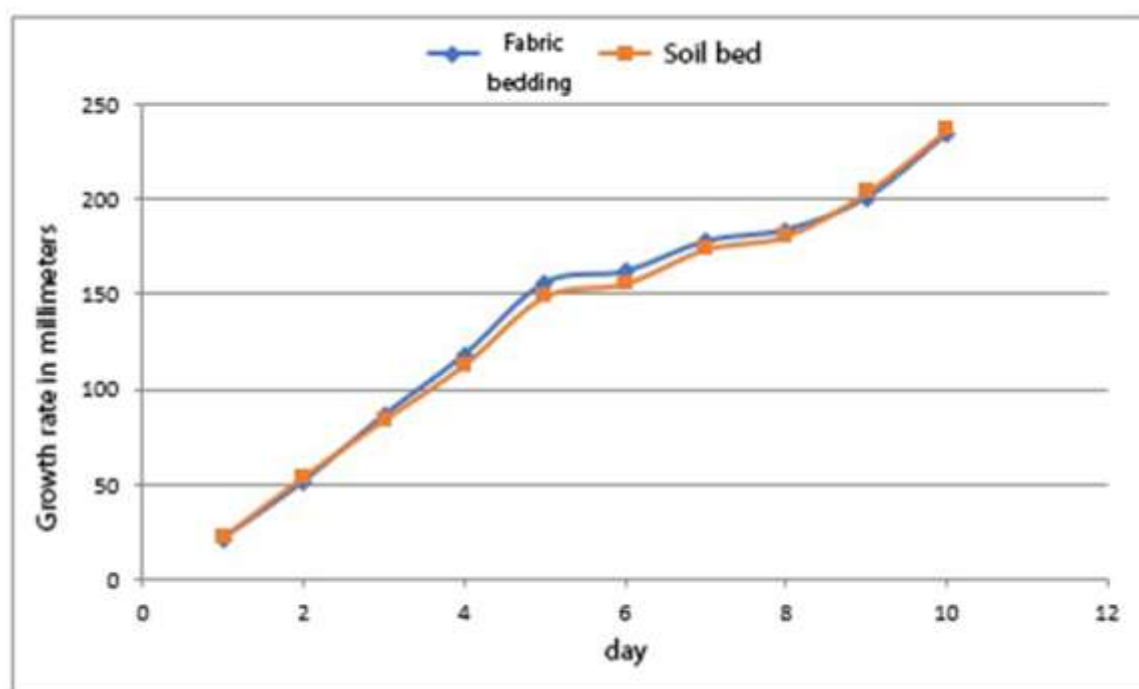


Fig 1 Graph of plant growth rate on two substrates

9. Design Analysis

Each role or design or image in any form, consists of a series of primary visual elements. The designs in Figure 2 can each be used and executed in the design of pots from vertical, horizontal, diagonal and curved lines in line Volumizing the created form and design that each line with its own concept helps us in the appearance and execution of the design, considering the practicality of the volume and creating a pot for the plant to protect the roots and at the same time maintaining the appearance and distinguishing the design Are created with products available in the market. Due to the fact that the soil is not present in the pot, to design the pots, we have tried to make the root compartment smaller and more closed so that the air penetration into the pot is not more than the plant needs, and neglecting this issue causes dryness of the roots. By default, it should be used to protect the roots of the plant from direct light radiation and root rot and rot of the plant due to the presence of high light in the dark spectrum.

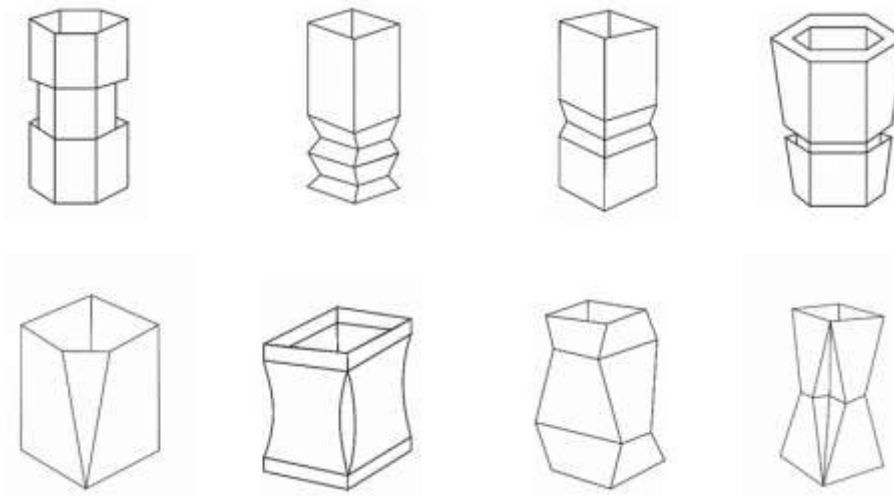


Fig 2 Linear fabric vase designs



Fig 3 Color palette by default

10. Conclusion

In this article, according to the special characteristics that a plant needs for its growth and development, we have tried to design the fabric of pots that can grow in a textile environment by hydroponic method without the need for soil. For this purpose, the fabric was supplemented with ammonium nitrate (which is a plant nutrient) and two substrate samples were prepared for growing wheat seeds (soil, fabric) with the same conditions and parameters. Then seed growth on each substrate was examined for ten consecutive days.

The altitude measured in these ten days showed that the plants had a gradual growth and did not show much deviation compared to the soil bed. In the design discussion, forms and colors with vertical and horizontal lines, diagonal lines and accordion volumes have been used. Dark colors have also been used to prevent root rot that does not transmit light. Finally, eight potted fabric designs were approved and implemented.

References

- Arzani, A. (2007). *Commercial and Homeless Hydroponic Cultivation*. Isfahan University of Technology
- Dinpanah, Gh. & Jamshidnouri, A. (2014). *Factors Affecting the Feasibility Study of Hydroponic Cultivation in terms of Infrastructures from the Perspective of Horticultural Experts of the Ministry of Jihad Agriculture*. Agricultural Extension and Education Research, 83-92.
- Einabadi, E. (2018). *Application of Geotextile in Vase Making*. Sefidbaft Khorasan Blog.
- Hosseini Aberandabadi, A., Hosseini Nasab, H., Pourmirzaei, H., & Fazaeli, H. (2015). Yield of fed lamb fed diets containing hydroponic fodder. *Animal Science (Research and Construction)*, 157-168.
- Hossein Khani, H. (2008). Sustainable Development of Agriculture. *Journal of Agricultural*.
- Ismaili, M. (2016). *History of Textile Weaving in the World*. Moon Skin Blog.
- James, G. S. (2017). *Industrial Inorganic Chemistry in Environmental Inorganic Chemistry*.
- Khosrojerdi, M. (2018). *Get to know the growth cycle of plants better*. Rahpooyan Danesh va Andisheh Cultural Institute.
- Nateghi, R., & Haddad, A. (2017). Investigation of permeability performance in drainage systems consisting of geotextiles and soil under pressure. *Amirkabir Civil Engineering Journal*, 635-644.
- Rao, P.S. (2014). *Ammonium Nitrate in Encyclopedia of Toxicology*, (Third Edition).
- Rohfar, Z. (2012). *A Look at the History of Fabric Weaving in Iran*. Donya-e-Eqtasad newspaper.
- Satayesh, A. (2011). *Introduction to Geosynthetics*. Jihad Daneshgahi Publishing Organization.

Theatre for Development (TfD) and its Significance in Rural Development

Leila Keshavarzidindarloo^{a*}

^aDivision of International Science and Rural Development, Faculty of Bioscience-Engineering, Ghent University

Received 05 October 2021; revised 28 October 2021; accepted 17 February 2022

Research Article

Abstract

Regardless of the benefits that development has brought to some, it has largely bypassed the very people who most need a better standard of living: the masses in rural and semi-urban areas. The model of using participatory learning methods to explore the main concerns of a group and then creating a play to discuss the issues could be used in many situations. Theater for Development (TfD) is a relatively new way of using theater to enhance development in the real world. It is an art in which the Community Theater is used as a tool for mobilization, education, awareness, sensitization, and awareness of the community, all to achieve a change, either in individuals or in the community as a whole. This study aims to evaluate the relevance of theater in the concept of rural development and answer the question "What is the role of theater in the development process and how TfD can be a useful method for participatory development in the rural and semi-urban areas?" To obtain a comprehensive perception, this article goes further by explaining the TfD process and evaluating its advantages and disadvantages in the rural development process. The data used for this study is secondary data collected from previous studies using a qualitative and descriptive approach to interpret and analyze previous studies. This study argues that there is a strong link between development and theater and the latter can provide an opportunity to foster the process of development of marginalized groups in rural and semi-urban areas by creating a participatory platform that involves the local population in projects of development and make dialogue possible. However, there are some shortcomings in practice, such as fundraising or the influence of the governing systems that are the main investors that could misdirect the designated message. There are still gaps in the knowledge and practicality of the TfD method that should be overcome in the future.

* Corresponding author. Tel: +98-9050235008.

E-mail address: leilakeshavarzi33@gmail.com

Keywords: Theatre for Development; Rural Development; Community Engagement; Participatory Development; Rural Areas; Theatre for Rural Development

1. Theatre for Development (TfD) and its Significance in Rural Development

Regardless of the benefits that development has brought to some, it has largely bypassed the very people who most need a better standard of living: the masses in rural and semi-urban areas. Many of the so-called poverty-focused projects have failed to focus on the key ingredients that would help the poor get out of the quagmire of poverty. Far more numerous have been the development projects that have made life difficult for the project's beneficiaries, turning them into peasants and tenants instead of helping them develop as self-sufficient farmers (Malamah, 1986: 233). This makes it clear that the rural population must be removed from the periphery of the communication process and placed in the center. Mda (1993) insists that the existing communication system, which is authoritarian in nature, is non-conductive and dysfunctional. He sees the need for decentralization and democratization of the existing order to give rural populations access to the messages produced by others and the media to produce and distribute their own messages (Ebewo, 2017: 77). In situations where there is deep mistrust, fear, and anger, theater is a useful means of bringing people together to share stories and trigger emotional responses. The model of using participatory learning methods to explore the main concerns of a group and then creating a play to discuss the issues could be used in many situations. Theater is a liberating and unifying experience, as well as fun (Manukonda, 2013). TfD is an excellent means of creating a richer image from the problems presented. The distance provided by an enactment allows discussion of even sensitive issues without community members feeling personally attacked (Asante and Yirenkyi, 2018).

This type of approach is one in which a group of people through dialogue, become aware of the specific situation in which they live, the reasons for this situation, and possible solutions. Learners (participants) through the process are more involved in the actual act of knowing rather than receiving a ready-made vision of social reality. This approach to mass education for development through the dramatization of urgent issues of the day has been experienced by different people in different parts of the world (Omoera, 2010: 50).

One of the main challenges in rural communities is whether people at the grassroots level are fully aware of development initiatives or "social change", as many governments in the developing world and their agents depend on the use of Euro-American media as a conventional way to communicate with people (Ebewo, 2017: 75). On the other hand, it should be considered that the objectives of all development programs are to escape poverty and oppression but in practice, it is observed that the provision of basic social services and amenities are all taken from the hands of these local communities and development plans for these communities are executed by "outsiders" who may not be directly affected by such plans (Chambers, 1997; Asante and Yirenkyi, 2018).

It is now increasingly understood that the poor, the true experts on poverty, the people who experience it day after day, are rarely consulted about what they need and want to develop. These people rarely have they been allowed to participate in decisions that affect their lives in a way that would unleash their creative energies and abilities. Excluded from participation in their own development process, the poor have been treated as objects to receive development packages rather than people who have first-hand knowledge, born of a harsh and bitter experience, of how to survive and thrive in a harsh and hostile environment. The failure of development programs and the

failure to involve people in their own development process are inextricably intertwined (Malamah, 1986: 233).

The Theater for Development (TfD), understood as an art form oriented from acting and problem solving, is a process used to educate and raise awareness among both young and old people and to unify and articulate the community on socioeconomic, political, environmental, and religious issues. To achieve this goal, TFD works on emotions, feelings, aspirations, and sensitivities to awaken and galvanize the public who, is the majority to take decisive action in the directions of development within politics (Umenyilorah, 2014: 36). Activities related to women, as well as youth empowerment and development, transformation of rural communities through sensitization and awareness, education, and direct intervention in critical problem areas, are the main objectives of this approach (Oyigbenu, 2009: 109).

2. Research Questions

There is no doubt that there is a connection and/or relationship between theater and development, since theater, as a discipline, has not only been used as an instrument of entertainment and preservation of culture but also works effectively to instruct and educate. As a human device, the theater serves as a tool to investigate imperfections in society in order to encourage and reinforce changes for the better. The implication of this is that the roles it plays are related to development (Adeyemi, 2015: 23). That brings us to the purpose of this paper to try to find answers to the following questions;

- What is the role of theater in the development process and how can TfD be a useful method for participatory development in rural and semi-urban areas?
- How can TfD reach our marginalized and impoverished masses who need to discover how they can improve the quality of their lives? (Malamah, 1986).

3. Literature Review

Theater as an art form is a recreation of an event, which can be real or imaginary, and is communicated to an audience through the medium in which the artist seeks to contact his audience (Umenyilorah, 2014: 34). The evolution of the theater has religious rituals and ceremonies as a fundamental value. The first forms of theatrical practice among the Greeks, Romans, and Egyptians have religious bases and connections (Asante, Yirenkyi, 2018: 591). Rituals and other religious practices involve imitation actions and are mostly human-centered and therefore have been linked to human existence for a long time (Asante and Yirenkyi, 2018: 591). Therefore, it is established that the theater was born social and it is the source of collectively motivated performance of massive societies. And its function does not have value in isolation for that society either (Diang'a and Kebaya, 2016: 2). It is the power of theater to attract and engage all human senses and its ability to influence and affect through the effective use of images, what Asomba (1986) calls the 'photosensitive minds of members of an audience during a performance, that makes it an obvious pivot in building communities, not nations (Olalekan et al., 2010: 108).

The community plays an important role in formulating the what, how, and when of the process, often taking the lead by providing stories from their own lives or research within their own. "These stories, in the exact words of the narrator, are then woven together ... by the community itself, to narrate the life of the community." It is also the community that finds the theatrical means of expression and reforms itself through that knowledge (Haedicke, 1998; Makhumula, 2014: 113).

Generally speaking, development represents the design of ideas and practices to bring about positive change in human societies. It has been argued before that it is a function of society's ability to organize human energies and productive resources to respond to opportunities and challenges. Rodney (1972) saw development as a multifaceted process in which material well-being is the ultimate goal at the individual level, the achievement of which is closely linked to the state of society as a whole (Lamela, nd: 4). The discovery of the link between theater and development dates back to early days of philosophy when Aristotle and his pupil Plato affirmed that theater, whether in literary or performative form, has a contribution to make to the development of society (Nasidi, 2003; Olalekan, 2010: 107).

Theater for Development (TfD) is a relatively new way of using theater to enhance development in the real world. It is an art in which community theater is used as a tool for mobilization, education, awareness, sensitization, and awareness of the community, all with the purpose of effecting changes, either in individuals or in the community as a whole (Mda, 1993). The Theater for Development thus becomes an interactive process that uses reality and fiction to create the experience of performance within the framework of Community Development (Asante and Yirenkyi, 2018: 594). It is safe to say that the Theater for Development encompasses the following face-to-face activities, with people or "puppets", before an audience: -a dance production, spoken word theater or comedy; a piece of music, singing; participatory or improvisational techniques using any or all of these. The theater for development process can also be defined as a progression from less interactive theater forms to a more dialogic process, where theater is practiced with or by people (Manukonda, 2013). In this sense, TfD offers a practical and theoretical exploration of how communities can use the arts to create social transformation on their own terms. The underlying components of all of TfD's work are democracy, participation, and sustainability (Knight and Brown, 2005: 1). As Wiler and Feiner (2001) point out, the ultimate goal of this cultural intervention is "to increase opportunities for marginalized and oppressed groups to represent themselves and the world around them as a means to assert their own identity and achieve cultural, social, economic and political equity "(Diang'a and Kebaya, 2016: 6). Tyranny, social ills, and underdevelopment (Umenyilorah, 2014: 35) are some of the problems that could be addressed through theater filters in society.

3.1. Different Terms

The extremely eclectic and discursive nature of Theater for Development makes defining it quite problematic and elusive. Different critics, researchers, academics, and professionals have assigned the concept a plethora of names, posters, labels, and tags. These vary from Community Theater, Popular Theater, Participatory Educational Theater, Educational Theater, Alternative Theater, Campaign Theater, Resistance Theater, Agitprop Theater, Protest Theater, Liberation Theater, and Opposition Theater, to name just a few. Although the nomenclature seems to vary, the essence of all these variants remains the same; anticipating the idea of theater at the service of transformation and social reform (Odhiambo, 2008: 4). But it is safe to say that theater for development could be classified under a general term as applied theater, which aims to treat social problems to improve standards (Umenyilorah, 2014). Whatever the methodology adopted by professionals in this sphere of activity, their objectives are united around the theme of promoting human and social development (Desai, 1991; Ebewo, 2001, 2004, 2005, 2007, 2017: 78).

The older term, Popular Theater, is strongly linked to a more politicized performance related to social debate beyond a narrow vision of the development of the world, and possibly needs to be claimed by radical artists (Plastow, 2014: 115). One of the distinctive characteristics of Popular

Theater is its social content (Umenyilorah, 2014: 34). As Popular Theater is described as destined to empower the common man, it brings consciousness with a critical conscience crucial to the fight against the forces responsible for poverty, social ills, and all the social and development problems of society and tries to transform behaviors of the individual in the right direction for personal improvement (Manukonda, 2013: 1). Community Theater was introduced as a type of theater that provides the opportunity for development where communities speak for themselves through theater and do not depend on external centralized theaters that speak for municipalities, rural settlements, and suburbs. The basis of research in this approach are lived experiences, emotions, actions, and sociocultural phenomena (Diang'a and Kebaya, 2016: 7).

A term introduced mainly by Augusto Boal † is Theater of the Oppressed which describes a set of dramatic techniques with the purpose of bringing light on the systemic exploitation and oppression within common situations. The different techniques that, these poetic uses are; Newspaper Theater, Image Theater, Invisible Theater, and its main technique; Forum Theater. ‡ His goal is to transform viewers into actors (Coudrey, 2017). The theater of the oppressed is equal parts performance, activism, practice, and educational forum. It is from activism, which refugees, the homeless, minority groups and other populations are using to fight the problems of oppression that can cause poverty. The Theater of the Oppressed is not like a typical play or musical where the cast rehearses for weeks to create a perfect show. It is highly improvised and involves audience participation, thus transforming a passive audience into an active one (Coudrey, 2017).

In order to avoid confusion in the future and in order to simplify rather than generalize, in this article the term Theater for Development has been chosen to serve the purpose of this study, therefore it has been used as a general term to refer to whenever any other term has been used in the original literature.

4. Methodology

TfD is an instrument of social change within the framework of development approaches. It is related to development much more than theater (Manukonda, 2013). This approach is found in the theory of media for development or what Folarin (1998) described as a wide variety of socio-cultural, economic, and political conditions that border on the effective use of media for

† Augusto Boal (1931-2009) was one of the leading playwrights and theater directors in Brazil. joined the São Paulo repertoire company, the Arena Theater, and became a director in 1956. As Brazil grew more oppressive after the military coup, Boal began writing plays that relied on censorship, the oppression and torture enacted by the Brazilian military regime. His innovative works combined visual and dramatic arts, as well as music. In 1971, Boal was imprisoned and tortured by the military police for his subversive activity, and later exiled. In exile he wrote *Teatro del oprimido* and *Torquemada*. (Brown University, n.d.)

In 1981, Boal organized the first International Festival of the Theater of the Oppressed in Paris, and a year later he ran and successfully won the position of Vereador de Rio, which is as city councilor. In this role, Boal developed a type of theater forum, the Legislative Theater, to identify key issues in the city. Using this concept of a forum, he used theater dynamics to discuss what kind of legislation needed to be enacted to address community issues. The resulting discussions and demonstrations became the basis for the current legislation presented by Boal in the House of Vereadores. (Dartmouth University, n.d)

‡ This technique is simultaneous dramaturgy, in which the actors begin to perform short scenes that enact aspects of their daily life (domestic violence) and then ask the audience to come up with an idea that will help the oppressed character break out of the situation. The audience can interrupt the show and intervene by standing up and suggesting solutions to the actors who will improvise it immediately. The viewer helps rewrite the play while the actors are still performing their roles. In Forum, although spectators are allowed to go on stage and interpret the characters, substituting themselves for the actors to find a way out of the situation (Coudray, 2014).

development purposes. Specifically, the theory considers the role of the media in society as the essential objective to stimulate and sustain social development in areas such as cultural, socioeconomic, political, and technological development, national integration, socioeconomic modernization, promotion illiteracy, and cultural creativity (Folarin, 1998; Yerima, 2007; Olalekan et al., 2010: 109). Theater for development as a community participation approach for rural development is based on the principles of Integrated Participatory Communication (CIP) which, according to (Bessette, 2004), is to involve the local community in the identification of a problem of development (or a common goal), discovering its multiple dimensions, identifying possible solutions (or a set of actions) and making a decision on a specific set of actions to experiment or implement (Asante, Yirenkyi, 2018: 597). In this article, the aim is to study the previous studies carried out on TfD and combine it with rural development approaches. In doing so, a qualitative approach was applied using the descriptive and semi-analytical method to achieve a broader definition of TfD and its implication in the rural context.

5. Discussion

5.1. TfD for Rural Area (Theater for Rural Development)

Rural development is a process designed to create a condition of economic and social progress for the entire community with its active participation and the greatest possible confidence in the initiative of the community. It is an encouragement for communities to change their own affairs in a constructive way. Policymaking from above has refused to learn from the mistakes of the past. This is because, very often, the identification and the final development project to be built becomes the exclusive prerogative of bureaucrats and technocrats in urban centers who are alienated from the masses in rural areas. Bureaucrats, following established official criteria, move away from the realities of rural poverty. Therefore, the consultation and, more importantly also, the participation in decision-making of the rural inhabitants are consequently lost (Umenyilorah, 2014: 37). TfDs' emphasis is specifically on development goals and issues such as adult education, rural community mobilization, and mass awareness. It is a tool deliberately selected by a group of intellectuals and development workers for the meeting of "people and dresses", to accelerate the modernization process in both rural and peri-urban areas (Hussaini and Tsaku, 2017: 8). The TfD approach provides an opportunity for people in rural areas to come together, think and share ideas about a common problem. Rural people for whom change is sought become integral parts and stakeholders in the change process. Theater for Development raises awareness through the use of local or indigenous art forms. The use of indigenous art forms offers the audience the opportunity to be more identifiable with the situations as they are presented in the performance and throughout the participation process (Asante and Yirenkyi, 2018: 600). Acting on the problems that affect people in the area also represents a viable alternative to communal practices, as well as daily speeches (Diang'a and Kebaya, 2016: 14). In this sense, TfD in rural areas means; community performance by the community and for the community, an intra-community education, empowerment, and development (Umenyilorah, 2014: 39). Dramatization of local community problems in agriculture, health, sanitation, village self-reliance, and identification of villagers' problems are used to communicate problems in a way that local people can understand. Post-performance discussions would facilitate a process of community education, mobilization, and collective action (Malamah, 1986: 231).

In the process, people need to be made to initiate their own project needs and follow all stages of implementation to completion and maintenance for sustainability and derived values and benefits.

For the promotion, mobilization, and awareness-raising through the efforts of non-governmental organizations that should seek to work together with rural communities around the need to build pit latrines, the digging of wells for drinking water, the need for family planning, and literacy "(Oyigbenu, 2009: 114). The benefits of using a participatory method in the context of Tfd in rural areas are;

a) Villagers may be illiterate in English, but they are certainly not ignorant, naive, or unintelligent; the equation illiteracy = ignorance in the context of T.F.D. it is the most erroneous. Furthermore, it is not necessary to be literate to actively and functionally participate in the new genre of theater as a means of promoting self-development.

b) T.F.D. it is a learning and teaching exercise and it is an educational, enabling, mobilizing, and transformative tool for development. c) It can generate solidarity and unity both within the village and between villages (Malamah, 1986: 237).

The problems of the rural area that can be identified in the process are mainly: lack of drinking water, poor systems, and management of garbage disposal, lack of access roads, poverty, and low level of awareness on health issues. It is essential to promote reflections, mobilize and raise awareness among rural and urban inhabitants so that they can face their social, economic, and political challenges and solve them (Omoera, 2010). Theater for rural development (THIRD), community theater for rural development (CTHIRD), and Popular Theater (Abah, 1992) are the common terms used to describe the practice of Tfd that assist the development process in rural areas (Osuya, 2001; Omoera, 2010).

It should be taken into account that sometimes Tfd practices are spilled in the rural community by external practitioners who do not have a comprehensive perception of rural communities. Considering that rural communities are proactive agents of change, their exclusion from the design, development, and implementation of Tfd activities, together with the difficulties in obtaining and securing financing for the promotion of conventional theater activities, are just some of the problems that are likely to arise, be a tool for raising awareness and mobilizing local communities for economic, political, and environmental development.

Theater is a popular art that, like any other art, must have its origin in the community. The best way to develop it and communicate it to the audience can be done by people who speak the same language as the audience, people who, must share sets of concepts, images, and ideas that allow them to think and feel, and thus interpret phenomena, in more or less similar ways (Inyang, 2016: 149).

5.2. Topics and Priorities

In general, in addition to the political issues addressed by Tfd, common issues to be considered in rural areas are non-formal education, hygiene, health education, social ills, wastewater disposal, the environment, women's rights, violence against women, child abuse, malnutrition, prostitution, drugs, street children, literacy, etc. Every type of Tfd program relies on the power of word of mouth through people dealing with the situation, taking part in a project, or watching a critical play (Manukonda, 2013). It should be considered that the theme chosen for each society depends on the answer to the following questions:

- What topic is important for the group to talk about? • What problems would you like to address? (As part of identifying a need)
- Who is important to listen to this topic or to raise awareness?
- Is there someone who can be directed at a policy-making level? (As part of determining your audience) (Knight and Brown, 2005: 2).

Based on the responses provided and the identified priorities of the target society, Tfd will address the issues and goals. Topics that could raise a wide range of issues in the community include; the evils of religious intolerance, the evil of insurgency, the problems of unemployment, the disadvantages of inter-ethnic wars, etc. When a play is written with any of the aforementioned points as the central theme or focus and brought back to the community, to be acted out and carried out, it is as if the people are "preaching themselves" and advocating for change (Arogunmasa, 2019).

5.3. Process

The respective processes for practicing Tfd in the target communities are; research, report, create the story, rehearse the play, act out the play, and discuss after the performance. It should be noted that evaluation and impact evaluation are also part of the process but are always outside the normal project period. Evaluation usually occurs sometimes after the entire process has been completed (Asante, Yirenyi, 2018: 595). Typically, primary data collection methods in the research phase are based on in-depth interviews, focus group discussions, real-life case studies / oral testimonies, and participant observations (Diang'a and Kebaya, 2016: 11). A common Tfd project consists of the following steps for its implementation:

- a) Professionals live within the community, or may visit the community continuously for an extended period (the emphasis at this stage is to adapt to cultural norms, build trust/relationships, and observe daily life);
- b) Community members create shows based on themes related to the causes of their underdevelopment;
- c) Professionals investigate and link key issues with NGOs and GOs that may be related to the cause/solution of the problem (in many cases it may affect the Ministry of Health or Education);
- d) Solutions are created through participatory theater in which the community performs interventions;
- e) Action plans are created for community, governmental and international application (Breed, 2002: 2).

5.4. Pros and Cons

Tfd offers an alternative route to development goals, as the tools used focus on the dynamics of human relationships and experience. While traditional development practices offer external assistance through financial aid or loans, Tfd works within the target community to define the causes of underdevelopment and find viable solutions that promote self-government (Breed, 2002). While Tfd is used as an information gathering and development implementation tool, it also functions as a methodology for team building, cultural identification, and conflict resolution. The theater creates an open space to play their own and others' roles so that communities have the opportunity to question and challenge social hierarchies, gender roles, and discrimination (Breed, 2002: 3). In a nutshell and to close the discussion, it can be said that without any doubt, the importance of Tfd could encompass a wide variety of development issues in the community, especially in the local context and more marginalized areas. The significances of Tfd in rural communities are;

- An effective means of communicating sensitive topics.
- A powerful means of emotionally involving community members
- A powerful tool to stimulate community action

- A way to give a voice to the voiceless
- A sustainable tool for community awareness and mobilization (Inyang, 2016: 153).

However, like any other tool, Tfd also faces restrictions and challenges that can put its notion into deep lethargy. The limitations in the implementation of Tfd in rural communities could be from the following problems;

- Difficulty with obtaining funding (This supports Eugene van Erven's observation that funding is often available to Tfd if it is part of community development or wellness activities rather than for the promotion of art itself)

- Lack of a common frame of reference (Starting a Tfd program can be an overwhelming experience, especially with regard to the orientation of community members relative to that of the initiator. This experience is linked to the absence of a shared framework reference that Boal in *Teatro Legislativo* § identifies as the first problem one faces when rehearsing theater with community groups, referring to the time when the theater group was obviously interested primarily in the entertainment element of the theater while their plays more or less emphasized the educational element).

- Lack of political support

- Corrupt or oppressive leaders (Inyang, 2016: 155) could stop or redirect the presented ideology.

Additionally, other fundamental inconveniences that could hamper Tfd practices could be described as a lack of time to prepare, perform, and rehearse. It is also notable that sometimes in the presence of a large audience to please the audience group, the message would be compromised. The government could interfere in the process and manipulate the announced ideology since it is the source of financing for the project in most cases, trying to pursue its own agenda or closing the program if it does not support the current political system. People expect the theater to make drastic changes, while it should be accompanied by other promotional efforts (Alexander, 2020). This could cause an ideological gap between the target community and Tfd practitioners, as the funding agency might have different interests.

The Theater for Development is not transferable from one country to another, not even from one region to another. You can't just connect to a new context. It is a scientific and very complex process and must be consciously and carefully adapted to each situation, as well as contextually organized (Malamah, 1986: 237).

6. Conclusion

Theater for development or "Tfd" is, in terms of terminology, a relatively recent invention. But as a practice, its origin is as distant in history as that of the theater itself (Osofisan, 2004; Mbachaga Desen, 2011). Theater, in particular, could be used as a force for progressive change and transformation in our society. It is one thing that drama, performed on stage, more easily equips the masses to scream in the face of dehumanization. This is done through awareness, leading people to self-realization and self-definition (Umenyilorah, 2014: 35). In this sense, it can be affirmed that the Theater for Development is an instrument of awareness. On another level, the lack of awareness on the part of the grass roots can impede development process The aim of raising consciousness is to

⁵ This form of theater is an extension of the Forum theater and arose when Boal became a member of a powerful regional council. He encouraged small theater companies to use the Forum theater to ask people what laws they would like to see invented or changed. Even without a cooperative member of parliament, as in the Boal situation, a development group can use it locally to see what aspects of the group the people it works with would like to change (Scott-Danter, 1999).

change perspective in a critical and positive direction. TFD has become a way to galvanize community groups and through which community art forms are validated. Theater in the context of development is an ongoing process. It is not an end in itself, but a means to the development objective (Umenyilorah, 2014: 38). TFD brings together amateur and professional actors, social workers, and health officials, in a broader movement to help communities forced into poverty and underdevelopment, transform into voluntary social organizations seeking more proactive citizenships. Its distinctive feature is to extend the theater of political consciousness to programmatic activism through which communities set agendas for their own social development, as well as devise means to negotiate with governmental and non-governmental organizations (Amkpa, 2005: 161).

Performances at TFD can educate audiences in rural areas as well as artists since these performances are culturally appropriate and be open to dialogue. They bring up a grassroots conversation where the community doesn't respond well to authorities. This method is portable, recordable, and cost-effective with the help of community volunteers. It is also public so that people do not feel invaded by the message. Understanding and participation do not require literacy and are accessible to all. The theater brings the community together to have fun and participation by reaching more people (Alexander, 2020). This may seem promising in theory, but it faces so many social ills due to leadership problems such as poor governance, lack of inclusion of the masses in decision-making processes, economic imbalance, the struggle for power, power tussle, control and domination by those in power and their cronies among others which have over the years been the bane of the society's development in many of the target countries in the developing world (Hussaini and Tsaku, 2017: 1). It is important to create a platform to solve these problems and facilitate the path of development with the assistance of TFD activities and make the most of it, as TFD has proven to be an effective tool for the participation of marginalized groups in the process of development. Making TFD part of the rural community is possible through channels such as:

- Forge a culture-sensitive TFD (traditional culture and political culture);
- Develop community capacity to improve performance. It should focus on acquiring appropriate knowledge, cultivating positive attitudes, and developing the appropriate skills necessary for action;
- Promote an activity that stimulates positive competition between them, such as the awarding of prizes to the best groups;
- Monitor and evaluate the activity in a well-designed and well-implemented monitoring and evaluation program that should clearly define what is to be monitored. This should be done before the theater program; to establish the baseline and then measure again after each theatrical activity; to determine the changes that are taking place (Inyang, 2016).

It should be noted that TFD is a broad topic and there is a lack of resources and data on its practicality in many areas, therefore this study suggests more comprehensive research in this field in the future so that the potentials of TFD are discovered and be seen in a new light.

References

- Adeyemi, O. S. (2015). The Praxis of Theatre for Development in Curbing Social Menace in Urban Slum in Lagos State. *Journal of Education and e-Learning Research, Asian Online Journal Publishing Group*, 2(2), 22–27.
- Alexander, L. (2020). *Theater of the Oppressed and Social Change*. The Borgen Project.
- Arogunmasa, O. Y. (2019). *Sustaining Internal Security: The Inevitability of Theatre for Development*. Federal College of Education (Sp), Oyo. Published.

- Asante, E., & Yirenyi, S. M. (2018b). Engaging Communities for Development Action: The Theatre for Development (TfD) Approach. *International Journal of Development and Sustainability*, 7(2), 589–603.
- Bamuturaki, K. (2016). *Theatre for Development as a Participatory Development Process in Uganda: A Critical Analysis of Contemporary Practices*. University of Exeter.
- Breed, A. (2002b). Playback in Theatre for Development. *Centre for Playback Theatre Website*. Brown University. (n.d.). Augusto Boal | We Cannot Remain Silent. Brown University Library. Retrieved from: <https://library.brown.edu/create/wecannotremainsilent/biographies/martinha-arruda/>
- Coudray, S. (2017). *The Theatre of the Oppressed*. Copyright (c) 2016 - 2021 Culture Matters Co-Operative Ltd; FCA Registration No: 4347; Registered Office: 8 Moore Court, Newcastle NE15 8QE. <https://www.culturematters.org.uk/index.php/arts/theatre/item/2455-the-theatre-of-the-oppressed>
- Dandaura, E. (2010). Theatre for Development: Ideology Versus Theatre Aesthetics and The Emerging Framework for Development Entertainment. Dartmouth University. (n.d.). Augusto Boal. The Montgomery Fellows Program. Retrieved September 23, 2021, from <https://montgomery.dartmouth.edu/augusto-boal>
- Diang'a, R., & Kebaya, C. (2016). Community Theatre and Development Practices in Nyanza Region, Kenya. *A Journal of Theatre and Media Studies*, 10(1), 1–24.
- Ebewo, P. (2017). Applied theatre as an alternative communication approach for the development of rural communities in Africa. *Communitas*, 22, 75–86.
- Hussaini, U., & Tsaku, J. (2017). Democracy and Human Rights in Nigeria: Proffering a TfD Approach. *Journal of Peace and Conflict Resolution*, 1–17.
- Inyang, E. (2016). Community theatre as instrument for community sensitisation and mobilisation. *Tydskrif Vir Letterkunde*, 53(1), 149–159. <https://doi.org/10.4314/tvl.v53i1.10>
- Knight, G., & Brown, C. (2005). *Theatre for Development Source Book*. Village Volunteers, May, 1–16. <https://villagevolunteers.org/wp-content/uploads/2011/07/Theatre-for-Development.pdf>
- Lamela, Maikano A. (n.d.). *Community Theatre as A Strategy for Development: The Jauro- Abare Example*. Department of English, Gombe State University.
- Makhumula, C. (2014). Participatory Dramaturgy in Theatre for Development. *Journal of Humanities*, 23, 109–123.
- Malamah-Thomas, D. H. (1987). Innovative community theatre for integrated rural development (C.T.H.I.R.D.) in Sierra Leone-the telu workshop experience, 2-16 November, 1986. *International Review of Education*, 33(2), 229–238. <https://doi.org/10.1007/bf00598484>
- Manukonda, R. (2013). Theatre - Communication That Captivates and Enchants. *Global Media Journal-Indian Edition*, 4(2), <https://www.caluniv.ac.in>
- Mbachaga, D. J. (2011). Theatre for Development, Participatory Monitoring and Feed Back: The Example of Ikyaan and Amua Communities in Benue State, Nigeria. *The Performer Journal*, 13, 112–124.
- Odhiambo, C. J. (2005) Theatre for development in Kenya: interrogating the ethics of practice, Research in Drama Education: *The Journal of Applied Theatre and Performance*, 10(2), 189–199, DOI: 10.1080/13569780500103836
- Odhiambo, C. J. (2008). *Theatre for Development in Kenya in Search of an Effective Procedure and Methodology*. Stellenbosch University. Faculty of Arts and Social Sciences. Dept. of Drama. <http://hdl.handle.net/10019.1/20919>
- Olalekan, G., Kayode, J., & Husseini, S. (2010). Theatre and Development: Opportunities and Challenges in a Developing World. *Journal of Communication*, 1(2), 107–112.
- Omoera, O. (2010). Theatre for Development in Rural Nigeria: The Andaha Community Experience. *AMA: Journal of Theatre and Cultural Studies*, 5, 45–58.
- Oyigbenu, A. (2009). Strategizing Drama as Tool for Advocacy and Rural Development: Challenges for Non-Governmental Organizations in Nigeria. *African Research Review*, 3(4).

- Plastow, J. E. (2014). Domestication or transformation? The Ideology of Theatre for Development in Africa. *Applied Theatre Research*, 2(2), 107-118. ISSN 2049-3010, https://doi.org/10.1386/atr.2.2.107_1
- Scott-Danter, H. (1999). Theatre for development: a dynamic tool for change. *Forced Migration Review*, 6, 22-24.
- Umenyilorah, C. U. (2014). Theatre as Tool for Development in Nigeria. *IOSR Journal of Humanities and Social Science*, 19(6), 34–40.

Discourse Between Body and Clothes as an Object

Parisa Yazdani^a, Salar Zohoori^{a*}

^aDepartment of Research Art, Kish International Branch, Islamic Azad University, Kish, Iran

Received 20 October 2021; revised 21 November 2021; accepted 15 January 2022

Review Article

Abstract

Considering all the functions that have always redefined their existential meaning, the objects have also had deeper and inner functions, and sometimes some theorists and researchers such as "Germas", "Fontaine" and "Landowsky" They have rewritten these internal functions and caused the emergence of new strains (or level) of attitude (or theory) towards this direction. For a long time, artists have looked at all subjects and objects around them with a different attitude than the common people, and therefore have redefined the world around them differently. They bring out the invisible meanings that are hidden in the depth of each object with a sensory and inner look and with perceptive digestion and show the connection between the objects and redefine a new identity for the objects.

The human body is full of tangible and intangible sensory and perceptual experiences, and it is full of words (or theory) alone. When this utterance (or statement or speech) is combined with the physical experience of another object such as clothes, the meaning of all its experiences is redefined and each one appears in a cocoon of another definition. The body is no longer a body with limited uses, and everything that is in contact with the human body is no longer a simple and functional object, but every object, after interweaving, harmonizes with the body and creates a new perceptual world. In her phenomenological views, "Horsel" puts forward the theory of the body in relation to the subject with sensory perceptions, and "Landowsky" continues by defining the semantic system of coincidence and its application.

The purpose of this research is to investigate the relationship between body and clothes as two objects of the same word at that moment. In other words, the main question of this research is how clothes as a man-made and non-dynamic object and body and body as a created and dynamic object enter into discussion with each other in a discourse semantic system and how this discourse is transcended.

* Corresponding author. Tel: +98-9173067942. ORCID: 0000-0001-8202-1021

E-mail address: s_textile@yahoo.com

During the course of the research, relying on the theories of "Merleau-Ponty" and "Eric Landowsky", the interpretation of the meaningful relationship between the body and clothes in the dimensions of Merleau-Ponty's perceptual world is expanded in a descriptive and analytical way. Finally, in this article, it has been determined that body and clothes both influence and give meaning to each other in a transcendental system. Each complements the other and gives new dimensions to each other. Both reveal the inner and undiscoverable meanings of each other and turn that stillness inside each other into ecstasy and dynamism.

Keywords: Discourse; Art Object; Body; Semantic Sign; Clothing

1. Introduction

Discourse and interactive perspectives have always had attractive points of view and have attracted the audience and crystallized new types of attitudes, whenever discourses are analyzed with the approaches of semantic signs, they lead to the creation and emergence of spaces that are like Spaces remain in between, and the interaction between objects always causes semantic changes between them, and this means the passage of fixed and repetitive meanings.

Audiences who look at the objects with the depth of their insight enter into a discourse with them in both perceptual and practical senses which itself originates from the depth of the viewer's and audience's gaze. From a long time ago, people used different types of clothing and clothing due to their social status and family status, and according to the importance of time and place, and among them, the functional role and importance of clothing as a means of communication between people and their audience as an influential object is undeniable.

As an aesthetic object, the body has acquired a complex social significance and can be painted, covered in various ways, painted or tattooed, hair planted or removed, and various surgeries and manipulations performed on it (Rafatjah, 2007).

Sometimes clothes were and are symbols of people's ethnicity and sometimes they are symbols of nationality, and many ethnic groups increase their effectiveness in their communication in the first place because of what they wear.

Clothing is considered a covering for the body, which, in addition to the original meaning of covering the body, is responsible for the chastity of the body, the duty of maintaining and protecting the body, and the need to make people more beautiful. The main reasons for the appearance of clothes, apart from the mentioned ones, also depend on the culture of a region. The author of the book "Culture of nudity and cultural nudity" in relation to fashion, especially in the clothing sector, considers dressing from different perspectives such as psychology, ethics, economics, sociology, religion, law and geography. She considers the main origin of clothes to be the need to remain safe, chaste and beautiful and says: It is wrong if we imagine that we can justify all the differences and diversity that can be seen in the clothes of people of different societies and eras, only by considering these three principles. He considers the relationship between culture and clothing during the relationship of clothing with other social, climatic, economic and historical factors, which should be discussed among other influences, and he believes that all changes in clothing caused by internal factors other than culture are subject to the relationship between clothes and culture and surroundings is within the framework of cultural restrictions. According to this author, culture is the most general part and attitude of a society towards the world, and the

difference in the clothing of societies, in addition to social, economic factors, etc., is caused by their different cultures and views (Haddad Adel, 1993).

From a linguistic point of view, discourse refers to an individual action that is the result of using language. Such an action that transfers the external and lived experiences of the speaker along with the exploration of the language to the field of discourse, confronts us with different and diverse features. Discourse actions always have the possibility of extending their presence in a process different from what is drawn for them. Active currents have different resistance thresholds, and by introducing a certain amount of energy into a current, its direction of movement can be changed (Shoairi, 2018: 110).

Now, if we look at clothing as an artistic and cultural work, we can say that two main currents can be pointed out in the analysis of art using the phenomenological method. Subjective phenomenology and non-subjective phenomenology.

Subjective phenomenologists of art use the "Horsel" method, which is based on the discovery of meanings in the field of consciousness, in the analysis of aesthetics, and therefore consider aesthetics as a science. But in hermeneutic phenomenology, the essence of art and its relationship with truth are mentioned. "Heidegger" analyzes the work of art in his famous book "The Origin of the Work of Art". He criticizes the aestheticians who reduce art to the sense and pleasures of the senses, and says that it is through art that one can establish an existential relationship with the past and find a historical nation through the knowledge of the world (Mostafavi, 2013: 47).

Therefore, only when we look at clothing as a functional work of art, we can understand its labyrinth of meaning when it is related to the body of whoever wears it. Let's go through and understand the details of the cultural and artistic layers that each dress has inside, and the moment to communicate with this object is the right time, that we wear it and our body dances as if it is sewn for it, because otherwise and away from the aesthetic point of view, maybe the object of clothing remains only as a type of cover and its meanings in which they were lost.

2. Clothing and its Scope in Life

If we assume that covering is a social and meaningful act, not just a way to protect the body, then we should interpret it in analytical formats focused on social meaning. Looking at the cover as a symbolic matter and trying to understand the symbols and discover the meanings helps us to find a new angle of this fringe issue. (Javadi, 2016: 65).

Clothing, as a coded language, always reveals some of the conscious and unconscious priorities of a person, in other words, clothing provides information about the wearer's social identity, such as wealth, religion, and geographic location and social position are available to us (Jahani, 2016: 389).

Also, clothes in different religions have different meanings for themselves, for example, each dress is worn on the body of our mystics after clarifying one of these meanings. One of the ways to understand and understand the language of mysticism and Sufism is to recognize the symbols and emblems in their clothes, because one of the very important angles and sometimes with the approach of a special term is the discussion of clothes and clothes, which from the perspective of mystics in the religion of literature Irfani is specifically presented with deep meanings and foundations (Safari, 2015). In the past, clothes for the general public may have only covered and protected the body, but over time, with the creation of class differences among people, this object has become a symbol and a sign of what class of society the wearer is from and how much Whether it has financial ownership or not, it was converted. In the following ages, clothing gradually became a symbol of the way of thinking and an indicator of the cultural direction of people, and it has progressed until today when clothing can be considered a part of a person's body.

3. Man from an External Perspective

Any philosophy that tries to bring us back to the perceived world is, in its general perspective, an empiricist philosophy, and Merleau-Ponty shows his empiricism when he expressly acknowledges Berkeley's view that we cannot understand that it is not perceived or cannot be perceived. But the classical empiricism of Berkeley and Hume is based on the claim that the content of thought is limited to the possible content of sensory experience and this opinion, as is evident, was revived in the 1930s by the philosophers of the school of logical positivism. At that time, she clarified the principle of proof, which said that the meaning of any proposition is obtained from the method of proving that proposition, the method based on which the truth or falsity of the proposition can be determined based on observation. But Merleau-Ponty states that his empiricism is not of this type. This is partly because he rejects the emphasis on scientific observation that characterized the logical positivists.

By expressing the opinion that our corporeality is necessary for the role of prior concepts in sensory experience, Merleau-Ponty made a significant turn in Kant's position. Merleau-Ponty expresses her approach to Kant in the following passage: Kant clearly understood that the question is not how certain shapes and sizes appear in my experience, because without them there would be essentially no experience, since any inner experience is possible only in the context of outer experience. But Kant concluded from this that I am the consciousness that receives and shapes the world, and this interaction caused her to ignore the phenomenon of the body and the phenomenon of the object (Merleau-Ponty, Mauritius, 2012).

The subject takes meaning due to the integration and intermingling of body and mind. The world and the subject give meaning to each other in a two-way relationship. In such conditions, the meaning is being born and the subject enters into a linguistic dialectic with the body of the world through her body. "The body as a subject has not only the visible aspect of being an object, but also the invisible aspect of being a subject" (Alavitbar, 2015). Basically, our view of subjects (clothing) is limited to objects that are made and paid for, that is because they are only used by people.

It can be said that everything that is consumed can also be destroyed. For this reason, in Grems' semantic system, when talking about object or object, two different types of objects are meant: Objects that are consumable and when the actor acquires it, she loses it over time due to use, and objects that are permanent and do not disappear due to use. For example, a book is a valuable object that, when read, creates knowledge or awareness that cannot be lost, and this knowledge can be transferred from one generation to another (Shoairi, 2013).

So, if we want to look at clothing and clothing as a subject, we can point out that clothing, as a wearable and consumable subject, finds a new sensory phenomenon from the interaction and togetherness of its creator's mind and our body, and sometimes makes us the experience forces an abstraction within us. An abstraction that is in our mind and by taking it as an example, we experience a sensory path and consider ourselves a part of that abstraction in our mind.

Merleau-Ponty embeds consciousness in the body and emphasizes that consciousness should be considered embodied. In this view, the body is removed from being a machine and becomes alive. Embodiment (discussion of corporealization and consciousness) means body and consciousness are one and the meaning is that consciousness is not separate from the body, that is, we are faced with conscious-body. Merleau-Ponty believes that each of us is an embodied consciousness, that is, consciousness appears in a bodily form and is not non-corporeal. According to her, the more awareness expands, the more its embodiment is, awareness has the form of sensory perception, that is, perception. In her studies, consciousness cannot be separated from the body, that is, the aspects of embodiment are always determined in consciousness, and the way to study consciousness is the

same body. Different actions performed by the body, whether animal or spiritual, have physical aspects, so as a result, in Merleau-Ponty's theory, the distinction between mind and body is rejected. Merleau-Ponty (Merleau-Ponty, 2012), one of the famous thinkers of phenomenology, believes that the living body means a system of correspondences between various aspects of action and sensory fields to explain the generality of human perception.

According to him, all human perception has a state of embodiment, because human senses and consciousness cannot act independently of his body, that is, contrary to Descartes who says that these two elements are related to each other to some extent, he believes that between our perception and our body verbs and reactions exists. This thought is the basis of the thought of incarnation. Phenomenologists believe that in most cases we are not aware of our physical actions. For example, when we take a deep breath through our nose to smell a flower, we have not instructed our body to do this. In such a situation, the body is not present in our consciousness. During sickness, pain and death when the body is on the verge of deterioration and can no longer function normally, we become aware of our body. The important point of the methodology is that if people are normally unaware of their body, then how can we raise a question about it, and if we create this awareness from the beginning and then raise the questions, are we acting in an artificial way? we have not. Therefore, a distinction was made between the aspects of the body, i. e., having a body, the role of having a body, and being a body. In fact, incarnation is more than a material existence; human embodiment is a methodological field that is determined based on perceptual experience, the way of presence and involvement in the world. In fact, the body is not just an external element, but when it adapts to external events it is experienced in a practical way" (Javaheri, 2008: 68).

4. Physically and its Functions

4.1. Physical Body from Sociology Point of View

One of the topics that can be investigated in sociology is the body. Before sociologists got involved with the issue of the body, the body and its role were mentioned as something against the soul and transcendence only in books and religious sources. Although the theology of almost all religions, including Islam and Christianity, has dealt with the subject of the body in detail, these religions have dealt with the sociology of the body from another direction. Before the second half of the 1980s, sociologists did not pay attention to the category of the body and its physical and sensual nature, but paid more attention to the non-material aspects of man. But the reason for this type of attitude and attention is very important (Rafatjah, 2007; Fashengchi, 2005 a,b,c).

"Brian Turner" (Turner), in the book "Body and Society" (Body and Society), writes: In the past, sociology considered the mind and the body to be separate from each other and was related to Cartesian philosophy. According to Descartes, "I think, therefore I am"; Therefore, the body did not exist in the investigation of the human subject, but the human mind was studied. In the past, dividing the mind and body into two parts, and that the body was considered related to the field of natural sciences and the mind related to human sciences. It is considered the reason for neglecting the body in sociology (Turner, 2008).

According to "Sara Nelton", in the new period with the developments of globalization, discussions of the body were taken into account for several reasons, some of which are related to the issue of fashion:

- Women's efforts to control their bodies increase in modern societies, and it is emphasized that the more they know about their bodies, the more they will be able to control it so that they can change it.

- In the consumer society, body posture and interest in changing it is a commercial, show and cosmetic interest. Modern people, especially women, should keep their bodies fit, according to the sizes of the day, thin and young.

- In the theory of post-constructivism, it is proposed that a person shows the "reality" of what he wants to be with makeup, while the capitalist critic approach emphasizes that makeup shows the reality of a person behind a face. It hides a fake" (Rafatjah, 2007: 154 - 155).

Nowadays, fashion orientation is of special importance among societies and especially among young people. Some experts believe that the spread of fashionism in third world countries was due to political goals. With economic fascism coming to life, one of the ways that was followed for its growth and development in the world was to mess up the correct way to respond to the needs of the people, which with the change of culture and consumption needs of the people, fashionism as a not so real need for the society was imposed and this fashionism was presented as modernism in some third world countries, so that some people pursued their political goals in this way (Rafatjah, 2007).

But before dealing with the causes of the formation of fashion and clothing in societies, it is necessary to examine the role of the human body in sociology. The body, as the most direct and accessible location that can be the carrier and display of differences in lifestyles and forms of identity, is of fundamental importance, and thus the body becomes an identity principle of the body. What matters in contemporary society is the fact that the possibility of the body/self, as a project, is now open to a mass audience and is no longer the goal or ideal of an elite group or privileged bourgeois culture. Therefore, the reflexivity of identity in the recent period of modernity and the control of forms of identity will easily be synonymous with the attachment to the regulation or control of the body as the carrier of the self, and the methods of controlling and managing the body increasingly as methods of recognizing the differences between the way of life. They gain importance and centrality. So, the regulation or discipline of the body/self as a project means that the more general issues and issues related to the re-creation of the self, at least in part, through manipulation and intervention in the body as a means of transmission or means of lifestyle interests, and therefore Individual and collective identity reaches the limit of emergence (Azadaramaki, 2002: 59 - 60; Elahi, 2009).

Not only the general characteristics of the human body have consequences and social cultural effects, but each body parts contain specific semantic implications. Body language is a psychological term that refers to people's moods, facial expressions, general condition and appearance in social relationships. This word expresses the fact that just as the oral and written language expresses our thoughts, thoughts and feelings, our body is also able to convey our unspoken messages like a medium (Javaheri, 2008: 38).

For the first time, "Irving Goffman" paid attention to the role of the body in introducing identity and establishing action. According to him, actors are material and tangible beings that interact in a specific and often physically enclosed space. She searched for the explanation of showing herself behind the scenes and on the stage and the private and public space corresponding to them in physicality. According to him, physical agents try to attract the opinion of others by resorting to social signaling methods. The social acceptability of performing roles depends to some extent on the behavior and physical behavior of their performers. According to Goffman, social situations are a natural theater in which physical performances are performed and interpreted. In addition, the growth and spread of some critical theories, including the theory of women's rights advocates and Michel Foucault's point of view, made a significant contribution to highlighting the element of physicality (Javaheri, 2008: 44 - 45).

"Brian Turner" believes that the human body is responsible for social regulation. His theory has become one of the approaches of sociology. According to this theory, society regulates itself by governing the bodies of its members. Turner believes that we are moving towards a physical society, this means that unlike the industrial capitalist system, in which production was the main focus of activities, in the new era, body regulation has become the main field of political and cultural activities. In her book entitled "Regulating Bodies" (1992), she stated that the reason why the sociology of the body does not develop is due to the dualism of ontology and epistemology. Instead, she believes in a kind of epistemological or methodological pragmatism. In her opinion, although the human body has an organ base, it also has a social structure at the same time. According to Turner, one can look at the human body from two perspectives: firstly, the body has a physical nature and existence, and secondly, the human body itself is a living being. Turner pays attention to the regulation of the population's body, that is, the ways society monitors the functioning of the body of individuals, and believes that the institutions of law, religion, and medicine play a significant role in the regulation of the body from the beginning of human birth until the time of his death. According to him, the human body has four main functions of reproduction, regulation, control of internal desires and emotions, and its display, and social order is realized through the performance of each of the mentioned cases (Javaheri, 2008; Green, 1999).

Turner considers the German distinction between *leib* and *korper* useful. The first case refers to the aliveness, experientiality and spirit of the body (the body for itself), but the second case is related to the objective, instrumental and external aspect of the body (the body in itself). The important point is that the self and the body cannot be separated from each other and this conscious or unconscious experience takes a physical form. Csordas (1990) believes that embodiment is more than a material existence and instead is a methodological field that is determined based on perceptual experience, the way of being and engaging in the world. In fact, the body is not just an external element, but when it adapts to external events and incidents, it is experienced in a practical way (Javaheri, 2008: 56 - 57).

Turner, inspired by the thinkers of his time, presented his proposed model for the study of the body. He first separated the body into two realms, internal and external. In her opinion, the external aspect of the body is concerned with the appearance of bodies, which carry human personality and identity, in social spaces. The external aspect of the body is concerned with how bodies, which carry the personality and identity of humans, appear in social spaces. Goffman's work is significantly related to this field. In addition, the external aspects of the body are placed in the focus of consumer culture studies. The internal aspect of the body is related to abstinence and self-restraint, that is, control of desires, wishes and needs for the benefit of social organization, and the stabilization of society's order. Nietzsche, Weber and Freud, each of them from the perspective of philosophy, sociology and psychology have contributed to building this dimension (Javaheri, 2008).

Turner's efforts have made a great contribution to formulating the foundations of the sociology of the body. According to her, in the field of studying the body, two types of fundamentalist and anti-fundamentalist ontology can be distinguished from each other. In fundamentalist ontology, the body is an organic reality that exists independently of its social manifestations. In the anti-fundamentalist approach, it is the social processes that make the human body. It can also be said that we have two types of social constructivist epistemology and social anti-constructivist epistemology. In the first, the body is a product of knowledge that cannot exist independently of the practices that are continuously produced in time and space. While the opposite epistemology is based on the fact that the body exists independently of its social structure (Javaheri, 2008: 59).

The human body acts as a house for her, a house that is built using genetic characteristics and cell reproduction. Each person can apply the changes he likes to his body by using clothes, cosmetics, jewelry, surgery, coloring, piercing, tattooing, carving, and jewelry to create the body he wants (Hopkins Tanne, 2000). In terms of sociology, the identity of people is determined based on these changes and appearances of bodies. One of the ways sociologists pay attention to the subject of the body is its role in shaping and manifesting human identity. Humans create and express their identity through their achievements and productions or their consumption. In general, the body is not a vessel that has fixed abilities and characteristics, but is continuously created and recreated in the process of action and interaction with others, and in this process, human identity is also developed. Since the formation of identity is to some extent the process of differentiating oneself. By adjusting the body, you can distinguish yourself from others.

Shilling (1993), in the book *Body and Social Theory*, introduces the body as an endless biological and social phenomenon and believes that the human body is constantly changing as a result of participation in society. According to her, the manner of walking, speaking and temperament of each person is determined based on her upbringing. Schilling for the first time put forward the idea of "the project of the body". According to him, the body is a nature that is constantly subject to "becoming". A project that must be continuously worked on and completed as a part of a person's individual identity. Creating and maintaining a healthy and fit body is an example of a very general project. His thought about the body being a project is based on two principles. The first principle refers to the application of technical knowledge in intervention and change in the body. The second principle is related to the number of people who are increasingly aware that as a result of choosing a certain type of lifestyle, the body is placed in a never-ending situation (Javaheri, 2008: 60).

In this new space, it is possible to achieve values such as health, youth, beauty, sex appeal, and physical fitness by using surgical techniques and consuming products that perpetuate or preserve the body's capabilities. This issue affects the external shape of the body as well as the human's perception of herself and as a result the human identity. Thorstein Veblen's thinking about demonstrative consumption as a kind of investment for distinction, superiority or gaining social status refers to the fact that a person's consumption pattern plays a significant role in her self-image and its transfer to others. In fact, by using and consuming goods, we present our body the way we want it to be, and we use this issue for competition, innovation, gaining respect and credibility in society (Javaheri, 2008). Therefore, the body is a mediating agent that responds to human identity demands. Man introduces his identity according to different situations, by choosing the type of consumption and using body language. In the modern or postmodern capitalist system, people become who they want to be from consumption. In this process, it is ideas that must be consumed, not objects (Albero, 2018).

4.2. Body as an Object

The human body as a subject for theory and social research is a very new subject. Along with the increasing importance of the concept of "self" in sociology, and paying attention to the fact that the body is a part of the self or the location and carrier of the self, it is natural that the human body is the cultural product of social and historical order and arrangements. In contemporary sociology, we can find implicit references to the sociology of the body in Parsons' later works, especially in his analyzes of symbolism based on blood, death and the transformation of the organism by medical technology (1978 and 1977) (Azadaramaki, 2002: 61).

The human body has a biological nature and is the result of human reproduction and cell proliferation, and it moves together with the mind and soul. From birth to death, the body grows in the context of society. Therefore, the human body has a social foundation as much as it has a biological nature. The coordinates and characteristics of the human body play a significant role in determining their social position and are involved in production, consumption and social reproduction.

The body includes a set of abilities and limitations, and at all stages of life, it is under the influence of the cultural and social requirements of the society in which it lives. Some sociologists have considered the body as a social structure, referring to the great fusion of human physicality with social cultural components.

According to social constructivists, the human body is a material element that is formed under the influence of social practices, contexts and discourses. For example, men are physically stronger than women, because they have been encouraged to participate in sports activities and games since adolescence. Therefore, they have a stronger muscle structure. Also, although in most cases men are more capable of carrying heavy objects than women, in Morocco, located in the Atlas Mountains, women carry heavy loads on their shoulders for long distances. As a result, it can be said that social expectations really affect the structure of the body and its physical capabilities. Therefore, the famous anthropologist Mary Douglas (Douglas, 1970) says that our social body is the medium of our awareness of our physical body (Javaheri, 2008: 39 - 40).

Sociology of the body is a branch of sociology that deals with the social nature of human physicality, the social production of the body, the social representation of the body, discourses governing the body, the social history of the body, and the complex interaction between the body, society and culture. With the growth of medical sociology around the 1960s, the sociology of the body received a lot of attention and caused sociologists to pay a lot of attention to this category. Medical sociology is the first branch of sociology in which the ontological and epistemological issues of the body and the role of various cultural and social factors on human health and well-being are paid attention to. Also, the interaction between sociology and psychology has led to the development of the sociology of the body. The spread of the concept of "self" in contemporary sociology and attention to the fact that the body is a part of the self or the location of its carrier, made sociologists look at the human body as a cultural product of social and historical order and arrangements (Javaheri, 2008: 45).

"Michel Foucault" has paid attention to the issue of the body from another angle. According to her, today's society is a disciplinary society, and the body is the meeting point of knowledge and the organization of power, and the regulation of the body is effective in obtaining order and social control. In general, Foucault's view on the body is gathered in two categories. Firstly, in the post-modern society, the supervision of social bodies is the basic pillar of social organization and supervision, and secondly, the individual bodies of humans serve the institutions of society, especially the institution of economy and politics (Javaheri, 2008: 56). In fact, according to Foucault, a disciplinary society is a society in which the components of discipline are spread throughout the society. According to her, prisons, charitable institutions, orphanages, and moral training centers are included in the prison network. Monitoring, care, creating security and acquiring knowledge are the characteristics of the prison network. Also, in her opinion, in today's society, the way of managing the population has a constructivist approach. In the past, force and coercion were dominant in people's lives, but in the contemporary era, the same supervision has replaced the old repressive approach with power. Also, Foucault believes that medical progress is not unrelated to economic and political issues in societies. Until the middle of the 18th century,

there were many diseases, poverty, disability, disability, etc. in the societies, and the government and charitable foundations tried to solve them with benevolent goals or labor supply. But in the 19th century, the issue was how to improve the health level of the whole society, and in the same way, health became the main component in the policy-making and administration of societies (Javaheri, 2008). The sociology of the body is also developed in Foucault's structuralist view in her studies on medicine, prison and gender. Foucault analyzes the human body in relation to the mechanisms of power, the human body becomes the center of power, and this power, instead of being manifested externally as in the pre-modern era, is subjected to internal discipline resulting from the voluntary control of body movements. The central idea of the above theories is that the body is not a biological or psychological being, but a phenomenon that is socially constructed. Such a view is also confirmed and strengthened through the sociology of knowledge by Berger and Lockman (Azadaramaki, 2002: 61).

The views raised indicate the fact that the requirements of dealing with the sociology of the body are so important that we cannot simply refer to the body as an object. Studying the sociology of the body, on the one hand, strengthens our insight into the interaction between the individual and society, and on the other hand, the development of sociology and the strengthening of the interaction between sociology and some disciplines.

The general characteristics of the human body, such as size, hair color, eyes, etc., make up her identity, and this makes her social actions appear from her "body", not only from her mental capabilities. All human social actions are created and manifested through her body. The actor's agency does not only come from her mental capabilities such as intelligence, awareness and inner intentions, but also affects her physical capabilities. First of all, the identity of a person is determined based on her physical characteristics, such as sex, skin and eye color, hair texture, body shape, and body. The human body and its different coordinates in infancy, childhood, puberty, youth, middle age and old age have special socio-cultural requirements (Javaheri, 2008: 38).

The body is not only a simple entity, but also a practical means to cope with external situations. And facial expressions and body movements are the basic content of the signs that our daily communication depends on, and in order to be able to share with others in the production and reproduction of our social relations and personal identity, we must be able to continuously and successfully monitor our face and body (Azadaramaki, 2002: 61).

5. Conversation

From a linguistic point of view, discourse refers to an individual action that is the result of using language. Such an action that transfers the external and lived experiences of the speaker along with the exploration of the language to the field of discourse, confronts us with different and diverse features. Among the various functions of discourse, the three characteristics of resistance, practice, and appeasement are the aspects that are the basis for the formation of many discourses. The emphasis on these three features is because every discourse act is first of all the release of a certain amount of energy that guarantees the discourse process and its dynamics. It is this energy that creates an atmosphere of resistance, practice, or even discursive appeasement. Discourse resistance causes a positive and established situation to be negated and a different and new situation to replace it. The most important result of negating the positive function of a discourse is entering a new perspective that opens the path of discourse movement and can provide the conditions for its growth and transcendence. Discourse actions always have the possibility of extending their presence in a process different from what is drawn for them. Active currents have different

resistance thresholds. By introducing a certain amount of energy into a stream, its direction can be changed (Shoairi, 2013: 110).

Semiotics in English is derived from the Greek "semion" which means sign and also means the study of signs and symbols. Semiotics is a science that examines the types of signs, the factors present in the process of their production, exchange and interpretation, as well as the rules governing signs, and of course, a sign is something that signifies and points to something other than itself.

Signs are classified based on the method or codes used to convey their meaning, which can include special sounds, alphabetic signs, visual symbols, body movements, or even wearing a special dress. Humans are accepted as bearers of a specific meaning, and then the process of meaning transfer is done by them.

Semioticians do not study signs in isolation, but they focus their attention on the study of the formation and exchange of meaning in different texts and discourses and at the levels of simultaneity and time, and for this reason, they have discovered and revealed new meanings. This field started with the lectures of the Swiss linguist "Ferdinand de Saussure" at the University of Geneva. It was only after her death that through the efforts of her students, her thoughts were published in a book called *Lessons in "General Linguistics"* in 1916. In her treatise "*Kratylus*", Plato considered the relationship between word and object to be a real relationship, but Saussure considered it arbitrary and considered the connection between word and object as well as word and concept to be born of a social convergence. In continuation of this line of thought, we can reach the connection between signs and meanings hidden in it. Meanings that are not only in the size of a word or the direct meaning of a word, and sometimes they engage in a discourse with their inner and hidden meaning, which ultimately changes their conceptual nature as well. Just like an object that initially and apparently has a common, practical and specific concept, but after we see this object as a discourse subject, its everyday meaning is faded and with its intrinsic and inner meaning, it initiates interaction. It has a new meaning with us. One of the modern theories of semiotics is social semiotics, which today has extensive practical applications in identifying and compiling semiotics sources in various fields as an interdisciplinary knowledge. As mentioned, the sign of discourse semantics is one of the phenomenological categories that deals with the meaning of our discourse between two realities (Mushtaq, 2003; Mahdizadeh, 2008).

What we refer to as discourse is our interaction between objects and also the discourse between them. A discourse can be an exchange between two elements, two characters or two objects. But sometimes the objects will come out of the state of stagnation and stillness and will be re-exemplified as an interactive object and will enter into an interactive discourse with us and the other. What they give us as meaning and what they take from us as meaning is our exchange between elements. Among them, we can mention the object of clothing. Clothing can be a practical and multifaceted element (Boghrati, 2013; Avakian, 2001).

Its practical and practical side is clear to everyone and it gives meaning to the existential philosophy and sometimes gives identity to its users and its discourse side which is constantly connected with the user's body and will be effective. Clothing as a valuable object has always been a source of meaning and communication with the surrounding world and a symbol of the culture of authenticity and sovereignty of societies. From the aesthetic point of view, it has a semantic and identity system, and from the artistic point of view, it is a consumable work of art. The object of clothing has always had the ability to enter into a two-way dialogue with the audience and the wearer. The clothes give the wearer a new identity and the wearer multiplies its originality and beauty with the curves of her body. A body that wears a new dress every time and by wearing it

finds authority, comfort, development, formality and restraint, and a dress that finds beauty, elegance and identity by wearing it. Here and at this point, clothing can also be mentioned as a hypericon. Because in the definition of icon in Dr. Hamidreza Shoairi's book *Visual Semantics*, it is pointed out that, depending on the situation and discourse context, the icon can distance itself, and in this movement manifest itself beyond what it is. In this case, we encounter iconic development and we call the iconic sign linked to this development hypericon (Majlesi, 2018; Khavari, 2017).

When faced with the body and clothes, this has happened to the audience many times, whether the object is just an artistic and industrial work, or beyond that, it can be an active subject many times when faced with the element of looking and seeing the audience entering into an interactive conversation.

So, the clothes here can be a hyper icon because it no longer has the simple and repetitive meaning of a cloak for covering and has become a metaphor for covering. In that it is covering, it has created a multifaceted space, and at the same time, it is also a perceptive subject and accommodates all possibilities within it. In fact, at this moment, it completely distances itself from being a dress, and covering becomes its secondary meaning. Just like Rene Magritte's *Pipe*.

This growth and the possibility of change have been nurtured in these objects and from the beginning there has been a hidden meaning inside these works and only the process of our interaction with them makes them visible.

So, here and after passing this stage, the clothes get a transcendental movement, that is, it becomes an aesthetic work, and therefore it is a practical post-symbol or hyper-icon. In any situation, changing the viewing angle of the viewer changes the iconic condition of the subject. It should also be pointed out that places always cause the emergence and impact on the semantic systems of the objects within them and change our discourse functions between the objects. Places and conditions can be very effective in the production and transmission of meaning and concept. Just as the tenderness of a lover's gaze on her lover's body and clothes, along with the shape and sewing of the dress and the beauty of the body and the curvature of the body covering it, have caused changes in the perceptual subject of clothing. It's as if the body and clothes enter into a continuous and lasting dialogue with each other, and it's as if each one influences the other and sometimes, they are influenced by each other.

"Eric Landowski" in an article (Landowski, 2010) examines network locations. (If we consider the body as a place to be displayed in the clothes) in her opinion, this place can also be called induction places. Persuasive places are places that seek to convince the subject to create a belief about something in her. For this reason, they can also be called believable places. That is, the place itself becomes a subject that interacts with another subject (in-text or extra-text) and somehow tries to convince him of what he has in mind and in this way Change his mind in your favor.

So, network places are places that have a trans-spatial feature. Perhaps the simplest example for such places is the national railway network. In this network, every railway station located along the route connects one place to another, and in this way, we are placed in an interactive system (Shoairi, 2011).

For the first time, "Grams" in the book *Lack of Meaning* leaves aside the narrative and inductive issues related to the production of meaning and deals with a very important discussion at the beginning of passing from the sign - classical semantics and action-oriented to the sign - Shushian and feeling-oriented semantics. Based on this, Grams's view is directed to semantic dualism, which until then had no place in sign-semantic studies. The semantic system of convergence and coincidence. In the gathering system, the actor continuously interacts with the world and based on the sensory-perceptual relationship, seeks to discover elusive and hidden meanings. And in the

semantic system of accident, Grams speaks of a beautiful event or occurrence, an event that is not formed under the supervision and control of the actor, but also does not follow any specific and predetermined program.

Any discourse can include a system based on which auxiliary or effective actions (verb model) interact or challenge each other. Sometimes the will dominates the narrative process, and sometimes it is standing and determinism that dominates everything. Of course, believing and being able are two other types of effective verbs that can determine the action flow of the story. Here, Grams emphasizes that "everything is predetermined" and shows that the current governing the action has become a forced current (Shoairi, 2018).

6. Discourse between Body and Clothes

Due to its relationship-oriented nature and as a valuable and dynamic subject among humans, the body has always had a close relationship with what covers it and protects it from harm. The discourse between body and clothing is a kind of Bauschian discourse based on the theories of Heidegger, Austin, Baudouin, Germs and Tarasi.

Relying on these theories, clothing acts as a medium in relation to the context and discourse situation of the phenomenal text. Baveshi discourse system is one of the other discourse systems in which being is the most important concern of the subject. In fact, nothing is more important and difficult for the subject than being. Every moment of the subject's life is tied to being a problem in such a way that every moment in which I was formed is not a guarantee for me in another moment. Just as my being in the present is not a confirmation of my being in the past. In Bushi's system, unlike the classical narrative-action system, the linear system becomes a turbulent system. From the point of view of sign-semantics, turbulence depicts a subject who is always faced with her own problem. For this reason, being cannot have a linear process that becomes meaningful due to the presence of the actor in the moment. In this case, the action is not central to the discourse. Rather, the main concern of the subject is to give meaning to being "self" and escape from being empty; Based on this, it can be said that Bushi's discourse is the place where the challenge between meaning and lack of meaning occurs (Shoairi, 2011). Boshi actor forms her Boshi movement based on two actions of negation and request. In this regard, first the actor experiences a sense of emptiness and futility within the Dasein and then takes a step towards crossing the Dasein of a new biological experience. After this movement, which can be transcendental, in returning to Dasein, everything finds a new meaning, and other things no longer have that previous meaning. Then, in another movement, which is called the second transcendental movement, it contrasts with nothingness, and the actor enters the demand stage. Dasein is one of the important concepts in Bushi semantics. Dasein represents the world in which the actor lives. He tries to do something and reacts to external actions (Trasti. 2009: 23).

In some cases, in the discussion of clothing design, we come across a type of design in which the designer manifests a constructive dialectic by using deconstructive forms in blue clothes and in continuous interaction and interaction with other colors. Exaggerated clothes and the spirit of the post-structural era can be felt in the form and content of these works. The designer hides the subject's face, actually hides his identity. But with the cover of the subject, the identity of the subject is revealed again. A person who has overcome her fear to achieve her freedom and original identity. The designer has displayed this freedom of expression on the body of the subject and speaks in the language of a troubled human being. A person who seeks peace.



Fig 1 Dress design inspired by Simorgh (Designer: Fouzia Froudnia)

With a design from nature, it takes the soul of the audience to the past and creates a new myth. In the discourse analysis of these works, it is possible to point out the presence of formal and identity transformation from the semantic system of adaptation; which is based on "sensory" information. This interactive system is based on the interaction based on the "co-presence" of both sides of the interaction, face-to-face and face-to-face between the subjects and objects of the external world; That is, on the one hand, we are dealing with subjects with "tone" and on the other hand with subjects with tone (Zare, 2013).



Fig 2 Dress design inspired by Simorgh (Designer: Fouzia Froudnia)

The clothes that are the subject to wear and the clothes that are left in the nature of the body, in other words, a person who thinks about freedom and a person who has reached freedom. A human

being is created as if in awe of another being. White color in Farudnia's works is a symbol of perfection, purity, innocence, cleanliness, equality and unity, simplicity, self-sufficiency and new beginning. But a dark color on white takes its original nature. In this glimmer of a moment, a human being who is pure, simple and has purity suddenly decreases in value and becomes hypo.



Fig 3 Dress design inspired by Simorgh (Designer: Fouzia Froudnia)

There is also a mystical character in these clothes and it leads the perceptive subject to intuitive and existential discourse. Subjects who are invisible are like contemporary people who are in limbo and are unaware of their existence. In reading these works, we are in a timelessness and placelessness, and the perceptive subject tries to cross the defined boundaries of meaning and step into indefinite boundaries with the phenomenal connection with the color, texture and shape of clothes. To discover the phenomenal text and clothes a place created by epistemic system from the interaction of unity and multiplicity. As a result, the interactive discourse of the match between the object of clothing, has really become a pseudo-subject, and the body of the perceptive subject. A new subject has been formed that achieves phenomenal approaches from their convergence. Simorgh is a mythical bird that comes to life in the contemporary period and the artist tries to represent the lack of meaning in a symbolic costume. The design of this dress is based on post-structuralism and is considered post-modern art. Using symbols that are rooted in the tradition and culture of an ecosystem and culture and manifesting them in contemporary art is one of the characteristics of postmodern art. Creating a color palette that evokes an Iranian identity and creating boundaries of semantic ambiguity are other structural and semantic components of this artist's works. The result of this artist's experiences can be found in the discourse of Shushi, which disturbs the subject from the inside and makes her perceptual experience based on her own lived experience. The subject reaches an indeterminate order and harmony in relation to the other and finds meaning only in relation to the being of her presence. This fluid movement makes her feel valuable from the inside and redefines her identity. Based on this, it is a phenomenal text and it can be read based on the semantic sign with a phenomenal perspective. Subjects that are out of the control program as a result of metamorphosis and face uncertain boundaries.

Artists have always tried to include the spirit of the post-structuralism era in the design of these works and make the symbols manifest in such a way that the bird icon becomes a hybrid hyper-icon of a human and a mythical bird. In this discourse, mythical birds have been represented with an abstract form, and deconstruction has been used in the formal language of clothing. The semantic system of discourse can be perceived in non-linear time and the meaning in non-deterministic system (Chobdar, 2021).

7. Conclusion

Discourse circuits are always forming around us, and meaningful discourses between an artistic object such as clothes, with the subject wearing and covering the clothes, are undeniable. These works of art that can be covered lead the subject to the exploration of activists to compensate for the lack of meaning within them. Based on the study of the theoretical foundations and the analysis, the object of clothing remains as a hyper-icon which has caused the semantic link between the body covering and the self. Both are instantly seen in the same frame and both are supposed to complement each other.

Over time and with the presence of fashion, this practical object has become an actual subject in the arena and production market, which, both in store windows and on its covers, apart from its application and aesthetic aspect, contains discourse text. They are also practical. This art object manifests itself in the eyes of the perceptive subject as an aesthetic aspect and has a completely practical and impressive aspect for the wearer.

A soldier who puts on her military uniform does not unintentionally use soft words in her speech under the influence of military clothing and customs. Because his body and clothes have found an identity and created a new identity. Or a simple girl who is slowly doing the final things of her party. After wearing the wedding dress, your personality of a simple girl will leave even for a few moments and wants to go with the conditions that the dress has provided for her.

From the interaction of the inner border of the body and covering with the outer border of the surface of the garment, a union is formed, and when these two become one, they are the same as the body and the garment. The body transcends itself and transcends itself against the clothes, sometimes it thinks itself beyond what it is and enters another world. They are redefining the subject. The artistic object of clothing derives meaning from the subject and covers his existential deficiency, in an existential and intuitive relationship, clothing and body, both due to the occurrence of meaning and after a discourse reflection on the effect of wearing clothing by the subject, causes it to undergo semantic transcendence. In the meantime, the subject finds a new meaning by wearing clothes and shares it again and again, and little by little, the new meaning indicating the pleasure of wearing clothes becomes a part of the subject's constant existence.

The subject gives meaning to the clothes with his body, and the clothes also give meaning to the body. This aesthetic unity, which is formed due to the occurrence of meaning, in Landowsky's interpretation, represents the anonymous, indeterminate feelings from within the subject and the lack of existence of the modern man in a relationship. It expresses existential, intuitive, sensory and emotional.

References

- Azadaramaki, T., & Chavoshian, H. (2002). The body as a medium of identity. *Iranian Journal of Sociology*.

- Alavitbar, H. (2015). The wonder of the philosopher's existence and mission from Merleau-Ponty's point of view. *Journal of Literature and Human Sciences*.
- Avakian, B. (2001). Conceptual Art, Conceptual Art, *Art*, No. 50.
- Albero, A. (2018). Art as an Idea (Joseph Kesut and Conceptual Art), Etihad Ali and Niko Tarkhani. *Art*, No. 80.
- Boghrati, F. (2013). Conceptual art: thinking about the artist's thought. *Binab*, No. 1.
- Chobdar, H., Aghili, M., & Mohammadzadeh, M. (2021). *The reflection of meaning in the artistic object of Simorgh, Crow and Phoenix in contemporary clothing design based on the approach of discourse semantics*.
- Elahi, M. (2009). Clothes as Identity. *National Studies Quarterly*, No. 42.
- Fashengchi, M. (2005a). The influence of feminism on visual arts. *Tandis*, No. 53.
- Fashengchi M. (2005b). The influence of feminism on visual arts. *Tandis*, No. 54.
- Fashengchi M. (2005c). The influence of feminism on visual arts. *Tandis*, No. 55.
- Feshengchi M. (2005d). The influence of feminism on visual arts. *Tandis*, No. 56.
- Green Leigh, G. (1999). The Return of the Body: performance art and art education. *National Art Education Association*, 52(1).
- Haddad, A. Gh. (1993). *Culture of Nudity and Cultural Nudity*. Soroush.
- Hopkins Tanne, J. (2000). *Body Art: Marks of Identity*. Reviews, Vol 320-32.
- Javadi Yeganeh, M. R., & Kashfi, S. A. (2016). The System of Signs in Covering. *Quarterly Journal of Women's Cultural and Social Council*.
- Jahani, M., & Cengiz, S. (2016). Comparative study of the fashion of the ladies of the court of Feth Ali Shah and Naseruddin Shah, *Women in Culture and Art*.
- Javaheri, F. (2008). The body and its socio-cultural implications. *Cultural Research Letter*, 9(1).
- Khavari, H. (2017). *Conceptual art, the growth of art education*. Fifth period, number 4.
- Landowski, E. (2010). Régimes d'espace. *Actes Sémiotiques*, No.113.
- Majlesi, M., & Khoshnoisan, B. (2018). Conceptual art in clothing design. *Art effect*, 1(1).
- Mahdizadeh, A. (2008). Conceptual art of the crisis of modern art. *Book Mah Honar*, No. 137.
- Merleau-Ponty, M. (2012). *The World of Perception*. Nashraqnos.
- Merleau-Ponty, M. (2012). *Phénoménologie de la perception*. Paris: Gallimard.
- Mostafavi, Sh. M. (2013). Heidegger and hermeneutic phenomenology of art. *Kimyai Honar Quarterly*.
- Mushtaq, Z. (2003). A new experience for conceptual art. *Binab*, No. 1.
- Rafatjah, M. (2007). Women's human identity in the challenge of makeup and fashion, *Women's Strategic Studies*.
- Safari, M. M. (2015). Clothes and clothing in the mirror of mystical literature (based on the works of Attar Neishabouri). *Literature Studies Journal*.
- Shoairi, H. (2018). *Lack of meaning, transition from structuralist narratology: aesthetics of presence*. Nashmish publication.
- Shoairi, H. (2011). *Sign - Visual Semantics, Theory and Analysis of Artistic Discourse*. Sokhon Publishing House.
- Shoairi, H. (2013). Resistance, exercise and discursive appeasement: domains of discourse and its semantic-sign functions. *Iranian Sociology Journal*.
- Trasti, E. (2009). *Fondements de la sémiotique existentielle*. Paris: L'Harmattan.
- Turner Bryan, S. (2008). *The Body & Society*. Third Edition-30.
- Zare, M., Zare, B., & Salehi, S. (2013). Examining the status of conceptual clothing from the perspective of artists active in this field in Iran. *Sociology of Art and Literature*, 6(1).